José María Fanelli, Stephany Griffith-Jones,
Jan Kregel, José Antonio Ocampo, Yung Chul Park,
Chi-Young Song, John Williamson,
and others

New Challenges of Crisis Prevention

Addressing Economic Imbalances in the North and Boom-Bust Cycles in the South

Edited by
Jan Joost Teunissen

FONDAD

New Challenges of Crisis Prevention: Addressing Economic Imbalances in the North and Boom-Bust Cycles in the South

From: New Challenges of Crisis Prevention,
FONDAD, December 2001, www.fondad.org

Forum on Debt and Development (FONDAD)

FONDAD is an independent policy research centre and forum for international discussion established in the Netherlands. Supported by a worldwide network of experts, it provides policy-oriented research on a range of North-South problems, with particular emphasis on international financial issues. Through research, seminars and publications, FONDAD aims to provide factual background information and practical strategies for policymakers and other interested groups in industrial, developing and transition countries.

Director: Jan Joost Teunissen

From: New Challenges of Crisis Prevention,
FONDAD, December 2001, www.fondad.org

New Challenges of Crisis Prevention

Addressing Economic Imbalances in the North and Boom-Bust Cycles in the South

Edited by
Jan Joost Teunissen

FONDAD
The Hague

From: New Challenges of Crisis Prevention,
FONDAD, December 2001, www.fondad.org

New Challenges of Crisis Prevention: Addressing Economic Imbalances in the North and Boom-Bust Cycles in the South

Proceedings of a Conference on "A Broad Agenda of Crisis Prevention and Response: Addressing Global Economic Imbalances in the North and Boom-Bust Cycles in the South", held at the ECLAC Headquarters in Santiago de Chile on 1-2 March 2001 and organised by the Forum on Debt and Development in the context of the Global Financial Governance Initiative, with the co-sponsorship of the Dutch Ministry of Foreign Affairs, IDRC, ECLAC, and UNCTAD.

Editor: Jan Joost Teunissen

The views expressed in this book do not necessarily represent those of the Forum on Debt and Development or any of the co-sponsors. The summaries of the floor discussions, following the papers, attempt to convey the sense and substance of what was discussed. They have not been reviewed by all of the participants.

ISBN: 90-74208-18-5

This publication was made possible thanks to the support of the Department for Development Cooperation of the Dutch Ministry of Foreign Affairs.

Additional copies may be ordered from FONDAD at
Noordeinde 107 A, 2514 GE The Hague, the Netherlands
Tel: 31-70-3653820 Fax: 31-70-3463939 E-Mail: info@fondad.org

Contents

Acknowledgements

This book was made possible through the ideas, support and contributions of many people and organisations. A particular thanks goes to José Antonio Ocampo and his staff for their assistance with the organising of the March 2001 conference, held in Santiago, from which this book emerges.

Fondad very much appreciates the continuing support of the Dutch Ministry of Foreign Affairs and the co-sponsoring of this conference by ECLAC, IDRC, and UNCTAD.

A special thanks goes to Adriana Bulnes and Age Akkerman who assisted me in the publishing of this book.

Jan Joost Teunissen

Notes on the Contributors

Amar Bhattacharya (1952) is Senior Advisor, Poverty Reduction and Economic Management Network at the World Bank. In this capacity, he is responsible for coordinating the Bank's work on international financial architecture. He was principal author of a World Bank policy research report on *Private Capital Flows to Developing Countries* and has authored several publications relating to recent financial crises. Since joining the Bank, he has a long-standing involvement in the East Asia region, including as Division Chief for Country Operations, Indonesia, Papua New Guinea and the South Pacific. He was Chief Officer for Country Creditworthiness. Prior to joining the World Bank, he worked as an international economist at the First National Bank of Chicago.

Zdeněk Drábek (1945) is Senior Adviser, Economic Research and Analysis, to the World Trade Organization. He is chairman of the board of the Joint Vienna Institute, a training institute of the IMF, World Bank, BIS, OECD, EBRD and WTO. He served as the Principal Adviser to the Governor of the Central Bank and as Plenipotentiary in the Federal Ministry of Economy in Czechoslovakia. He was the Chief Negotiator for the Czechoslovak Government of the Europe Agreement with the European Union and the Uruguay Round Agreements in GATT. He was Senior Economist at the World Bank from 1983 to 1990, and Chairman of the Economics Department at the University of Buckingham in England. He has published widely on topics related to international finance and trade. His most recent book is *Globalization Under Threat: The Stability of Trade Policy and International Agreements*.

José María Fanelli (1953) is Professor of Macroeconomics and former Director of the Economics Department at the University of Buenos Aires. He is also former Director of the Ministry of Economy's Graduate Program to train government economists. Since 1984 he has been senior researcher at CEDES (the Center for the Study of State and Society) and in 1999 was named independent researcher at Conicet (the National Research Council) in Buenos Aires. In 1992 he was Visiting Fellow at St. Antony's College, Oxford University. He worked as a researcher at the Argentine Central Bank (1983-84). He has also worked as a consultant for ECLAC, IDB, G-24, UNCTAD, OECD and IDRC. He has published widely on stabilisation, structural reform and the financial system in Latin America.

From: New Challenges of Crisis Prevention,
FONDAD, December 2001, www.fondad.org

Stephany Griffith-Jones (1947) is Professor at the Institute of Development Studies at Sussex University. She started her career in 1970 at the Central Bank of Chile. Before joining the Institute of Development Studies, she worked at Barclays Bank International in the UK. She has led many research projects on debt and private capital flows, and has acted as Senior Consultant to governments in Eastern Europe and Latin America and to many international agencies, including the World Bank, the IDB, the EU and UNCTAD. She has published widely on international finance and macroeconomic policies, especially in relation to Latin American and East European economies. One of her recent books i*s Global Capital Flows: Should They Be Regulated*?

Brian Kahn (1953) joined the South African Reserve Bank in September 1999 as a Deputy Head of the Research Department, and Head of the Monetary Policy Research Unit. He is currently the acting head of the International Economy Unit. He is also a member of the Bank's Monetary Policy Committee. Before joining the Bank he was Professor of Economics and Director of the School of Economics at the University of Cape Town. From 1991 he was a research associate at the London School of Economics' Centre for Research into Economics and Finance in Southern Africa (CREFSA). He has been a consultant to the World Bank, the African Development Bank, and was also an academic advisor on Africa for the IMF. He has been actively involved at the policy formulation level in South Africa. His publications have mainly been in the field of capital flows and monetary and exchange rate policy in South Africa.

Jan Kregel (1944) is High Level Expert in International Finance attached to the New York Office of UNCTAD and professor of economics at the University of Bologna and at the Paul H. Nitze School of Advanced International Studies of the Johns Hopkins University. In Italy, he has been an Advisor to the President of Confindustria from 1977-80, Advisor to the Secretary General of Economic Planning of the Ministry of the Budget, 1980-82, as well as participating in the Senior Management Training programmes of IRI-Finmeccanica, Olivetti and Sinnea. He has lectured as a visiting professor in the United Kingdom, the United States, Holland, Belgium, France, Germany, Brazil, and Mexico. He is studying financial markets and institutions from a Keynesian perspective and has published many articles and books in this field.

Carlos Massad (1932) is Governor of the Central Bank of Chile since September 1996. He has held the same position from 1967 to 1970; and from 1964 to 1967 he was Deputy Governor. He was Minister of Health

From: New Challenges of Crisis Prevention,
FONDAD, December 2001, www.fondad.org

(1994-1996), Executive President of Fundación Eduardo Frei Montalva (1993-1994), Deputy Executive Secretary of ECLAC (1989-1992), and held several positions at ECLAC between 1979-1989. Between 1970 and 1978 he was a member of the World Bank Research Advisory Panel and Executive Director of the IMF. From 1959 to 1964 he was Director of the Institute of Economic Research of the University of Chile. He was Professor at the Department of Economics of the University of Chile and Visiting Professor at the Department of Economics of the University of California at Los Angeles. He is the author of several publications and articles on macroeconomics.

José Antonio Ocampo (1952) is Executive Secretary of the UN-Economic Commission for Latin America and the Caribbean (ECLAC) since January 1998. Previously, he was Minister of Finance and Public Credit of Colombia, Director of the National Planning Department and Minister of Agriculture. He was a Senior Researcher and Member of the Board of Directors of FEDESAROLLO in Bogota, Colombia. He has been an Advisor to the Colombian Government and Director of the Center for Development Studies at the Universidad de los Andes. His academic activities have included being Professor of Economics at the Universidad de los Andes and Professor of Economic History of the Universidad Nacional de Colombia. He has been a Visiting Fellow at Oxford and Yale University. He has served as a consultant to the IDB, the World Bank and the United Nations. He has published widely in academic journals and books.

Yung Chul Park (1939) is a Professor of Economics at Korea University. He is currently serving as ambassador for International Economy and Trade, Ministry of Foreign Affairs and Trade of Korea and also as Chairman of the Board of Korea Exchange Bank in Seoul. He previously served as the chief economic adviser to President Doo Hwan Chun of Korea, as President of the Korea Development Institute, as President of the Korea Institute of Finance, and as a member of the Bank of Korea's Monetary Board. He was the Director of the Institute of Economic Research at Korea University, taught at Harvard University and Boston University as a visiting professor and worked for the IMF. From June to December of 1998, he managed the merger of Korea's two largest commercial banks as Chairman of the CBK-Hanil Bank Merger Committee.

Liliana Rojas-Suárez (1954) is a Visiting Fellow at the Institute for International Economics in Washington. From March 1998 to June 2000, she served as Managing Director and Chief Economist for Latin America

From: New Challenges of Crisis Prevention,
FONDAD, December 2001, www.fondad.org

at Deutsche Bank. Before joining Deutsche Bank, she was the Principal Advisor in the Office of Chief Economist at the Inter-American Development Bank. Between 1984-1994 she held various positions at the IMF, lastly as Deputy Chief of the Capital Markets and Financial Studies Division of the Research Department. She also served as a Professor at Anahuac University in Mexico and an Advisor for PEMEX, Mexico's National Petroleum Company. She has published widely in the areas of macroeconomic policy, international economics and financial markets.

Chi-Young Song (1961) is Assistant Professor in the School of Economics at Kookmin University. He received his PhD from Brown University at Rhode Island (US). Before joining Kookmin University, he worked at the Korea Institute of Finance. He has written papers on international finance and macroeconomics, especially in relation to East Asia.

John Williamson (1937) is Senior Fellow at the Institute for International Economics (IIE) in Washington since its founding in 1981. He has taught at the Universities of York (1963-68) and Warwick (1970-77), the Pontificia Universidade Católica do Rio de Janeiro (1978-81), was a Visiting Professor at MIT (1967 and 1980), LSE (1992), and Princeton (1996), and is an Honorary Professor at the University of Warwick (since 1985). He was an economic consultant to the UK Treasury from 1968 to 1970, and an advisor to the IMF in the period 1972-74, where he worked mainly on questions of international monetary reform related to the work of the Committee of Twenty. From 1996-99 he was on leave from the IIE to serve as Chief Economist for the South Asia Region of the World Bank. He retains his British nationality. His publications have mainly concerned international monetary issues. His most recent major publication is *Exchange Rate Regimes for Emerging Markets: Reviving the Intermediate Option*.

From: New Challenges of Crisis Prevention,
FONDAD, December 2001, www.fondad.org

Abbreviations

APEC	Asia Pacific Economic Cooperation
ASEAN	Association of South-East Asian Nations
BBC	basket, band, and crawl
BIS	Bank for International Settlements
CBS	crawling basket signal
CEPAL	Economic Commission for Latin America and the Caribbean (of the UN); (ECLAC)
DEAR	daily earnings at risk limit
DM	Deutsche mark
ECAs	export credit agencies
ECLAC	Economic Commission for Latin America and the Caribbean (of the UN); (in Spanish CEPAL)
ECGD	Export Credits Guarantee Department (UK)
EMS	European Monetary System
EU	European Union
FDI	foreign direct investment
FFR	US Federal Funds rate
G-7	Group of Seven
GARCH	generalised autoregressive conditional heteroskedasticity
GDP	gross domestic product
GKOs	Russian Government short-term securities
IBRD	International Bank for Reconstruction and Development (World Bank)
IMF	International Monetary Fund
IPOs	initial public offerings
IRB	internal ratings based
ISI	import substitution industrialisation
IT	information technology
LTCM	Long-Term Capital Management
Mercosur	Southern Cone Common Market (in Latin America)
NAFTA	North American Free Trade Agreement
OECD	Organisation for Economic Cooperation and Development
SMEs	small and medium-sized enterprises
UF	Unidad de Fomento
UIP	uncovered interest parity
UK	United Kingdom
UNCTAD	United Nations Conference on Trade and Development
UNU	United Nations University

From: New Challenges of Crisis Prevention,
FONDAD, December 2001, www.fondad.org

US	United States
WIDER	World Institute for Development Economics Research
WIR	World Investment Report (of UNCTAD)
WTO	World Trade Organization

From: New Challenges of Crisis Prevention,
FONDAD, December 2001, www.fondad.org

From: New Challenges of Crisis Prevention,
FONDAD, December 2001, www.fondad.org

Introduction

Over the past few years a standard agenda of crisis prevention measures has been developed to which most policymakers and analysts adhere. Opinions differ, however, when it comes to the specific policy that each country, given its particular circumstances, should choose from the variety of options available. This book reflects on today's standard agenda of crisis prevention, but most of all, it deals with two themes that ought to have been – but were not – included in the agenda. The first concerns the possibilities for major industrial countries to address global economic imbalances, and the second is how developing countries could counter boom-bust cycles. The four parts of the book provide a wealth of interesting analyses, discussions and proposals. In these introductory pages, I can highlight only a few.

In the opening chapter, Jan Kregel argues that advanced countries should address global economic imbalances. He analyses what he calls "a new cyclical pattern" of the global economy in which US expansion serves to offset contraction in other parts of the world, while the rest of the world is unable to compensate for contraction in the US. As a result, there are growing – internal and external – imbalances in the US economy that are currently leading to a global slowdown. More generally, Kregel blames the IMF and its major shareholders for not assessing the extent to which the monetary and exchange rate policies of the United States and other major industrial countries affect global stability and have a negative impact on developing countries. He stresses that the advanced countries could make a large contribution to the cause of development by coordinating their macroeconomic policies and addressing the global economic imbalances they cause. In this way, they would decrease the disruptions of trade and finance in developing countries that result from these imbalances, and make a contribution to development that might be greater than any form of aid.

In his comment on Kregel, Zdeněk Drábek observes that today's global economic imbalances cannot be treated by macroeconomic tools alone but must be supported by structural reforms in Japan, Europe and the US. Like Kregel, he stresses the need for policy coordination among the G-7 countries, but emphasises that Japan and Europe are as important as the United States. In addition, he sees the need for a "super-supervisor", a supranational institution like the IMF or WTO that would oversee the creditworthiness and soundness of economic policies of countries. In his view, such an institution would help to prevent excessive risk taking and address the problem of boom-bust cycles.

From: New Challenges of Crisis Prevention,
FONDAD, December 2001, www.fondad.org

In the ensuing floor discussion, a whole range of issues was discussed. Manuel Marfán, Chile's former deputy minister of finance, raises the issue of excessive spending by the private sector and its lack of macroeconomic concern. He sees this as one of the crucial problems that is missing in the policy agendas, especially in those of the Bretton Woods institutions. According to Marfán, there is no discussion whatsoever about how to manage these excess private expenditures in the context of a globalised economy, even though they have been the main driving force behind the boom-bust cycles of the 1990s. Another issue raised was that of the dominant role of the United States in the global economy and the feasibility of G-7 coordination to achieve greater stability in the system. Jan Kregel argues that if free trade is considered as the best overall system, exchange rate stability among the major economies' currencies should be pursued much more energetically to prevent exchange rates from distorting the free trade system. In his view, it would benefit everyone concerned to establish precise regulations – which are currently lacking.

In the second part of the book, José Antonio Ocampo looks at the role of developing countries' domestic policies in managing externally generated boom-bust cycles. He draws from an extensive recent literature on the subject and from the experience of Latin America in the 1990s. He first looks at the international asymmetries that lie behind the boom-bust cycles in the developing world and the macroeconomics of these cycles. He then examines the policy options for developing countries in terms of the choice of exchange rate regime, liability policies, prudential regulation and supervision, and fiscal stabilisation. He concludes that an adequate anti-cyclical policy package should be based on a mix that involves: managed exchange rate flexibility *cum* capital account regulations; strong "liability policies", aimed at improving private and public sector debt profiles; strong prudential regulation and supervision of domestic financial systems, with anti-cyclical instruments; and counter-cyclical fiscal stabilisation funds and adequately-designed social safety nets.

In her comment on Ocampo, Liliana Rojas-Suárez provides many useful policy insights. She agrees with the relevance of distinguishing between country risk and exchange rate risk and argues that the policy debate needs to be redirected from a discussion on the "right" exchange rate regime to the design of policies aimed at improving the perception of creditworthiness by foreign investors. Another issue she tackles is the appropriate design of regulatory and supervisory rules for the financial sector in emerging markets. In her view, the recommendations by the Basel Committee completely fail to consider the particular features of emerging economies. She suggests how, for example, early warning signals could be constructed as a more adequate tool for effective supervision in emerging markets.

From: New Challenges of Crisis Prevention,
FONDAD, December 2001, www.fondad.org

In the second comment on Ocampo, Amar Bhattacharya supports the anti-cyclical policy package laid out by Ocampo and distinguishes two objectives of this package. The first is how to pursue counter-cyclical macroeconomic policies, in order to dampen the aggregate demand effects and mute the capital flows. The second is how to manage the balance sheet risks associated with these flows. With regard to the second objective, he stresses the need for anti-cyclical prudential regulation and observes that in East Asia, precisely the opposite was done. Regulation was lax in the boom period and it was tightened in the crisis, triggering just the opposite effect of what one would want. Bhattacharya remarks that Ocampo focuses primarily on managing the *boom* while it would be equally important to know how to manage the *bust*.

In the floor discussion on the policy options for developing countries to counter boom-bust cycles, much attention was given to the problems of prudential regulation. It is generally believed that counter-cyclical policy is difficult in boom times because when things are going well, it is hard to convince people that there are risks. Forward-looking provisioning, which means that one makes banks provision at a higher rate in the boom period because some loans will turn bad when the bust comes, may be an acceptable formula. Ocampo believes that one of the most powerful instruments would be a combination of liquidity requirements with preventive provisioning for delinquent loans.

In the third part of the book, about exchange rate policies in developing countries, John Williamson gives his view on the exchange policies that Latin American countries could pursue. He defends the proposition that a so-called intermediate exchange rate regime (between fixed and floating) will be viable in all circumstances if it is managed competently – except in the case of strong contagion. He discusses how an intermediate regime might be modified in order to make it less vulnerable to speculative pressures. He then considers the advantages and disadvantages of this regime in comparison to a floating regime. Finally, he discusses how the problem of Latin American countries that have different exchange rate regimes and intense mutual intra-trade could be resolved.

In his comment on Williamson, Carlos Massad, governor of Chile's central bank, notes that the intermediate regime represented the exchange management in Chile during most of the 1990s when it had a band, basket and crawl until September 1999. On that date, Chile abandoned the formal band scheme and turned to a free floating regime. So far, it is quite content about that decision because exchange rate volatility has not been greater than it was with the band. Moreover, says Massad, prior to floating, every time the market exchange rate approached the limits of the band, speculative attacks forced the authorities to intervene by changing the band or

From: New Challenges of Crisis Prevention,
FONDAD, December 2001, www.fondad.org

adjusting restrictions.

Yung Chul Park and Chi-Young Song look at East Asia's recent experience with the free floating exchange rate system. They observe that despite the overwhelming support for the free floating system in emerging market economies, many countries in East Asia have been reluctant to let their exchange rates fluctuate freely. China continues to adhere to a managed floating system, and East Asian countries with a free floating system intervene extensively to stabilise their nominal exchange rates. Park and Song analyse the behaviour of the nominal and real exchange rates and the exchange rate policy of the three crisis countries in East Asia – Indonesia, Thailand, and Korea – that shifted to free floating in 1997 as part of the IMF conditionality for rescue financing. They discuss some of the reasons that make these countries reluctant floaters, and examine whether the intermediate exchange rate regime could be an alternative system appropriate to East Asian economies. They then investigate the extent to which volatility of the nominal exchange rate in the three countries has increased since lifting foreign exchange controls, and attempt to identify why the authorities of all three countries systematically intervened in the foreign exchange market. Finally, they examine whether the three countries have gained more monetary autonomy since adopting the free floating system. According to the authors, strong evidence of this cannot be found.

In his comment on Park and Song, Brian Kahn disputes their argument that exchange rate volatility in the three East Asian countries has increased significantly because they adopted a more flexible exchange rate regime. He also disputes the authors' assertion that their tests do not provide evidence of greater monetary policy independence after moving to flexible exchange rates. In Kahn's view, the results of their tests rather show that there is no evidence that monetary policy independence has *not* increased.

In the floor discussion, Liliana Rojas-Suárez observes that the choice of exchange rate regime cannot be separated from the situation in which the domestic financial system finds itself. In her view, many countries do not dare to float because they fear that sharp exchange rate movements may harm the financial system. At the same time, they do not dare to fix, because if they have to defend the exchange rate, they will have to increase the interest rate, which will also affect the financial system. Amar Bhattacharya stresses the importance of initial conditions for choosing the appropriate exchange rate regime. The Chilean experience, for instance, may be quite different from the current East Asian experience because the prerequisites are so dissimilar, he says. That raises the question: even if one has a floating exchange rate regime, how could the government limit itself only to inflation targeting or how could the central bank act as a centre for

managing private sector expenditure? Bhattacharya believes that none of the East Asian crisis countries has really moved to free floating but rather to managed floating. Stephany Griffith-Jones argues that the volatility of capital flows makes a band regime highly unstable. In her view, such a regime could only become more stable when a tough control of capital flows is applied.

In the fourth part of the book, José María Fanelli argues that, in an increasingly globalised world, counter-cyclical policies are also needed at a level exceeding national boundaries. He presents a Latin American perspective and, more specifically, a Mercosur perspective. Fanelli first discusses a set of stylised facts associated with trade and international financial markets in Latin America, showing that international market failures and macroeconomic fluctuations are closely associated. Based on this analysis, he draws some lessons for counter-cyclical policies at the regional and international level and outlines the goals that Latin American countries should pursue in negotiating a regional and multilateral counter-cyclical agenda. These include: minimising the volatility of national income; reducing international capital imperfections; minimising the variance of foreign exchange receipts; and developing international institutions to support more stable macroeconomic regimes.

In the final chapter of the book, Stephany Griffith-Jones and Stephen Spratt discuss some of the negative effects of the proposed new Basel Capital Accord. They are concerned that the new Accord will reduce lending to developing countries and increase the pro-cyclical character of bank lending. They suggest a number of measures to address the pro-cyclical effects of the new Accord. These include: forward-looking provisioning to allow for provisions to be built up in good times to be used in bad times; placing a cap on the value of assets that can be used as collateral to protect against inflated asset prices that occur during a boom; and limiting lending for property, construction and personal consumption since these tend to increase substantially in boom periods.

Jan Joost Teunissen
November 2001

From: New Challenges of Crisis Prevention,
FONDAD, December 2001, www.fondad.org

Part I

Policy Options for Advanced Countries to Address Current and Future Global Economic Imbalances

From: New Challenges of Crisis Prevention,
FONDAD, December 2001, www.fondad.org

From: New Challenges of Crisis Prevention,
FONDAD, December 2001, www.fondad.org

Why Advanced Countries Should Address Global Economic Imbalances

Jan Kregel

1 Introduction

In September 2000 the IMF revised its global growth forecast for the year in course upward[1] just as UNCTAD was noting that a downturn in the US economy, and thus for the global economy, in the year was inevitable. A few months later, as UNCTAD completed its drafting on the global prospects chapter of the 2001 *Trade and Development Report*, suggesting that European growth could decline by one to two percentage points from its 2000 average of over 3 percent, the IMF was announcing the opposite trend: improved prospects for growth in the European Union and its prospects to replace the United States as the engine of global demand.

Clearly the 1990s have presented special challenges for those trying to forecast the evolution of the major industrialised economies, and their impact on the developing world. Financial factors that are difficult to model have come to play an increasing role. Nonetheless, it is interesting to note the stark divergence in the positions taken by the IMF and UNCTAD concerning the outlook for global growth.

The increasing economic interdependence of the world's economies creates difficulties for forecasters because both real and financial shocks have more rapid and direct impacts on different geographical regions and different industrial sectors than before. The dominance of the global integration of production and finance over the intensification of trade linkages in industrialised economies also implies that real and financial shocks may have unexpected interreactions and consequences.

---

1 At the end of September 2000 the IMF revised its growth estimates upward because: "The global economic expansion has continued to gain strength, with global output growth now projected at 4.7% in 2000, 0.5 percentage points higher than expected in the *May World Economic Outlook* ... Growth is projected to increase in all major regions of the world, led by the continued strength of the US economy; the robust upswing in Europe; the consolidation of the recovery in Asia; and a rebound from last year's slowdowns in emerging markets in Latin America and the Middle East and Europe." *World Economic Outlook*, October, 2000, p. 1.

From: New Challenges of Crisis Prevention,
FONDAD, December 2001, www.fondad.org

It appears that the increased interdependencies provide new sources of international macroeconomic imbalances similar to those that have plagued the stability of the international financial system since the end of the post-war recovery period in the 1960s. If there is a distinguishing feature of the analysis in UNCTAD's *Trade and Development Reports*, it is the emphasis that is placed on the way increased global integration of trade and finance has produced global imbalances in the 1990s.[2]

In particular, the position taken in recent *Trade and Development Reports* has been influenced by the similarity of the current imbalances with those of earlier periods, and the recognition that such imbalances usually have led to substantial disruptions of trade and finance, with serious difficulties in developing countries.

Obviously, if we are to address the question of the policy options facing the advanced countries to deal with current and future global economic imbalances in order to limit the negative consequences for developing countries, we must first identify the forces that determine the interactions of the industrialised and developing economies that have produced the current imbalances and assess whether they will have similar consequences to those in the past.

2 Unanticipated Consequences

The process of recovery from the 1997-98 Asian crisis may serve as a good starting point for a brief review of how economic trends in developing and industrialised economies have interacted. The threat of a wall of cheap exports coming out of Asia, based on sharply undervalued exchange rates, led many forecasters to expect that the aftermath of the Asian crisis would be characterised by a slowdown in the industrialised countries and a risk of global deflation. However, this forecast was quickly disappointed.

The collapse of domestic financial systems and asset prices in the crisis countries made it difficult for their domestic producers to finance the production of increased exports and the imports that were required to produce them. Although foreign balances did improve very quickly, it was initially a downward adjustment in which imports virtually ceased and exports declined, causing overall incomes to fall. Even when increases in export volumes appeared, they were more than offset by falling export prices and rising import prices. The decline in East Asian demand for imports of primary materials, particularly petroleum, compounded the downward trend

2 See in particular *Trade and Development Reports* for 1999 and 2000.

in commodity prices that had already started in 1996, before the crisis. The result was a sharp decline in developing countries' terms of trade. Cheaper exports from developing countries led to a windfall in the purchasing power of developed country consumers. This supported continued expansion in consumer demand in the developed countries and made a substantial contribution to price stability in these countries.

This benign international price environment for industrialised countries, that resulted from the recession in Asia, allowed the Federal Reserve to accept growth rates in the US far in excess of prudent estimates of potential non-inflationary growth. It was felt that there was no need for anticipatory tightening of monetary policy. The result was an increase in the estimates of both the productive potential of the economy, as well as the expected of non-inflationary growth rates. At an average of nearly 5 percent during the period 1997-2000, US growth rates not only exceeded forecasts, but were even double of what had been considered the maximum potential.[3] It is important to note that, combined with the increased competitiveness of Asian exports, this is what finally brought about the rapid recovery of growth in Asia in 1999, not the adjustment programmes or structural reforms in the productive and financial sectors.

Just when it appeared certain that the global economy would avoid the expected post-Asian crisis recession, the firmness of this belief was undermined. The negative consequences of the crisis-induced decline in primary commodity prices became evident in the decline in export revenues in Russia. Since the Russian government was excessively dependent on these revenues for income, and the Central Bank was dependent on them for foreign currency, this led to a sharp reversal in the Russian balance of payments, a default on government debt and a collapse in the ruble exchange rate.[4] Since a large number of developed country financial institutions were exposed either directly or indirectly through their holdings of Russian government debt, the default was quickly transmuted into sharply reduced earnings or even insolvency and bankruptcy for some of the strongest developed country financial institutions, creating a loss of confidence in all

---

3 Indeed, the US potential growth rate has now been revised upward from around 2.5% to more than 3.5% in view of what appears to be a stable increase in labour productivity to rates above 2%. Already in 1995 the UNCTAD Secretariat argued that low estimates of potential growth and high estimates of natural rates of unemployment were due to hysteresis, and that industrial economies could grow much faster without an acceleration in inflation and reduce unemployment to levels below the estimates of natural rates if policymakers allowed them to do so: *Trade and Development Report*, 1995, Part Three, chap. III. See also Newsweek, September 1995, pp. 38-9. The *Economic Report of the President*, 2001, p. 72, estimates the potential growth for the US at 3.8%.

4 See Akyüz, Cornford and Kregel, 1999.

but the most highly secure and liquid US government securities. The increased demand for dollar-denominated assets resulted in a sharp appreciation of the dollar. Investors sought to offset liquidity risk, even in the presence of an increasing US current account deficit. The safest, most liquid US government assets became the refuge of risk-averse investors, commanding a large liquidity premium.

The Federal Reserve moved quickly to offset the rising liquidity premium and the risk of a sell-off of private sector financial assets by reducing interest rates, thereby allowing the US economy to continue to function as the engine of growth in the global economy. This provided sustained demand and markets for the recovery of the East Asian economies that in the second half of 1998 had already started to benefit from the reversal of restrictive IMF adjustment policies, finally unleashing the export potential implicit in the large devaluations and excess productive capacity, and producing record current account surpluses.

Thus, a series of unanticipated consequences of the aftermath of the Asian crisis during 1998-1999 served to increase the US contribution to global demand to around a third of global expansion since the crisis (and even around a half if indirect trade effects are also taken into account). This largely offset the loss of the roughly 50 percent contribution to global demand of South East Asia before the crisis and created the belief in a rapid global recovery when it allowed positive growth to return to Asia as a result of improving net exports.

3 Imbalances Between the US, Europe and Japan

Much like Asia before the crisis, rapid US growth led to a sustained inflow of capital into the United States, supported by the liquidity premium on dollar assets and the foreign acquisitions of US companies in the high technology sector. This has produced a combination of rising US current account deficits and an appreciating dollar, reminiscent of the sustained appreciation and overvaluation of the dollar in the early 1980s in the presence of a deteriorating current account. That combination was widely considered to be unsustainable, and resulted in the hard landing of the dollar in 1986-1987.

As in the 1980s, Japan is one of the major multilateral counterparts to the rising US external imbalance, but there are substantial differences that serve to reinforce the imbalance. The first and most obvious is that the United States growth differential vis-à-vis the rest of the world in the 1990s was underpinned by private sector spending and productivity gains; and although household savings rates were negative, US national savings

were positive as the public sector surplus exceeded the rising personal sector savings deficits. On the other hand, despite the excessively high household savings rate, it was Japan that was experiencing deficits and rising national indebtedness. On a purely domestic basis, it was the US that ran the risk of becoming the excess saving economy, paying down its domestic debt, while in Japan national savings were deficient and domestic debt was increasing.

Thus, while increased global financial volatility was increasing the demand for risk-free US government assets, their supply was being reduced by the US fiscal surplus. The resulting downward pressure on US interest rates was enforced by the increasing supply of Japanese government paper and the risk of holding it. The concomitant upward pressure on Japanese interest rates and downward pressure on US interest rates were just the opposite of what would be required to counter the increasing US external deficit and the Japanese surplus. Despite the differences in government budgets a similar self-reinforcing process of a rising dollar and high dollar returns seen in the early 1980s, now supported by the liquidity premium, led to dollar strength even in the presence of a continually rising external deficit (with the addition of the US as a net international debtor) just as in the 1980s. The Plaza and then Louvre Agreements were necessary to reverse this cumulative self-referential process (see Soros, 1987). But in the absence of fiscal policy, adjustment could in the 1980s only be achieved by interest rate policy, which because of the excessive decline of the dollar after 1985 required a reduction in interest rates in Japan relative to the US. This produced the great real estate and equity bubble in Japan, whose reversal at the end of 1989 set the stage for the decade of stagnation in the 1990s and which looks like continuing into the new millennium.

Europe has also been a multilateral counterpart of the rising US external imbalance at the end of the 1990s, but here the situation seems more to resemble the imbalances of the 1960s. In the 1960s the United States argued that its deficit with Europe was simply the counterpart of the high foreign demand for dollar assets, and US expenditures in support of its political commitments to European security. The European counter-argument was that the United States was exporting both unemployment and inflation created by its uncontrollable fiscal deficit. There was no agreement on whether the appropriate policy was the reduction of the United States fiscal deficit (with the anticipated result of lower growth and higher unemployment), or an increase in European demand and growth (with fiscal deficits and feared higher inflation). Unwilling to increase interest rates for fear of stifling growth, and unable to act on exchange rates because of the peculiar position of the dollar in the Bretton Woods System, the United States introduced a wide variety of controls on capital

From: New Challenges of Crisis Prevention,
FONDAD, December 2001, www.fondad.org

flows in an attempt to raise interest rates externally, while keeping them low internally, (including "Operation Twist"). In the end the failure of policy coordination between Europe and the US was resolved by an institutional crisis in which the Bretton Woods system of flexibly fixed exchange rates was abandoned by taking the dollar off gold.

Paradoxically, despite the fact that at the end of the 1990s the US is running an increasing fiscal surplus and the EU is running fiscal deficits, the appropriate policy to reduce the external imbalance would still appear to be tighter fiscal policy in the US to further increase the fiscal surplus, combined with looser policy in Europe. While this might have been acceptable in the era of Keynesian fine-tuning of the 1950s and 1960s, it is no longer politically feasible, as is any use of expansionary fiscal policy by the EU in light of the Stability and Growth Pact. In the absence of capital controls or something like a reverse "operation twist", the response has again been in terms of monetary policy and substantial exchange rate adjustments.

The lack of policy coordination between the US, Europe and Japan in both the 1960s and the 1980s, and the increasing difficulty in employing counter-cyclical fiscal policies, meant that monetary policy became the sole instrument. As a result, policy conflicts emerged in terms of disruptive interest rate differentials and disruptions in exchange rates. In the 1960s, the US attempted to avoid the impact of the required monetary policy on the domestic economy, with the result that eventually exchange rates had to adjust; to do so brought down the post-war exchange rate system. In the 1980s, monetary policy eventually produced interest rate differentials that led to a recession from which Japan and Europe are still attempting to emerge. The same response was used in 1999-2000 with Japan pushing interest rates to zero and the European Central Bank resisting too large a positive US differential.

4 Implications of a US Downturn

The question that determined global prospects in September of 2000 was whether the imbalances that were present in the global economy were sufficiently similar to those of the 1960s and the 1980s to create similar serious disruptions in global growth and in the growth prospects of developing countries. Given the existence of the similar cumulative nature of the three periods of imbalances, and the sustained tightening of US monetary policy, it appeared that not only would the US economy not continue to expand, but that because of the increasing inter-relatedness of the United States in the global economy, the global economy would also slow substantially.

From: New Challenges of Crisis Prevention,
FONDAD, December 2001, www.fondad.org

Since the US has been the major source of global demand, the impact of slower US growth on its external deficit is likely to have a direct impact on global conditions. In Asia, rising net exports provided the financing for expansion despite the sharp contraction of financing by domestic financial institutions attempting to rebuild capital. So any US downturn coupled with expansion of domestic incomes and imports in these recovering Asian economies would in these countries lead to lower current account surpluses, reducing both domestic growth and demand, and the ability of domestic firms to finance continued restructuring.

The extent of the problem can be seen from the more than 20 percent of GDP in Malaysia, Singapore and Hong Kong that is created by exports to the US. The figure for Taiwan and the Philippines is above 10 percent and Korea is only slightly lower at 7 percent. However, these figures probably underestimate the impact since the linkages to the US are most direct in the high-tech sectors of semi-conductors, personal computers and telecommunications equipment. The growth of demand has been strongest in those sectors in the last five years of the US recovery and Asian exports to the US have been strongest in leading their recovery.

In the Western Hemisphere, NAFTA had produced trade integration such that Mexico and Canada now export 25 percent and 30 percent of their GDP respectively to the US. Of the major industrialised economies, Europe and Japan both have low direct dependence on US trade and depend little on each other, although both countries have substantial interests in subsidiaries operating in the US. Thus simply referring to commercial relations would lead to the conclusion that Japan and Europe might be less affected by the performance of the US economy. However, Japan's nascent expansion at the beginning of 2000, based on increasing capital goods exports and rising corporate profits leading to a recovery in investment, was directly dependent on demand coming from South East Asia where the recovery had been determined by increasing sales to the US.

Since most of Europe's trade was within the EU, it was suggested that it was more isolated from global conditions than before the introduction of the euro. However, in the new global environment trade is perhaps the least important linkage between the US and Europe. For example, in 1998 sales of foreign-owned affiliates within the US were close to $2 trillion, nearly double the value of US imports from abroad of a little over $1trillion (see Zeile, 2000), while US companies exported nearly $1 trillion compared to $2.2 trillion of sales by US-owned affiliates operating abroad. If balance of payments accounts were kept by country of ownership of firms rather than by their national location the US deficit in 1998 would have been reduced by roughly half from $198 billion to $99 billion (Lowe,

2001). This suggests that the relation between the external account and the exchange rate is rather different today than it was in the past.

Since European companies have been the major investors in the US, it is no surprise that the major linkage between Europe and the US is no longer in terms of commerce, but in terms of foreign affiliates' sales. For example, sales of German and UK affiliates in the US were roughly five times their exports to the US in 1998[5] and the figure is more than double that for smaller European economies such as the Netherlands. As a result of this globalisation of production and sales, Europe is much more closely linked to the US than its low dependence on trade with the US would suggest.

Of even greater importance is the $500 billion in mergers and acquisitions of US companies by European companies over the last three years, plus substantial portfolio equity and bond flows.[6] These flows are also deceptive in their impact since after 1997 the share of cross border mergers and acquisitions financed by stock swaps increased dramatically. For developed countries as a whole less than 10 percent of mergers and acquisitions were financed by stock swaps in 1997 ($22 billion versus $213 in cash transactions), but the share rose to 31 percent in 1998 ($138 billion versus $307 billion in cash) and reached 40 percent in 1999 ($261 billion versus $384 in cash).[7] For the US it is estimated that roughly half of inward merger and acquisition flows have not involved direct acquisition of dollar assets with foreign currency, but have been financed by means of stock swaps, and that much of the remaining mergers and acquisitions were financed by borrowing in the US. Thus the direct impact on the foreign exchange market of the boom in European mergers and acquisitions of US assets, and any eventual reversal, may have less impact on the behaviour of the exchange rate than commonly expected.[8]

---

5 Japan now ranks third, behind Germany and the UK, in terms of gross product produced by owned- affiliates in the US, in part because of the large Japanese presence in Mexico.

6 FDI inflows to the US rose sharply between 1998 and 1999 from $186,316 million to $275,533 million while outflows were virtually constant at $146,052 million and $150,901 million. In contrast inflows to the EU rose about half as much from $248,675 million to $305,058 million, while outflows increased from $425,495 million to $509,824 million. (See *World Investment Report (WIR), 2000*, Annex Tables, B1 and B2). US sales of companies via cross-border mergers and acquisitions in 1998 were 209,548, rising to 233,032 in 1999, against 137,421 and 112,426 of purchases respectively. For the EU purchases were 284,323 in 1998 and 497,709 in 1999 against 187,853 and 344,537 of sales respectively (*WIR*, Annex Tables A.IV.6 and 7). An idea of the flow from the EU to the US is given by the fact that for the US and the EU global cross-border mergers and acquisitions flows account for nearly 80% of total FDI inflows. (*WIR*, Figure IV.9) The share of mergers and acquisitions in investment in foreign affiliates operating in US in 1997 was 87.1% at $60.7 billion, and 89.9% in 1998 at $180.7 billion. (*WIR*, Annex Table A. IV.8).

7 *World Investment Report*, Annex Table A.IV.8.

8 Nonetheless there may be indirect portfolio effects since stock swaps change the currency composition of portfolios, increasing the foreign currency denomination of US portfolios. If

The increasing importance of these financial linkages suggest that caution should be exercised in assessing the ability of the European economy to escape negative consequences of the adjustment to global imbalances. Recent estimates of the elasticity of European growth with respect to US growth are as high as 0.4, suggesting that the recent decline in the US growth rate could bring European growth back to around 2 percent, irrespective of any further impact from a loss of export competitiveness due to strengthening of the euro exchange rate.

5 A New Cyclical Pattern

Global economic performance has been characterised in the past by asynchronous cycles in which downturns in some areas have been counterbalanced by expansion in others, preventing global overheating or recession. However, since the US expansion of the 1990s and the advent of globalisation a new cyclical pattern appears to be forming, in which the negative shocks from the rest of the world create benefits for the US economy that allows it to grow more rapidly, and thus compensate for the negative shock. While these benefits avoid overheating in the US, they create: (a) imbalances in the US external position as US external indebtedness increases; (b) imbalances in the US internal position as private sector indebtedness increases; and (c) a strengthening of the dollar exchange rate as foreign lenders hold their credits on the US in dollar assets.

Since these growing US imbalances are the cause of the improving conditions in the rest of the world, a deterioration in conditions in the US cannot be balanced by an expansion in the rest of the world. Moreover, since these growing US imbalances are unsustainable, a global slowdown is the inevitable result. The decline in growth in the US in the third quarter of 2000 was matched in Europe by a decline in growth from 3.2 percent in the second quarter to 2.8 percent in the third quarter, while Japan experienced a shift from a positive 1 percent to a negative 1 percent growth from the second to the third quarter.[9]

Thus the new cyclical pattern under an increasingly integrated world of trade, production and finance is not synchronous and not symmetric.

US investors were in equilibrium prior to the sale or merger, they should sell the foreign equity they received and if the sale was executed on a foreign exchange, repatriate the proceeds to replace the dollar-denominated securities. This would have the same increase in the demand for dollars as the direct purchase by the acquirer and the reduction in the value of merger and acquisition flows would have a negative impact on the dollar.

9 Of course, the downturn was not limited to developed countries, and most developing countries also experienced a downturn in industrial production around the middle of 2000.

While the US appears to be able to compensate for weakness in the rest of the world, the rest of the world is unable to compensate for weakness in the US. The global economy appears to be facing conditions in which US expansion served to offset weakness in other parts of the world after the Asian crisis, but there seems to be no guarantee of a symmetrical relation that would produce an offset to a decline in the US growth rate. Just as global growth will depend directly on the reaction of the US external balance to a reduction in its growth rate, so will international currency and financial markets.

6 The US Outlook: Keynes, Hayek or Schumpeter?

The analysis of the cyclical performance of the US economy is thus of crucial importance to forecasts of global performance. The sharp drop in economic activity in the US after the second quarter of 2000 raises the question of whether this is a simple cyclical adjustment to excess inventory and capacity build-up that will be quickly reversed by a so-called V-shaped recovery, or whether the "new economy" has been a mirage which has now been dissipated with the collapse of the high-tech stock bubble and heralds a longer period of adjustment that would produce recession (at least two quarters of negative growth) and a return to performance similar to the 1970s.

Judging current conditions is difficult since one of the most striking characteristics of the recent expansion has been the performance of investment. The share of gross fixed investment to GDP has risen in the 1990s to around 18 percent, up markedly from below 14 percent during the recession of 1990-1991.

The build-up of inventories in the second and third quarter of 2000 and the falling capacity utilisation figures support the idea that the US economy is in a traditional Keynesian cyclical downturn, in which excessive optimism over expected future expansion has led to overinvestment in capacity. In this view, as investment is cut back, the multiplier produces further income declines until automatic stabilisers produce a fiscal stimulus or direct policy measures are taken to stimulate investment or increase government spending. This sets a floor under the growth in spending and sales. Eventually, the excess capacity is worked off and the needs for new capacity spurs investment and sets off the recovery.

However, there are a number of factors to suggest that the current expansion and downturn are quite different. The current cycle is much closer, although not exactly equivalent, to the kind of cycle that was described by Friedrich von Hayek in opposition to Keynes. The difference

From: New Challenges of Crisis Prevention,
FONDAD, December 2001, www.fondad.org

between the two explanations of the cycle was not in the existence of excess capacity, but in factors that caused it, and thus the policies required to eliminate it. In Hayek's approach, the excess capacity was caused by excessively easy monetary conditions leading to excessive capital intensity of production, producing the use of techniques that would not be viable in normal monetary conditions. No amount of support to expenditure could remedy this situation; only bankruptcy and elimination of the inappropriate technology would create the conditions for future recovery. This was the basis of the idea of the beneficial "bust" creating the conditions for the new boom to take place – attempting to use fiscal or monetary policy to temper the decline would only prolong the date at which the necessary junking of inappropriate investments would take place and the recovery could commence. Thus, instead of the economy having too much capacity which would eventually become profitable in the recovery, Hayek suggested that the wrong techniques of production were embedded in the capital stock; they would never be profitable at normal interest rates, so recovery would only commence once they had been eliminated and replaced by the appropriate technology.

It is clear that the "new economy" expansion has been driven by new technological advances in the field of computing, telecommunications and information and that investment spending in the sector has played a leading role in recent acceleration in economic growth. Although it remains a fairly small part of the economy – its share of GDP was an estimated 8.3 percent in 2000 (up from 5.8 percent in 1990) – it accounted for almost one-third of all output growth between 1995 and 1999. The annual growth rate of private investment in information technology was 19 percent over the 1990s as a whole and accelerated to 28 percent after 1995. In 1999, business spending on information technology equipment and software was responsible for more than 11 percentage points of the 14 percent real growth in total equipment and software spending by business. It seems clear that it is investment in new technology that was the impetus for the recent exceptional growth and employment performance of the US economy. This means that the kind of excess capacity that is present in the economy may be rather different than that of the traditional Keynesian cycle.

Much of this new investment has been driven by companies financed by venture capital. According to figures provided by the US Council of Economic Advisers total venture capital investment jumped from $14.3 billion in 1998 to $54.5 billion in the first three quarters of 2000 alone.[10] However, industry sources suggest that financing in June 2000 averaged

10 Economic Report of the President, 2001, p. 106.

$350,000 per day[11], and $103 billion in 5,380 companies for the year 2000, compared to $59 billion in 3,967 companies in 1999.[12] Estimates of the total venture capital under management exceed $130 billion. Companies financed by this short-term venture capital were made public via initial public offerings (IPOs), even though they had not yet generated any positive earnings. This created a further massive injection of liquidity into the capital markets, as pension funds, private investors and, above all, foreign investors sought to participate in the new wave of Schumpeterian innovations. In 1999, new IPOs raised over $60 billion in equity and the figure was been matched in 2000 (although the majority was in the first half of the year).

The sudden reversal of expectations concerning the future earnings ability of these companies in the spring of 2000 caused a sharp drop in share prices of high technology stocks (the NASDAQ index which represents the majority of these companies fell from around 5000 to 2500 at the end of the year). The loss in value on stocks initially issued in 1999 and 2000 has been estimated at nearly $300 billion and has brought new issues to a halt by the end of 2000. Thus, in the second half of the year, the new liquidity that had been provided by these issues ceased and, instead, companies have had to meet the financing needs created by their negative cash flows from other sources, causing a drain on liquidity in the market. This has brought investment and expenditures by these new companies to a halt, while the fall in their share prices has made it difficult for them to raise finance from alternative sources. The natural response to a liquidity crisis is to cut employment and investment in an attempt to avoid bankruptcy, but in the presence of negative earnings resulting from the need to establish market share, such a strategy cannot succeed.

These companies produced the so-called high-tech bubble, and the triple-digit price-earnings ratios. But, the flip side of these ratios was an extremely low cost of financing and abundance of liquidity. It is clear that many of the new technology business plans could never have been explored had they been financed by banks at prime rate, just as banks are now unwilling to provide the financing required in the current downturn.

A Hayekian interpretation would find the explanation of the present cycle in the excessive capital intensity of the new techniques due to excessively low borrowing costs as reflected in the extremely high price-earnings ratios. However, in a period of rapid innovation, the full benefits of a new Schumpeterian wave of technological change can only be acquired by allowing the maximum number of alternative applications (see Metcalfe,

11 Data from DeNichilo, 2001.
12 Data from National Venture Capital Association, 2001.

1994), and letting the market evaluate the way the new innovations are incorporated into new business plans. Whenever increasing returns are dominant, as is the case in the area of information technology, the firms that set the industry standard for that product are likely to gain a substantial competitive advantage.

Thus, the benefits in terms of higher productivity depend on a large number of firms being able to compete with alternative business plans. This is what the venture capital funds and the IPO market allowed; the low cost of finance provided by the stock market bubble allowed a plethora of new business plans to be explored and to continue to exist even in the presence of sustained negative earnings. The problem was not their capital intensity, as in Hayek's approach, but that not all of the business plans were valid. As long as the boom continued and cheap financing was available, even the bad plans could attract funding to meet losses. But, as in Hayek's approach, this excess capacity will not eventually be taken up when demand improves. Thus, the cyclical downturn resembles a process by which the market finally exercises its role in selecting from the wide range of possible applications of information technology innovations those that will be viable on a long-term basis, discarding the rest to bankruptcy.

However, there may be collateral effects of this process which extend to other sectors of the economy. Up until the market correction, the only "market test" of a business plan was the takeover of a high-tech start-up by an existing, successful positive earnings company. Many of these companies, aware of the uncertainty of dominating their markets or the ephemeral nature of that dominance in a period of rapid change, adopted a strategy of diversification. Having identified one business plan that allowed them to generate positive earnings, but uncertain of the future direction of the new innovations, they acquired a range of smaller start-up companies employing different technological approaches, either through direct merger or acquisition of stock. Some have even created their own venture capital funds, such as Intel Capital, which had the highest number of venture capital investments in 2000 at 210.[13] As some of these acquired companies face difficulties and sharp declines in stock valuations, the positive real earnings of their acquirers are reduced. Further, a number of more successful companies have also provided a form of venture capital financing to newer start-ups by charging reduced prices, or providing credit through vendor financing or acquisition of stock options. When these smaller companies go bankrupt or meet liquidity difficulties, the parent has to restate sales and take reductions in earnings. In this way, even successful companies will be impacted negatively by the process of selection that is occurring.

13 See DeNichilo, 2001.

From: New Challenges of Crisis Prevention,
FONDAD, December 2001, www.fondad.org

Finally, although the formal banking system has been largely independent of this process of financing new technology companies, the share of business lending in bank portfolios has risen quickly over the last half of the decade. Much of this lending has been to so-called "old economy" or "blue chip" companies with high credit ratings, either in term lending, in back-up credit lines for commercial paper issues or underwriting and supporting bond financing. But, it is precisely these companies that are threatened by the success of the Schumpeterian process of creative destruction that occurs as high-tech companies supplant older producers[14] or provide more productive and profitable alternatives. The way for old economy firms to avoid the creative destruction by firms using business plans based on new technology is to incorporate the new technology by making innovative changes in managerial and productive organisation. One of the reasons for the recent jump in productivity in the US economy is that these changes are now starting to permeate the entire economy.[15]

While the major force in the recent growth of the US economy has been investment, consumption has also expanded strongly, on the back of increased consumer borrowing, as well as the rising share of households holding equity and the rising value of their portfolios. The loss of market values has thus had an impact on household wealth and although consumption spending has not yet started to decline as dramatically, consumer confidence is down sharply suggesting that declining consumer spending will add to the duration of the cycle.

The conclusion is that the current cycle looks much more like a Hayekian cycle in a wave of Schumpeterian innovation, than a simple Keynesian cycle of insufficient aggregate demand. It also suggests that the confidence that has been placed in monetary and fiscal policy in ensuring that the downturn is short may be misplaced. The excess capacity that exists in much of the IT sector is not excess because of insufficient demand, it is excess because it represents investments in non-viable applications of the new technology. Only a process of bankruptcy can eliminate the excess. Further, it is likely that this process will also create financing difficulties for strong companies and balance sheet difficulties for the banking system, reducing investment and liquidity and raising the possibility

14 But, just as IBM was nearly bankrupted by a failure to keep up with the advent of the personal computer market, these changes are usually slow to be introduced. Even established companies like Xerox or ATT, which were considered to have viable business plans meeting the new challenges of IT are experiencing credit rating downgrades on outstanding debt and commercial paper, raising their borrowing costs. See Scherer and Zuckerman, 2000.

15 The *Economic Report of the President*, p. 122, notes that the introduction of neural networks to control various aspects of the process of steel making can reduce labour requirements per ton of steel from six man-hours to one-man hour.

that even some viable business plans may not survive the liquidity crisis. In such conditions the impact of traditional policy instruments of lower interest rates and lower taxes may have a much lower impact on supporting demand and providing a rapid correction of the cyclical downturn. While the likelihood that this will result in a prolonged period of stagnation is low, the expectation of only a one- or two-quarter downturn seems excessively optimistic.

7 Coordination of Macroeconomic Policies by Industrial Countries

As already noted, global imbalances have generally been accompanied by large interest rate differentials and their resolution has generally been produced through a crisis that precipitated exchange rate instability. The interest rate differentials and exchange rate instability generate international speculative or arbitrage flows that have been a major cause of the instability of emerging market financial systems and exchange rates. The International Monetary Fund is still responsible for exchange rate stability, even though the system now permits free capital flows and flexible exchange rates. Flexible exchange rates may be a suitable mechanism for the major developed country blocs since these are large economies with little dependence on international trade and since firms in developed countries have limited exposure to currency risks because they can invoice in their own currencies. By contrast, sharp exchange rate adjustments in the dollar, yen and euro are a major source of disturbance for developing countries. The majority of developing country financial crises have been connected with sharp shifts in exchange rates.[16]

Given the degree of global interdependence, a stable system of exchange rates and external accounts would imply coordination among the macroeconomic policies of major industrial countries. However, the calls for sound economic policies have generally been reserved for developing countries without recognising that sharp movements in the major exchange rates can quickly turn sound policies of these countries into near crises. Just as IMF forecasting does not seem to give sufficient weight to increased economic interdependence, IMF surveillance does not generally involve assessment of such interaction or assess the monetary and exchange rate policies of the United States and other major industrial countries in terms of their coherence with global stability and the impact on developing countries. At the same time, developing countries lack effective fora for redress or dispute settlement regarding the negative impacts that monetary

16 See e.g. UNCTAD, *Trade and Development Report*, 1998.

and exchange rate policies of the major industrial countries produce on their economic performance. In this respect governance in macroeconomic and financial policies lags behind that for international trade, where such mechanisms are part of the WTO regime.

Recent experience suggests that the major developed countries can take action when imbalances become too extreme, as in the Plaza and Louvre agreements and the more recent joint central bank intervention in support of the euro against the dollar. However, if policy adjustments were taken earlier on a coordinated basis the impact would be much greater and the collateral damage on developing countries correspondingly less.

It is often argued that such coordination is impossible, but this view ignores history. The gold standard was an imposed form of coordination in which each country agreed to adjust its domestic policies according to a mechanism that was enforced by the guarantee of free convertibility of domestic currency into gold at a fixed parity. In fact, the coordination was not automatic, but actively overseen by the governors of the central banks of the major developed countries who coordinated their policies in order to preserve the operation of the system (see e.g. Bloomfield, 1959 and De Cecco, 1974).

The difficulty was that this coordination required countries to sacrifice domestic policy goals such as growth and full employment. The Bretton Woods system was supposed to provide a mechanism of coordination that did not require "measures destructive of national or international prosperity".[17] However, the system did not prove capable of that goal and after the Jamaica Agreements of 1976 recognised the de facto existence of a system of flexible exchange rates, almost all coordination was left to the market mechanism, while exchange rate risk was shifted from governments to the private sector. The result was the increase in financial flows and the advent of financial derivatives to insure against that risk. This increased the private costs of exchange rate volatility as well as the public costs of volatile capital flows. These costs were much more easily borne by the large developed countries than by the developing countries. Thus, the costs of the lack of a formal mechanism of policy coordination were unevenly distributed across countries. In particular they have been borne by developing countries involved in the increasingly frequent and virulent financial crises that have occurred since 1976.

The major industrial countries could make a large contribution to the cause of development by coordinating their policies. They should reform the international financial architecture to create incentives for this policy coordination. In this way, their contribution might be larger than any form of aid.

17 Articles of Agreement of the International Monetary Fund, Article I (v).

References

Akyüz, Yilmaz, Andrew Cornford and Jan Kregel (1999), "The Russian Crisis: From Shock Therapy to Financial Meltdown", In: *Herausforderungen an die Wirtschaftspolitik an der Schwelle zum 21. Jarhhundert*, Festschift für Lutz Hoffmann – zum 65. Geburtstag, Duncker & Humblot, Berlin.

A. Bloomfield (1959), *Monetary Policy Under the International Gold Standard – 1880-1914*, Federal Reserve Bank of New York.

De Cecco, M. (1974), *Money and Empire*, Basil Blackwell, Oxford.

DeNichilo, Stephen (2001), "The Year That Was", January 11, published on Internet (www.ipo.com).

Economic Report of the President GPO (2001), Washington D.C. January.

IMF (2000), *World Economic Outlook, 2000*, Washington D.C., October.

Lowe, Jeffrey H. (2001), "An Ownership-Based Framework of the US Current Account, 1982-1998", In: *Survey of Current Business*, United States Department of Commerce, January, pp. 44-46.

Metcalfe, J.S (1994), "Evolutionary Economics and Technology Policy", In: *Economic Journal*, July.

National Venture Capital Association (2001), *Venture Capital Investments Achieve Record Levels in 2000, Torrid Pace Relaxed in Fourth Quarter*, Washington D.C., January 29.

Newsweek, September 1995, pp. 38-9.

Silverman, Gary and Andrew Hill (2001), "Downturn tests US Banks", In: *Financial Times*, January 16.

Scherer, Paul M. and Gregory Zuckerman (2000), "Credit Crunch Starts Hurting Big Firms; Commercial-Paper Costs Edge Upward", In: *Wall Street Journal Interactive Edition*, December 21.

Soros, George (1987), *The Alchemy of Finance*, Simon and Schuster, New York.

UNCTAD (1998), *Trade and Development Report, 1998*, Geneva.

UNCTAD (1999), *Trade and Development Report, 1999*, Geneva.

UNCTAD (2000), *Trade and Development Report, 2000*, Geneva.

UNCTAD (2001), *Trade and Development Report, 2001*, Geneva.

UNCTAD (2000), *World Investment Report, 2000*, Geneva.

Zeile, William J. (2000), "US Affiliates of Foreign Companies", In: *Survey of Current Business*, August.

From: New Challenges of Crisis Prevention,
FONDAD, December 2001, www.fondad.org

Comment on "Why Advanced Countries Should Address Global Economic Imbalances," by Jan Kregel

Zdeněk Drábek

Introduction

Jan comes up with an interesting and rather original explanation of global cycles and imbalances. If I interpret him correctly, he makes the following points. Following the Asian crisis, full-scale, worldwide recovery has never materialised. The main reason is that global economic growth has been narrowly based with only the US being the bright performer. East Asia's recovery has not taken place as the collapse of financial systems and asset prices made it difficult for Asian firms to finance production and imports. Russia has been overburdened by its external debt (and, one should add, by poor governance and unsuccessful economic policies, and until 1999 by weak oil prices). Japan has been in recession for almost a decade, and its structural weaknesses only reinforce the global imbalances. Europe has been seen as a big hope for global recovery – but its potential role as an engine of global economic growth has not materialised in view of its own linkages to the US economy. Thus, one can observe a "new cyclical pattern" in the global economy. Unlike in the past, a slowdown in one major market/region is no longer offset by an acceleration of growth elsewhere.

How did we get into this situation? Jan puts the blame on several factors. The monetary policy of the US Fed was too loose in 1997-2000, which has led to an unsustainable growth of production capacity. Commodity prices declined in world markets, which has resulted in a deterioration of terms of trade of developing countries. There was also a fundamental change in the structure of savings-investment balances in the US with the dramatic turnaround in the fiscal balance. In contrast, there has not been a desired change in the savings-investment balance in Japan which would be required to stimulate domestic spending. As already noted, the US has become the sole major source of global demand, and the pattern of domestic adjustment has been excessively dependent on monetary policies. Exchange rates, on the other hand, while remaining channels of financial instability, have been far less disruptive in developed countries as compared to developing countries.

From: New Challenges of Crisis Prevention,
FONDAD, December 2001, www.fondad.org

The Changing Nature of Global Imbalances and Policies

In commenting on Jan's paper I would like to make two simple points. The first point is that global economic imbalances and cycles may be taking rather different shapes and patterns than what we observed in the 1970s and 1980s. The second point is that global cycles and imbalances can no longer be treated by macroeconomic policy alone but must be supported by structural reforms. The reason is that international capital movements and economic performance of countries are affected by factors that are of a structural nature, in addition to factors of macroeconomic origin. I shall turn to each of these two points separately.

In the 1970s and 1980s the debate about economic cycles and imbalances was mostly focused on the distribution of current account deficits among the major economies. A current account deficit in, say, the United States was traditionally associated with current account surpluses in Japan and Europe. This meant that the US current account deficits had to be financed by capital inflows into the United States from Japan and Europe (and from some other smaller countries, of course). As the US current account deficits increased, the need for external financing from both Japan and Europe increased. In the 1990s the pattern was similar even though the United States was now also running large current account deficits with China. But that is where the similarities probably also end. Today, the US current account deficits are no longer driven by fiscal deficits – which were dramatically turned into fiscal surpluses – but rather by an equally dramatic decline in the private savings rate.

Japan's current account surpluses, while continuing to be a permanent feature of the country's external position, are no longer driven exclusively by growth of exports. Equally important has been the relative stagnation of Japanese imports due to a prolonged domestic recession. The recession persisted virtually throughout the whole decade of the 1990s. The European economic picture has also changed. Earlier recessions produced double-digit unemployment rates, and despite recent improvements, the unemployment situation continues to be a matter of a considerable concern in Europe. The unemployment crisis is unparalleled in modern European history.

Using the example of these three major markets, it is evident that both the targets of domestic policies as well as the room for policy manoeuvring have been changed. Policymakers in Japan and Europe may now have to target not only external imbalances but also domestic variables. In the United States, the situation appeared for a long time different; the growing current account deficit accompanied a spectacular domestic growth. Moreover, the use of fiscal policy to restrain domestic aggregate demand

From: New Challenges of Crisis Prevention,
FONDAD, December 2001, www.fondad.org

was highly limited in view of the large fiscal surpluses, further increasing the importance of monetary policy. Today, the situation is different. The US current account deficit continues to rise but the economy is on the verge of recession.

Thus, the first big difference in the comparison of today with the past is the distribution of the growth poles in the global economy. Judging from the evidence concerning changes in the US current account, I think that the US has played a major role for the adjustment of particularly South-East Asian countries. The global markets have been driven in the 1990s by the rapid growth of the US economy and, until the financial crisis, by South-East Asia. I was, therefore, rather surprised to read in his paper that Jan kept emphasising the relatively minor role of the US economy as the engine of recovery and adjustment in crisis-stricken countries. He even suggests that the adjustment in South-East Asia was not helped by a rapid recovery of exports to the US. The figures on Asian exports and current account balances do not support this view.

The global economic imbalances can no longer be targeted with macroeconomic tools alone. The reason is, as noted above, the presence of various structural constraints on the performance of domestic markets in Japan and the European Union. This is the second big difference. Structural issues most frequently mentioned in the literature and the debates about Japan's economic performance include, in particular, serious problems of banks, heavy protection of domestic providers of financial services and of agriculture. These issues, together with persistent deflationary expectations of Japanese households, have been frequently stated as the most serious impediments to economic recovery. Similarly in Europe, the main problems are arguably structural rather than macroeconomic.[1] For example, the rigidity of labour markets, the highly restrictive and interventionist Common Agricultural Policy, and the continued lack of convergence of economic growth and policies within the EU are just three examples of structural impediments on European growth.[2]

Unfortunately, these Japan and Europe-specific issues are not discussed in the paper as the paper primarily focuses on the US. This is a rather

1 The problem is more complicated. There is a dynamism between macroeconomic and structural factors and policies. For example, unemployment cannot be blamed on labour market rigidities alone. When labour markets are subject to cyclical downturns, the unemployed may stay out of jobs long enough to lose their skills or may lose interest in new jobs altogether. In other words, a cyclical unemployment can turn into a structural one. For more details, see Blanchard and Wolfers (1999).

2 While most economists have accepted harmonisation of economic policies as a necessary condition for a successful functioning of a monetary union, I am aware of the recent work of Baldwin and Krugman who argue just the opposite with regard to the harmonisation of taxation policies. See Baldwin and Krugman (2001).

From: New Challenges of Crisis Prevention,
FONDAD, December 2001, www.fondad.org

unusual omission in the discussion of global imbalances. While there is no doubt that the US is a major if not the major player, any discussion of global issues should also cover the European and Japanese markets. Clearly, the question is if the growth of the US economy is slowing down, can Japan or Europe step in and take over the role of the engine of global growth? Is the Japanese recession itself not a source of major instability in financial markets? Given the importance of intra-European Union trade, can the EU ever become an engine of global growth on the same scale as the US?

Jan makes a distinction between conventional macroeconomic management, particularly Keynesian management of aggregate demand, and contrasts it with something relatively new – and I think quite interesting – that is, with the idea of a Schumpeterian (driven) economic cycle. He then asks the question what this implies for global and national economic management. He comes out with the answer that conventional macroeconomic management based on monetary and fiscal policies will not be sufficient to address domestic recessions due to the structural nature of the problem. I quite like this answer.

Let me turn to this point in some more detail. Starting from the Schumpeterian analysis of cycles, Jan hypothesises that the recent dramatic slowdown in the performance of the US economy is a reflection of "over-investment", in particular in the sector of information technology. The over-investment has led to what he calls an "information technology bubble". That is an interesting assertion that deserves serious discussion. But what evidence do we have of a significant over-investment? We can approach the answer from two different angles.

The first litmus test is to assess the aggregate rate of savings, which can be done, for example, through international comparisons. Thus, the question is whether the current level of aggregate domestic fixed investment in the US economy of about 18 percent of GDP (quoted in the paper) is a matter of concern by international standards? Is this a rate that, on the surface, would provide evidence suggesting a major imbalance in the US economy? The answer is that we cannot discern any major "investment bubble" from an international comparison. The Japanese economy, for example, has shown investment rates of about double the US rate.

A similar story can be told from historical comparisons. When we compare the US aggregate investment rates over time we find out, once again, that the 18 percent mark is not out of the ordinary, particularly for an economy that has been undergoing a major structural change. One should undoubtedly ask whether all these investments have not been put in the wrong technology. Jan's argument indeed implies that there may be some evidence of it. This, too, I would find surprising. When one considers the

From: New Challenges of Crisis Prevention,
FONDAD, December 2001, www.fondad.org

evidence on the growth of productivity, for example, it is quite clear that the investments in new technology have made a major impact. Also, when one looks at the pattern of bankruptcies in the US, my feeling is that the companies that have gone bankrupt have not so much failed because of the wrong choice of technology but because of poor execution.[3] Moreover, all of that investment has been obviously fully funded. So, from all these perspectives, which are admittedly somewhat superficial, it is difficult to speak of over-investment.

The second litmus test could be to look at the counter-part of investment, that is savings. Thus, in contrast to the over-investment argument there is another argument that should be emphasised, and that is the question of consumption in the US. As much as Jan argues in terms of over-investment, one could equally argue about the presence of over-consumption. There are three current indicators that would worry me if I were Mr. Greenspan. First, the current level of personal savings is negative – household spending has been driven by increased wealth generated by growing stock market values (the "wealth effect"). This reflects the fact that individual households have significantly increased their holdings of equities and stocks in their portfolios. Second, the overall investment financing is now greatly dependent on foreign savings. This, in turn, is due to the low level of private savings in the US. This increasing dependence on foreign savings must be raising the question of sustainability of investment financing in the future. Third, both household and corporate debt have dramatically increased, which makes the private sector highly vulnerable and sensitive to interest rates movements.

There are three other issues that Jan could have raised in his paper. The first one concerns the conduct of US monetary policy. Has US monetary policy been too tight in the 1990s? In retrospect, there are strong reasons to believe that the answer must be affirmative. This is in spite of the efforts by the Fed to inject additional liquidity into the system in the aftermath of the financial crises in Mexico and later in South-East Asia. The interest rate differentials between the US and Europe (let alone Japan) were high and, not surprisingly, they represented a major incentive for foreign investment into US dollar denominated assets. Admittedly, the real returns on investments were also higher in the US than in Europe or Japan. But even if we net out these "growth" effects, the real interest rates were probably far too high for the "old" economy, in view of the heavy burden of large

3 US company Lucent is perhaps a good example even though the company itself has so far avoided bankruptcy. The company has been producing top products in the industry but embarked on highly imprudent and risky practices such as the excessive use of suppliers' credit. The company has also suffered from other managerial problems.

From: New Challenges of Crisis Prevention,
FONDAD, December 2001, www.fondad.org

corporate debt. Moreover, the real interest rates were also beginning to be high in the "new" economy in view of the rapidly declining rates of return in this sector.

The other two issues take us back to structural policies. The first one concerns the conduct of exchange rate policies. There is now growing evidence that the US dollar might be "over-valued". The most direct evidence is the growing current account deficit, which has now reached dangerous levels. At these levels the capital inflows needed to finance the current account deficit may not be sustainable as investors become increasingly nervous about the impact of a strong dollar on US exporters and on the competitiveness of US producers in general.[4]

The third and final aspect that is not discussed by Jan concerns what I would call an "asset bubble". The prices of US dollar denominated assets have increased to such an extent that many respectable commentators have been repeatedly calling for market "corrections".[5] The bubble, too, is due to a number of structural and other non-macroeconomic factors such as the liberalisation of capital markets, the increased role of equities and securities in household portfolios as noted above, psychology and others.[6]

What Policy Options? - Policy Mixes and Super-Supervisor

What policy conclusions can we draw from this discussion?[7] I very much agree with Jan that the first issue on the agenda must be international cooperation. It is inconceivable that global imbalances will be corrected by one single country alone, irrespective of the fact that the country may be quite large. I personally hope that discussions and policy coordination efforts among heads of states and ministers of finance will continue with the present US administration. In the past there has been a recognition of the need to work together, particularly among the G-7 countries, with

---

4 See, for example, the alarming public letter written by two Nobel Prize winners M. Modigliani and R. Sollow published as an op-ed article in the *International Herald Tribune* of April 10, 2001.

5 The *Financial Times*, for example, has been arguing for at least two years that the US stock market is greatly over-valued if measured on the basis of price-earning ratios. They continue to make the same point even at the time of writing this note, despite a major correction that took place at the end of 2000 and beginning of 2001. For a more rigorous analysis, based on "Tobin's q", see Smithers and Wright (2000).

6 For a comprehensive review see, for example, Schiller (2000).

7 There is no shortage of recommendations that could be made with respect to a better management of "boom-and- bust" cycles. Most of these have recently been discussed in the context of the new financial architecture. These issues are not covered in my comments, which only refer to the issues raised in Jan Kregel's paper. For an example of broader policy recommendations see Institute for International Economics (1999).

From: New Challenges of Crisis Prevention,
FONDAD, December 2001, www.fondad.org

regard to macroeconomic coordination and exchange rate management. However, the noises that we have heard so far from the US with respect to international cooperation have not been too encouraging. I do not know which way the current US Treasury Secretary will take, but it seems that he is not in favour of such initiatives. On the one hand, the US administration claims to favour a strong US dollar, while at the same time the monetary policy tends to move towards easing. This will either lead to a conflict with the declared objective or it is an "intelligent" way of pushing the dollar down.

Another conclusion that can be drawn from Jan's paper is that nothing will help to address the "information technology bubble" until the adjustment takes place through a process of bankruptcies. If the IT industry has an excess capacity, it must slim down. But the downward adjustment may not be sufficient given the issues that Jan has raised in the paper and that I have raised now. The response should be a mixture of something more, including measures on the macroeconomic front, especially with regard to US monetary policy.[8]

The critical components of global policy "packages" must include measures addressing the prolonged stagnation in Japan. It is evident by now that the impetus to Japanese recovery can hardly lie in further fiscal expansion. There are also limits on the effectiveness of Japanese monetary policy considering the low level of interest rates prevailing in the country for several years. Perhaps the best use Japan can make of monetary policy today would be an attempt to "inflate", with the sole purpose of altering deflationary expectations that seem to have ravaged the consumer spending.[9] However, this could be a rather risky and dangerous path, which probably no politician will take upon himself. Moreover, the policy will not work if the principal cause of the stagnation is structural, such as the balance sheet problem of banks, about which we constantly hear.

Thus, the first important conclusion and recommendation that I would draw from the recent experiences of the largest economies is that domestic recession is unlikely to be reversed by a single policy instrument. Restoration of Japanese growth will most likely require a policy mix that addresses the structural problems noted above, in addition to standard macroeconomic policy tools. Such policy mixes will also be needed in the US and in the EU. Which policies will have to be applied will of course depend on the specific circumstances of each country. But long are the

8 It appears that the policy of monetary easing has already been started at the time of writing this comment.

9 This point has been persistently emphasised by Paul Krugman who has been a strong advocate of policies leading to a moderate inflation.

From: New Challenges of Crisis Prevention,
FONDAD, December 2001, www.fondad.org

times, in my view, that the treatment of global imbalances can be entirely focused on macroeconomic polices.

The treatment of "booms and busts" originating in global imbalances will require yet another step. Like in the case of banks and other financial institutions for which we require a proper supervision to ensure their sound practices, we need to make sure that countries maintain prudent economic policies. Like banks and other financial institutions, countries often function with borrowed and other external funds. When we supervise banks we do so primarily to ensure that depositors and creditors are not exposed to "excessive" risks. The same logic should basically hold in the case of countries. The exposure by countries to excessive risk has enormously increased with the globalisation of capital flows. Thus, the logical conclusion must be that we are in need of a *super-supervisor* that would oversee the creditworthiness and the practices of sovereign countries.

This is clearly a radical proposal. Unlike banks and other financial institutions, to use our earlier comparison, supervision of countries may interfere with countries' sovereignty. The latter could be difficult for countries to accept, and the bigger the country, the more resistance can be expected. The proposal would also have to include detailed recommendations concerning the availability and provision of information, jurisdictions of the super-supervisor, relationship with national authorities, its status and management etc. However, we already have *supra*-national institutions (e.g. IMF, IBRD, WTO), and we already have an institution that performs some of the supervisory functions – the IMF. The mandate of the latter is limited and would have to be considerably widened to fulfil its new tasks. Most importantly, the countries may only be persuaded to move in that direction if they are convinced that the benefits from more stability in global financial markets outweigh the costs of reduced sovereignty over their economic policies.[10]

10 Theoretically, one could conceive an alternative system that would be designed on the basis of self-regulation. The system has been proposed as an improvement of the current system of supervision of banks *within* a country. The proposal has run into a great deal of resistance, and it would be virtually unworkable in the case of a system operating between countries. On the proposal see in particular Calomiris (1998) and American Enterprise Institute (1998).

From: New Challenges of Crisis Prevention,
FONDAD, December 2001, www.fondad.org

References

American Enterprise Institute (1998), *The Postmodern Bank Safety Net*, American Enterprise Institute.

Baldwin, Richard and Paul Krugman (2001), *Agglomeration, Integration, and Tax Harmonisation*, CEPR Discussion Paper Series, No. 2630.

Blanchard, Olivier and Justin Wolfers (1999), "The Role of Shocks and Institutions in the Rise of European Unemployment: the Aggregate Evidence" mimeo (http:// web.mit.edu/blanchar/www/articles.html).

Calomiris, Charles W. (1998), *The IMF Imprudent Role as a Lender of Last Resort*, Cato Institute (www.cato.org/pubs/journal/cj17n3-11.html).

Institute for International Economics (1999), *Safeguarding Prosperity in a Global Financial System*, Institute for International Economics, Washington D.C.

Schiller, Robert (2000), *Irrational Exuberance*, Princeton University Press, Princeton.

Smithers, Andrew and Stephen Wright (2000), *Protecting Wealth in Turbulent Markets*, Cambridge University Press, Cambridge.

From: New Challenges of Crisis Prevention,
FONDAD, December 2001, www.fondad.org

Floor Discussion of "Policy Options for Advanced Countries to Address Global Economic Imbalances"

Excessive Spending by the Private Sector and its Lack of Macroeconomic Concern

Manuel Marfán compared the policy problems arising from the combination in the US of a fiscal surplus, a current account deficit and a high rate of economic growth, with the challenges Chilean policymakers – including Marfán himself – were facing in the 1990s.

"We were experiencing an acute policy dilemma because we had a very good fiscal surplus of between two and three percent of GDP and declining inflation, but an increase in the current account deficit. Simple accounting tells you that in a country with an excess of expenditure and a public sector surplus, the main problem is an excess of *private* expenditure. You know that, in the end, your current account becomes unsustainable. Then you are faced with a very weird policy dilemma.

A contractionary monetary policy alone will not reduce private spending because with an open capital account, the private sector will simply substitute domestic financing with foreign financing. So while this policy will not have much of an expenditure reducing effect, it will appreciate your currency and the last thing you want to do is to appreciate your currency even further. The other option is to apply a contractionary fiscal policy and lower your interest rates. That mix will reduce the level of expenditure and change relative prices. However, if you have a fiscal surplus, cutting back on government spending below the level legislated by civil society is politically unfeasible. So what did we do in Chile?

In the beginning, our policy was to increase the international interest rate by means of capital account regulations, which is a way of applying a contractionary monetary policy without the effect of arbitrage with respect to international interest rates. Simply put, you simultaneously raise your domestic interest rate and the cost of borrowing from abroad in order to avoid arbitrage. However, this type of policy does not work eighter from a political economic standpoint because, if you have a successful economy with many good, low-risk investment opportunities and a high expected rate of return, why should you prevent sound financing?

So in the end, you have a rising current account deficit, pressure to

From: New Challenges of Crisis Prevention,
FONDAD, December 2001, www.fondad.org

further increase your fiscal surplus and high interest rates, which appreciate your currency. At some point, this combination of events will explode. In the Chilean case, it exploded by the middle of the 1990s.

Similar things have happened in other economies such as Indonesia, Korea and Malaysia that had a fiscal surplus or balance, a current account deficit and the perception that they were very successful economies. This was also the case of Mexico before the 'Tequila' crisis. In Mexico, the fiscal situation was under control after many years of fiscal deficit; they had a fiscal balance in 1993-1994. However, with the current account deficit rising again, the private sector began expanding very quickly and contractionary monetary policy made Mexico even more vulnerable.

The US had the same ingredients. Its economy was perceived as very successful and there was a combination of a fiscal surplus and an increasing trade deficit. Again, there was a policy dilemma because the textbook policy mix prescribed in that case would have further increased the fiscal surplus in order to accommodate the private sector deficit, and would have reduced interest rates as the concomitant monetary policy to contractionary fiscal policy. Again, it would have been an unsustainable policy from a political economy point of view, especially on the eve of a presidential election.

The corollary of all this is that in the context of globalisation, the degree of freedom to manage the macroeconomic cycle is very small, especially for an economy that is perceived as successful. Although I am unsure what the policy response should be, policymakers should realise that private deficits do matter. However, private deficits are generally not included in the policy agendas, especially not in those of the Bretton Woods institutions who say that central banks should care about inflation, and fiscal policymakers should care about having a balance or a surplus.

In my view, the main problem is that, in general, international capital flows tend to go into the economies that are perceived as successful and less risky. In that sense, from a world perspective, the US trade deficit was not all that expansionary. Well, since it was a trade deficit, there was a surplus somewhere else that was expansionary. But the US was also receiving enormous amounts of capital flows, which was contractionary for the rest of the world. With these capital inflows, the private sector in the US could finance its deficit and increase its private debt, which is a true problem now.

I do not hear any discussion in both the developing and developed countries about how to manage excess private expenditures in the context of a globalised economy. I have not seen any macroeconomic text that has suggested a solution to this imbalance, even though the private sector's behaviour has been the main driving force behind the cycles we have observed since the 1990s."

Stephany Griffith-Jones agreed that excessive spending by the private

From: New Challenges of Crisis Prevention,
FONDAD, December 2001, www.fondad.org

sector lies at the heart of the imbalances that now exist in both the US and the other economies. "This may give some hints as to the policies to be pursued," she said. "One hint that presents itself is the huge expansion of credit. In the US, a lot of the purchases of shares is funded by loans. The last time that this happened was in the 1920s. In the case of the Mexican boom, prior to the crisis, there was a similar huge expansion of consumer credit and of lending to buy real estate. Maybe one of the instruments that has been disregarded is the policy of controlling private credit, both external and domestic, in a counter-cyclical way."

Griffith-Jones argued that more attention should be paid to the issue of expectations. "Since economies are so globalised and privatised, expectations are playing a larger role than before. Currently, in the US, although a significant slowdown has been taking place, people in the markets did not notice the imbalances until recently, and now that they see them, they are concerned – even overly concerned. That their extreme concern is making the situation much more dangerous is not news for those of us who have followed developments in emerging markets because that is how all these crises have occurred. It would be important to know how one could influence these expectations."

Barbara Stallings recalled the winter-spring 1994 exchange in the Financial Times between Alejandro Foley and Pedro Aspe, the then finance ministers of Chile and Mexico. "Their discussion had to do with exactly this point. Alejandro was criticising Pedro for running such a large current account deficit and Pedro said it did not make any difference because there was equilibrium in the fiscal accounts and therefore the private sector would know what to do with the situation. More interestingly, the point I want to follow-up on is the idea that the current account deficit was a temporary phenomenon because it existed in the form of imports of capital goods, the counterpart of the large amount of investment in Latin American economies. The issue was the assumption that 'if you give us a little time, the problem will resolve itself'. So one way – at least in principle – of trying to get out of the dilemma that Manuel portrayed so vividly is to see if there are ways of providing that extra time. Are there mechanisms, some combination of domestic and international policies, that could provide that extra time?"

José Maria Fanelli questioned the need for reducing private deficits. "Our discussion could be called 'how to kill a private deficit'. Yet, I wonder why we should even kill it? Maybe there are good private deficits? If we assume that the private sector allocates resources in the best way, increasing its productivity, why should we care about its deficits? Maybe the problem is not how to kill the private deficit but how to correctly manage and allocate the funds from abroad?"

From: New Challenges of Crisis Prevention,
FONDAD, December 2001, www.fondad.org

Liliana Rojas-Suárez said that when she was still at the Deutsche Bank a few months earlier, they raised the same question: were current account deficits sustainable? "Our basic conclusion was that we were looking at the wrong side of the external sector, that current accounts had a counterpart on the capital account. The question of whether the current account was sustainable or not is really the question of whether the stock of indebtedness was sustainable or not. Basically, that significantly relates to, first, the kind of inflows that are financing the current account and second, the productivity contribution of those flows. When people discuss whether current account deficits are good or bad, the focus is on the wrong part of the balance sheet. If it is financing the right project without distortions from the government, and it is a highly productive project, that project itself can justify a sustainable current account deficit. On the other hand, if it is based on an unsustainable stock of inflows, then you have a problem with the current account deficit."

John Williamson stressed that one should look at both the quality and the size of the current account deficit. "Whether it is financing increased investment or reduced savings, as was actually the case in Mexico, is relevant, but size is relevant too. There are a series of cases where countries have invoked what we in England call the 'Lawson doctrine', which states that the private sector deficit does not matter. The first place I heard this was right here in Chile in 1980-1981 sitting in this very chamber. That is what was being said at that time. Later, we heard it in Britain in the late 1980s and in Mexico in the mid-1990s. Beyond a certain size, one really needs to worry about the current account deficit. I certainly agree that all deficits should not be ruled out. Rather, one should look at how they are financed and what they are financing."

Manuel Marfán deepened the discussion by looking more closely at the private sector's behaviour. "There is no reason why any particular private agent is going to internalise the macroeconomic costs of the private sector's behaviour. It is no wonder that we have observed a currency appreciation in all these economies. The private sector has accounted for a lot of excess foreign currency because they are borrowing heavily from abroad. If you have an exchange rate misalignment from a more structural perspective, there is no private agent that will behave in a way that will correct that because he has no incentive to avoid macroeconomic vulnerability. Avoidance of macroeconomic vulnerability is a public good and that is why you have monetary policy in almost all the countries of the world.

Another disease that can be observed in some of these countries is asset inflation. Again, why should any particular private actor behave in a way so as to counter-effect asset inflation when the profits he makes are precisely the results of asset inflation, and where he tries to flee before the bubble

From: New Challenges of Crisis Prevention,
FONDAD, December 2001, www.fondad.org

explodes? In these types of cycles, there are incentives for the private sector to behave in a way that aggravates the macroeconomic imbalance. When you have an appreciating currency, excess borrowing from abroad becomes even cheaper because when you repay your debt you do it with an appreciated currency. If you are a rational private agent and consider this a misaligned exchange rate, then the rational bet should be 'I should repay my debt before this bubble explodes.' So what do you do? You borrow in the short-term market, which is precisely what should not be done from a macroeconomic standpoint.

The main problem is that while the private sector has good leverage ratios in its own balances, from an aggregate public standpoint the resulting overall economic imbalance may become very dangerous. So there are many public goods that the private sector is not internalising in its behaviour. That is precisely the responsibility of the macroeconomic authorities of the country. However, they usually do not care about private sector deficits."

Stephany Griffith-Jones added: "Referring to what Liliana said, of course it is true that the kind of inflows that are funding the deficit are important, but the problem is that during the debt build-up you are not exactly sure how volatile and reversible these flows are. I was at the Czech Central Bank when it had inflows of 16 percent of GDP. We did not know how reversible these flows were because even the FDI flows tended to have derivative positions and mechanisms to protect the private sector and make it easier to leave, which is good for them but more difficult for the country.

Similarly, in East Asia we all believed that the structure of flows was quite long-term until it changed very quickly at a time when the statistics and perceptions were not fully understood. Transparency of what the financial actors were doing internationally would have helped, but there is this very difficult dilemma. Therefore, I agree with John's point that in the end the size of the deficit always tends to be the bottom line. The expectation that you can somehow get around it does not tend to work. Barbara asked, 'How do you provide for this extra time?' I think that is very close to the nature of the funding. If you are subject to funding that is very easily reversible and subject to expectations, it becomes very difficult and you do not have the extra time."

Zdeněk Drábek disputed Marfán's view that the private sector has little concern for macroeconomic issues. "Why would the private sector not be willing to internalise macroeconomic concerns? When I was working for the Czech government, prime minister Klaus was very proud of saying that the reason why finance minister Balcerowicz in Poland failed was that he never went out to talk to the private sector about the conduct of macroeconomic policy. Klaus was very proud that he spent most of his

From: New Challenges of Crisis Prevention,
FONDAD, December 2001, www.fondad.org

time on the road explaining the government's policies. I think that it would really be in the interest of the private sector to know whether it over-borrows abroad at a time when domestic interest rates are increasing. Why would the private sector not understand that there could be excess borrowing?"

Liliana Rojas-Suárez followed-up: "The private sector is very concerned about the risks it takes. The problem is that the risks have been taken away from the private sector and absorbed by the government. The private sector is willing to become over-indebted because of the deposit insurances, the explicit bailouts and the promises of fixed exchange rates. If they do not have to hedge or save and if they are not properly supervised, why should they care? If these wrong government policies are not addressed, the private sector will remain unaware of the risks it incurs or perceive them as being absent."

Manuel Marfán insisted on the private sector's lack of concern for the macroeconomic soundness of a country. "There are many examples of why the private sector behaves in this apparently non-rational way. During the 1990s, all the international crises began in countries that were exhibiting fiscal surpluses and large current account deficits. The opening up of the capital account implied a race between different private sector holdings over who would have a larger share of the asset properties within the country. When you have that type of competition, in the end, the group that buys the most assets from already existing assets by borrowing abroad is the largest risk seeker. The final equilibrium point of the economy is determined by the least risk adverse participants of the private sector in this type of risk.

I would say that, in general, private investors do not know very much about macroeconomics. They hire people that know, and depend very heavily on their credibility. If an expert says that private sector deficits do not matter, then the investors do not care about private sector deficits. I went to the World Bank meetings in October 1998 in Washington at a time when international investors were panicking and fleeing to safety. The only thing they cared about was how contaminated the Chilean economy was by the Brazilian case. When they made the investment they did not ask that question because Chile was a very popular, safe place to invest and they did not have the time and did not want to spend the money to make a rational, well-informed decision."

US Domination and G-7 Coordination

Amar Bhattacharya brought the discussion back to Jan Kregel's original point that in the end, the issue of global imbalance is dominated by one

country, the US. "That is true and it is also true that in the US the private sector imbalance dominates. However, the interesting question is: what are the policy conflicts that will play out in the US and to what extent do they have symmetrical repercussions in the rest of the world? For example, when the US is put in the position of not only having to deal with a continuing current account deficit but also declining capital inflows at the same time, it creates an exchange rate conundrum. The pressure on the US dollar puts the Fed in a position of having to defend the dollar with high interest rates, when, at the same time, the economy is going into a tailspin. The unwinding of the US deficit has a disproportionate bearing on the global imbalance."

Zdeněk Drábek disagreed with the view that it is only one country that matters. "Other poles of growth centres also matter a great deal. The US has been growing much faster than Europe, which was growing much faster than Japan, which has not been growing. In the global economy, who is the engine? Is there one or are there several? If there has been only one, or one and a half and Japan was out of it, I would be concerned. So far we have been discussing issues of macroeconomic policies, but if the growth of Japan and the European Union also matters, then structural issues need to be considered too. In order to make recommendations about how to deal with boom-and-bust cycles and address global economic imbalances, one also needs to be concerned with the relationship between the macroeconomic policies and the structural constraints that exist in some of these major economies, particularly Japan and the European Union."

José Antonio Ocampo wondered what sort of G-7 coordination would be needed to avoid a world recession and whether Europe would be able to apply counter-cyclical policies. "In order to avoid a world recession or slowdown, should coordination among major economies mean some sort of expansionary policy in Europe or Japan? Japan has been trying to do that for several years with little success. One thing that has struck me about the European cycles is that they are very similar to Latin American cycles. I always think that we in Latin America are highly dependent on US cycles, but why should Europeans follow the same sort of cycle? Does that mean Europe does not have enough policy autonomy? Is Europe unable to undertake counter-cyclical monetary policies because of a dominance or fad in the way of doing monetary policy? The US has practiced some sort of counter-cyclical policy, and, as Jan shows in his paper, the result was extremely pro-cyclical for the US. In 1998, the US lowered interest rates in an effort to avoid a world recession but it unexpectedly turned out to be an extremely pro-cyclical policy for the US, which probably further fed the bubbles. Even if we agree that macroeconomic coordination among major G-7 members is needed, what sort of international

rules have to be designed for that to have effect? In my view, European monetary policies have been extremely pro-cyclical through the 1990s at least."

John Williamson disagreed with Ocampo's suggestion that European monetary policy has been pro-cyclical. "I think there was one pro-cyclical incident in that awkward phase when Europe more or less had a fixed exchange rate, but monetary policy was being fixed by one country, Germany. While monetary policy in 1992 was anti-cyclical from a German standpoint, it created a recession in the rest of the area that did not have the same positive shock coming from German re-unification. While there was a real problem there, I don't think that you can otherwise make that case at all."

José Antonio Ocampo retorted: "It is quite paradoxical that the European business cycle is actually quite similar to the US business cycle. There was a slowdown in 1995, a boom in 1997, a slowdown after that and then a boom in 2000. The pattern is the same as in Latin America. However, the business cycle of Latin America is determined by capital flows and moderate but generally pro-cyclical policies. So my question is: what is happening in Europe? Does it not have enough freedom to isolate itself from these cycles?"

Stephany Griffith-Jones gave her view of Europe's monetary policy. "The things that are driving the European monetary policy have to do partly with the policy of the European Central Bank, which does not have employment growth, for example, as an objective while the Fed does. The other thing is that European monetary policy has been driven by the process of the euro and a certain recessionary bias in the Maastricht criteria, which many people argue is not necessary. There were problems within the European economy that made the macroeconomic response quite restrictive, but it did not really have to be that restrictive."

John Williamson elaborated on the feasibility of G-7 policy coordination. "Should we be thinking of creating a dispute settlement mechanism in the financial regime, as Jan Kregel suggested in his paper? Unfortunately, that is not the way macroeconomic coordination has traditionally been advanced. Any suggestion that macroeconomic coordination meant that country number one, let's not give it a name, should subjugate its national interests to helping other countries was regarded as simply inadmissible. There should be a mutual gain and not an expectation that some countries will change their behaviour so as to advance the interests of other countries. One cannot get an audience for a discussion about this issue unless one starts from that position. I may regret it, but that is the way I tried to formulate my suggestions about macroeconomic policy coordination in the 1980s.

From: New Challenges of Crisis Prevention,
FONDAD, December 2001, www.fondad.org

Suppose that one does start from that position, where does that lead you? The basic thesis in Jan Kregel's paper is that there are some real shocks coming from the developed world in terms of variations in the level of aggregate demand, and exchange and interest rates that have some very adverse repercussions on developing countries. How does one try to address such shocks? In terms of aggregate demand, any suggestion to developed countries that they pump up demand to levels that are too high, inflationary in the present day in age, is going to be unacceptable.

The argument is then made in Jan's paper that Europe and Japan were essentially overestimating their natural rates of unemployment in the 1980s and 1990s when they could have had more demand without having significantly more inflation. Finally, during the US' experiments in the second half of the 1990s, everyone was very pleasantly surprised to find that you could get more growth if you didn't automatically step on the brakes when unemployment hit the latest estimate of the natural rate; in this case you could just ease it down. While this is probably a valid point to criticise macroeconomic policies, I am not sure if one needs to look for a new macroeconomic policy regime.

Regarding exchange rate volatility, the interests of developing countries are not at stake unless they themselves put them at stake. Surely, the East Asians suffered because the dollar appreciated. But why did they suffer? Because they pegged to the dollar instead of to a basket of currencies. The remedy was in their own hands! So here I disagree with Jan. When it comes to interest rates, on the other hand, I tend to agree. There is nothing that developing countries can do to defend themselves against variations in interest rates. As we just heard from Manuel Marfán, Chile tried but had very limited success and eventually ran into the same sorts of problems. However, it was rather interesting that Manuel said that, apart from Singapore and Ireland, the other similar countries all ran into crises, and because Chile did not, it might suggest that there was some value in the maligned capital inflow restrictions after all.

What can one do about it? My suggestion in the 1960s and the 1980s was very similar to Jan's suggestion, which involves an active fiscal policy, which is not very popular nowadays. That argument says that President Bush should have indeed proposed a tax increase although it wouldn't have gone down well with the US Congress."

Rogério Studart pointed at yet another problem of US' domination of global cycles. "I think that the financial problems that the US is facing at the moment are going to strongly affect FDI in developing countries. For countries like Brazil and Mexico, this is going to be a huge financial problem. Why? Because in most of these countries, FDI has been based on mergers and acquisitions of firms, which have been financed through the

From: New Challenges of Crisis Prevention,
FONDAD, December 2001, www.fondad.org

issuing of bonds in highly liquid markets in the US. That liquidity is now shrinking and transnational companies are having a problem of finding other sources of finance.

Nowadays, Brazil is financing a huge part of its balance of payments through FDI. We can make adjustments in the flows, but how can we make adjustments in the stocks? We need to refinance the stocks and if we cannot get it from FDI, where is it going to come from? If there is a decline in FDI this year, which I think is going to happen because of the declining mergers and acquisitions boom, Brazil and Mexico are going to face problems. What kind of policies could be drawn in order to face the huge stock disequilibrium problem that most of the developing countries now have?"

Reply by Jan Kregel

"John Williamson raises a very important point about how a dispute settlement procedure for financial policy conflicts should be viewed. While the WTO represents a dispute settlement mechanism for trade factors, there is currently no such mechanism for settlement of financial policy conflicts. For some time, we at UNCTAD have informally been suggesting some sort of forum in which developing and developed countries could meet and discuss how interest and exchange rate policies in developed countries affect developing countries.

When the Bretton Woods System was set up, the idea of exchange rate management was to eliminate the exchange rate as a commercial policy tool. An institution was set up to stabilise exchange rates so that exchange rate adjustments would respond to the so-called 'fundamental factors', but not be used as an aggressive tool of commercial policy. Interest rates more or less serve in the same category. According to the Fleming-Mundell model, you use interest rates to allow you to run a larger commercial deficit to pursue full employment than you might have done in the past.

Basically, behind the entire Bretton Woods System there is an idea that some sort of framework should be set up to stabilise exchange rates which provides a common benefit for everybody involved. The problem is that after the Jamaica agreements, although this presumption was maintained, there were no formal guidelines set down as to how intervention would occur in order to prevent exchange rates from being used or moved in ways that provided commercial benefit.

This is precisely the case of 'overshooting'. There is nothing that tells us precisely when an exchange rate change gives a country an advantage in commercial policy by overshooting. We raised this issue of a potential WTO arrangement in dispute settlement with the idea that there would be

From: New Challenges of Crisis Prevention,
FONDAD, December 2001, www.fondad.org

some sort of mechanism and principles outlining when intervention should occur on which everybody agreed. Regarding how they should be set up, I have already mentioned John's proposal for pegging exchange rates to real effective exchange rates. If free trade is the best overall system for maximising the benefit of everybody concerned, we need some sort of exchange rate stability that prevents exchange rates from distorting the free trade system. It would be to the benefit of everybody concerned to set down precise regulations, which do not exist in the Jamaica agreements, in order to create a dispute settlement. If a country did not respond to the 'Williamson Rules' then they could be taken to the equivalent of the WTO because they did not adjust their fiscal deficit and caused some damage. There should be the presumption that there is a common benefit to exchange rate stability.

In response to Rogério's question about stocks and flows, I again refer to the Fleming-Mundell model which presumes that you can have all sorts of flows and not pay any attention to the stocks that were built up and the problems they might eventually cause. If there is an ignorance of the stock problem, it comes from this model, which uses interest rates in order to generate flows that allow you to run particular current account positions. However, if you do this over a long period of time, you start building up stocks and, eventually, private financial market participants will recognise these as Keynesian finance schemes. Countries that have to continue borrowing in order to meet their interest payments on the outstanding stock of debt will eventually be cut off from the provision of finance and then you do run into a crisis.

It should be pointed out that the US is the basic economy driving the system and if it moves dramatically for a long period, you will have two particular problems. One is the demand impact, which is going to be very strong and direct. The second is the experience of 1998 when we saw a position that threatened the persistence of the US expansion. In particular, there was a drying up of financing in high-yield markets for a large number of US companies that were driving the expansion. This led to a very sharp run to liquidity and an appreciation, rather than a depreciation, of the dollar. It would be extremely negative for the rest of the world if this happened again."

From: New Challenges of Crisis Prevention,
FONDAD, December 2001, www.fondad.org

Part II

Policy Options for Developing Countries to Counter Boom-Bust Cycles

From: New Challenges of Crisis Prevention,
FONDAD, December 2001, www.fondad.org

From: New Challenges of Crisis Prevention,
FONDAD, December 2001, www.fondad.org

Counter-Cyclical Policies in the Developing World

José Antonio Ocampo

1 Introduction

The volatility and contagion characteristic of international financial markets which dominated emerging economies during the 1990s have long historical roots.[1] Indeed, from the mid-1970s to the end of the 1980s, Latin America and other regions in the developing world experienced a long boom-bust cycle, the most severe of its kind since that of the 1920s and 1930s. The shortening and the intensity of boom-bust cycles have been distinctive features of the recent decade.

Viewed from the perspective of developing countries, the essential feature of instability is the succession of periods of intense capital inflows, in which financial risks significantly increase, facilitated and sometimes enhanced by pro-cyclical domestic macroeconomic policies, and the latter phase of adjustment, in which not only these risks are exposed but also the pro-cyclical character of the measures adopted to "restore confidence" amplify the flow (economic activity) and stock (portfolio) effects of adjustment processes. An essential part of the solutions to these problems lies in strengthening the institutional framework to prevent and manage financial crises at the global level.[2] This paper looks, however, at the role of developing countries' domestic policies in managing the pro-cyclical effects of externally generated boom-bust cycles. It draws from an extensive recent literature on the subject[3] and from the experience of Latin America in the 1990s.[4] It is divided into seven sections. The first two look at the international asymmetries that lie behind and the specific macroeconomics of boom-bust cycles in the developing world. The following four sections

1 See, for example, in relation to Latin America, Bacha and Díaz-Alejandro (1982).

2 There is an extensive literature on these issues. See, for example, Eatwell and Taylor (2000), Eichengreen (1999) and Ocampo (1999, 2001).

3 Among the many recent contributions to the analysis of this issue, see CEPAL/ECLAC (1998a, Part Three; 2000a, Chapter 8), Ffrench-Davis (1999), Furman and Stiglitz (1998), Helleiner (1997), Ocampo (2001) and World Bank (1998), Chapter 3.

4 Latin America's experience is regularly analysed in ECLAC's economic surveys. See also CEPAL/ECLAC (2000a, 2001a and 2001b).

From: New Challenges of Crisis Prevention,
FONDAD, December 2001, www.fondad.org

look at the exchange rate regime, liability policies, prudential regulation and supervision, and fiscal stabilisation. The final section presents some conclusions.

2 International Macroeconomic and Financial Asymmetries

The dynamics of boom-bust cycles is deeply rooted in the operation of financial markets, but also in some basic asymmetries which characterise the world economy. These asymmetries have largely (though not exclusively) centre-periphery dimensions. The first of them is basically macroeconomic. It is closely associated to the fact that the centre economies' national currencies (now regional in the case of most members of the European Union) are also international currencies. This gives them some degree of freedom in the use of national monetary policies to manage domestic business cycles – although this might come at the possible cost of exchange rate fluctuations in the current world of floating exchange rates among major currencies. Through the effects of monetary policies on economic activity and the exchange rates, the centre economies generate externalities to the rest of the world that are not internalised by policymakers. These externalities are intensely felt in the developing world, which must adjust to them, lacking the freedom that the ability to supply international currencies provides. Putting it succinctly, whereas the centre of the world economy is made of "policy *making*" economies, the periphery is largely "policy *taking*".

Indeed, developing countries are expected to behave in ways that generate "credibility" to financial markets, which implies, in particular, that they are expected to adopt pro-cyclical (austerity) policies during crises. This generates, in turn, economic *and* political economy pressures to also adopt pro-cyclical policies during booms. Non-financial agents and financial intermediaries resist restrictions that authorities may impose on their ability to spend or lend during booms, whereas authorities are only happy to have some breathing space after a period of austerity. Expressed in another way, not only are the incentives to adjust absent during booms, but the drastic application of austerity rules during crises distorts the incentives that economic agents and authorities face *throughout* the business cycle.

The sharp distinction between "policy takers" and "policy makers" certainly goes a long way to summarise a major feature of the international economy today. However, it should be qualified in two important ways. First of all, to the extent that there are domestic policy alternatives, developing countries are not entirely "policy takers". This paper is precisely

From: New Challenges of Crisis Prevention,
FONDAD, December 2001, www.fondad.org

focused on such anti-cyclical policy alternatives. This does not, however, eliminate the basic assertion that current incentives in the world order push them in the opposite direction, i.e. towards pro-cyclical policies. Second, the degrees of freedom of macroeconomic policy vary greatly among the centre economies, and are certainly greater in the country that has the major international currency (the United States) than in the rest of the industrial world.

The macroeconomic asymmetry we have emphasised has, as a counterpart, basic asymmetries in financial markets. Four must be singled out:

(a) between the size of developing countries' domestic financial markets and the size of the speculative pressures they may face;[5]
(b) the nature of the currencies in which external debt is denominated;
(c) significant difference in the maturities supplied by domestic financial institutions; and
(d) the depth of domestic financial (particularly security) markets.

Viewed as a whole, this implies that domestic financial markets in the developing world are significantly more "incomplete" than those in the industrial world, indicating that some financial intermediation must necessarily be done through international markets. It also implies that integration into international financial markets is integration between unequal partners.[6]

The associated risks can only be partly covered (e.g. currency risks of large non-financial intermediaries) or partly corrected by domestic policy actions. However, most of the policy actions that emerging economies can adopt to prevent risks merely reflect (or reproduce) rather than correct the macroeconomic and financial asymmetries we have mentioned. In a very deep sense, developing countries thus face *country* rather than *currency* risks; the latter are, in a way, a mere manifestation of the former.

3 The Macroeconomics of Boom-Bust Cycles

The association between capital flows – and, more particularly, the net resource transfer – and economic growth has been a strong feature of Latin America in the 1990s (and, for that matter, the past quarter century), as Figure 1 indicates. This fact highlights the central role played by the mechanisms by which externally generated boom-bust cycles are transmitted.

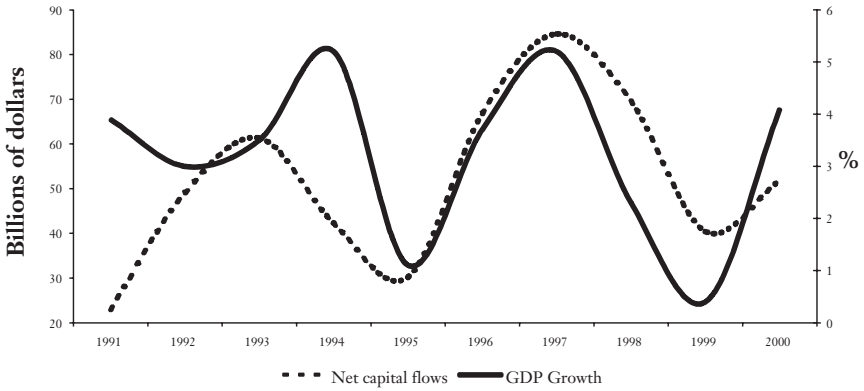
---

5 See, on this, the very interesting remarks of the Council on Foreign Relations Task Force (1999), Chapter III.

6 CEPAL/ECLAC (2000a, Chapter 8); Studart (1996). Hausmann's (2000) concept of "original sin" captures the second and third of these asymmetries.

These mechanisms are well known. The boom encourages an increase in public and private spending, which will inevitably lead to an adjustment whose severity will bear a direct relationship to how excessive spending levels were, as reflected in accumulated liabilities, and to the degree of mistrust generated among market agents. Temporary public sector revenues and readily accessible external credit during booms generate an expansion of public sector spending, which will be followed by a severe adjustment later on when those conditions are no longer present. A private lending cycle is generated by shifts in the availability of external financing and the cyclical patterns of international interest rates and spreads; availability and spreads are associated, in turn, to significant asymmetries in risk evaluation during booms and crises. Private sector debt overhangs accumulated during the boom will subsequently trigger a sharp contraction in lending, usually accompanied by a deterioration in bank portfolios.

Figure 1 Latin America: Net Capital Inflows and GPD Growth
(billions of dollars and percentages)



Source: ECLAC.

Furthermore, poor prudential regulation and supervision of financial systems, and a lack of experience of financial agents in evaluating risks will lead to a significant underestimation of risks, reinforcing the credit expansion during the boom. Both phenomena are characteristics of periods of rapid financial liberalisation. Nevertheless, even well-regulated systems are subject to periodic episodes of euphoria when risks are underestimated. Private sector borrowing and spending sprees spur sharp upswings in the prices of certain assets (particularly financial instruments and real estate). This produces a wealth effect that, in turn, accentuates the boom in

spending, but the reverse will hold when spending, borrowing and, consequently, asset prices fall.

Capital account booms – as well as high export prices – will also induce exchange rate appreciation and strong adverse pressures on exchange rates and interest rates during the ensuing busts. In turn, exchange rate fluctuations will have significant wealth effects in countries with large net external liabilities. The capital gains generated by appreciation during booms further fuel the spending boom, whereas the capital losses generated by depreciation have the opposite effect and may weaken domestic financial intermediaries. Thus, the wealth effects of exchange rate variations are certainly pro-cyclical in debtor countries. The income effects may have similar signs, at least in the short run.

The associated macroeconomic volatility is costly in both economic and social terms. In economic terms, it increases uncertainty, reduces the efficiency of fixed capital investment and leads economic agents to prefer "defensive" microeconomic strategies that avoid committing fixed capital in the production process. For all of these reasons, it discourages investment. The higher risk levels faced by the domestic financial system biases lending to shorter maturities, reducing its ability to intermediate the savings-investment process and generating a riskier financial structure (see Section 5). In turn, exchange rate appreciation during booms may generate "Dutch disease" effects on tradable sectors which become permanent if significant learning processes are present.[7] In social terms, there is growing evidence in Latin America of ratchet effects of employment, poverty and income distribution through the business cycle, associated to permanent losses in human capital during crises.[8]

The most important policy implication of the high costs of externally-generated boom-bust cycles is that the developing country authorities need to focus their attention on crisis prevention, i.e. on managing booms, since in most cases crises are the inevitable result of poorly managed booms. Concentration of attention in crisis prevention recognises, moreover, an obvious fact: that the degree of freedom of the authorities may be greater

---

7 This is a characteristic of "Dutch disease" effects in their dynamic version. See Krugman (1990, Chapter 7) and van Wijnbergen (1984).

8 The aggregate unemployment rate of Latin America (and of several individual countries) shows such a pattern: a sharp increase during the "Tequila" crisis that had not been entirely reversed when the Asian crises hit and increased it again. The evolution of poverty in the region over the past two decades shows the same pattern: an increase in the 1980s that was not entirely reversed in the 1990s, despite the fact that by the end of decade per-capita GDP was above the 1980 level. The patterns of poverty in Argentina and Mexico through crisis and recovery show a similar performance, as reflected in the fact that by 1997 and 1998 poverty was not back to 1994 levels. See CEPAL/ECLAC (2000a, Chapter 8; 2000b, Chapter 1) and Lustig (2000).

during booms than during crises. The way crises are managed is not irrelevant, however. In particular, different policy mixes may have quite different effects on economic activity and employment, on the one hand, and on the domestic financial system, on the other.

The following sections of this paper argue for a mix based on four different sets of policies: (a) managed exchange rate flexibility *cum* capital account regulations to provide room for anti-cyclical monetary and financial policies; (b) strong "liability policies" to improve the debt profiles of the countries (which include but go beyond capital account regulations); (c) an anti-cyclical management of prudential regulation and supervision of domestic financial systems; and (d) fiscal stabilisation. All policies have limited effects, given the reduced degree of freedom that authorities face and the reduced effectiveness of some instruments in globalised markets. Thus, pragmatic policy mixes in which these different elements support each other in their anti-cyclical task are called for. The specific emphasis will vary depending on the macroeconomic constraints and traditions of each particular country.

4 The Exchange Rate Regime

In today's open developing economies, the exchange rate regime is subject to two conflicting demands, which are not easily reconcilable. These demands are closely associated to the more limited degree of freedom that authorities face in a world of limited policy instruments and reduced policy effectiveness.

The first is a demand for stability. It comes from trade, but also from the capital account and domestic price stability. With the dismantling of traditional trade policies, the real exchange rate has become a key determinant of international competitiveness. Given the central role that exports play in the growth process, competitive real exchange rates are essential for sustained economic growth. From the point of view of the capital account, a "hard peg" is seen as a useful instrument to avoid the pro-cyclical wealth effects of exchange rate fluctuations in countries with significant liabilities denominated in foreign currencies.[9] Finally, from the point of view of macroeconomic policy, stability is associated with the need to anchor the price level as part of anti-inflationary programmes or, more generally, to guarantee price stability in small open economies. It should be emphasised that these two demands for stability may be inconsistent with that which comes from trade. Thus, an anti-inflationary programme or hard pegs lead

9 See, for example, Hausmann (2000) and Calvo (2000).

From: New Challenges of Crisis Prevention,
FONDAD, December 2001, www.fondad.org

many times to overvalued exchange rates that run counter to the objective of international competitiveness.

The second is a demand for flexibility. It also comes from both the trade and the capital account. On the trade side, exchange rate flexibility has been traditionally seen as a useful instrument to accelerate real exchange rate adjustments in the face of external shocks (terms of trade changes, exchange rate adjustments or growth trade of major trading partners, etc.). Also, boom-bust cycles in international capital markets generate a demand for flexible macroeconomic variables to absorb, in the short run, the positive and negative shocks they generate. Given the reduced effectiveness of some traditional policy instruments in open economies, particularly monetary policy, the exchange rate plays an essential role in helping to absorb such shocks. This demand for flexibility explains the fairly broad trends towards greater exchange rate flexibility that characterises the world economy since the breakdown of the dollar standard in the early 1970s.

The relevance of these conflicting demands is not captured in the call by many analysts to adopt either of the two polar exchange rate regimes, either a totally flexible exchange rate or a currency board (or outright dollarisation). Indeed, the case for polar regimes is a call to recognise that policy autonomy is quite limited in today's world and, thus, that any attempt to manage the conflicting demands on exchange rate policy should be abandoned. The "revealed preference" of authorities in the developing world has been, on the contrary, to choose intermediate regimes of managed exchange rate flexibility (such as crawling pegs and bands, and dirty flotation), in an attempt to reconcile these conflicting demands.[10]

Currency boards certainly introduce built-in institutional arrangements that provide for fiscal and monetary discipline, but they reduce and, in the limit, eliminate the room for stabilising monetary and credit policies – both of them necessary to prevent crises and to facilitate recovery in a post-crisis environment. It thus tends to generate stronger swings in economic activity and asset prices. Probably as a result of this, these arrangements are not speculation-proof. More generally, they are not free from pro-cyclical, externally induced pressure on interest rates. In this regime, adjustment to cyclical or structural overvaluation (if the economy gets "locked" in an overvalued exchange rate during the transition) is painful, as it relies on open deflation to operate. Structural overvaluation in a currency board regime may thus become a bet to slow economic growth (mixed with strong business cycles).

---

10 For recent defenses of intermediate regimes, see CEPAL/ECLAC (2000a, Chapter 8), Frankel (1999), Williamson (2000) and part III of this volume. For an interesting review of the recent controversy on exchange rate regimes, see Velasco (2000).

On the other hand, the volatility characteristic of freely floating exchange rate regimes increases the costs of trade transactions, thus reducing the benefits of international specialisation, and may be subject to "Dutch disease" effects during booms. Moreover, they run the risk of merely becoming a different way of transmitting boom-bust cycles through the pro-cyclical wealth and (possibly) income effects of exchange rate variations. Moreover, anti-cyclical monetary or credit policies under freely floating exchange rate regimes with open capital accounts enhance cyclical exchange rate fluctuations. Indeed, the key problem faced by the authorities during booms in economies with open capital accounts is that the capital market exerts downward pressure on interest rates, appreciation pressure on the exchange rate, or a combination of the two. In these cases, any attempt by policymakers to counteract the upward trend in private and public spending by using contractionary monetary policies will only fuel the trend towards exchange rate appreciation. The opposite occurs during crises. Thus, if authorities consider that the exchange rate fluctuations generated by boom-bust cycles are too strong to start with, they may be encouraged to use monetary policy to smooth out such fluctuations. Thus, the "monetary autonomy" features of free floating may not materialise.

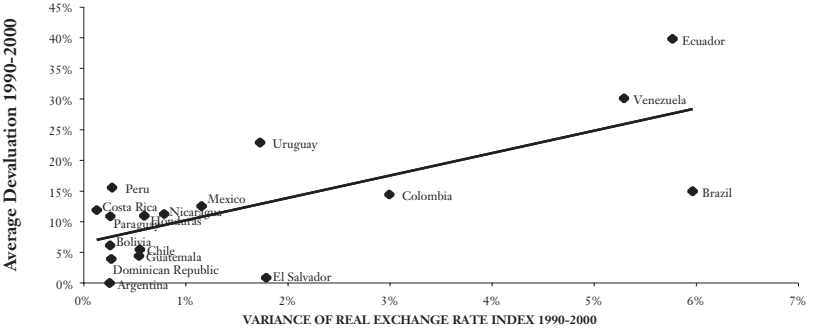
The ability of a flexible exchange rate regime to smooth out the effects of externally generated boom-bust cycles thus depends on the capacity to effectively manage an anti-cyclical monetary and credit policy without enhancing pro-cyclical exchange rate patterns. This is only possible in managed exchange rate regimes *cum* capital account regulation. It is only in this case that we can speak of effective, though certainly limited, "monetary autonomy". During periods of euphoria, this means that macroeconomic policies must focus on mitigating upward pressures on private and public sector spending through contractionary monetary (classical open market operations, sterilised accumulation of international reserves, and higher reserve or liquidity requirements) or credit (caps on credit growth) policies, supported by capital account regulations that restrict the additional capital inflows induced by upward pressures on domestic interest rates. During crises, it means that the ability to effectively use monetary policy as an expansionary policy tool without generating excessive devaluation may require effective regulations to avoid capital outflows. To avoid credibility issues and guarantee effectiveness, the basic mechanisms of capital account regulation should be in place *throughout* the business cycle, and should be tightened or loosened depending on the phase of the cycle (see Section 5 below).

Although intermediate regimes thus provide the only framework for anti-cyclical policies in "business cycle/policy taking" countries, and thus some degree of "monetary autonomy", their scope is limited. First, it

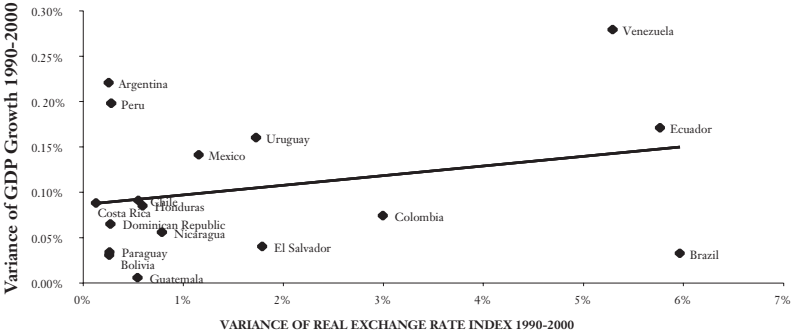
From: New Challenges of Crisis Prevention,
FONDAD, December 2001, www.fondad.org

Figure 2 Macroeconomic Stability in Latin America

A. Average Devaluation 1990-2000 vs. Variance of Real Exchange Rate Index



B. Variance of GDP Growth 1990-2000 vs. Variance of Real Exchange Rate Index



C. Average GDP Growth 1990-2000 vs. Variance of Real Exchange Rate Index

Source: ECLAC.

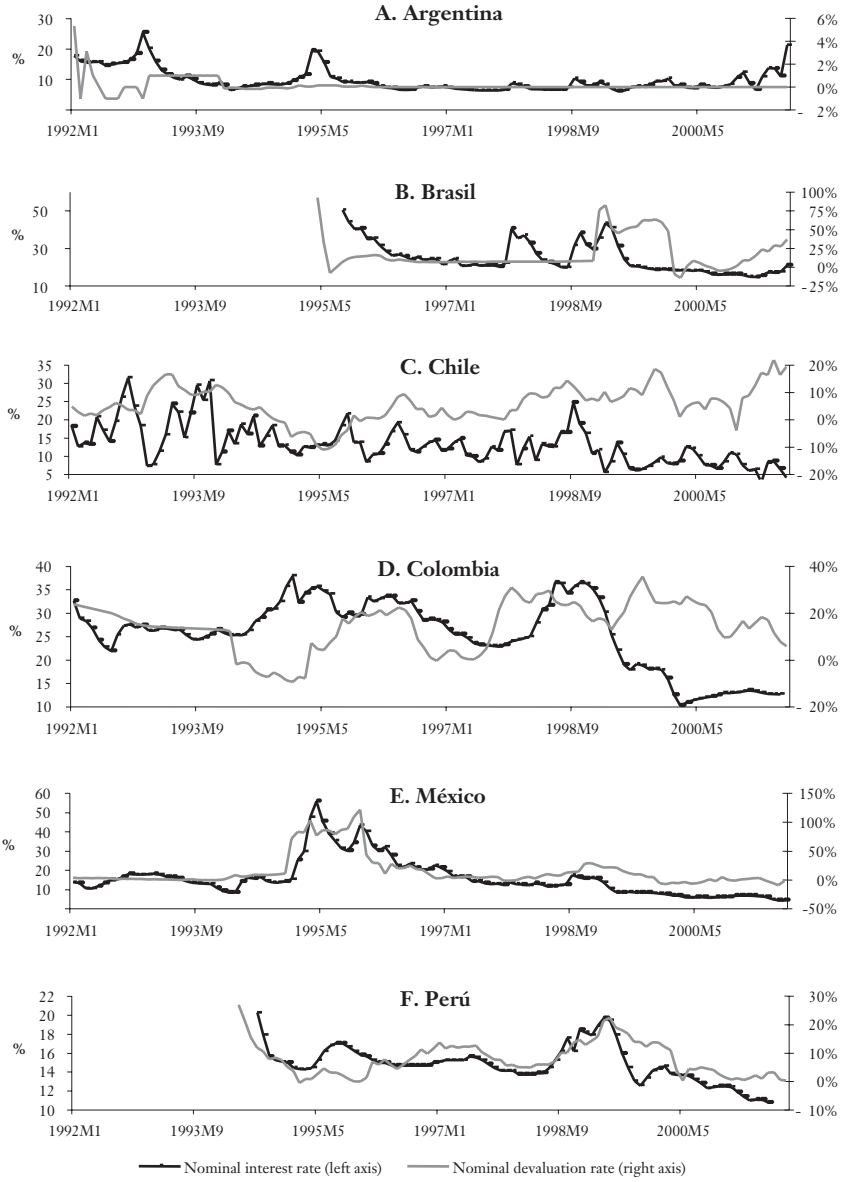
depends on the effectiveness of capital account regulations as a macroeconomic policy tool, a point which we will return to below. Second, all intermediate ("dirty") options are subject to speculative pressures if they do not generate credibility in markets, and the costs of defending the exchange rate from pressures is very costly in this context. Third, sterilised reserve accumulation during booms is also costly. Although the additional reserves may provide additional "self-insurance" during the ensuing crises, sterilisation may generate significant quasi-fiscal losses.

Available Latin American evidence is difficult to evaluate in the light of incomplete evidence on certain regimes (particularly, the absence of sustained clean floats – the closest example being Mexico since the Tequila crisis) and frequent regime changes. Figures 2 and 3 provide some evidence.

Figure 2 indicates that a low degree of real exchange rate volatility has been characteristic of quite different exchange rate histories, including Argentina's currency board but also Costa Rica's crawling peg (*cum* highly publicly-controlled domestic financial sector) and Peru's highly managed float. The highest volatility has been characteristic of Brazil which tried, unsuccessfully, to defend an overvalued exchange rate inherited from the Real Plan. El Salvador, with a virtual peg, and Colombia, which had through most of the decade a system of exchange rate bands, have also experienced high real exchange rate volatility. On the other hand, there is only weak association between real exchange rate volatility and GDP volatility, and only a weak negative association between the first of these variables and GDP growth. Argentina, under the currency board regime, may be viewed as an example of lack of exchange rate flexibility generating high GDP volatility (the highest in the region after Venezuela).

Generally speaking, authorities have found it difficult to undertake anticyclical monetary policies under *all* regimes. Broadly speaking, interest rate movements follow the external cycle in all countries: an increase during the Tequila crisis, a reduction during the capital boom that followed, and an increase during the 1997-1999 international financial crisis (see Figure 3). The intensity of these cycles varies according to country and through time. Argentina under the currency board has not been immune to upward pressures on interest rates during crises – strong during the Tequila crisis and somewhat weaker but repetitive during the recent crisis – and, as indicated, has experienced the strongest business cycle. However, the highest interest rates have been characteristic of episodes in which the authorities have used contractionary monetary policy to avoid or slowdown devaluation pressures in the foreign exchange market. This is the case of Brazil from late-1997 to early 1999, Chile in the second semester of 1998, Colombia during most of 1998 and part of 1999, Mexico during the Tequila crisis,

Figure 3 Domestic Interest Rates and Devaluation in Latin America Countries



Source: ECLAC, based on central banks statistics.

and Peru during the second semester of 1998 and most of 1999. All these episodes were very costly in terms of economic activity. The parallel movement of exchange rates and interest rates is striking in some countries, particularly in Mexico and Peru. True episodes of "monetary autonomy", in the sense that we have used this term above, have been rare, but have been more frequent in Chile and Colombia, the two countries that have used more actively capital account regulations as a complement to exchange rate policy.

5 Liability Policies

The accumulation of risks during booms will depend not only on the magnitude of domestic and private debts but also on their maturity structure. Capital account regulations thus have a dual role, as a macroeconomic policy tool which provides some room for anti-cyclical monetary policies, and as a "liability policy" to improve private sector external debt profiles.[11]

Viewed as a macroeconomic policy tool, capital account regulations are aimed at the direct source of the boom-bust cycles: unstable capital flows. If they are successful, they will provide some room to "lean against the wind" during periods of financial euphoria, through the adoption of a contractionary monetary policy and reduced appreciation pressures. If effective, they will also reduce or eliminate the quasi-fiscal costs of sterilised foreign exchange accumulation. During crisis, they may also provide "breathing space" for expansionary monetary policies.

Viewed as a liability policy, capital account regulations recognise the fact that the market generously rewards sound external debt structures.[12] This is because, during times of uncertainty, the market responds to *gross*, rather than merely net, financing requirements, which means that the rollover of short-term liabilities is not financially neutral. Under these circumstances, a time profile that leans towards longer-term obligations will considerably reduce the level of risk. This indicates that an essential component of economic policy management during booms should be measures to improve maturity structures, of both the private and the public sector, and both external and domestic liabilities.

The greatest innovation in this sphere made during the 1990s was unquestionably the establishment of reserve requirements for foreign-

11 The emphasis on liabilities rather than balance sheets here recognises the fact that they are the most important element of national balance sheet for short-term macroeconomic purposes, together with liquid assets.

12 An excellent recent treatment of this issue is Rodrik and Velasco (2000).

currency liabilities in Chile and Colombia. The advantage of this system is that it creates a non-discretionary prudential price incentive that penalises short-term foreign-currency liabilities more heavily. The corresponding levy is significantly higher than the level that has been suggested for an international Tobin tax.[13]

There is fairly broad agreement on the effectiveness of this mechanism as a liability policy, but considerable controversies about its role as a macroeconomic policy tool.[14] Indeed, as indicated in the last section, neither country has been free from pro-cyclical macroeconomic policy patterns. However, judging from the solid evidence on the sensitivity of capital flows to interest rate spreads in both countries, reserve requirements do influence the volume of capital flows at given interest rates. In Colombia, where these regulations have been modified more extensively over the years, there is strong evidence that increases in reserve requirements have reduced flows[15] or, alternatively, have been effective in increasing domestic interest rates.[16]

Some problems in the management of these regulations have been associated with changes in the relevant policy parameters. The difficulties experienced in this connection by the two countries have differed. In Chile, the basic problem has been the variability of the rules pertaining to the exchange rate, since the upper and lower limits of the exchange rate bands (in pesos per dollar) were changed on numerous occasions until they were abandoned in 1998. During capital account booms, this gave rise to a "safe bet" for agents bringing in capital since when the exchange rate neared the floor of the band, the probability that the floor would be adjusted downward was high. In Colombia, the main problem has been the frequency of the changes in reserve requirements. Changes foreseen by the market have sparked speculation, thereby diminishing the effectiveness of such measures for some time following the requirements' modification. It is interesting to note that in both countries, reserve requirements have been seen as a complement to, rather than as a substitute for, other macroeconomic policies which have been certainly superior in Chile.

The three basic advantages of this regime are its prudential nature, its simplicity and its non-discretionary character. Capital account regulations

13 The equivalent tax in 1994-1998 was about 3% in the Chilean system for one-year loans, and an average of 13.6% for one-year loans in Colombia and 6.4% for three-year loans.

14 For documents which support the effectiveness of these regulations, see Agosin (1998), Agosin and Ffrench-Davis (2001), Le Fort and Budnevich (1997), Le Fort and Lehman (2000), Cárdenas and Barrera (1997), Ocampo and Tovar (1999) and Villar and Rincón (2000). For an opposing view, see de Gregorio, Edwards and Valdés (2000) and Valdés-Prieto and Soto (1998).

15 Ocampo and Tovar (1999).

16 Villar and Rincón (2000).

during booms, which have a preventive character, are certainly preferable to crisis-driven quantitative controls during crises. Indeed, such controls generate serious credibility issues and may be ineffective since a tradition of regulation and supervision may be necessary to make them operative. Indeed, permanent regulation regimes that are tightened or loosened through the cycle are superior to the alternation of free capital mobility during booms and quantitative restrictions on outflows during crises. However, simple quantitative restrictions that rule out certain forms of indebtedness (e.g. short-term foreign indebtedness, except trade credit lines) may also be preventive in character and simpler to administer in underdeveloped regulatory regimes.

These direct regulations on the capital account can be partly substituted by prudential regulation and supervision as an alternative to capital account regulations. In particular, higher liquidity (or reserve) requirements for the financial system's foreign-currency liabilities can be established. Also, the rating of domestic lending to firms with substantial foreign liabilities can be reduced and the provisions associated to such loans increased. The main problem with these options is that they have no effect on the foreign-currency liabilities of non-financial agents and indeed may encourage them to borrow more abroad. Accordingly, it needs to be supplemented with other disincentives for external borrowing by those firms, such as tax provisions applying to foreign-currency liabilities (e.g. allowing only partial deductions for interest payments abroad), public disclosure of the short-term external liabilities of firms and regulations requiring rating agencies to give special weight to this factor.[17]

In the case of the public sector, direct control by the Ministry of Finance (in some cases by the Central Bank) is the most important liability policy, including control on borrowing by other public sector agencies and autonomous sub-national governments.[18] Public sector debt profiles that lean too far towards short-term obligations may be manageable during booms, but may become a major destabilising factor during crises. This remark is equally valid for external and domestic public sector liabilities. The most straightforward reason for this is that residents holding short-term public sector securities have other options besides rolling over the public sector debt, including capital flight. This is even clearer if foreigners are allowed to invest in domestic public sector securities.

Thus, when gross borrowing requirements are high, the interest rate will have to rise in order to make debt rollovers attractive. Higher interest rates are also immediately reflected in the budget deficit, thereby rapidly

17 For an analysis of this issue, see World Bank (1998), p. 151.
18 CEPAL/ECLAC (1998b), Chapter VIII.

changing the trend in the public sector debt, as happened in Brazil in the late 1990s. In addition, rollovers may be viable only if risks of devaluation or future interest rate hikes can be passed on to the government, generating additional sources of destabilisation. Mexico's widely publicised move to replace in 1994 peso-denominated securities (Treasury Certificates or Cetes) by dollar-denominated bonds (Tesobonos), which was one of the crucial factors in the crisis that hit the country late in that year, was no doubt facilitated by the short-term profile of Cetes.[19] The short-term structure of Brazil's debt is also the reason why, since late 1997, fixed-interest bonds were swiftly replaced by variable-rate and dollar-denominated securities, which cancelled out the improvements that had been made in the public debt structure since the launching of the Real Plan. On the contrary, Colombia's excellent external debt profile and the relatively sound maturity structure of its domestic public sector liabilities, in conjunction with its lower levels of indebtedness, were positively reflected in spreads during the recent crisis, despite its deteriorating fiscal position.

The extent to which it will prove possible to issue longer-term domestic debt securities will depend on the depth of the local capital market, a characteristic that includes the existence of secondary debt markets to provide liquidity to those securities. For this reason, measures designed to deepen the countries' credit and capital markets play a crucial role in improving domestic debt profiles. This statement is also valid for an adequate development of long-term private capital markets. However, due to the lower risk levels and the greater homogeneity of the securities it issues, the central government has a vital function to perform in the development of longer-term primary and secondary markets for securities.

6 Anti-Cyclical Prudential Regulation and Supervision

One of the painful lessons that have been learned during recent decades in Latin America, as in the rest of the world, is just how costly financial crises are in terms of duration and cumulative loss of GDP.[20] Some of the largest costs have to do with the sharp reduction in the time horizon of firms experiencing difficulties. The losses are not only of a short-term character since they involve physical assets of firms as well as intangibles (including human and social capital and firms' business reputation, along with the consequent loss of business contacts) that have taken years to build up.

19 See Sachs, Tornell and Velasco (1996) and Ros (2001).

20 IMF (1998), Chapter 4. On the situation in Latin America, see also Rojas-Suárez and Weisbrod (1996) and CEPAL/ECLAC (2001a).

Also, the credit system is paralysed for long periods, thereby slowing the recovery of economic activity.

The origins of problems that erupt during financial crises are well known. Generally, they are the result of a rapid increase in lending and weak prudential regulation and supervision, a combination that becomes explosive under conditions of financial liberalisation in the midst of an external capital boom. The underestimation of risks characteristic of environments of economic optimism is then mixed with inadequate practices for evaluating risks, both by private agents and by supervisory agencies.

This underscores just how important the sequencing of financial liberalisation processes is and, in particular, how necessary it is to make such liberalisation contingent upon the prior establishment of appropriate prudential regulation and supervision and the design of satisfactory information systems to guarantee a proper microeconomic functioning of markets. Since the learning process – by financial intermediaries, depositors and the authorities – is not instantaneous, the liberalisation process needs to be gradual in order to guarantee that financial intermediaries have the time they need to learn how to manage higher risks, depositors how to use the new information channels, and the authorities how to supervise the system more strictly and how to modify prudential regulations and reporting requirements on the basis of accumulated experience.

Prudential regulation should ensure, first of all, the solvency of financial institutions by establishing appropriate capital adequacy ratios relative to the risk assumed by lending institutions, strict write-offs of questionable portfolios and adequate standards of risk diversification. In developing countries, the corresponding regulations should take into account not only microeconomic, but especially the *macroeconomic* risks they face. In particular, due attention needs to be paid to the links between domestic financial risks and variations in interest and exchange rates. Due to the greater financial volatility that characterises these countries, capital standards should probably be higher than those proposed by the Basel Committee on Banking Supervision of the Bank for International Settlements. On the other hand, strict regulations should be established to prevent currency mismatches (including those associated with hedging and related operations), to reduce imbalances in the maturities of assets and liabilities of financial intermediaries and the timely write-off of due loans.[21] Prudential regulation should be particularly strict with respect to the intermediation of short-term external credits.

In addition, prudential regulation needs to ensure adequate levels of

21 For an interesting analysis of the problems created by these mismatches and their effects during recent crises, see Perry and Lederman (1998).

liquidity for financial intermediaries, so that they can handle the mismatch between average maturities of assets and liabilities associated to the financial system's essential function of "transforming maturities" which generates risks associated to volatility in deposits and/or interest rates. This underscores the fact that liquidity and solvency problems among financial intermediaries are far more interrelated than traditionally assumed, particularly in the face of macroeconomic shocks. Reserve requirements, which are strictly an instrument of monetary policy, provide the liquidity in many countries, but their declining importance makes it necessary to find new tools. Moreover, their traditional structure is not geared to the specific objective of ensuring financial intermediaries' liquidity. The most important innovation on this area is undoubtedly the Argentine system created in 1995 which sets liquidity requirements based on the residual maturity of financial institutions' liabilities (i.e. the number of days remaining before reaching maturity).[22] These liquidity requirements – or a system of reserve requirements with similar characteristics – have the additional advantage that they offer a direct incentive to the financial system to maintain a better liability time structure.

Properly regulated and supervised financial systems are structurally superior in terms of risk management, generating incentives for financial intermediaries to avoid assuming unmanageable risks during booms. Nonetheless, they are incapable of internalising all the collective risks assumed during such periods, which are essentially of a macroeconomic character and entail, therefore, coordination problems that exceed the possibilities of any one intermediary. Moreover, they have a pro-cyclical bias in the way they operate. In fact, it is during crises that, albeit with some delay, the excess of risk assumed during economic booms becomes evident. This ultimately makes it necessary to write-off loan portfolios – thereby reducing financial institutions' capital and, hence, their lending capacity. This, in conjunction with the greater subjectively perceived level of risk, is what triggers the "credit squeeze" that characterises such periods.

This is why instruments need to be designed that will introduce a counter-cyclical element into prudential regulation and supervision. First of all, provisions should be estimated when loans are disbursed on the basis of *expected* losses, taking into account the full business cycle, rather than on the basis of effective loan delinquency or short-term expectations of future loan losses, which are highly pro-cyclical. This means, in fact, that provisioning should approach the criteria traditionally followed by the insurance rather than the banking industry. Moreover, prudential regulation and supervision should be strengthened during periods of financial euphoria to

22 Banco Central de la República Argentina (1995), pp. 11-12.

take into account the increasing risks that financial intermediaries are incurring. Within the realm of monetary and credit policy, higher reserve requirements or restrictions on credit growth during boom periods can perform this function. Within that of regulatory policy, additional prudential provisions or liquidity requirements, especially for short-term liabilities, can be established or raised. Ceilings on the reference price for financial and real estate assets that are to be used as collateral for loans could also be imposed (e.g. a provision under which no more than a specified, decreasing proportion of an asset's commercial value may be used for this purpose). Deposit insurance may also be raised, and stricter standards for debt classification and write-offs could be adopted. Capital adequacy ratios should preferably focus on long-term solvency criteria, but could also be eventually raised during periods of financial euphoria.

During financial crises, although authorities must adopt clearly defined rules to restore confidence, the application of stronger standards should be gradual to avoid a credit squeeze. Of course, in order to avoid moral hazard problems, authorities must never bail out the owners of financial institutions, guaranteeing that their net worth is written off if the institutions are intervened.

It must be emphasised that prudential regulation and supervision have limits and costs that cannot be overlooked. Stricter standards in developing countries to manage macroeconomic risks increase the costs of financial intermediation, reducing international competitiveness and creating a rbitrage incentives to use international financial intermediation as an alternative. Some classic objectives of prudential regulation, such as risk diversification, may be difficult to guarantee when macroeconomic issues are at the root of the difficulties. Moreover, as indicated, prudential regulation involves some non-price signals, and prudential supervision is full of information problems and is a discretionary activity susceptible to abuse, indicating that the faculties of the authorities must be subject to strict limits and controls.

7 Counter-Cyclical Fiscal Management

Regardless of what exchange rate and capital account regime countries choose, fiscal policy always provides a useful counter-cyclical device. The importance of countering excess spending during booms became quite clear in Latin America during the debt crisis of the 1980s when the over-expansion of externally financed public expenditure during the preceding boom generated, in almost all countries, fiscal imbalances that ultimately proved to be untenable. The painful lesson learned was that the lack of

fiscal discipline during booms is extremely costly. A greater degree of fiscal discipline was thus maintained throughout the 1990s.

Nonetheless, the return to a more orthodox policy stance has entailed the continued implementation of unmistakably pro-cyclical fiscal practices.[23] This is attributable to the tendency for public revenues to behave pro-cyclically. Under these conditions, setting fiscal targets independently of the business cycle implies that spending during booms is partly financed by temporary revenues. Given the inertia of current spending and pro-cyclical debt service patterns – a reflection of pro-cyclical interest and exchange rates – sharp fluctuations in public sector investment may be required, generating high costs and inefficiencies.

Other pro-cyclical rules are associated to explicit or implicit guarantees granted to the private sector. A case in question is the implicit guarantees of financial risks, which are reflected in the rescue packages for both domestic financial intermediaries and private firms with large external liabilities. A second case is public sector guarantees to private sector investments in infrastructure (such as minimum revenue or profit guarantees, or explicit coverage of exchange rate risks). Guarantees have three elements in common: (a) they are not always transparent; (b) they encourage *private* spending during booms; it is, thus, during periods of euphoria that implicit public sector spending in the form of an equivalent insurance premium is actually incurred, indicating that accrued public sector spending during these periods is underestimated; however, (c) disbursements (cash spending) are incurred during crises, increasing borrowing requirements and crowding out other public sector spending. They thus encourage pro-cyclical private and public sector spending in non-transparent ways.

It is, therefore, necessary for authorities to set fiscal targets in terms of some sort of definition of the structural budget deficit. This means, first of all, that countries need to design mechanisms to sterilise temporary fiscal revenues. The experience gained from the use of stabilisation funds for commodities with significant fiscal impact – the National Coffee Fund in Colombia (the first of its kind), the copper and petroleum stabilisation funds set up in Chile and, more recently, the petroleum stabilisation funds of Colombia and Venezuela – must be extended to broader fiscal stabilisation funds.

A well-designed social safety net to protect vulnerable groups during crises is another useful alternative, particularly if mixed with funds to finance them that are accumulated during booms. An essential advantage of social safety nets is that spending is intrinsically counter-cyclical.

In any case, in order to avoid unsustainable trends in the public sector

23 See CEPAL/ECLAC (1998b).

debt, a counter-cyclical management of public finances during booms is essential in order to manage crises. Setting annual target for the budget deficit without reference to the business cycle actually implies the existence of a narrow time horizon, a practice that reflects risk-aversion on the part of authorities. This is why the development of suitable institutions for broadening that horizon, such as fiscal stabilisation funds or properly designed social safety nets, is essential in order to preclude a return to practices seen in the past.

These policies must be complemented with adequate mechanisms to manage public sector guarantees. With respect to financial risks, the liability and anti-cyclical regulatory policies analysed in previous sections are the proper answer. In relation to other guarantees, it is necessary that the "insurance premium equivalent" of such guarantees be regularly estimated and budgeted, and the corresponding resources transferred to special funds created to serve as a backup in the event the corresponding contingencies become effective.

It should be emphasised, finally, that an anti-cyclical fiscal policy greatly facilitates a broad prudential regulation of booms. In particular, the counterpart of resources accumulated in fiscal stabilisation funds should be increased accumulation of foreign exchange reserves and reduced currency appreciation. Such reserves also provide "self-insurance" against sharp cuts in foreign exchange availability and are the necessary counterpart to smoother fiscal adjustment during crises.

8 Conclusions

Given existing asymmetries in the world economy, the volatility of capital flows generates strong pro-cyclical performance in "policy taking" developing countries. An essential part of the solution to this problem lies in strengthening the institutional framework to prevent and manage financial crises at the global level. This paper focuses, however, on the room for domestic anti-cyclical policies in the developing world, which is a necessary counterpart of such international architecture.

The basic claim of the paper is that adequate anti-cyclical policy packages can be adopted based on a mix that involves: (a) managed exchange rate flexibility *cum* capital account regulations, preferably reserve requirements or Tobin taxes on inflows that have a prudential character; a well-managed flexibility is a better alternative than the choice of polar regimes in order to deal with the conflicting demands that foreign exchange rate systems face today, whereas capital account regulations may be essential to guarantee some effective monetary autonomy; (b) strong "liability

policies", aimed at improving private and public sector debt profiles; prudential capital account regulations provide such an instrument in the case of private liabilities, but a mix of prudential regulations and explicit taxation of external liabilities may also do the job; (c) strong prudential regulation and supervision of domestic financial systems, with anti-cyclical instruments; and (d) counter-cyclical fiscal stabilisation funds and adequately-designed social safety nets.

All policies have, nonetheless, limited effects given the more reduced degree of freedom that developing country authorities face in globalised markets. Thus, pragmatic integrated strategies in which these different elements support each other in their anti-cyclical task are called for. The specific emphasis will vary depending on the macroeconomic constraints and traditions of each particular country.

References

Agosin, Manuel (1998), "Capital Inflow and Investment Performance: Chile in the 1990s", In: Ricardo Ffrench-Davis and Helmut Reisen (eds.), *Capital Inflows and Investment Performance: Lessons from Latin America*, OECD Development Centre/ECLAC, Paris.

——— and Ricardo Ffrench-Davis (2001), "Managing Capital Inflows in Chile", In: Stephany Griffith-Jones, Manuel F. Montes and Anwar Nasution (eds.), *Short-Term Capital Flows and Economic Crises*, Oxford University Press and UNU/WIDER, New York.

Bacha, Edmar and Carlos F. Díaz-Alejandro (1982), "International Financial Intermediation: A Long and Tropical View", In: *Essays in International Finance*, Essays in International Finance No. 147, International Finance Section, Department of Economics, University of Princeton, May. Reprinted in Andrés Velasco (ed.), *Trade, Development and the World Economy*, *Selected Essays of Carlos F. Díaz-Alejandro*, Oxford, Basil Blackwell, 1988, Chapter 8.

Banco Central de la República Argentina (1995), *Informe Anual*, Buenos Aires, October.

Calvo, Guillermo (2000), "The Case for Hard Pegs in the Brave New World of Global Finance", Paper presented at the ABCDE Europe, Paris, June 26.

Cárdenas, Mauricio and Felipe Barrera (1997), "On the Effectiveness of Capital Controls: The Experience of Colombia During the 1990s", In: *Journal of Development Economics*, Vol. 54, No. 1, Special, October.

CEPAL/ECLAC (2001a), *Crecer con Estabilidad: el Financiamiento del Desarrollo en el Nuevo Contexto Internacional*, CEPAL/Alfaomega, Bogotá.

From: New Challenges of Crisis Prevention,
FONDAD, December 2001, www.fondad.org

——— (2001b), *Una Década de Luces y Sombras: América Latina y el Caribe en los Años Noventa*, CEPAL/Alfaomega, Bogotá.
——— (2000a), *Equity, Development and Citizenship*, United Nations, (LC/G.2071- SES.28/3), Santiago de Chile.
——— (2000b), *Social Panorama of Latin America, 1999-2000*, United Nations (LC/G.2068-P), Santiago de Chile.
——— (1998a), *América Latina y el Caribe: Políticas para Mejorar la Inserción en la Economía Mundial*, Fondo de Cultura Económica, second version, revised and updated, Santiago de Chile. An earlier English language version appeared in 1995, *Latin America and the Caribbean: Policies to Improve Linkages with the Global Economy*, United Nations (LC/G.1800/Rev.1-P), Santiago de Chile.
——— (1998b), *The Fiscal Covenant. Strengths, weaknesses, challenges*, United Nations (LC/G.2024), Santiago de Chile, April.
Council on Foreign Relations Task Force (1999), *Safeguarding Prosperity in a Global Financial System. The Future International Financial Architecture*, Institute for International Economics, Washington D.C.
De Gregorio, José, Sebastián Edwards and Rodrigo Valdés (2000), "Controls on Capital Inflows: Do They Work?", In: *Journal of Development Economics*, Vol. 63, No. 1, pp. 59-83, October.
Eatwell, John and Lance Taylor (2000), *Global Finance at Risk*, The New Press, New York.
Eichengreen, Barry (1999), *Toward a New International Financial Architecture: A Practical Post-Asia Agenda*, Institute for International Economics, Washington D.C.
Ffrench-Davis, Ricardo (1999), *Reforming the Reforms in Latin America: Macroeconomics, Trade, Finance*, Macmillan, London.
Frankel, Jeffrey (1999), *No Single Currency Regime Is Right for All Countries or at All Times*, Essays in International Finance No. 215, International Finance Section, Department of Economics, University of Princeton.
Furman, Jason and Joseph Stiglitz (1998), *Economic Crises: Evidence and Insights from East Asia*, Brookings Papers on Economic Activity, No. 2.
Hausmann, Ricardo (2000), "Exchange Rate Arrangements for the New Architecture", In: *Global Finance from a Latin American Viewpoint*, IDB/OECD Development Centre, Paris.
Helleiner, Gerald K. (1997), "Capital Account Regimes and the Developing Countries", In: *International Monetary and Financial Issues for the 1990s*, Vol. 8, UNCTAD, New York.
IMF (1998), *World Economic Outlook*, Washington D.C., May.
Krugman, Paul (1990), *Rethinking International Trade*, The MIT Press, Cambridge MA.
LeFort, Guillermo and Sergio Lehmann (2000), "El Encaje, los Flujos de

Capitales y el Gasto: una Evaluación Empírica", Documento de Trabajo No. 64, Central Bank of Chile, February.

——— and Carlos Budnevich (1997), "Capital-Account Regulations and Macroeconomic Policy: Two Latin American Experiences", In: *International Monetary and Financial Issues for the 1990s*, Vol. 8, UNCTAD, New York.

Lustig, Nora (2000), "Crises and the Poor: Socially Responsible Macroeconomics", In: *Economia, A Journal of the Latin American and Caribbean Economic Association (LACEA)*, No. 1, Brookings Institution, Washington D.C., December.

Ocampo, José Antonio (2001), *International Asymmetries and the Design of the International Financial System*, Serie Temas de Coyuntura No. 15, CEPAL, Santiago de Chile, March.

——— (1999), "International Financial Reform: the Broad Agenda", In: *CEPAL Review 69*, Santiago de Chile, December.

——— and Camilo Tovar (1999), *Price-Based Capital Account Regulations: The Colombian Experience*, ECLAC Financiamiento del Desarrollo Series No. 87 (LC/L.1262-P), Santiago de Chile.

Perry, Guillermo and Daniel Lederman (1998), "Financial Vulnerability, Spillover Effects and Contagion: Lessons from the Asian Crises for Latin America", In: *World Bank Latin American and Caribbean Studies Viewpoints*, Washington D.C.

Rodrik, Dani and Andrés Velasco (2000), "Short-Term Capital Flows", In: Boris Pleskovic and Joseph E. Stiglitz (eds.), *Annual World Bank Conference on Development Economics 1999*, Washington D.C.

Rojas-Suárez, Liliana and Steven R. Weisbrod (1996), "Banking Crises in Latin America: Experiences and Issues", In: Ricardo Hausmann and Liliana Rojas- Suárez (eds.), *Banking Crises in Latin America*, IDB, Washington D.C.

Ros, Jaime (2001), "From the Capital Surge to the Financial Crisis and Beyond: Mexico in the 1990s", In: Ricardo Ffrench-Davis (ed.), *Financial Crises in 'Successful' Emerging Economies*, ECLAC/Ford Foundation.

Sachs, Jeffrey, Aaron Tornell and Andrés Velasco (1996), "The Mexican Peso Crisis: Sudden Death or Death Foretold?", NBER Working Paper No. 5563, Cambridge MA, May.

Studart, Rogério (1996), "The Efficiency of the Financial System, Liberalization and Economic Development", In: *Journal of Post Keynesian Economics*, Vol. 18, No. 2.

Valdés-Prieto, Salvador and Marcelo Soto (1998), "The Effectiveness of Capital Controls: Theory and Evidence from Chile", In: *Empirica*, No. 25, Kluwer Academic Publishers, The Netherlands.

Van Wijnbergen, Sweder (1984), "The Dutch Disease: a Disease after All?", In: *Economic Journal*, No. 94.

Velasco, Andrés (2000), *Exchange-Rate Policies for Developing Countries: What Have We Learned? What Do We Still Not Know?*, G-24 Discussion Paper Series, No. 5, UNCTAD/Centre for International Development, University of Harvard, New York.

Villar, Leonardo and Hernán Rincón (2000), "The Colombian Economy in the Nineties: Capital Flows and Foreign Exchange Regimes", Paper presented at the Conference on *Critical Issues in Financial Reform: Latin American/Caribbean and Canadian Perspectives*, organised by The Munk Centre for International Studies Program on Latin America and the Caribbean, University of Toronto, June.

Williamson, John (2000), *Exchange Rate Regimes for Emerging Markets: Reviving the Intermediate Option*, Institute for International Economics, Washington D.C.

World Bank (1998), *Global Economic Prospects and the Developing Countries, 1998-99*, Washington D.C., December.

Comment on "Counter-Cyclical Policies in the Developing World," by José Antonio Ocampo

Liliana Rojas-Suárez

José Antonio's paper reminded us of the deeply pervasive characteristics of the boom-bust cycles in emerging markets and made a number of specific policy recommendations to deal with them. I want to focus my comments on José Antonio's proposals.

Basically, the policy proposals in the paper derive from fully recognising the extremely high level of economic and financial volatility prevailing in emerging markets. In this context, it is unthinkable that policymakers could decide on policies without taking into account the highly volatile nature of the environment. In other words, while policymakers cannot know *when* the economy will be hit by another shock, they know that the probability of a shock hitting the economy at any time is extremely high. A policymaker from an emerging market who is not prepared for such an eventuality is, simply put, not suitable for the job.

High levels of economic and financial volatility in emerging markets can be associated with two major characteristics of these economies. The first is the lack of continuous access to international capital markets and the second is the lack of developed domestic capital markets. These two constraints create a major policy puzzle: On the one hand, due to the lack of sufficient domestic capital, policymakers would like to see foreign capital flowing into the country. On the other hand, however, they also know that capital inflows can reverse very quickly at any time, creating large disturbances in the domestic economy.

With this analytical framework in mind, I would like to focus on the recommendations in the paper, which can be summarised as: (a) managed exchange rate flexibility, (b) strong liability policy, (c) anti-cyclical management of regulation and supervision, and (d) anti-cyclical fiscal policies. My comments will focus mostly on the issue of exchange rate regime and the issue of financial supervision, but I also want to make brief comments on the other two recommendations.

From: New Challenges of Crisis Prevention,
FONDAD, December 2001, www.fondad.org

Fiscal Policies

Regarding fiscal policies, I could not agree more with José Antonio's policy recommendation for anti-cyclical fiscal management. It is a policy that has been on the reform agenda for a long time, but has only been adopted by very few countries. Let me give you the example of a small country in Latin America: Peru. The country is currently facing a major political crisis, right after the shock from the international financial crisis. However, in spite of all these negative events, the forecasted recession in the country is not as large as most of its neighbouring countries and the crisis does not seem to be out of control. I believe that a major reason for minimising the negative effects of the shocks can be attributed to the policymakers' past decision to build a stabilisation fund with the resources from privatisation. While these resources are now almost depleted, the availability of a financial cushion greatly helped to minimise the recession.

In my own view of the world, I would go one step further and suggest that countries should not only build a fiscal stabilisation fund, but that the resources of the fund should be placed in a trust. Experience shows that very often these stabilisation funds do not work because they lack credibility. The fear is that at the first sign of political weakness the accumulated funds would be used for political, rather than economic, purposes. But if these resources were placed in a trust fund that delineates very clearly the conditions under which the accumulated resources could be used, the effectiveness of a stabilisation fund as a counter-cyclical tool would be greatly enhanced.

Liability Policies

With respect to the liability policies suggested in the paper, there is no question that a debt structure with emphasis on longer-term maturity is more adequate. However, I would like to make two comments to José Antonio's recommendations. First, the issue is not only to engage in longer-term maturity, but also to smooth the profile of amortisation payments, because of the uncertainty of adverse external shocks. Even if the debt was initially structured to have a long-term maturity, say 10 to 15 years, if the economy is hit by a shock at the same time that a large proportion of the debt matures, policymakers may find themselves facing severe difficulties in rolling over maturing debt. Thus, the smoothing of the profile of the amortisation payments is a definite must.

Also in this regard, an additional point that I want to stress is that policymakers should not ignore the behaviour of dividend payments associated with FDI during "bad" times. What very often happens is that in bad times

From: New Challenges of Crisis Prevention,
FONDAD, December 2001, www.fondad.org

foreign investors accelerate both, dividend payments and capital depreciation. As a result, these outflows actually add to the debt amortisation payments. Thus, while the advantages and long-term benefits of FDI should be recognised, it is also necessary to keep in mind that outflows associated with FDI could actually increase in periods of economic problems.

Exchange Rate Policies

Concerning the issue of exchange rates, I fully agree with José Antonio's remarks about the importance of country risk relative to exchange rate risk. Indeed, in my own research I have found strong evidence that the so-called "country risk" or "default risk" is a major factor determining domestic real interest rates. The evidence shows that "country risk" sets a floor to the country's ability to reduce real interest rates. Movements in the real interest rate determined by changes in expectation of exchange rate changes tend to be temporary. In contrast, measures of "country risk" and domestic real interest rates tend to converge in the long run.

This result has a key policy implication: since "country risk" seems to be more important than exchange rate risk in the determination of domestic real interest rates, the focus of the policy debate needs to be redirected from an excessive discussion on the "right" exchange rate regime to the design of policies aiming at improving the perception of creditworthiness by foreign investors. These policies usually are well beyond the issue of the exchange rate regime, and instead, tend to be concentrated on structural issues such as political stability, appropriate fiscal management, adequate regulatory and supervisory framework for financial institutions and appropriate legal and judicial systems.

Capital Controls

An issue where my views differ from those in the paper is the treatment of capital controls. While I agree with some form of controls on the inflows, there should never be controls on the outflows. There is a very simple reason for that: a control on the outflows is really an impediment to FDI because it is a constraint about the timing when foreign investors can repatriate profits or pay dividends abroad. I find that problematic. If I offer any support for controls, it is on the inflows and not on the outflows.

Now, when capital controls – even if just on the inflows – are combined with sterilised intervention, I have an even bigger problem. Over and over again, it has been demonstrated that sterilisation of capital inflows tends to aggravate rather than solve the problem of excessive inflows. The difficulties arise because in "good times", when inflows are entering the economy,

From: New Challenges of Crisis Prevention,
FONDAD, December 2001, www.fondad.org

governments seek to control (what is perceived as) an excessive appreciation of the exchange rate (if the exchange rate is not completely fixed) or an unsustainable expansion of domestic credit (in the case of more rigid pegs) through sterilisation procedures. Sterilisation, however, keeps domestic interest rates high, which promotes more capital inflows. This, in turn, means that the policymakers would have to tighten capital controls. Thus, policymakers may find themselves trapped into a vicious circle of higher interest rates and tighter controls which becomes very difficult to manage. Indeed, the evidence has repeatedly shown that this policy regime has not been possible to maintain on a sustained basis.

Inflation Targeting

In my view, the exchange rate regime that works best for Latin America is one where flexibility is the general rule, but intervention through increases in domestic interest rates is allowed if expectations of large exchange rate depreciations have a negative impact on expectations of inflation. In other words, I am among those who believe that, among the alternatives, inflation targeting is a good idea for the region. Why? First of all because I strongly believe that, facing severe and sudden reduction in access to international capital markets, it is not a good idea for a Latin American country to pre-announce a level or even a band for its exchange rate. In the highly volatile environment faced by Latin America, an exchange rate that seems perfectly consistent and sustainable at one point in time may turn out to be perceived as unsustainable if there is a reversal of creditworthiness perceptions about the country. Thus, from my perspective, any pre-announced path for the exchange rate is a call for future problems. Based on my own personal experience working in Wall Street, I know that markets will speculate against a fixed or targeted exchange rate regime at the first sign of trouble.

Inflation targeting allows policymakers to determine a rule regarding intervention in the exchange rate markets. The rule can be very simple and transparent: the exchange rate will be allowed to float unless there are clear signals that a given path of exchange rate depreciation is preventing the central bank from achieving its targeted and announced inflation rate. This, of course, implies the existence of an important "pass-through" from exchange rate depreciations to the inflation rate. Indeed, a number of empirical analyses have shown that the extent of pass-through varies significantly across Latin American countries, with Mexico showing the highest rate of pass-through. While, due to the history of extremely high rates of inflation, the pass-through coefficients tend to be much higher in Latin American countries than in industrial countries, the evidence also seems to

From: New Challenges of Crisis Prevention,
FONDAD, December 2001, www.fondad.org

show that these coefficients have been declining over time, as inflation rates have remained low on a sustained basis. A clear inflation-targeting rule would predict that exchange rate intervention would tend to decrease over time as the pass-through factor also declines.

Mexico is a good example of a country following a full-fledged inflation-targeting scheme, which, at times, has called for increasing domestic interest rates to achieve the announced inflation target. Indeed, recently, the authorities have been criticised for keeping a policy of high interest rates at a time when the signs of a severe slowdown (or even a recession) in the US economic activity are mounting. In the view of a number of analysts, the high level of correlation of economic activity between the US and Mexico calls for an easing of monetary policy. However, the slowdown in US economic activity is expected to bring about a deterioration in Mexico's trade balance and significant pressures on the exchange rate, which from the perspective of the Central Bank of Mexico may risk the achievement of the pre-announced inflation target of 6.5 percent by the end of 2001. Thus, the continuation of a tight monetary policy in Mexico is a clear reflection of the priority given by the Central Bank to keep inflation in line rather than use monetary policy to re-activate the economy.

The Quality of Credit

I will now move to the issue of supervision and regulation. I firmly believe that, while avoiding an unsustainable expansion of credit is essential, the most important challenge for policymakers is to control the "quality" of credit. Let me give you an example to explain my statement. One of the most important reasons why an outflow of capital creates a problem is because companies are indebted in foreign currency whereas the revenues they generate are in domestic currency. The problem, therefore, is a currency mismatch between assets and liabilities, that is allowed to expand, not just in the balance sheets of creditors (banks), because that is easier to regulate, but in the balance sheets of debtors (corporations). Therefore, if corporations had an incentive to hedge against their exposure to foreign currencies, policymakers would be less concerned about the consequences of a possible reversal of capital outflows. However, because of the lack of development of domestic capital markets, hedging instruments are not easily available to many domestic firms.

This situation then begs the question: what should the right focus of policy be: (a) should policymakers restrict credit expansion in foreign currency to all sectors because of the non-existence of hedging instruments? or, (b) should credit be allowed more freely to those sectors where hedging is available (like the export sector)? or, (c) should policymakers focus on

From: New Challenges of Crisis Prevention,
FONDAD, December 2001, www.fondad.org

the development of capital markets and the availability of hedging instruments?

I believe that, while not simple at all, the answer lies more towards (b) and (c) than towards (a). In other words, policies that tend to limit the overall expansion of credit (say, through the use of monetary instruments) are less useful than those that allow the expansion of credit towards the least risky sectors (say, through regulation and supervision). And here, José Antonio remarks provide some insights. When José Antonio tells us that a depreciation of the exchange rate is going to affect the non-tradable sector more adversely than the tradable sector, he is also telling us is that the tradable and non-tradable sectors of the economy do not face the same risks. Since José Antonio fully recognises that, given the high volatility in emerging markets, the probability of changes in the real exchange rate is very high, shouldn't he also question why bank loans to the tradable sector are treated (from a regulatory point of view) in the same way as bank loans to the non-tradable sector?

Adequate Regulation in Emerging Markets

From my point of view, a serious problem in the area of bank regulation and supervision is the way in which emerging markets are implementing the recommendations put forward by the Basel Committee. As we all know, those recommendations were designed taking into consideration the characteristics of industrial countries. However, emerging markets have particular features such as the lack of access to international capital markets, the lack of developed domestic capital markets, and the high pass-through between exchange rate changes and inflation. These specific issues do matter for the appropriate design of regulatory and supervisory rules in the financial sector of emerging markets, but are not at all contemplated in the design of the Basel recommendations.

If you are a policymaker facing all the constraints intrinsic to emerging markets, why should you follow the Basel recommendations at face value? Facing more uncertainties, shouldn't you keep a more cautious attitude toward risk? Shouldn't you then require banks to have larger amount of capital and/or tighter provisioning rules when holding liabilities issued by the riskier sectors? Now, what sectors are riskier? We have already argued that the non-tradable sector tends to be riskier than the tradable sector in emerging markets, but that is not the end of the story. Take, for example, the distinction between private versus public sector assets. In the Basel recommendations regarding risk-weighted capital-to-asset ratios the amount of capital that a domestic bank in any country needs to hold is much lower if the bank holds an asset issued by the government than if it is

From: New Challenges of Crisis Prevention,
FONDAD, December 2001, www.fondad.org

issued by the private sector. This is the case because, under the prevailing Basel capital adequacy requirements, government paper carries much lower risk weight (zero, actually) than private sector notes. This is very understandable in, say, the United States where Treasury bills can be considered a "safe" asset, but this is certainly not the case in emerging markets, where a number of examples of default on government paper can be named. Moreover, the strict application of the capital-adequacy requirements can explain a current feature of the financial sectors in many emerging markets: namely, that a large proportion of assets held by banks are government, rather than private paper.

Moreover, in a recent empirical study aiming at identifying early warning indicators of banking problems in a number of countries that had experienced severe banking crisis, I reached a strong conclusion: Supervisory ratios work as early warning signals of banking problems only if there is a market to validate them.[1] Not surprisingly, the risk-weighted capital-to-asset ratio did not provide adequate signals of bank problems in recent banking crises since emerging markets lack well-developed domestic capital markets.

In the United States, the traditional supervisory ratios, such as capital requirements, do a good service to bank supervisors because there is a well-developed capital market. In that country, the supervisory tools and the market work together, they reinforce each other. In emerging markets, that is not the case at all. Now, this does not mean that supervisors in emerging markets cannot have an adequate early warning system. Of course they can. The trick is to identify financial markets that work and then base the supervisory tools on the signals provided by these markets. What financial markets work in emerging markets? The deposit market is a major one and, as such, the behaviour of the deposit rate usually provides useful signals about the degree of risk-taking activities of individual banks. In many countries, the inter-bank market also works appropriately. As my paper on early warning indicators shows, at time of crisis, these markets were able to provide "good" indicators of problems to come. The basic message is that if banks' attitude toward risk were assessed by indicators based on markets signals, rather than by those implemented in industrial countries, supervisors would be able to show a much better track record in forecasting banking problems than the record actually held.

To conclude, my main point is that while we all recognise the specific features that distinguish emerging markets from industrial countries, the policy prescriptions are not always in line with the recognition of existing

1 See, Rojas-Suárez, Liliana (2001), "Rating Banks in Emerging Markets: What Rating Agencies Should Know About Financial Ratios", manuscript.

From: New Challenges of Crisis Prevention,
FONDAD, December 2001, www.fondad.org

constraints. What works in the industrialised part of the world may not be effective in emerging markets. The good news is that, as a paper like that of José Antonio shows, adequate policy recommendations can be designed. Among my comments, I have provided an example of how appropriate early warning signals can be constructed to serve as adequate tools for effective supervision in emerging markets.

From: New Challenges of Crisis Prevention,
FONDAD, December 2001, www.fondad.org

Comment on "Counter-Cyclical Policies in the Developing World," by José Antonio Ocampo

Amar Bhattacharya

The basic premise of José Antonio's paper is that capital flows to developing countries tend to be pro-cyclical, leading to an increased propensity for boom-bust cycles. I agree with this premise and I also agree with José Antonio that you need an eclectic response. You should respond in various ways, considering, as Liliana said, elements that reinforce one another and are specific to country circumstances. I will begin by elaborating a little bit on the framework that is in the paper and add a few elements that are implicit in talking about the boom-bust cycle.

One way to talk about capital flows to developing countries is pro-cyclicality. The other way is to talk about the amplification effect of financial integration in terms of inherent boom-bust cycles. Any financial system amplifies boom-bust cycles, and a financial system of a developing country that is integrating with the world economy amplifies these cycles even more. This seems inevitable because a developing country's financial system is subject to all of the institutional weaknesses and informational asymmetries that we know so well. This creates a number of problems.

Responding to Vulnerabilities

The first problem I see is that the initial stages of financial integration lead to a large and quick build-up of vulnerability. That is the basic point José Antonio makes in his paper. But there are three other problems that flow from it:

Firstly, the same nature of international lending that leads to the amplification of boom-bust cycles, also leads to a very rapid withdrawal of capital, which pulls the rug out from under you all of a sudden. Secondly, the effects of this rapid withdrawal of private capital flows are especially acute in terms of interest and exchange rate shocks. Thirdly, these macroeconomic shocks also have disproportionate effects on the balance sheets of financial entities and corporations. Hence, you get the vicious cycle that is laid out in the paper, which may be worth stressing.

I agree very much with the responses José Antonio suggests. Of course,

From: New Challenges of Crisis Prevention,
FONDAD, December 2001, www.fondad.org

first-best answers that offer first-best policies tell developing countries that they need to do more to strengthen the institutional infrastructure and to increase the depth of the basic markets, so that they become less prone to crisis. But, recognising that this takes time, I agree very much with the package that is laid out in the paper. I would group it into two sorts of objectives. The first objective is how to pursue counter-cyclical macroeconomic policies, so as to dampen the aggregate demand effects, but also to mute the capital flows themselves. The second objective is how to manage the balance sheet risks associated with capital inflows. Those are the two overarching objectives. I will speak to each of them individually by using the framework presented in José Antonio's paper.

The key to counter-cyclical macroeconomic policies is the exchange rate regime. In my view, and agreeing with José Antonio and John Williamson, the paper appropriately argues that neither poles – pure float nor absolute fix – provide a panacea in terms of avoiding vulnerability. A very important point made in the paper is that exchange rate appreciation and interest rate swings add to the pro-cyclical impact of capital flows. I think that too much has been made out of the East Asian pegs. In many ways, the East Asian exchange rate management was quite successful in avoiding real exchange rate appreciation, but perhaps by doing this it had some incentive effects that were problematic.

I also agree very much that in order to deal with the capital inflow problem, you need an additional instrument, beyond exchange rate policy. Capital account regulation is part of the answer, but it is important to stress that it need not just be the Chilean or the Colombian form of capital account regulation. The prudential regulations and the liability management that José Antonio spoke of are very much part of the same arsenal; they are part of the same capital account regulation he is talking about.

Before I come to balance sheet vulnerability, let me stress, as Liliana also did, the importance of fiscal policy, rather than simply rely on sterilisation and stable exchange rate policy which have all these adverse incentive effects. Unfortunately, we still do not have good answers for making fiscal policy more anti-cyclical in developing countries. After all, you don't want to cut education and social expenditures, and it is very difficult to make the revenue side more anti-cyclical. So the question is: what kinds of instruments can be developed in developing countries to make fiscal policy more anti-cyclical?

Turning to the second objective, addressing balance sheet vulnerability, there has been a lot of attention to short-term unhedged borrowing. However, it is important to recognise that there are other sources of vulnerability, maturity mismatches for example, and risks of asset price inflation. So there are many sources of vulnerability in developing

From: New Challenges of Crisis Prevention,
FONDAD, December 2001, www.fondad.org

countries. A second, important point to recognise, is that channels of this vulnerability can take two or three forms. They can be through the public sector, as we were discussing before. They can also increasingly be through the private sector, where it is important to distinguish between the banking system and the corporations. Hence, an important principle is the need to take a national balance sheet approach to the concept of vulnerability – both the evaluation of it and the management of it.

Incentive-Compatible Regulation and Supervision

In that context of balance sheet vulnerability, I think it is absolutely appropriate to put much more emphasis on prudential regulation and supervision, in an incentive-compatible way. Let me explain what I mean by that. Although it is important to apply prudential regulation and supervision in a counter-cyclical way, the reality is that it has worked precisely the other way around. In East Asia, for example, prudential regulation and supervision was lax in the boom period and it was tightened in the crisis, triggering just the opposite effect of what you wanted. The crisis is the worst time to tighten prudential regulation, and capital adequacy in particular. So that is not what we mean by the anti-cyclicality of prudential regulation.

What we mean is that risk-weighted capital adequacy requirements should be anti-cyclical. That implies that in boom times you must take into account the higher risks of lending to real estate, to margin lending, to consumer lending and to things related to asset prices. It is through risk-weighted capital adequacy that you make prudential regulation more anti-cyclical, as has been laid out very well in José Antonio's paper.

It is also worth considering speed limits, and here I disagree a little bit with Liliana. Because every crisis in the banking system has been preceded by an acceleration of credit, you not only have to worry about the *quality* of credit but also about the *rate of expansion* of credit. Whether you put in automatic circuit breakers, speed stabilisers, or something more sophisticated is worth debating, but I do think the regulation of credit is important. All of this, obviously, should be done in an incentive-compatible framework. This means that much more attention should be paid to implicit and explicit insurance, which is already far too great in developing countries. It also means that deposit insurance schemes must be designed more appropriately. If you don't have the appropriate framework for deposit insurance, not having a deposit insurance scheme is better than having one. And it means putting more emphasis on subordinated debt. These are, in my view, the crucial incentive-compatibility issues.

However, prudential regulation and supervision are not in themselves

From: New Challenges of Crisis Prevention,
FONDAD, December 2001, www.fondad.org

sufficient, because you can have vulnerability building up through other mechanisms as well.

The corporate sector also needs much more attention. José Antonio talked about a favourite topic of mine, tax deductibility, which I have preached a lot but which has not yet been adopted as much as it could be. It is worth thinking about whether you should be trying to use market-based mechanisms, such as ratings of firms, as criteria for borrowing, to limit the eligibility of firms. Registering of borrowing and derivatives could be encouraged, e.g. by saying that only transactions that have been registered will be considered "legitimate" in terms of settlements in times of crisis. This would create incentives for disclosure.

Much more importance needs also to be given to the role of bankruptcy, which prevents small problems from becoming big ones and private sector problems from becoming public sector ones. Again, in this context, I agree very much with José Antonio about the problem of the public sector guarantees for private sector investments in infrastructure and the issue of contingent liabilities. In addition to Latin America, Malaysia is a good example where the whole story of contingent liabilities and infrastructure lending was a very important pro-cyclical feature. He might want to add Malaysia as a case example.

Social Safety Nets

I would not consider the issue of social safety nets as a balance sheet risk, but rather as a separate pillar in terms of better crisis management and response. While I agree with José Antonio on their importance, I think social safety nets are inherently more difficult in developing countries because of the lesser role of the formal sector, information market problems and institutional mechanisms. In terms of response, the lesson of the Asian crisis tells us that there are three aspects of social safety nets that are important.

First, there is the importance of being able to use aggregate fiscal policy in a counter-cyclical way. Second, there is the need to focus on expenditure multipliers of fiscal policy. All expenditures don't have the same multipliers in terms of social impact. Third, it is important to put social safety nets in place during good times so that they can be expanded in bad times. The "progresa" scheme of Mexico is a good example of that.

Managing the Bust

Finally, the paper focuses very much on counter-cyclical policies in managing the *boom*. However, it is worth thinking about some of the issues that

From: New Challenges of Crisis Prevention,
FONDAD, December 2001, www.fondad.org

arise in terms of managing the *bust*. Let me just put some on the table.

First of all, what about counter-cyclical fiscal policy in terms of managing the bust? Before the crisis, Assaf Razin wrote a seminal piece on counter-cyclical management. In my view, the IMF and World Bank should be seen as part of counter-cyclical funding mechanisms. That is an important issue.

Second, under what circumstances does it make sense to have restrictions on capital outflows, not as a permanent feature, but as a transitory means? It is premature to throw out the Malaysian experience as irrelevant, because it is highly relevant and it is worth considering in what circumstances it works. People often say that you need to consider the trade-off between exchange rates and interest rates in times of crisis. Unfortunately, developing countries often have no choice of trade-off. They are faced with a kind of Pandora's box, exchange rate and interest rate problems coming at the same time, and they need an additional instrument. So the question is: would Indonesia, for example, have been better served by a restriction on capital outflows? Would this instrument have created more leverage and confidence?

Finally, regarding the banking system, under what circumstances is it appropriate to extend a blanket guarantee? What are the issues that arise with regard to the lender of last resort and is it really futile in crises? What lessons can we learn from the financial restructuring resulting from the recent wave of crises and how can we deal with the credit crunch problem associated with it? These issues may be the topic for another paper.

From: New Challenges of Crisis Prevention,
FONDAD, December 2001, www.fondad.org

Floor Discussion of "Policy Options for Developing Countries to Counter Boom-Bust Cycles"

Problems of Prudential Regulation

Rogério Studart agreed with most of the policies proposed in Ocampo's paper, but was puzzled with the proposal that capital adequacy standards in developing countries should be higher than the minimum requirement of 8 percent. He believed this might discourage economic growth.

"Most developing countries have bank-based systems, in which the demand for loans naturally increases when the economies grow. If we try to impose capital standards that are higher than the 8 percent agreed by the Basel Committee, we may be safe but the economy will not grow. As José Maria said, 'we will be very safe at home and not catch a cold, but we will not have a life and go out of the house.' I do not have an answer as to how to maintain a solid banking system that, at the same time, is functional for economic growth, but it is certainly not by maintaining even stricter capital standards than those set by the Basel Committee."

Jan Kregel brought up the same point from a historical perspective. "The use of risk-weighted capital adequacy requirements as a counter-cyclical tool was first proposed by Henry Kaufman at a time when the US was undergoing very rapid inflation. The central bank was attempting to reign in inflation by monetary controls. When it discovered that this had absolutely no impact on bank lending, Kaufman suggested putting a brake on their capital. The logic behind his proposal was that, as the banks continued to lend to more and more risky projects, they would have to borrow in the market at increasingly higher interest rates to replenish their capital. This would create a market-based incentive for banks to cut back their lending because the cost of increasing capital would be rising until there would be a cut-off point at which it would not be profitable to increase lending.

The measure was eventually extended to the operation of Japanese banks competing with US banks in more or less the same period. At this time, in terms of US standards, Japanese bank capitalisations were in the range of one to three percent. US banks were complaining that this was uncompetitive and that capital standards should be extended on an international basis to increase the costs of Japanese banks operating abroad and

From: New Challenges of Crisis Prevention,
FONDAD, December 2001, www.fondad.org

reduce their competitiveness, particularly in the Euromarkets operating in London.

The interesting thing about both of these measures is that, first, the introduction of capital requirements did not have the impact on lending by US banks that was expected. Second, it also did not have the expected impact on Japanese banks for a very simple reason. After the controls were introduced, the Japanese banks first managed to get an exemption for appreciation of securities that they held in their investment portfolios. Then, just after they were introduced, the Tokyo stock market went into a tremendous boom and the cost of capital went down to zero. As a result, the Japanese banks were able to refinance themselves at extremely low interest rates, again creating a competitive disadvantage for US banks.

So the experience of trying to set counter-cyclical incentives is extremely dubious. If the regulators push up the capital adequacy requirement from 10 to 14 percent for micro anti-cyclical reasons, the domestic banks will complain that this gives a competitive advantage to foreign banks. And it is going to be extremely difficult to impose it without doing damage to the domestic banking system."

José Maria Fanelli observed that such damage was done to the Argentine banking system after the Mexico crisis, when in 1995-96 the authorities increased the capital adequacy requirement from 8 to 11.5 percent. "Moreover, this anti-cyclical policy became, in fact, pro-cyclical, and in a very perverse way. Because domestic banks did not have the required reserves to comply with the new regulation, they had to capitalise or to sell against low prices, thus creating an opportunity for foreign banks to buy domestic banks at a low price. This resulted in capital inflows that Argentina did not need because in 1997-1998 the economy was already growing at eight percent. So the policy that should have been anti-cyclical was in fact pro-cyclical.

What happened at the micro level? Small banks just disappeared and with them the financial sector lost knowledge on lending to small and medium enterprises. Bigger banks were not interested in giving credit to small enterprises and concentrated on mortgage lending, which was new in Argentina; it was the cream of the market and very easy to invest in. Instead of investing in innovation in small enterprises, they invested in real estate. Once again, it went against the making of anti-cyclical policy."

Chi-Young Song confirmed that stricter prudential regulations could be quite pro-cyclical, as the recent Korean experience illustrates. "In 2000, the government enforced a prudential regulation even though the economy started to decline. Korean commercial banks were required to meet a capital adequacy ratio of 10 percent by the end of the year in order to receive government funding. The commercial banks were in trouble so

From: New Challenges of Crisis Prevention,
FONDAD, December 2001, www.fondad.org

they needed some kind of free funds from the government. What did they do as a result of the stricter regulation? They held their money in the bank even though they had a lot of liquidity, thus accelerating the recession of the Korean economy."

Manuel Montes raised the question of whether the private sector would understand if, during the boom phase, a government would attempt to limit lending by speed limits on credit expansion. "Having lived in Singapore during the Asian crisis, the problem I see is whether the private sector understands these kinds of policies. During the boom, the Indonesian authorities tried to limit the proportion of outstanding loans for real estate but they were not successful. Would the private sector really understand the policies that you should carry out during the boom? Indonesia was criticised for a long time for having annual credit ceilings on a sectoral basis because they were dampening economic growth. How do you set a speed limit that the private sector can understand?"

Stephany Griffith-Jones agreed that, in practice, counter-cyclical policy is difficult because when things are going well, it is hard to convince people that there are risks. "The problem is that the private sector is powerful and may pressure the authorities not to move in a counter-cyclical way. In addition, governments are under pressure because of elections and so on. How can one sell these counter-cyclical policies, particularly in times of a boom?"

Griffith-Jones warned that the proposed new Basel Capital Accord even has an increased pro-cyclical bias because it would rely increasingly on the internal risk management systems of the bank themselves.[1] "In the Basel documents they say that this bias does not matter because the new proposal has so many advantages, and the pro-cyclical effect is just the cost we have to pay. In my view, this really is a serious mistake. It could have a very harmful impact on capital flows to developing countries by making them even more pro-cyclical, which is exactly the opposite of what we want."

Reporting on a conversation with France's central bank Governor Trichet, John Williamson observed that a cyclical variation in capital adequacy regulations might not be a good tool. "I asked the Bank of France Governor Jean-Claude Trichet what he thought about cyclical variation in capital adequacy regulations. He reacted with horror and said that it would be absolutely disastrous from the standpoint of the psychology of the banks. If you would tell a bank that there are big troubles so their capital adequacy ratio will be reduced, everyone would get scared stiff. He said much the same thing could probably be accomplished by instituting forward-looking provisioning. In other words, in the boom you make banks

1 See the second chapter in Part IV of this volume where Stephany Griffith-Jones and Stephen Spratt discuss the implications of the new Basel Capital Accord.

provision at a higher rate because you know some loans will turn bad when the bust comes.

However, as Stephany said, it is difficult to persuade people in the middle of a boom that the good times are not here to stay. Some rules of thumb have to be designed which could be applied more or less automatically so central bankers do not have the option of changing their mind when the crunch comes. One would have to argue a strong case if one wants to abandon the guidelines just because of certain exogenous events."

On the issue of discretion versus automaticity Roy Culpeper remarked: "We seem to have lost a sense of automaticity from our macroeconomic toolkit in the last generation. The whole system has sunk into a cesspool of discretion, which has tended to discredit the very aims of counter-cyclical policy. If we can go back to a more automatic system with automatic stabilisers and automatic taxes it might also be easier to sell it to the private sector as part of a public good. These taxes go up in good times in order to set aside money for the bad times. The problem is that in good times there is always an opportunity cost of putting aside trust funds whilst hoping that the growth cycle will continue ad infinitum, which we all know it will not. In order to rehabilitate fiscal policy, it is important to reintroduce some kind of automaticity into the system."

Manuel Marfán stressed that when you have an open capital account, prudential regulations of the banking system are only a substitute for monetary policy and have more or less the same effect as monetary policy in increasing vulnerability. "Again, Chile offers an example. Since the mid-1980s, we have had a tough banking regulation system and a very reliable assessment programme. The parliament passed a law in 1996 that almost completely adopted the Basel Committee's recommendations and even went beyond that. The banks performed relatively well during the recession of 1999-2000 according to the non-performing loans share of total assets. However, the problem was that since domestic credit was more expensive than foreign credit, especially long-term credit, the main Chilean firms started issuing long-term bonds abroad for their funding and stopped asking for loans in the domestic market. They went abroad. The banks saw this as some sort of de-intermediation and initiated a policy of lending very heavily to small businesses, mortgage loans etc. That type of attitude provoked a crowding-in of credit in large parts of the economy that did not have enough access to credit before. That is something good if it is sustained in the long run. The problem appeared when the costs of external credit increased in 1998-1999 and the main Chilean firms came back to ask for credit in the domestic market. This crowded out small businesses, mortgage loans etcetera and created a credit crunch for small businesses, a problem we are still facing today in Chile."

From: New Challenges of Crisis Prevention,
FONDAD, December 2001, www.fondad.org

Zdeněk Drábek questioned the logic of using prudential regulation for counter-cyclical purposes. "I thought the prudential regulations were in place in order to deal with the health of the financial sector. If we introduce the dealing with booms and busts as an additional objective, there will be a lot of opposition. The rules should be transparent and predictable. The worst thing that could happen is that we change the rule in a discretionary manner when we think we have a bust. Another critical issue in prudential regulation is what the rules do to competition in the market. In the Czech case, for example, when small banks were allowed very generously into the market, as newcomers they had to compete for their deposits by offering higher deposit rates. Since they were paying more on deposits, they had to make sure that they were lending for projects that were bringing in higher returns on the lending side, which often meant highly speculative projects. Not surprisingly, most of these small banks are gone by now. I wouldn't encourage it, but if you really want prudential rules to target booms and busts, you need to consider these effects."

Regarding the counter-cyclical use of capital requirement ratios Liliana Rojas-Suárez stressed that the problem is not the quantity of capital, but the quality. "How much do you want to punish or press banks in terms of their profitability by raising capital requirement ratios? After all, if you penalise them too much they are not going to lend, and if they do not lend there will not be growth. The problem is not the quantity of capital but the quality. It is not the amount of capital, but the risks involved, that have to be assessed. If banks would have higher reserve requirements in relation to their risks, they would be more prepared to avoid the crisis. In the end, prudential regulation is about avoiding the eruption of a crisis that is going to cost a lot in terms of the national product. In my view, the best counter-cyclical policies are those that prevent the costly disturbances in the financial sector. Experience shows that it is that what costs the most. The Chilean banking crisis of 1981-82 is the best example with costs of at least 20 percent of GDP. If you know that a crisis is going to cost so much, I would really put all my resources into trying to avoid it."

Rogério Studart argued that prudential regulation is not really addressing the causes of crises. "Are crises created because there was not enough prudential regulation, or are they created because the prices that affect the domestic foundations of the financial systems have been so volatile? Most financial crises in developing countries are caused in a process of widening interest rate differentials, exchange rate volatility and a recession, which affect the cash flows of the debtors. The source of the crisis lies in the volatility of interest and exchange rates and the volatility of cash flows of firms and consumers that have to repay their debts. That is why I agree with José Antonio that we need to create stability of prices that are

From: New Challenges of Crisis Prevention,
FONDAD, December 2001, www.fondad.org

important for the micro-foundational stability of developing countries.

One of the problems in developing countries is that we have bank-based systems that are very vulnerable to changes in interest rates and cash flows resulting from a recession. That combination typically creates a financial crisis. To avoid financial crises, there should be no abrupt changes in interest or exchange rates. This is needed even more than prudential regulation of the banks and financial systems."

Stephany Griffith-Jones stressed that the key issue is the interaction between the micro and the macro side. "It is not either the financial sector or the macroeconomic developments, but the interactions between both. One reason why financial regulation is more important now is that the traditional policies, such as regulating the level of credit through reserve requirements, are no longer used. Therefore, financial regulation becomes one of the key ways of transmitting macroeconomic policies in these very open economies."

Curbing Capital Inflows

John Williamson raised the question of whether there would be a better way to control capital inflows than through the Chilean tax on short-term inflows, of which he declared himself to be a sympathiser.

"Maybe essentially the same thing could be done through the fiscal system instead of the monetary system. In IMF staff papers, I have read a proposal to impose a tax on all foreign exchange inflows, a general one, which can be rebated on other taxes. Through the VAT system you rebate it on exports of goods and services, and through the import tax system you rebate it on income transfers.

Inflows of financial capital are paying the tax, which is more or less equivalent to what Chile had. The one difference is that it does not discriminate by maturity. If someone goes in and then exits again one month later, it discriminates against them. But if somebody goes into a one-month paper and then rolls it over every month for five years he pays the same tax as somebody who goes into five-year paper. That is the only disadvantage I can think of. This would be much easier to administer and more difficult to evade."

Manuel Marfán, who participated as a deputy minister of finance throughout most of the 1990s in the design, operation and evaluation of the Chilean tax on capital inflows, said that the instrument worked relatively well from its creation in 1991 until the "Tequila" crisis of 1994-95. "It prevented us from suffering during the Mexican crisis, although, to be honest, we also benefited from a windfall gain in terms of trade that year. From then on, the device became easier to avoid through different

mechanisms and the central bank was no longer convinced that it was very effective. We promoted Chilean investment abroad as an additional solution to the problem of excess financing. Chile became a very important capital exporter within the region, especially in neighbouring countries. The problem is that when foreign investment starts making arbitrage, it is never taxed because you can only tax capital inflows, not capital outflows of domestic agents, nor capital repatriations from abroad. The most important case was the case of the Chilean pension funds. They have been doing a lot of arbitrage which introduced a lot of macroeconomic damage. There was no instrument to tackle that problem.

The main goal of these taxes on capital flows should be to regain a degree of freedom for sovereign monetary policies. You should be able to move the tax rate in a way concomitant to your monetary policies. So if you tighten monetary policy, you simultaneously raise the tax, because in order to reduce domestic expenditures you need to raise the cost of both domestic and external credit. And the other way around is: if you loosen your monetary policy, you loosen the tax. If you have a legislated type of tax, you need to pass new legislation in order to move the rate. Who makes the decision to move the rate? Is it the central bank – it should be – or is it the treasury? In that sense, there is the problem of design; the tax rate should be an instrument of macroeconomic policy and not a rate that is independent of the moment of the cycle you are in."

John Williamson suggested that one could certainly make the tax flexible. "During the Keynesian era, there was a law that allowed the UK chancellor to move a purchase tax, the then equivalent to the value-added tax, by a certain amount without having to go through the budget. I am unsure if it was ever exercised but it was legislated to allow the treasury and not the central bank to do that. In the old days, there used to be telephones between treasuries and central banks so they could actually coordinate with one another. That is a bit out of fashion now. But you never know, these things go in cycles."

Reply by José Antonio Ocampo

"To clarify, my fiscal mechanism is really in the form of a general trust fund, with legal rules on how to use these funds.

I do not like pre-announcing exchange rates. The problem with the foreign exchange rate band in Colombia was that exchange rates were pre-announced for the first time since the crawling peg was introduced in 1967. Although it worked for some time, it turned out to be a problem later on. There is, indeed, widespread experience in Latin America in this regard.

A tax on capital inflows, prudential capital account regulations or reserve requirement for capital inflows (*encaje*) or any other similar instrument is one of the best instruments discovered so far. It obviously has problems (elusion, evasion, etc). It operates as a tax that is put in place during a boom, with a mechanism attached that sterilises the corresponding fiscal revenues.

Obviously, an explicit tax is a good alternative, but it would be a very strange sort of tax. Taxes require long congressional debates and it is difficult to get approval for a flexible application of the rates. In most countries, constitutional amendments would be required to allow the government to change tax rates, which in democratic systems is a prerogative of Congress. Brazil has a peculiar constitutional system offering the government the constitutional possibility of changing tax rates on financial transactions. Since the Chilean-Colombian *encaje* is not legally a tax, the flexibility is determined by the fact that it is a foreign exchange policy instrument that can be managed in a flexible way by the central bank. It is indeed equivalent to a tax, the rate of which can be changed by the central bank.

In addition, such a tax mechanism has two further advantages. First, it meets the first-best policy test if excess capital inflows are the source of the disturbance the economy is experiencing. The second advantage is that such a tax may give room for a somewhat more contractionary monetary policy. My argument is that, in developing countries, monetary autonomy is not guaranteed by any exchange rate regime, as monetary policy may be forced to target the exchange rate to avoid inflationary effects or excessive appreciation, depending on the phase of the business cycle. Prudential capital account regulations offer at least one possibility of increasing monetary autonomy.

Although the evidence is very partial, I tried to find episodes in which interest rates were not dominated by external forces in large and middle-sized Latin American countries. I have found that the two countries that have more episodes of this type are precisely Chile and Colombia. After large devaluations, there are frequent periods when interest rate policy can be managed with some autonomy by the authorities under any system of exchange rate flexibility. This has been the experience of many Latin American countries in recent years. However, Chile and Colombia are the only cases in which you find some monetary autonomy during booms. In the other countries interest rates tend to fall during booms. On the other hand, research done at the central banks of Chile and Colombia indicate that the *encaje* does have effects on capital inflows, interest rates or both.

Anti-cyclical prudential regulations have been subject to several comments in the discussion. In response to Chi-Young, I would like to stress

that I am not talking about imposing strict banking standards after a domestic financial crisis. This would be a very pro-cyclical policy that can worsen short-term conditions even if it has good long-term effects. I am talking about how some instruments should be used in an anti-cyclical fashion once an appropriate prudential system is in place. One of the most powerful instruments would be a combination of liquidity requirements with preventive provisioning for delinquent loans. However, I do not agree with Liliana's statement that quality and quantity can be separated, because the quality of lending of a domestic financial intermediary tends to deteriorate when it grows too fast."

Liliana Rojas-Suárez: "I would not disagree with that..."

José Antonio Ocampo: "My strongest argument is that the rapid growth of domestic lending is generally associated with riskier investments and riskier lending that will become evident later on. Prudential regulation is certainly a mechanism to guarantee the quality of lending. But the peculiarity of this is the time in which financial intermediaries incur in riskier lending, which is during booms, not during busts. It becomes known too late, only during the busts, that they made bad decisions. That is why, based on the quality of lending, it makes sense to have some mechanisms that would make evident to financial intermediaries during booms that they are incurring in risky strategies. Since this has not been tried, it remains a question whether it would be effective. However, I want to emphasise the possibility of using prudential liquidity requirements as a sort of preventive provisioning.

Concerning the debate over automatic versus discretionary policies, I prefer automatic and transparent rules. However, my experience in policy-making is that some discretionary powers are necessary, because it is quite difficult to know in advance what specific situations you are likely to face. You have to have the possibility of doing something when you face unexpected events, which are common. Several years ago, there was a very interesting Inter-American Development Bank project on commodity stabilisation funds, full of econometrics and very interesting rules on how to manage them. Since I had worked in coffee in Colombia, which at the time had the only commodity stabilisation fund in Latin America, in my comments to the project I said something very simple I had learned in practice: I do not know of any model in the world that can predict coffee prices. In the late 1980s, the best model of the coffee economy was thought to be that of the World Bank, which predicted that the breakdown of the international coffee agreement would bring down prices by about 40 percent, but that they would recover within a year. However, prices actually fell by 60 percent and did not recover for four to five years. Since you really do not know and cannot know in advance what is going to happen,

you have to have discretion. It is very difficult to work with fully automatic rules. You must apply to them the old criticism against planning: it assumes that people know in advance what they do not know."

From: New Challenges of Crisis Prevention,
FONDAD, December 2001, www.fondad.org

Part III

Exchange Rate Policies in Developing Countries

From: New Challenges of Crisis Prevention,
FONDAD, December 2001, www.fondad.org

From: New Challenges of Crisis Prevention,
FONDAD, December 2001, www.fondad.org

Exchange Rate Policy in Latin America: The Costs of the Conventional Wisdom

John Williamson

1 Introduction

Perhaps the most authoritative expression of the conventional wisdom on exchange rate policy is Stan Fischer's Distinguished Lecture on Economics in Government delivered to the Annual Meetings of the American Economic Association in January 2001 (Fischer, 2001). He asks, "Is the Bipolar View [on exchange rate regimes] Correct?" and qualifies his sympathy for an affirmative answer quite heavily. He acknowledges, for example, that the full gamut of exchange rate arrangements is available to countries not open to international capital flows; but this applies to a pretty limited number of countries, certainly in Latin America. More interestingly, he argues that countries open to capital movements have available "a variety of crawling bands with wide ranges", and also less formal arrangements (than currency boards) that have been demonstrated to be very hard, e.g. the pre-euro DM pegs of Austria and the Netherlands. What are excluded are "systems for countries open to international capital flows, in which the government is viewed as being committed to defending a particular value of the exchange rate, or a narrow range of rates, but has not made the institutional commitments that both constrain and enable monetary policy to be devoted to the sole goal of defending the parity. In essence, the excluded arrangements are fixed, adjustable peg, and narrow band exchange rate systems."[1]

Despite these qualifications, when it comes to presenting empirical results he groups all intermediate regimes together, the adjustable peg that he has condemned as crisis-prone along with the BBC (basket, band, and

1 He argues that the reason these regimes have to be excluded is that "soft peg systems have not proved viable over any lengthy period" (p. 7). This is exactly the same argument that I made in Williamson (2000), so I was surprised to find that he cites my piece to accuse me of asserting that abandonment of these regimes is all because of pressure from the IMF and the US Treasury. It is true that I complained that those institutions have pressed countries to adopt one or other of the polar solutions, but I was complaining that they did not give a fair hearing to "crawling bands with wide ranges", a regime that on p. 3 Fischer explicitly includes among those that are available to countries with high capital mobility.

From: New Challenges of Crisis Prevention,
FONDAD, December 2001, www.fondad.org

crawl) regimes that he appeared to be excluding from this critique. This is troubling: if these regimes are indeed regarded as different, then data should be presented in a way that allows their differences to be identified. I take particular exception to this intellectual sloppiness because I long ago argued that the adjustable peg ought to be abandoned as it was rapidly ceasing to be viable (Williamson, 1965); indeed, it was precisely the attempt to develop a substitute that would be viable in an era of capital mobility that led me ultimately to the BBC regime.

This paper starts by describing the BBC regime and defending the proposition that, unlike the adjustable peg, it will be viable if it is managed competently in all circumstances except strong contagion. It then discusses how the BBC regime might be modified in order to make it less vulnerable to speculative pressures resulting, say, from contagion. This is followed by a consideration of the advantages and disadvantages of this regime in comparison to floating. The final issue that arises in this context is the problem imposed by having exchange rate regimes that differ across Latin American countries with intense mutual intra-trade, and discusses how this problem could be resolved.

2 The BBC Rules

The first of the BBC rules says that countries with diversified trade would do better to peg to a **basket** that would roughly stabilise their effective exchange rate[2], rather than to a single currency. At a 1996 conference (Williamson, 1999), I argued that there would be advantages to the East Asian currencies[3] in using a *common* basket of the three major world currencies (dollar, yen, and now euro) to define their parities and thus the bands that would specify or orient their intervention policies.[4] Use of a currency basket in place of a peg to a single currency, the dollar, would tend to stabilise their effective exchange rates against capricious variations as a result of movements in third currency exchange rates, notably the

2 An "effective exchange rate" is the weighted average exchange rate against all currencies, where the weights are generally chosen to reflect the pattern of trade. (An alternative weighting system, based on trade elasticities, recognises that countries are also important competitors, rather than just trade partners.) A "real effective exchange rate" corrects by changes in relative inflation, so that the index does not change if prices increase as much at home as the weighted average of the country's trading partners.

3 To be specific, I was thinking of the currencies of China, Hong Kong, Indonesia, Korea, Malaysia, the Philippines, Singapore, Taiwan, and Thailand.

4 Other advocates of the use of a common basket peg by the East Asian countries include Reisen and van Trotsenburg (1988) and Ogawa and Ito (1999). Mussa *et al* (2000, p. 59) also show some sympathy for a currency basket approach in East Asia.

From: New Challenges of Crisis Prevention,
FONDAD, December 2001, www.fondad.org

gyrations between the yen and the dollar. I suggested that they use a common basket based on the direction of extra-regional trade of the region as a whole. The paper showed that the economies in question would lose little in terms of stabilising their effective exchange rates by all using this basket rather than adopting different baskets based on their individual trade patterns.[5] However, this common peg would offer the important benefit of ensuring that their exchange rates vis-à-vis one another were not destabilised by shocks to the dollar-yen-euro rates. This would avoid the possibility of inadvertent competitive devaluation, or the suspicion of deliberate competitive devaluation, as a result of different pegging policies. I argued that there was no reason why individual economies could not continue to pursue different policies as regards changes relative to their parity: some could have a hard fix, like Hong Kong with its currency board; others might crawl against the basket, as Indonesia had been doing against the dollar; and others could use it simply as a guide to how they intervene in the foreign exchange market.

Perhaps the strongest argument in favour of the proposition that the East Asian countries would have gained by moving to a basket peg has been made by Kwan (1998). He showed that the yen-dollar exchange rate had a statistically significant impact on output growth in the 9 Asian economies included in my hypothetical basket. A strengthening of the yen depreciated their real effective exchange rates, given their de facto dollar pegs, and thus accelerated their growth, while a weakening of the yen had the opposite effects. Even Ronald McKinnon (2000), in his paean to the East Asian dollar standard, admits that "the dollar zone was... buffeted by fluctuations in the yen-dollar exchange rate", and that the effect of Thailand's de facto dollar peg "was to cause Thailand's real effective exchange rate to drift upward before the currency attacks began in mid-1997". Oddly enough, McKinnon is in no way inhibited in his enthusiasm for the dollar standard by these considerations, even though the reasons he gives for advocating the dollar link – that this provided a non-inflationary nominal anchor, and that it stabilised exchange rates among the East Asian currencies – would have been equally well-served by a common basket peg. Some of us will conclude instead that we would prefer to have the advantages of the dollar peg without its disadvantages, which is what a basket peg would offer.[6]

---

5 Indonesia would have found the common basket most out of line with its individual needs, but even in this case the problem that would have been created did not seem to be serious. De Brouwer (forthcoming 2001) shows, however, that the new members of ASEAN (Cambodia, Laos, Myanmar, and Vietnam) would not be served nearly as well by this common basket.

6 To be fair, McKinnon advocates stabilising the yen/dollar rate, which would also resolve the problem. But since that is unlikely to happen, the basket peg is a more relevant option.

That is not to argue that every country would be well-advised to adopt a basket peg. In my study of the operation of crawling bands in Chile, Colombia, and Israel (Williamson, 1996), I noted that Chile and Israel had both chosen to peg to a basket, while Colombia pegged to the dollar. I also argued that this was perfectly rational given the differences in their pattern of trade. Colombia's trade is dominated by the United States and other countries that peg to the dollar (like Venezuela), while the trade of Chile and Israel is far more diversified. The dollar seems to me a natural peg for all those Latin American countries that border the Caribbean, and to get increasingly unnatural the further south one goes. Those who know their geography will understand that I might question the wisdom of dollarisation in Ecuador and regard the Argentinean intention to stick permanently with a currency board based on the dollar as lunacy.

The second element of the BBC formula was a **wide band** (interpreted as a range of plus and minus 10 percent from the centre of the band, or even 15 percent). One purpose of this was to make sure that the authorities did not get into the no-win situation of trying to defend a disequilibrium exchange rate, given that no one imagined it would be possible to estimate equilibrium at all precisely. A second purpose was to permit the parity (the centre of the band) to be adjusted, to keep it in line with the fundamentals, without provoking expectations of discrete exchange rate changes that might destabilise the markets. A third purpose was to give some scope for an independent monetary policy, to be used for anti-cyclical purposes when a country found its cycle out of sync with the world norm. A fourth purpose was to help a country cope with strong but temporary capital inflows. As long as a band is (even partially) credible, arbitrageurs will allow for the expected reversion of the exchange rate toward its parity, and deduct an appropriate discount from (or add an appropriate premium to) the local currency yield when they compare their expected return from moving funds in with foreign yields to decide whether to place funds in the country. Moreover, investors in the tradable goods industries may tend to look at the parity rather than the market rate when assessing whether to go ahead with potential investment projects, implying that a given deviation from equilibrium will have less effect in distorting investment decisions.

The final element of the BBC formula is the **crawl**. This is most often used with a view to neutralising differential inflation. It can also be used to steer inflation down over time, as was done in Israel, though this can run the risk of undermining competitiveness if pursued too dogmatically (as happened in Russia). A crawl can also be adjusted in a fast-modernising economy in order to reflect an expectation of Balassa-Samuelson productivity bias[7] and accomplish the real appreciation that such an economy requires over time in order to maintain equilibrium. Finally, the rate of

From: New Challenges of Crisis Prevention,
FONDAD, December 2001, www.fondad.org

crawl can be changed, or occasional small parity adjustments can be superimposed on the regular crawl, in order to facilitate needed real adjustment.

3 The Question of Viability

Why would one expect this regime to be viable in almost all circumstances, when the adjustable peg is not? The problem with an adjustable peg is that it contains neither a mechanism to ensure that the equilibrium rate remains close to the parity (as a currency board system is supposed to) nor one for adjusting the parity when the equilibrium rate changes. This means that misalignments are virtually bound to arise from time to time. A currency peg that is seen to be misaligned sooner or later loses credibility with the market, and becomes a standing invitation to speculators to mount a raid. A government that pegs its currency is therefore bound to assure investors that any change in the peg is unthinkable, even, or perhaps especially, when it begins to wonder whether such a change can be resisted. This inevitably means that, if and when it is forced to devalue, its own credibility will suffer. It also makes it likely that, if its assurances are believed, many of those who borrow from abroad will not bother to hedge their foreign exchange exposure. For a country with a large volume of foreign-exchange denominated debt, this means that any substantial devaluation that may ultimately occur will pose problems of solvency to the financial and/or corporate sectors, leading to the sort of financial distress that was witnessed in East Asia in 1997 following the forced currency devaluations in the region.

The fundamental reason for expecting the BBC regime to be immune to these problems is that it avoids the need that arises under the adjustable peg to defend a disequilibrium exchange rate. The basket prevents the parity becoming misaligned as a result of extraneous changes in third-currency exchange rates. The parity can also crawl, so that it can be kept close to its equilibrium value despite shocks like domestic inflation or changes in oil prices or Balassa-Samuelson productivity bias that are prone to produce misalignments in an adjustable peg system. The band gives plenty of room for the exchange rate to move before the authorities are called on to defend it, which makes it unlikely that they will have to counter selling pressures when the currency is truly overvalued (or to counter buying pressures when it is truly undervalued).

Defending a currency against an attack when it is not misaligned is

7 See Balassa (1964) and Samuelson (1964). Chile built a 2 percent per annum real appreciation to reflect this factor into the formula for its crawl from 1995 to 1999.

altogether less hopeless than when it is. This is not because the market can be relied on to abstain from attacking currencies that are not misaligned. On the contrary, we now know from the work of the Market Dynamics Study Group (2000) that strong speculative attacks against the Australian and Hong Kong dollars, the Malaysian ringgit, and the South African rand (two of which were floating, incidentally) were under way in September 1998. Fortunately the effective demise of LTCM ended these financial shenanigans and, with a little help from interest rate reductions by the Fed, the world economic crisis quickly subsided. But the mystery is how those who were speculating against currencies that were already undervalued (as the Australian dollar and South African rand, the two floating currencies, certainly were) thought they were going to make money out of it. Presumably they were relying on the theory of the Greater Fool: that they would succeed in spreading panic to a point where others would be so desperate to get out of the currencies even at bargain basement prices that the speculators would be able to buy them back to cover their short sales at a profit. The point is that a speculative raid against currencies that are not misaligned requires the speculators to take that kind of risk, which places the defending government in a much stronger position than one that is trying to stave off a devaluation that is justified by the fundamentals. That is the situation that a government employing a BBC regime could normally expect to be in.

It should also be noted that the wide band means that the BBC regime, like floating, gives those who borrow abroad in foreign currency an incentive to cover their exposure in the forward market.

How could matters nonetheless go wrong? We have seen three instances in recent years where a BBC regime ran into serious problems, in Chile, Russia, and Indonesia. Let us examine each of these instances.

In Chile, the problem was that the underlying capital inflow implied a more appreciated (lower, in Latin American parlance) real exchange rate than the government judged it was prudent to allow. This resulted in periodic speculative pressures when market operators concluded that they might be able to force an appreciation beyond the edge of the band. The government sought to limit the appreciation by a series of measures, including the choice of exchange rate regime and the institution of controls on capital inflows (the *encaje* on debt and the minimum holding period of a year on inflows of equity capital). There is a literature on the effectiveness of the *encaje* (although, curiously, not on the effectiveness of the minimum holding period for equity), which I have examined elsewhere (Williamson, 2000, pp. 37-45). My conclusions were that it certainly affected the composition of capital inflows in the desired direction (i.e. reducing the proportion of short-term debt), and that the charges that it

was useless in reducing the level of inflows are based on inconsistent reasoning.

There is no parallel literature that examines whether the BBC regime helped to restrain the appreciation to less than would have resulted under a floating regime. The theoretical reason for expecting such an effect has already been sketched. If the band has any credibility at all, then it will lead market participants to anticipate a rebound toward the centre of the band as the rate approaches the lower margin, which will reduce the expected return from holding pesos, which will discourage inflows. There is empirical evidence that this effect operated in the context of the European Monetary System (EMS). Svensson (1992, pp. 132-33) showed that, when a rate moved within the band, the forward rate normally moved by less than the spot rate, indicating that the market expected that the spot rate would revert toward the centre of the band. This is in contrast to the situation under a floating exchange rate, where a change in the spot rate is normally associated with an almost identical change in the forward rate. We have no comparable empirical evidence about the impact of bands in emerging market countries. Establishing whether bands generally help to nurture mean-reverting expectations seems to me the most important empirical issue outstanding in exchange rate economics.

Chile abandoned its band for reasons that I have still not been able to fathom, except that it was the intellectual fashion of the day. In contrast, Russia abandoned its band (or "corridor", as the Russians called it) under force majeure, in the crisis of August 1998. The cause of the crisis was failure to control the fiscal deficit, which had been financed by short-term debt (GKOs) with high and increasing interest rates. It became increasingly clear that fiscal policy was unsustainable, and the crisis broke when the Duma rejected the proposals to tackle the fiscal deficit that had been agreed with the IMF. But it soon became clear that the devaluation that followed the crisis was just what the Russian economy needed. While Russian exports consist largely of energy and mineral resources that are not very sensitive to the real exchange rate, there is a large import-competing manufacturing sector that is highly sensitive to the exchange rate, which had been sacrificed on the altar of rapid inflation stabilisation in the preceding years. The real devaluation revived this sector, with the result that Russia has subsequently enjoyed positive growth for the first time since the collapse of communism.

I would ascribe the collapse of the Russian corridor to errors in policy. The Russian authorities placed an excessive emphasis on rapid inflation stabilisation, and looked to the exchange rate anchor (in the form of a slow rate of depreciation of the band) to accomplish it. Such a strategy has typically led to overvaluation of the currency and pressures on the real

economy. Russia was particularly susceptible to this danger for two reasons. One is the great strength of its energy and mineral export sectors, which makes it very vulnerable to Dutch disease. The other was the fiscal deficit, which needed high interest rates to finance it by capital inflows, which were forthcoming because many Western investors were convinced that Russia was too nuclear to fail.[8] The main conclusion I draw is that the IMF should have sent the Chilean policymakers of the early 1990s to Russia to teach them of the dangers of succumbing to Dutch disease, the virtues of being content with a gradual disinflation as the price of keeping a healthy real economy, the importance of fiscal discipline, and the need to keep a sufficiently rapid depreciation of the nominal exchange rate as long as inflation remains high.

The third case where a BBC regime failed is Indonesia, which had been operating a de facto crawl for some years and was gradually widening its band prior to 1997. It responded to the Thai devaluation that initiated the East Asian crisis in July 1997 by widening its band from 8 to 12 percent. The rupiah depreciated by 8 percent, toward the weak edge of the band, in the next 10 days, and then remained within the band for another month until contagion suddenly hit, whereupon the band was abandoned with hardly a fight. The subsequent depreciation of the rupiah was the immediate cause of the financial distress that Indonesia suffered, since many corporations had borrowed in dollars, failed to hedge, and found themselves unable to maintain debt service when their rupiah obligations exploded. Note that Indonesia's macro policies, including its exchange rate policy[9], were given good marks by most economists right up to the crisis, even after Thailand had succumbed. One might even wonder whether Indonesia should not have attempted to defend its band instead of abandoning it without a fight, because once the band went there was a scramble to cover exposed foreign exchange positions that simply intensified the depreciation and ensured total collapse. I have to admit, however, that most of those who were closely in touch with events in Indonesia are convinced that any such attempt would have been doomed to failure, and I have no way of proving them wrong. If that is so, it implies that even good exchange rate

8 Purchases of GKOs were often referred to as a "moral hazard play".

9 My one criticism was that it used the dollar rather than a basket as a peg. This had led it, along with the rest of East Asia, to an unwanted appreciation of the effective exchange rate as a by-product of the yen's depreciation against the dollar after the middle of 1995. But I see little evidence that the rupiah was overvalued. Exports were still growing rapidly, at a rate of 9.0 percent in 1996 and 7.9 percent in 1997. The current account deficit peaked at 3.6 percent of GDP in 1995 and 3.4 percent of GDP in 1996, which is about the maximum that can be considered prudent but was not grossly excessive in the way that Thailand's deficit was. Growth remained strong. Goldstein, Kaminsky, and Reinhart (2000) find few of their crisis indicators to have been signaling an Indonesian crisis prior to the Thai crisis.

management using the BBC rules is not proof against strong contagion effects, which Goldstein, Kaminsky, and Reinhart (2000) show to have been the origin of the Indonesian crisis.

One would certainly be entitled to draw the conclusion that crawling bands are not a panacea from the experiences of Chile, Russia, and Indonesia; but then, most of us do not expect to find panaceas. Chile shows us that there are circumstances when a band may not suffice to keep an exchange rate at the level that the authorities are seeking, but it does not show that the band was not helpful in that endeavour. Russia shows us that a band can collapse if policy is not managed skilfully. It is probably true that the demands on policymakers from a BBC regime are more onerous than those imposed by either floating or a strongly fixed rate, both of which make relatively straightforward demands on monetary policy (direct it respectively to an inflation target or to maintaining the exchange rate). That is a fact that should be acknowledged by advocates of this regime. Indonesia shows us that a band can be overwhelmed by contagion.

4 Modifying the BBC Proposals

The last eventuality is one that might be addressed by a modification of the BBC regime. The problem is that, if speculative pressures prove sufficiently strong to overwhelm the defenses, confidence is likely to collapse and the exchange rate get carried away to badly misaligned levels as panic sets in. A potential solution is to weaken the rules so as to abandon the concept of a fixed line that has to be defended (a Maginot line) without abandoning the attempt to provide guidance to the market as to what range of rates are appropriate and to put the market on notice that policy will push in that direction. There are at least three potential ways of doing this (Williamson, 2000, pp. 26-29).

A first is to have the authorities announce a reference rate, equivalent to a parity or centre of the band, but not to announce any margins. The market would then know in what direction policy would push if the authorities did intervene or adopt other policies to influence the exchange rate, and market participants would presumably take account of this possibility in deciding on their strategy. A second possibility is to have "soft margins", meaning that there would not be an absolute government commitment to defend the edges of the zones. Rather, in the event of strong speculative pressures, the government could announce that it would let the rate go outside the band, while warning the market that it planned to direct policy to bring the rate back within the band if and when that might prove possible. The third possibility is a monitoring band, which would be a band

around the announced parity within which the government would be committed *not* to intervene. Once the rate went outside that range, on either side, the authorities would be allowed to intervene, and indeed there might be a presumption that intervention would be normal. In all three cases there would be no Maginot line but there would be official guidance to the market as to what rates were believed to be consistent with a satisfactory macro position, with implications for likely intervention policy.

Stanley Fischer (2001) has questioned the usefulness of such a framework:

> Recognising the difficulty for an emerging market country of defending a narrow range of exchange rates, John Williamson (2000) proposes alternative regimes. He calls these BBC arrangements: basket, band, and crawl. He also recommends that countries if necessary allow the exchange rate to move temporarily outside the band, so that they do not provide speculators with one-way bets that lead to excessive reserve losses. In these circumstances, the band is serving as a weak nominal anchor for the exchange rate, but it is not at all clear why such a system is preferable to an inflation-targeting framework. Possibly the band could be thought of as a supplement to an inflation targeting framework, but it would need to be demonstrated what if any benefit that brings. One possibility – which is not however very plausible – is that by committing weakly to some range of exchange rates, the authorities make it more likely that fiscal policy will be brought into play if the real exchange rate moves too far from equilibrium.

The "not very plausible" possibility that Fischer discusses at the end was in fact one of the purposes of the "blueprint for policy coordination" that Marcus Miller and I developed in the 1980s (Williamson and Miller, 1987). In my normative dreams I still hope that the world may one day be seized by the rationality of this approach, but I have long since stopped basing policy recommendations on the hope that it will be implemented any time soon. Neither do I think of the band as an alternative to an inflation targeting framework; I think of inflation targeting as the modern version of internal balance, and the BBC rules are intended to help combine internal balance with external balance. Hence the band should indeed be seen as a supplement to an inflation-targeting framework, and Fischer's question is what benefits it may bring over and above what can be expected with a floating exchange rate. I see three such potential benefits: transparency, Krugman's "honeymoon effect", and the provision of a basis for cooperative exchange rate policies between neighbouring countries.

From: New Challenges of Crisis Prevention,
FONDAD, December 2001, www.fondad.org

5 Transparency

One of the characteristics of managed floating is a lack of transparency. One cannot rely on informed public discussion of policy to illuminate its failings or suggest improvements, because the public is not provided with information on which it can judge whether the authorities' aims are sensible, or whether they are succeeding in implementing those aims.

Or is the lack of transparency a disadvantage? Naturally think-tankers think it is, but government officials tend to take a very different view. They find it attractive to be able to act without the threat of informed criticism. They surely find life easier when there are no public benchmarks that can indicate their failure. They run much less risk of political censure when misalignments can be blamed on the anonymous market than when the headlines are prone to scream that their policies have failed. So it is not very difficult to understand the charm of managed floating to an insider.

What seems much stranger is that many academics are so tolerant of the lack of transparency of managed floating in an age when transparency has emerged as a litmus test of public institutions. A possible explanation is that not all have yet caught up with the reality reflected in the Calvo-Reinhart (2000) analysis of "fear of floating", namely, that most countries that describe their policies as floating do not in fact resign themselves to allowing the market to work its will unimpeded. One might conjecture that these academics support free floating because they assume that the exchange markets work like the textbooks say they do, with ubiquitous rational expectations pinning down exchange rates to levels determined by "the fundamentals". This is often regarded as desirable not just because "the market knows best", but also because (like a currency board) free floating eliminates any role for discretionary policy. And then managed floating is accepted as a mildly degraded version of the real thing, that shares the virtue of being relatively immune to speculative crises – which is, after all, the major factor that has driven many to advocate the bipolar position.

Let us instead be realistic enough to accept the fact that few countries feel comfortable abandoning their exchange rate to either the workings of the free market or permanent fixity. Most governments and central banks believe that they can bring to bear something that the markets lack, namely, a focus on longer-term issues. My own view is that this is entirely reasonable. But then one needs to ask whether exchange rate policy should be subject to public scrutiny. If one regards that as desirable, that rules out managed floating.

6 Stabilising Speculation

In addition to providing transparency, a reference rate or any form of reasonably wide band has the potential to strengthen the incentive for stabilising speculation, and thus ease the problem posed by high capital mobility. This is essentially because of Krugman's "honeymoon effect" (Krugman, 1991), which showed in a formal model how a credible promise of intervention at the margin would cause the market rate to avoid hitting the margin when it otherwise would have done even without intervention actually occurring. The expectation would cause rational profit-seeking speculators to speculate in a way that would be more stabilising (in the sense of more prone to hold the rate closer to equilibrium) than would otherwise be the case. A disadvantage of the various proposals for weakening the band discussed earlier is that they would all tend to weaken the stabilising impact of a credible band. The counter benefit that is being sought is to limit the loss of credibility that occurs every time that a government fails to deliver on a promise to maintain a band. How these two considerations would balance out is not a priori obvious, but there is no reason to dismiss the possibility that a credible promise to implement (say) the reference rate proposal should deliver less than a non-credible promise to defend a hard band.

But the more relevant question is whether a modified version of the BBC regime (meaning a reference rate, soft band, or monitoring band) should be expected to have an impact on the exchange rate if monetary policy is devoted to domestic purposes (inflation targeting). The models taught in economics textbooks say that exchange rates are driven by ubiquitous rational expectations of cumulative interest differentials between now and the long run determining the premium or discount from purchasing power parity (with possible qualifications about dependence of long-run equilibrium on factors like current account balance and the impact of portfolio composition). Those who believe those models are basically right will see no more scope for soft bands to make an impact than they do for sterilised intervention. But suppose instead that one is impressed (and depressed!) by the evidence that financial markets are often driven by fads; that one has abandoned hope of finding a rational explanation for last year's weakness of the euro; and that one is convinced by the evidence that sterilised intervention sometimes has an effect (see Sarno and Taylor, forthcoming). In such a world it seems entirely possible that a soft band that informs the market of official estimates of the equilibrium rate, and promises actions (even short of monetary actions) to push the rate toward equilibrium, can serve to guide market expectations.

From: New Challenges of Crisis Prevention,
FONDAD, December 2001, www.fondad.org

7 Policy Cooperation

Latin America is the prize exhibit of those who subscribe to the bipolar view. The intermediate regimes that used to be the norm have all but vanished. In their place one has Argentina with a currency board, Ecuador and El Salvador that have gone even further by unilaterally dollarising, and a number of floaters that include Brazil, Chile, Colombia, Peru, and Mexico. Most of the floaters have also adopted inflation targeting. Among the larger countries, only Venezuela retains an intermediate regime, and most of us do not think of contemporary Venezuela as a model of enlightened economic policy.

One of the disadvantages of this situation is that neighbouring countries with intense mutual trade relations can experience strong swings in their bilateral exchange rates. This can happen when two countries are both independently floating. European experience suggests that this will be perceived as an increasingly unacceptable situation as trade ties deepen. The problem can also arise, and may indeed be even more acute, when one country has pegged firmly to the dollar and the other floats: Argentina and Brazil provide the classic example. There is at least some presumption that a floating rate will move in response to a shock of relevance to the domestic economy, but the movements in the dollar are governed entirely by shocks extraneous to a country that pegs to it. This problem tends to be obscured from view in Latin America because the dollar is regarded as a fixed numeraire, but in fact its gyrations can have very uncomfortable effects on countries that peg to it, as the Asians discovered in 1996 and Argentina began to realise last year.

If two or more countries with independently floating currencies decide that disruptions to their intra-trade are sufficiently serious to warrant action, they can follow the precedent of Europe when it created the EMS in the late 1970s. Or they could look at the contemporary debate in East Asia about concerting exchange rate policies by pegging to a common basket. If the authorities are unhappy about the bilateral exchange rate implied by their floating currencies, they can delay the start of the system until their currencies have floated to levels that produce a mutually satisfactory bilateral (or multilateral) relationship, and a little activism can help them float there.

Matters would be more difficult if Argentina were to decide that its monetary future lay in seeking a Mercosur monetary union. That strikes me as a reasonable objective. Argentina does more than twice as much trade with the rest of Mercosur as it does with the United States, some 35 percent compared to 14 percent (1998 figures). Its shocks are presumably much more similar to those experienced by Brazil than to those

experienced by the United States. And both countries seem as thoroughly inoculated against a revival of hyperinflation as post-Weimar Germany proved to be. However, there seems little doubt that the devaluation of the Brazilian real in 1999 left the peso overvalued in terms of the real. Argentina would be ill-advised to allow such an overvaluation to be built into a monetary union. And it certainly will not want to start discussing a devaluation of the peso in terms of the dollar, a discussion that could easily unravel the confidence that has been so painfully built up over the past decade. That means that it would have to rely on some combination of downward pressure on the price level in Argentina, real appreciation of the real, and a downward float of the US dollar in order to allow it to achieve a tolerable starting point for the bilateral relationship. Fortunately the fact that the dollar is so overvalued as a result of the "strong dollar" policy (or at least rhetoric) leaves plenty of scope for a dollar depreciation in the coming years.

It would be a shame if Argentina got locked into a refusal to discuss the advantages (and doubtless disadvantages) of a Mercosur monetary union on the ground that this might undermine confidence in Argentina's perpetual fidelity to the dollar. Such a debate should take place, however, with a common assumption that the necessary real depreciation of the peso in terms of the real will be accomplished without a devaluation of the peso against the dollar. When the peso-real relationship in real terms achieves some target level (a target that can be discussed and agreed in advance), the peso would be unhitched from the dollar and tied instead to the real, e.g. in the way that the European currencies were linked in the EMS. That way there will be no incentive to switch in or out of the peso in anticipation of the delinking of the peso from the dollar, for there will be no discontinuity in market values on the day the transition is made. If a dollar depreciation is an important component of the reason for hitting the target and if market opinion is carried away with pessimism about the prospects for the dollar in the customary faddish way, it will look attractive to switch from dollars into pesos at the time of transition. There is no harm in that.

8 Concluding Remarks

This paper has challenged the conventional view that the mass migration of exchange rate regimes in Latin America toward the two approved poles of floats or hard fixes is a welcome development. While the "fear of floating" diagnosed by Calvo and Reinhart may prevent countries floating as freely as the Washington establishment might wish, and thus limit the potential damage to competitiveness when the next capital surge

materialises, the likely costs are still significant. Policy will be undesirably non-transparent. The regime will forego the opportunity of building up credibility that could ultimately result in making speculation more stabilising. And there will be problems of intra-region competitiveness changing arbitrarily that are likely to impede the process of regional integration. I have argued that one can conceive of solutions to this problem other than all countries adopting hard pegs to the dollar, a solution that would not seem attractive to countries much south of the Caribbean.

References

Balassa, Bela (1964), "The Purchasing Power Parity Doctrine: A Reappraisal", In: *Journal of Political Economy*, 72.

Calvo, Guillermo A., and Carmen M. Reinhart (2000), "Fear of Floating", mimeo, University of Maryland.

De Brouwer, Gordon (2001 forthcoming), "Does a Formal Common-Basket Peg in East Asia Make Economic Sense?", In: *Financial Markets and Policies in East Asia*, Routledge, London.

Fischer, Stanley (2001), "Exchange Rate Regimes: Is the Bipolar View Correct?", Distinguished Lecture on Economics in Government delivered at the meetings of the American Economic Association, New Orleans, 6 January.

Goldstein, Morris, Graciela Kaminsky, and Carmen Reinhart (2000), *Assessing Financial Vulnerability: An Early Warning System for Emerging Markets*, Institute for International Economics.

Krugman, Paul (1991), "Target Zones and Exchange Rate Dynamics", In: *Quarterly Journal of Economics*, 106(3), August.

Kwan, C. H. (1998), *The Yen, the Yuan, and the Asian Currency Crisis: Changing Fortune between Japan and China*, Nomura Research Institute, October.

Market Dynamics Study Group (2000), *Report* (Annex E in the Report of the Working Group on Highly Leveraged Institutions of the Financial Stability Forum), 5 April.

McKinnon, Ronald I. (2000), "The East Asian Dollar Standard: Life After Death?", In: *Economic Notes*, 29(1), pp. 31-82.

Mussa, Michael, Paul Masson, Alexander Swoboda, Esteban Jadresic, Paolo Mauro, and Andy Berg (2000), *Exchange Rate Regimes in an Increasingly Integrated World Economy*, International Monetary Fund, Washington D.C.

Ogawa, Eiji, and Takatoshi Ito (1999), "On the Desirability of a Regional Basket Currency Arrangement", paper presented at the CEPII-KIEP-

ADBI conference in Seoul, December 15-17.
Reisen, Helmut, and Axel van Trotsenburg (1988), "Should the Asian NICs Peg to the Yen?", In: *Intereconomics*, July/August, pp. 172-77.
Samuelson, Paul A. (1964), "Theoretical Notes on Trade Problems", In: *Review of Economics and Statistics*, 46(2), May, pp. 145-54.
Sarno, Lucio, and Mark P. Taylor (forthcoming 2001), "Official Intervention in the Foreign Exchange Market: Is It Effective and, if so, How Does It Work?", In: *Journal of Economic Literature*.
Svensson, Lars E.O. (1992), "An Interpretation of Recent Research on Exchange Rate Target Zones", In: *Journal of Economic Perspectives*, 6(4), Fall.
Williamson, John (1965), *The Crawling Peg*, Princeton Essays in International Finance No. 50, Princeton.
——— (1996), *The Crawling Band as an Exchange Rate Regime: Lessons from Chile, Colombia, and Israel*, Institute for International Economics, Washington D.C.
——— (1999), "The Case for a Common Basket Peg for East Asian Currencies", In: S. Collignon, J. Pisani-Ferry, and Y.C. Park (eds), *Exchange Rate Policies in Emerging Asian Countries*, Routledge, London and New York.
——— (2000), *Exchange Rate Regimes for Emerging Markets: Reviving the Intermediate Option*, Institute for International Economics, Washington D.C.
Williamson, John, and Marcus Miller (1987), *Targets and Indicators: A Blueprint for the International Coordination of Economic Policy* Institute for International Economics, Washington D.C.

From: New Challenges of Crisis Prevention,
FONDAD, December 2001, www.fondad.org

Comment on "Exchange Rate Policy in Latin America: The Costs of the Conventional Wisdom," by John Williamson

Carlos Massad

As usual, John Williamson provides us with a most interesting and thought provoking paper. It is, in essence, a summary of the evolution of John's thinking on exchange rates, moving from a very specific crawl (1965) towards a sort of floating *cum* signals with soft or inexisting limits for the band.

In John's view the basket of currencies as centre of the band should reflect the relevance of the international trade relationship; the band reflects the uncertainty regarding the "equilibrium" or "fundamental" value of the real exchange rate; and the sliding of the basket reflects the need to adjust according to inflation differentials and productivity, or to support disinflation. As John Williamson's thinking progresses through the paper, the BBC (band, basket, crawl) is somewhat magically transformed into a CBS (crawling basket signal) as he progressively relaxes the restrictiveness of the limits of the band. This makes the paper very difficult to criticise as the degree of precision of the band definition is left to the reader.

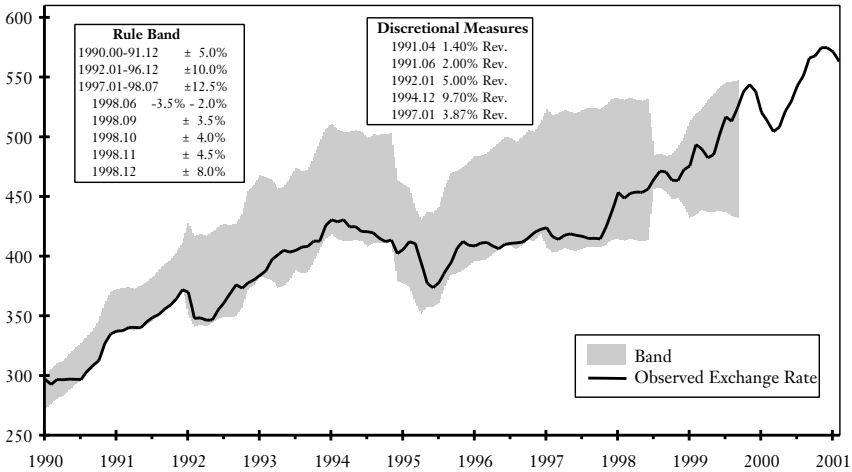
In fact BBC, and even CBS, represent the exchange management in Chile during most of the 1990s when we had a band, basket and crawl until September 1999. On that date, the Central Bank of Chile suspended the commitment to support the limits of the band, but kept publishing, without commitment, the centre of the band.

John wonders why Chile abandoned the formal band scheme in September of 1999, implying that such a move was a mistake. Floating in Chile is too recent to grant a formal systematic evaluation, but there is some evidence already available in favour of the present system in Chile.

Figure 1 shows that the Chilean BBC was far from being a strict one, as the band was widened, narrowed, twisted and tortured frequently during its decade of existence. The figure also shows that, up to 1998, the market rate kept at the most appreciated side of the band, moving towards the depreciated side later on.

From: New Challenges of Crisis Prevention,
FONDAD, December 2001, www.fondad.org

Figure 1 Nominal Exchange Rates of the Chilean Peso, 1990-2001
(Chilean peso/dollar)



Chile's experience shows that financial variables play a very important role in the determination of the "equilibrium" or "fundamental" value of the real exchange rate for periods that are relevant to policy making, and that it is silly to ignore such effects under present circumstances of foreign exchange and capital markets. In fact, the rather large width of the band did not avoid the need for strong defense during 1998. The BBC scheme in use at the time did undergo speculative attack, which put the Central Bank between Scylla and Charybdis: either to strongly defend the band or to lose credibility completely. In practice the BBC became a crawling peg when the need to defend the band predominated. A BBC scheme is likely to be attacked just as a crawling peg.

By the way, we never know whether the real exchange rate is in line with fundamentals: one can expect expert opinion to diverge, even substantially, among governmental authorities. Even standard models of fundamentals for the real exchange rate have high standard errors (around 5 percent), which make that a band of plus and minus 10 percent may be perceived as a narrow one.

As fundamentals ought to include the situation of financial markets and calculations of the long-term "equilibrium" rate do not, a scheme that is perceived as a relatively rigid one may be easily attacked after a change of sentiment of investors. When the attack occurs, there is no sterilised intervention capable of defeating it. Sterilised intervention implies that the Central Bank provides the necessary liquidity to continue the attack.

From: New Challenges of Crisis Prevention,
FONDAD, December 2001, www.fondad.org

Unavoidably, non-sterilised intervention must be used, what implies that sharp changes in real interest rates occur, transmitting volatility from the financial markets to real output and employment. In the case of Chile it is quite clear that the volatility of the interest rate was much larger during the BBC period than what it has been during the floating period, up to now.

In the Chilean case, exchange rate volatility has not been larger with floating. As a matter of fact, if one makes calculations of a virtual band from September 1998 to date, using the rules applicable then, the market exchange rate never crossed the limits of the band. It did approach those limits but, contrary to what happened during the BBC period, there have been no speculative attacks. Prior to floating, every time the market exchange rate approached the limits of the band speculative attacks developed and the authorities were forced to intervene directly or indirectly through changing the band or adjusting restrictions.

The Chilean peso volatility after floating is lower than that of the euro, the yen, the Mexican peso, the Brazilian real, the New Zealand dollar and the Australian dollar. Perhaps this is at least in part a consequence of the way in which we implemented the transition from BBC to floating. The process took almost two years: the accounting system of the Central Bank was modified to mark to market; currency mismatch regulations were introduced and strengthened in the financial system; banks were instructed to take into account currency mismatches of their borrowers when evaluating risk; instruments for exchange rate risk coverage were introduced and actively promoted by the Central Bank; possibilities for international operations of the banking system were widened; regulations for the placement of private paper abroad were reduced and authorisation was given to issue paper in pesos or UF's.[1]

All these measures were taken in the framework of a very strong financial system, which exceeded the Basel capital requirements by over 50 percent, while non-performing loans comprised less than 2 percent of the banking system's total loan portfolio and provisions exceeded that figure. Only after these measures were put in place the peso was floated, at a time of our own choosing, with relative calm in the market.

We are quite satisfied with our floating experience up to now. Floating introduces the right incentives to minimise exchange risks. We feel that floating has provided us with additional degrees of freedom in monetary policy, which we have been exploiting in the last 18 months: while the Federal Reserve increased the Federal Funds rate (FFR) by over 100 basis

1 The UF (Unidades de Fomento) is an inflation-indexed Chilean monetary unit that is adjusted daily to reflect changes in the previous month's consumer price index.

point, we could keep our own rate stable and even falling. We reduced real rates by 50 basis points while the Federal Reserve FFR was still moving upwards.

It is true that the lack of synchronisation of interest rate movements pushed, at times, the exchange rate close to the limits of the old band, but the fact that there were no rigid points of attack avoided speculation and pre-empted sharp responses with interest rate.

In his paper John Williamson compares the abandonment of the bands in Russia, Indonesia and Chile. This is a curious comparison, but it is illustrative of the variety of countries that have used this system, and the number of *ex post* explanations to justify its abandonment. Nevertheless, it is our opinion that it is better to have a system that *ex ante* does not introduce potential risks of credibility in such a volatile relative price as the exchange rate. Hence, the floating in Chile.

I think we have learned through hard experience that schemes where the authorities have to make explicit their preference for a given exchange rate lead only to a loss of credibility. John is quite aware of this and he rejects any rigid interpretation of the BBC scheme including a Maginot line, adding shades of grey to an already grey area: flexibility, *ma non tanto*; sometimes, but not always. In the present world this is hardly feasible unless one goes the road of insulating against capital movements instead of covering against exchange rate risks.

A very attractive banner that John hoists is that of the focus in the medium term, arguing, "governments and central banks may contribute a vision that the market lacks". The question here is whether a scheme of exchange rate bands, discretionally adjusted, with little transparency, is the way to have this focus. Wouldn't it be better to have a floating scheme, transparent, where fiscal and monetary policies play according to established rules of the game, and where interest rate policy is framed with a strong focus on the medium term (e.g. a two-year inflation target)? Why should the exchange rate be the medium-term target? If one believes in the long-term neutrality of money, it is hardly useful to have medium-term targets for the real economy assigned to monetary policy. More than that, it is extremely dangerous, as it would imply assigning responsibilities without enough tools, what leads to discredit and failure.

The reading John makes of the Krugman model on stabilising speculation results from the fact that, in that model, the band has full credibility, so the exchange rate never gets far away from the centre of the band (an inverted U-shape distribution). But the empirical evidence, and Krugman also states so, is that the contrary happens! (U-shaped distribution). This happens precisely because, in practice, the bands have had little credibility.

In any case, it is important to notice that, in principle, a floating

From: New Challenges of Crisis Prevention,
FONDAD, December 2001, www.fondad.org

exchange rate does not preclude interventions to limit the degree of volatility, even though one can doubt the efficacy of such intervention. The cases of Mexico and Australia are illustrative: they have introduced automatic mechanisms to intervene so as to smooth the path of the exchange rate, but volatility is still substantially larger than in Chile, where there has been no intervention at all. Certainly, the Chilean Central Bank may also intervene in a much more massive way if it is facing situations of serious liquidity shortage, for instance due to regional financial crises. Therefore, there is no need to fix boundaries to the exchange rate in order to limit speculation. On the contrary, it is possible that going that way (i.e. by adopting a BBC) one may encourage speculation, as the Central Bank credibility is put at stake through the setting of a fixed, or crawling, numeric value for the exchange rate.

Hence, going from BBC to CBS may not be enough. But we do need additional time to pass a more strict judgement in the Chilean case.

From: New Challenges of Crisis Prevention,
FONDAD, December 2001, www.fondad.org

East Asia's Experiences with the Free Floating Exchange Rate System

Yung Chul Park and Chi-Young Song

1 Introduction

Many studies have shown that an exchange rate fixed at an untenable level was invariably one of the major causes of financial crises as in the cases of Mexico, East Asia, and Russia. In particular, adjustable peg exchange rate systems have proved to be unworkable over any length of time for those emerging market economies integrated or integrating into the international capital markets and should not be expected to be viable (Fischer, 2001). The major part of the argument against intermediate regimes is the impossible trinity; that is, fixed exchange regimes lose monetary independence when the capital account is fully liberalised.

Echoing this view, Blinder (1999) argues that floating rates should be the accepted norm in the new financial architecture. Dornbusch (1999) claims that countries in East Asia have no option but to move to a flexible exchange rate system. Williamson, who has long been an advocate of intermediate regimes for emerging market economies, concedes in his recent book (2000) that "no country that had been allowing its currency to float reasonably freely has suffered a crisis anywhere near as acute as those experienced by the East Asian victims of the 1997 crisis", although this evidence does not mean that crises are impossible in flexible exchange rate regimes. While there has been growing support for the free floating exchange rate system in emerging market economies, intermediate regimes have by no means been hollowed out. Frankel (1999), Williamson (2000), and many others still believe that a variety of adjustable peg systems are more likely to be appropriate in emerging market economies than corner solutions. Nevertheless, proponents of intermediate solutions constitute a minority of the economic profession.

Despite the overwhelming support for the free floating system in emerging market economies that are open to capital flows, many countries in East Asia have been reluctant to let their exchange rates fluctuate. Malaysia decided to adopt a fixed exchange rate system in the midst of a crisis, China continues to adhere to what they call a managed floating system, and other East Asian countries with a free floating system intervene extensively to stabilise their nominal exchange rates.

From: New Challenges of Crisis Prevention,
FONDAD, December 2001, www.fondad.org

An important question is why these emerging market economies in East Asia have so little confidence in the free floating exchange rate system. Proponents of the floating exchange rate system argue that the system is decidedly less vulnerable to speculative attacks in a world of mobile capital because it could play the role of absorbing both foreign and domestic shocks. Following this line of argument, the IMF and many experts have recommended variants of the Mundell-Fleming model with a Phillips curve and inflation targeting to emerging market economies open to international capital flows as a macroeconomic policy framework.[1] East Asian policymakers do not appear convinced that such a framework would be operable and effective in ensuring price stability while sustaining robust growth and avoiding large current account imbalances. This lack of confidence in the new macroeconomic system has raised the question of whether alternative frameworks such as floating with capital control or an intermediate regime with capital mobility may be more appropriate to many East Asian emerging market economies.

The purpose of this study is to analyse the behaviour of the nominal and real exchange rates and exchange rate policy of the three crisis-hit economies in East Asia – Indonesia, Thailand, and Korea – which shifted to the free floating system in 1997 as part of the conditionality for the IMF rescue financing. Section 2 discusses some of the reasons that make these economies reluctant floaters. One of the problems of free floating are the large swings in the nominal exchange rate. They make business harder and more costly to firms engaged in foreign trade and also complicate short-run management of macroeconomic policy and long-term development strategy.

In Section 3, we examine whether the intermediate exchange rate regime could be an alternative system appropriate to East Asian economies. Section 4 investigates the extent to which volatility of the nominal exchange rate in the three countries has increased since lifting foreign exchange controls. A number of recent studies suggest that the authorities of all three countries have intervened systematically and rather frequently in the foreign exchange market. Section 5 attempts to identify some of the objectives of their intervention. One of the advantages of a free floating exchange rate system compared to intermediate or fixed exchange rate regimes is that it frees monetary policy from stabilising the nominal exchange rate to be used to achieve domestic policy targets – price stability and low unemployment. Section 6 analyses the issue of whether the three countries have gained monetary autonomy since adopting the free floating system. Concluding remarks are found in the final section.

---

1 See Svensson (1997 and 2000) and McCallum (1999).

2 Fear of Floating: East Asian Experience

Perhaps the most common argument against a free floating system is that under flexible rates, exchange rates often move too much, in particular in small economies with open capital markets, and that these movements are unrelated to fundamentals, causing undesirable movements in real exchange rates.[2] As shown in Figure 1, the indices of real exchange rates of Indonesia, Korea, and Taiwan display considerable instability in the 1970s and 1980s. After a relatively stable period thereafter, the real exchange rates collapsed when the crisis broke out in 1997. Since then they have been fluctuating widely again, largely because of the increase in volatility of the nominal exchange rates, which in turn may be caused by the increased volatility of capital flows.

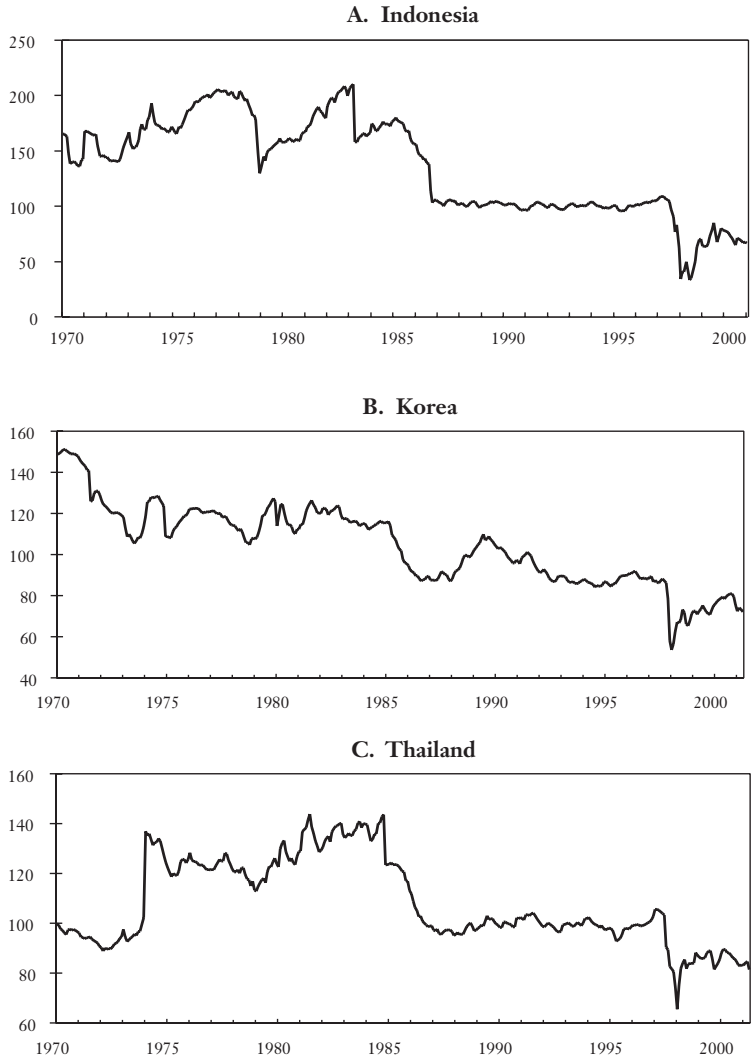
When foreign exchange markets are deregulated after a long period of control in emerging market economies, they tend to be shallow, brittle and lack the market-supporting infrastructure. As a result, even a small change in capital flows or market expectations could trigger a large change in the nominal exchange rate. At times, the high degree of volatility in exchange rate movements is costly and may become unbearably high, in particular to those small and medium-sized enterprises (SMEs) engaged in foreign trade which have limited access to or have to pay high costs of hedging.

In the foreign exchange markets of many emerging market economies, market participants are limited. Branches of foreign banks operating in these economies often play the role of market makers, but they are small both in size and number. Many domestic banks are inexperienced in managing the risks involved in forward transactions. They are also constrained in their forward market operations, because they cannot obtain lines of credit from foreign banks that they need to serve as market makers. Since their credit ratings are often below the investment grade, the foreign banks tend to be conservative in their lending to the domestic banks. Furthermore, paucity of short-term financial instruments with different maturities available in domestic financial market limits the menu of forward contracts. For these reasons, domestic banks often have to square their foreign exchange positions and hence are reluctant to offer forward contracts to domestic firms.

In Korea, for example, only large industrial groups have been able to hedge their foreign exchange exposures through the forward exchange

2 See Mussa *et al*. (2000) for a higher degree of volatility of the exchange rate in the flexible exchange rate system.

Figure 1 Real Exchange Rate Movement in the East Asian Crisis Countries, 1970-2000
(average 1990 = 100)



Note:
The real effective exchange rate of each country against the currencies of 19 industrial countries.

Source: JP Morgan website.

market. SMEs are required to provide collateral for forward cover, making the cost of hedging much higher than that of large firms. Most of the SMEs do not have a skilled staff capable of managing complex arrangements that forward market transactions require. Currency futures and options are available in some emerging market economies, but cannot be used as a means of hedging, because the markets for these instruments are small and illiquid. It takes time to develop the market infrastructure necessary to help stabilise the exchange rate. However, neither the public nor policymakers are prepared to wait until a more deeper and wider market develops. In the end, the policymakers are pressured or find justification to intervene.

The second reason is that large swings in the nominal exchange rate could cause misalignment of the real exchange rate. The misalignment may make it difficult to maintain export competitiveness at an appropriate level and therefore to support rapid growth of those economies oriented toward an export-led development strategy. As we discuss below, it will also complicate management of the current account.

With the deregulation of capital account transactions, capital flows have increasingly dominated changes in the nominal exchange rate in many emerging market economies: mobile capital in and out of these economies has largely determined the direction and scope of fluctuations and often resulted in an overshooting of nominal exchange rates. Under these circumstances, assuming that the parity condition holds in real term, there is no reason to believe that an equilibrium real exchange that satisfies the arbitrage relation for a given domestic real interest rate and expected real exchange rate will also be the rate that could maintain export competitiveness. Nor would it necessarily be the rate that will balance the current account.

In models of free floating and capital mobility with inflation targeting, such as the one developed by Svensson (2000), the current account is immaterial and does not raise any policy problems because current account imbalances are adjusted through lending to or borrowing from the international financial markets. This assumption may be incorrect and unrealistic. It may be incorrect, because the current account is also driven by exports and an import demand. Hence, the current account is not only affected by exchange rate changes resulting from capital movements, but also by the level of income. It may be unrealistic, because most emerging market economies integrating into the international financial markets cannot go on borrowing indefinitely: most of them are in reality subject to borrowing constraints.

To elaborate further on the current account issue, consider an exogenous increase in the foreign interest rate. In the Mundell-Fleming model

From: New Challenges of Crisis Prevention,
FONDAD, December 2001, www.fondad.org

with a Phillips curve that assumes free floating and capital mobility and introduces inflation targeting, this change induces an increase in capital outflow. This outflow subsequently causes, other things being equal, a depreciation of the currency, which in turn builds up inflationary pressure, a gain of export competitiveness and an incipient surplus on the current account that was initially balanced. The expansionary effects of the depreciation results in an increase in output and domestic interest rate. Depending on the strength of the inflationary pressure, monetary authorities may move to tighten money market conditions to raise further the interest rate to meet a predetermined inflation target. These changes are likely to prevent any further weakening of the currency, but to have ambiguous effects on the current account. If the initial capital outflow and the subsequent changes in output and interest rate create expectations of further depreciation of the currency, then the current account may remain in surplus at a new equilibrium.

Conversely, an increase in capital inflows triggered by a fall in the foreign interest rate may cause an appreciation of the currency with a subsequent deterioration in the current account. The increase in capital inflows would therefore exert downward pressure on the interest rate and the level of output. The inflation targeting may then require an easing of monetary policy. As in the case of the increase in the foreign interest rate, however, these changes may not dissipate the pressure for appreciation and hence may not restore balance in the current account. As we discuss below in this section, if the deficit is large and expected to grow, foreign investors and lenders may view the imbalance as a sign of serious structural weaknesses and pull out their investments. When the withdrawal is combined with the herd behaviour in the international financial markets, it precipitates a major crisis. To the extent that maintaining a current account imbalance at a manageable level is an important policy objective, as it is in many emerging market and developing economies, policymakers of these economies are likely to intervene to stabilise the exchange rate.

Fischer (2001) proposes to use fiscal policy as an instrument for managing the current account when it is in a large deficit as a result of an appreciation of the real exchange rate. When monetary policy is locked in for inflation targeting, this means that fiscal policy is reserved for achieving either the current account or employment objectives. However, it is rather obvious that such a target-instrument approach could destabilise the Mundell-Fleming model with inflation targeting in the short run.[3]

[3] In the long run, it is reasonable to assume that the capitalised value of present and future current account imbalances approaches to a constant level, if not zero. However, at this stage of debate, it is not clear how and whether the international financial markets could ensure such a long-run equilibrium in the absence of policy intervention.

Consider an increase in the foreign interest rate. Other things being equal, this will induce an outflow of capital, thereby depreciating the currency. The weaker currency generates a surplus on the current account while it builds up inflationary pressure through the increase in both the prices of imports and net exports. Monetary policy will be tightened up to reduce the inflationary pressure. On the other hand, fiscal policy will have to be expansionary to reduce the incipient current account surplus. Therefore, policymakers may find themselves in an unsustainable situation where they pursue contractionary monetary policy and expansionary fiscal policy at the same time.

A third reason for the reluctance of deregulating the foreign exchange market is the concern that in the free floating system changes in the exchange rates of the three major currencies – the US dollar, the euro, and the yen – could and in fact do augment the instability of both the nominal and real effective exchange rates of the East Asian currencies much more than otherwise. Most East Asian countries trade heavily with Japan and increasingly compete against Japanese exporters in the third markets. As a result, the yen-dollar exchange rate is an important variable in determining their real effective exchange rates. The large swings in the yen-dollar exchange rate are then translated into a high degree of instability of the real effective exchange rates of these economies.

For example, when the yen depreciates against the dollar, the other East Asian currencies appreciate in real effective terms even when their fundamentals do not change so long as their dollar exchange rates remain unchanged. In the absence of market intervention that engineers a depreciation vis-à-vis the dollar, these currencies will now be too strong. The Japanese economy then expands as their exports become relatively more competitive, while other East Asian economies experience a slowdown in their growth, generating divergence in the business cycle in Japan and the rest of East Asia. Policymakers of the other export-oriented East Asian economies will then be hard pressed for restoring export competitiveness. One might argue that foreign investors, knowing the possible divergence in the business cycle, may curtail or withdraw their investments in the East Asian countries once they observe a weakening of the yen, which subsequently forces a depreciation of the East Asian currencies vis-à-vis the dollar. However, there is as yet no strong empirical evidence supporting this type of adjustment.

A fourth reason is that in a world of free capital mobility the free floating exchange rate system could exacerbate rather than temper the boom-bust cycle associated with pro-cyclical capital flows: the system may not be able to guard against speculative disturbances as effectively as it is claimed to be. For example, consider a large increase in capital inflows in

an emerging market economy attracted by the prospect of a boom (a higher expected rate of return). The increase initially creates pressure for currency appreciation. However, the initial appreciation may not deter or reverse the inflows if it does not create expectations of depreciation and more so when foreign investors' perception of economic expansion does not change.

So long as this perception of foreign investors persists, both domestic and foreign investors are likely to come to believe that prices of assets will increase continuously.[4] This expectation will in turn attract further foreign capital inflows. In the absence of central bank intervention, the inflows will then lead to monetary expansion and subsequently increases of the prices of equities and other assets including real property. The asset price increase keeps the currency strong, but the booming asset markets and domestic demand expansion do not generate any expectation of depreciation, hence resulting in further inflows, which in turn feed on speculation in the asset market.[5]

The appreciation of the currency will undermine the competitiveness of exports and shift resources to the non-tradable sector; eventually it will slow down export earnings and bring about a deterioration in the current account. It may take some time to observe such effects of appreciation on trade account. Only when the current account begins to show signs of a large deterioration, would currency depreciation expectations set in. Once the current account deficit is perceived to be too large to be sustainable, market expectations may shift and foreign portfolio investors and lenders may pull out their investment all at once. Such an exodus of foreign investors could easily provoke a major financial crisis as it did in Thailand during the 1997 crisis.[6]

In many East Asian countries, foreign portfolio investors were dominant forces in determining the direction of asset price movements in the 1990s.[7] Many domestic investors tend to mimic the portfolio choices of foreign investors in the belief that foreign market participants have more accurate

4 For the sake of simplicity, it is assumed that the domestic bond market is underdeveloped and closed to foreign investors as it is in many emerging market economies.

5 In a floating regime, there is a tendency that a change in the spot rate leads to an almost identical change in the forward rate (Svensson, 1992). Williamson (2000) argues that this evidence implies a lack of market expectation that the exchange rate may return to an equilibrium level "within any time horizon relevant to market participants". Given this exchange rate behavior, the expected future exchange rate may simply appreciate also as the spot rate appreciates.

6 For a similar argument, see Furman and Stiglitz (1998).

7 There is also evidence that foreign investors have tended to augment fluctuation of asset prices in East Asian financial markets. At least, one empirical study shows that foreign investors are positive feedback traders and exhibit herd behavior. See Kim and Wei (1999).

information on and better capability of analysing market developments. This imitative behaviour of domestic investors could aggravate the instability of financial markets further.

A fifth reason is that depreciation may complicate inflation management. As far as inflation management is concerned, Velasco (2000) argues that the fear of floating is exaggerated because price stability could be sustained through introduction of inflation targeting as an appropriate nominal anchor in an economy open to international capital flows. However, as we have argued earlier, the open economy models developed by Svensson (1997, 2000) and McCallum (1999) suggest that inflation targeting could aggravate instability of the nominal exchange rate as it could conflict with the current account management. An obvious case is an exogenous terms of trade deterioration which will build up inflationary pressure. Faced with the prospect of rising inflation, central bank authorities may have to raise the domestic interest rate. The increase dampens domestic demand, but at the same time induces inflows of foreign capital, which will in turn lead to an appreciation of the currency. The stronger currency could then reinforce the effect of the terms of trade deterioration to offset the contractionary effect of a higher interest rate. The current account deficit will increase further. As noted earlier in this section, such a deficit, depending on its size and sustainability, could cause an outflow of capital and a speculative attack on the currency crisis as it did in East Asia in the 1997-98 period.

A higher degree of volatility of the nominal exchange rate also weakens the effectiveness of monetary policy as the instrument of inflation targeting, because it requires a higher risk premium for foreign investors to hold domestic currency denominated assets of emerging market economies. The domestic interest rate that satisfies the parity condition will then be higher than in less flexible exchange rate regimes. The high premium will limit the flexibility of monetary policy in adjusting the interest rate consistent with inflation targeting; in particular, it may create a downward rigidity in the interest rate so that authorities may not be able to ease monetary policy even when a deflationary tendency sets in. In particular, this potential rigidity means a limited applicability of the Taylor rule in emerging market economies.

Finally, a number of recent studies on exchange rate policies have shown that policymakers in developing and emerging market economies have been reluctant to let their exchange rates fluctuate freely for fear of a large depreciation. One of the policymakers' concerns with the free floating system is the effect of the currency mismatch of a large depreciation on the balance sheets of banks and corporations with a large amount of US dollar denominated debts (Calvo and Reinhart, 2000a and 2000b; Eichengreen

and Hausmann, 1999; Goldfajn and Olivares, 2000; and Mussa *et al*., 2000). Another is that a large depreciation could downgrade their sovereign ratings and consequently reduce their accessibility to international financial markets (Goldfajn and Werlang, 2000; Calvo and Reinhart, 2000b; and Hausmann *et al*., 1999).

3 Intermediate Regimes for East Asia

East Asian policymakers are under constant pressure to keep both the nominal and real exchange rates stable. Although they are often fighting a losing battle, the authorities continue to use monetary policy as the main tool for stabilising both the nominal exchange rate and inflation rate despite the fact that monetary policy fundamentally affects the nominal and not the real exchange rate (Fischer 2001).

Should East Asian countries then eschew the flexible exchange rate system in favour of other arrangements with less flexibility? Whatever its merits, East Asian countries would not find it practical or politically acceptable to move to a currency board. The currency board system faces an implementation problem of choosing the currency to peg to and the system completely lacks a domestic lender of last resort.

Intermediate arrangements such as crawling pegs with wider bands or the BBC (band, basket and crawl) have their share of problems. However, as long as policymakers of emerging market economies do not have confidence in the free floating regime, it is likely that they will continue to search for an intermediate regime. According to Williamson (2000), the basic rationale for searching for an intermediate regime may be "the fear that freely floating exchange rates are badly behaved, i.e. prone to losing touch with the fundamentals, as to become misaligned." When the nominal exchange rates fluctuate as widely as they have in many emerging market economies, Williamson (2000) points out, the real exchange rates could be misaligned, and the East Asian countries may not be able to keep the competitiveness of their exports and to sustain the rapid growth they were able to achieve for more than a quarter century prior to the East Asian crisis.

As noted earlier, there is the widespread suspicion that the authorities of the three East Asian countries under consideration have intervened in the foreign exchange market. Although it is speculated that their purpose of intervention is primarily to sustain a relatively high rate of growth through promotion of exports, there is little information as to how, and to what extent they will intervene to influence the exchange rate movement. This lack of information on the modality of intervention has created a

considerable amount of uncertainty in the foreign exchange market, which could become a cause of instability of the exchange rate.

After the 1997 crisis, all three countries have been keen on generating current account surpluses to service their foreign debts and to increase their holdings of reserves. At the same time, these countries were forced to float their exchange rates and to maintain a highly liberalised capital account. For the reasons that are analysed in the preceding section, these policy reforms and the current account objective have contradicted each other. Since the crisis erupted in 1997, the authorities of the three countries have been reluctant to allow the nominal exchange rate appreciate over and an above a certain level for the fear that such an appreciation may jeopardise their efforts at generating current account surpluses. As a result, it appears the authorities have had an intervention point in mind in managing exchange rate policy, although such a point in terms of the level of the nominal exchange rate is not well defined or known, if indeed it does exist. That is, exchange rate policy in these countries has been implemented without any reference to the parity or an equilibrium exchange rate or the intervention band. This mode of intervention is often classified as managed floating, which suffers from the failure of providing the market with the focus needed for stabilising speculation.

Because of this and other weaknesses of managed floating, Williamson (2000) proposes three new intermediate regimes that are less prone to crises by relaxing the obligation of intervention when the exchange rate moves out of a predetermined band. These new intermediate regimes include: the reference rate proposal in which the authorities do not have to defend a parity on an equilibrium exchange rate but are not allowed to push their currencies away from the parity; soft margins in which authorities target a moving or geometric average of current and past market exchange rates to remain within a predetermined band rather than targeting the market exchange rate to remain within a predetermined band at all times; and monitoring bands that require hands-off policy within a preannounced band, but allow intervention without obligation to intervene once the rate goes out of the band to bring it back within.

Admittedly, the modified versions of an intermediate exchange rate regime may be more effective than old systems in reducing the vulnerability of emerging market economies to speculative attacks. Nevertheless, they may not be free from the traditional criticism of intermediate regimes in general that a reference rate or an equilibrium exchange rate can not be easily defined or estimated for the purpose of implementing exchange rate policy insofar as some of the economic fundamentals that presumably determine the exchange rate are not easily identifiable. Even when a set of fundamentals can be classified, in reality it may not be easy to observe

changes in these variables as a whole that may dictate changes in the equilibrium exchange rate around which a soft margin is to be established. This problem has become more complicated with the deregulation of capital account transactions. In the modified intermediate regimes, the band serves as a weak nominal anchor for the exchange rate. Fischer (2001) is questioning whether such an anchor is preferable to inflation targeting. More important, all of the new proposals for an operational intermediate regime have not been tested to determine their viability and are not necessarily immune to the criticisms of the old regimes.

In so far as the effectiveness of the new intermediate regimes remains to be proved, emerging market economies, before jumping to an intermediate regime, will be better advised if they attempt to find out to what extent volatility of their nominal exchange rates has increased since shifting to free floating and what the causes of the increase are if it has. One advantage of the flexible exchange rate system is that it allows the monetary authorities a measure of independence in conducting monetary policy to attain domestic policy objectives – low inflation with a high level of employment (the Taylor rule) – which may in turn help stabilise indirectly the nominal exchange rate. In subsequent sections, we will address these issues to examine further the viability of the floating exchange rate regime in East Asian economies.

4 Volatility of the Nominal Exchange Rate

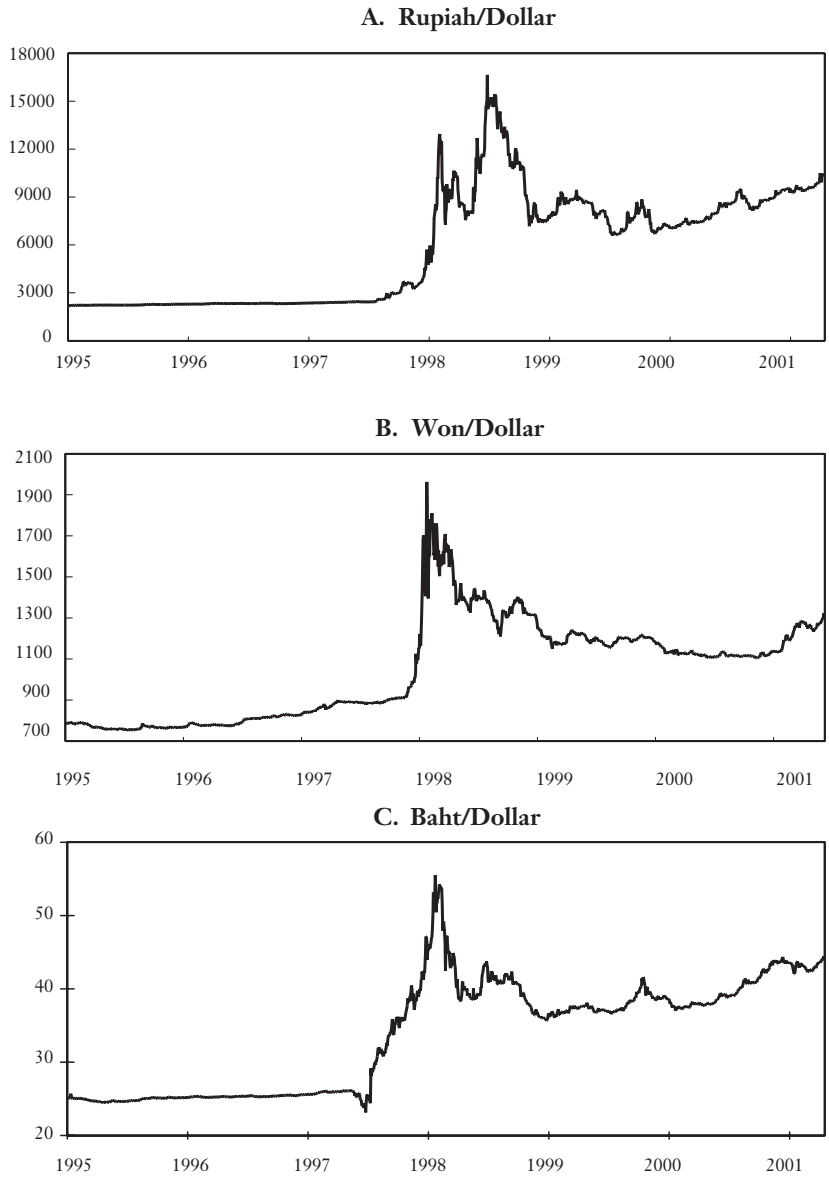
The regime shift to the free floating system led to an increase in the exchange rate volatility in Indonesia, Korea and Thailand. This can be easily found in Figure 2, which depicts the daily movement of the exchange rates of the local currency vis-à-vis the US dollar. In this section, we analyse the behaviour of the nominal exchange rates to determine to what extent volatility of the exchange rate increases in these countries since shifting to the free floating regime. For this purpose, we have estimated GARCH (generalised autoregressive conditional heteroskedasticity) variances of the daily changes in the exchange rates. Our empirical examination follows a GARCH (1,1) model that consists of the following two equations:

$$\Delta s_t = c_0 + \sum_{i=1}^{m} \alpha_i \Delta s_{t-i} + u_t \,,\; u_t / \Omega_t - (0,\, h_t) \tag{1}$$

$$h_t = c_1 + \beta_1 u^2_{t-1} + \beta_2 h_{t-1} + \varepsilon_t \tag{2}$$

where s_t is log of the exchange rate of a local currency per US dollar, and Δ is a first difference operator. u_t is an error term of the mean equation (1)

Figure 2 Daily Exchange Rate Movement in Indonesia, Korea and Thailand, 1995-2000



Source: Bloomberg.

and h_t is a conditional variance of u_t. Ω_t represents a set of information available at time t and ε_t is an error term of the variance equation. We have estimated equations (1) and (2) for the three East Asian countries which shifted to free floating in 1997 from a managed floating system (a fixed regime in the case of Thailand) and then compare the values of the conditional variances across the different exchange rate regimes.

Our sample period for the managed floating or fixed regime runs from May 1, 1995 to April 30, 1997, while the sample period for the free floating regime is two years from January 1, 1998 to December 31, 2000. We exclude the first few months of the 1997 crisis from our sample even though the exchanges rates were allowed to freely float in all three countries during this period, because the inclusion of the earlier period of crisis in the free floating regime could overstate the exchange rate volatility and then skew the results. The length of dependent lags in equation (1) follows the Schwarz information criterion.

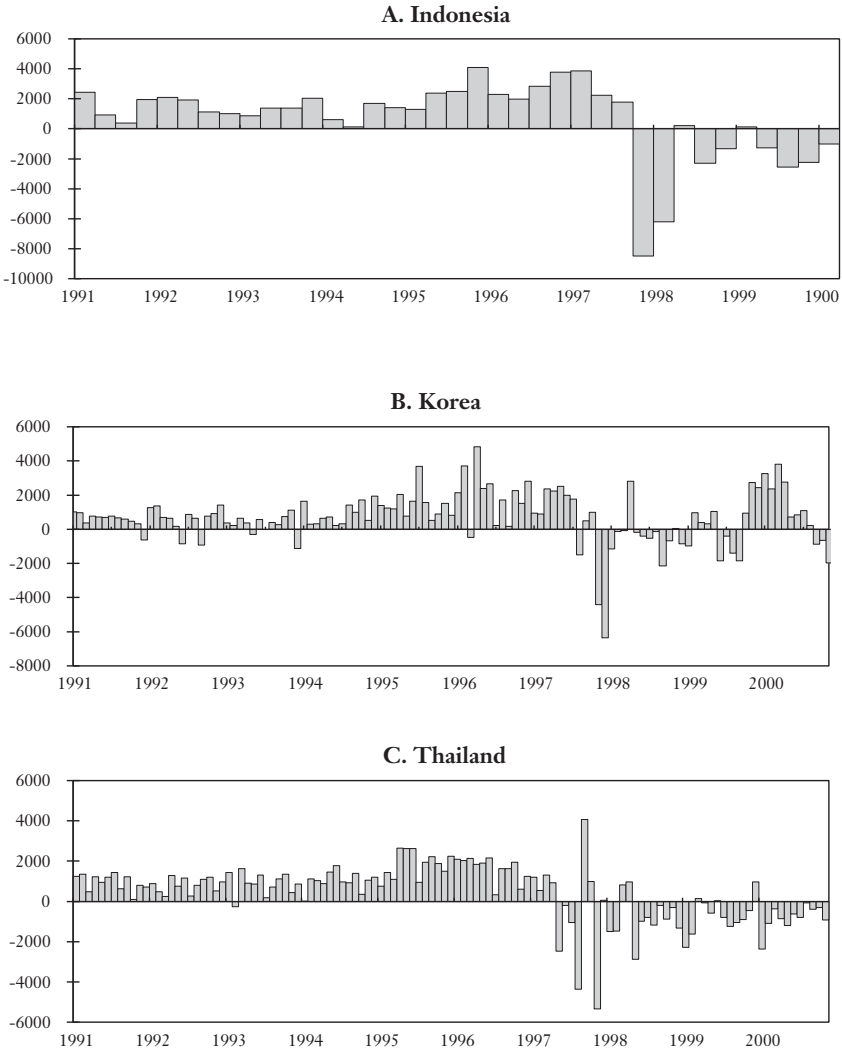
The results of our estimation of equations (1) and (2) are reported in Table 1. They suggest that volatility of the exchange rate under the free floating system is much greater than under the managed floating regime in all three countries. In particular, the increase in volatility has been most conspicuous in Indonesia: among the three countries, Indonesia shows the largest increase in volatility of the exchange rate under the free floating regime. According to our estimation, the volatility of the free floating

Table 1 GARCH Estimation of Exchange Rate Volatility

	Fixed or Managed Floating			Free Floating		
Variables	Indonesia	Korea	Thailand	Indonesia	Korea	Thailand
c_0	1.77x10-4*	2.25x10-4	1.22x10-4	0.001	-4.70x10-5	1.36x10-4*
	(3.501)	(1.790)	(1.350)	(1.048)	(-0.869)	(2.430)
Δs_{t-1}	-0.088**	-0.112**	-0.014	0.093	0.124**	-0.098*
	(-2.476)	(-2.063)	(-0.156)	(1.605)	(2.268)	(-2.982)
c_1	4.14x10-7*	8.82x10-7*	3.59x10-7	3.45x10-5*	1.45x10-6	4.28x10-7***
	(4.875)	(6.242)	(0.584)	(5.725)	(3.905)	(1.782)
u^2_{t-1}	0.150*	0.181*	0.150	0.352*	0.364*	0.038*
	(5.491)	(4.374)	(1.099)	(6.024)	(7.828)	(7.861)
h_{t-1}	0.600*	0.733*	0.600	0.532*	0.602*	0.942*
	(8.165)	(16.972)	(1.599)	(10.344)	(12.783)	(208.944)
Average of $\hat{h}$	2.14x10-6	9.24x10-6	1.27x10-6	2.77x10-4	2.18x10-5	2.47x10-5

Notes:
Sample period: fixed or managed floating regime, 1 May 1995 - 3 Apr 1997, free floating regime, 2 Jan 1999 - 31 Dec 2000.
*, **, *** Significant at, respectively, 1%, 5%, and 10% level.

Figure 3 Capital Inflows in East Asian Countries, 1991-2000
(millions of dollars)



Sources:
International Monetary Fund, *International Financial Statistics*, various issues.
The Bank of Korea website, and the Bank of Thailand website.

regime in Indonesia is about 115 times higher than that of the managed floating period. There has also been a marked increase in the exchange rate volatility in Thailand. Our results indicate that it increased by more than 20 times. Since the exchange rates in Indonesia and Thailand had been very stable prior to the East Asian crisis, these results are not surprising. In contrast, volatility of the nominal exchange in Korea has not increased as much as it has in the other two countries under the free floating regime, while it was the highest before the crisis among the three countries. Nevertheless, the volatility of the won-dollar exchange rate in the free floating system is still more than twice as large as it was during the managed floating system.

In addition to the exchange rate regime change, the higher volatility could in part be attributed to the increase in volatility of capital flows. Figure 3 depicts monthly net capital inflows to Korea and Thailand, and quarterly net flows to Indonesia since 1991. Prior to the financial crisis, both countries saw a sharp increase in capital inflows. After the crisis, in both Thailand and Indonesia, net capital inflows have been negative whereas in Korea they have been positive but displayed a great deal of volatility. Table 2 measures changes in volatility of net portfolio capital flows in terms of the ratios of the standard deviation of net portfolio capital flows of the managed and free floating exchange rate regimes. The ratios have risen in all three countries, notably in Thailand.

Table 2 Volatility of Portfolio Capital Flows

Volatility Measures	Indonesia	Korea	Thailand
Absolute Rate of Changes	2.5	8.6	14.7
Absolute Changes	3.1	2.2	0.9

Notes:
Figures indicate ratios of standard deviation of monthly portfolio capital flows in the fixed or managed floating regime to the corresponding statistics in the free floating regime.
Sample period: fixed or managed floating regime, May 1995 - April 1997; free floating regime, January 1999 - December 2000.
In the case of Indonesia, quarterly data are used due to the limited availability of monthly data.

One might argue that the increase in volatility of the nominal exchange rate is expected with the regime shift and is not excessive compared to that of other floating currencies. When compared with volatility of the yen, it is evident that the nominal exchange rates of the Thai baht and Korean won have been relatively more stable than the yen, although volatility of the Indonesian rupiah has been four times higher than that of the yen (see

Table 3 Relative Volatility of Exchange Rate in the Free Floating Regime

	Indonesia	Korea	Thailand
Relative Volatility	4.41	0.35	0.45

Notes:
Figures indicate the ratio of local currencies' volatility to the Japanese yen's. Exchange rate volatility is measured by the GARCH model.

Sources:
International Monetary Fund, *International Financial Statistics*, various issues.
The Bank of Korea and the Bank of Thailand, websites.

Table 3). The East Asian experience therefore partly confirms the findings of Calvo and Reinhart (2000a and b) that the exchange rate variability in emerging market economies after moving to the floating regime has been much lower than that of the advanced floaters, raising the suspicion that the authorities of Thailand and Korea have heavily intervened in the foreign exchange market.

5 Foreign Exchange Market Intervention

A number of recent studies on exchange rate policies of emerging market economies suggest that Korea and, to a lesser extent, Thailand and Indonesia have continued to manage their dollar exchange rates, certainly much more actively than pure floaters would practice (Hernandez and Montiel, 2001). What are then the objectives of their interventions? There is some evidence that the monetary authorities have stepped into the market to moderate the movements of the nominal exchange rate when they display excessive volatility, although it is difficult to determine empirically whether they had a clear idea as to the appropriate level and tolerable volatility of the nominal exchange rate or whether they were trying to bring back the rate closer to the desired level.

A high degree of exchange rate volatility, which is often caused by speculative trading, in emerging market economies, creates large uncertainties as to expected exchange rate changes and hence makes business more costly, in particular when firms do not have access to hedging facilities. For this reason, many East Asian policymakers point out that they are under constant pressure by both exporters and importers to stabilise the nominal exchange rate. There are, however, other reasons for their intervention.

A *prima facie* evidence of market intervention is, of course, the massive accumulation of foreign exchange reserves through sterilisation of current

account surpluses. In Korea, the volume of foreign exchange reserves rose to 21 percent of GDP in 2000 from less than 7 percent in the mid-1990 (see Table 4). It was more than twice as large as the amount of short-term debt in the same year (see Table 5). Between 1998 and 2000, as shown in Table 4, reserve accumulation largely corresponded to increase in the current account surplus in Korea. Both Thailand and Indonesia also have witnessed a sharp increase in their foreign exchange reserves since the crisis. In 2000, reserves amounted to 26 percent of GDP in Thailand or were almost three times as high as the volume of short-term debt. In Indonesia, foreign exchange reserves rose to 15 percent of GDP in 2000, up from less than 10 percent in 1997, amounting to more than four-thirds of its short-term debt.[8] These figures leave little doubt that reserve accumulation as a means of fending off future crises has been one of the most important reason for market intervention. Had the authorities abstained from market intervention, then the nominal exchange rate would have appreciated much more than otherwise, possibly choking off the ongoing recovery from the crisis. Therefore, the market intervention for mopping current account surpluses after the financial crisis has so far been tacitly accepted as a necessary part of the crisis management. Have the authorities also been engaged in other smoothing operations when they thought the country's export competitiveness was being eroded or price stability was threatened? The available evidence suggests that maintaining export competitiveness was an important reason for intervention.

Measures of market intervention developed by Bayoumi and Eichengreen (1998) and Glick and Wihlborg (1997) indicate that policy-makers both in Thailand and Indonesia have become more restrained in intervening in the market, whereas the Korean authorities have been as interventionist as they were before since shifting to a floating regime. It is normally expected that the regime shift would result in a substantial decrease in these indicators, and this development is not found in East Asia. As shown in Table 6, the two indices of market intervention fell slightly in both Thailand and Indonesia whereas they changed little in Korea between the two different exchange rate regimes.[9] According to Bayoumi and Eichengreen (1998), the degree of intervention in advanced floater was on average less than 0.3 during the 1980s.

---

8 However, as can be seen in Table 5, the ratio of foreign exchange reserve to short-term debt in those three East Asian countries is still much lower than that of China and Taiwan, which successfully fended off the spillover effects of the Asian crisis in 1997-1998.

9 Bayoumi and Eichengreen index = $1- \frac{SD(ds)}{SD(ds - dR)}$, Glick and Wihlborg index = $1- \frac{SD(ds)}{SD(ds) + SD(dR)}$ where ds is the rate of change of the dollar exchange rate, dR is the ratio of changes in international reserves to a lagged monetary base, and SD denotes standard deviation.

Table 4 Foreign Exchange Reserves and Current Account Balance
(millions of dollars, percentages)

Year*	Foreign Exchange Reserves		Current Account Balance	
	amount	percentage of GDP	amount	percentage of GDP
		Indonesia		
1996	24,024	10.6	-8,532	-3.8
1997	20,609	9.6	-5,790	-2.7
1998	22,713	23.0	4,102	4.2
1999	23,540	16.2	5,783	4.1
2000	22,326	15.0	7,992	5.3
		Korea		
1996	34,037	6.5	-23,005	-4.4
1997	20,368	4.2	-8,167	-1.7
1998	51,975	16.2	40,365	12.6
1999	73,987	17.8	24,477	5.9
2000	96,131	21.0	11,040	2.4
		Thailand		
1996	37,731	20.7	-14,691	-8.1
1997	26,179	17.3	-3,021	-2.0
1998	28,825	25.7	14,243	12.7
1999	34,063	27.5	12,428	10.0
2000	31,947	26.0	9,200	7.5

Note:
* End of period.

Sources:
International Monetary Fund, *International Financial Statistics*, various issues.
The Bank of Indonesia, the Bank of Korea and the Bank of Thailand, websites.

Table 5 Foreign Exchange Reserves / Short-Term Debt

Period*	Indonesia	Korea	Thailand	China	Taiwan
1998.IV	0.89	1.31	1.15	4.37	5.24
1999.II	1.45	1.43	1.53	5.75	6.46
1999.IV	1.33	1.69	2.23	7.75	6.24
2000.I	1.38	2.19	2.21	7.45	6.53
2000.II	1.32	2.06	2.32	7.28	7.43
2000.III	1.35	2.14	2.72	7.63	7.33

Note:
* End of period.

Sources:
Bank for International Settlements, *Joint BIS-IMF-OECD-World Bank Statistics on External Debt*.
International Monetary Fund, *International Financial Statistics*, various issues.
The Central Bank of China, website.

Using high frequency data it has also been shown that the Korean authorities have been active in managing the won-dollar exchange rates (Park, Chung, and Wang, 2001). Using the intra-day data over the 10 days from September 10 to 20 in 1999, the authors show that any large change in the nominal exchange rate disappeared within a few minutes. Unlike in other free floating regimes, the intra-day exchange rate movements did not show any volatility clustering, suggesting that the Korean authorities were actively managing the nominal exchange rate.

Table 6 Degree of Foreign Exchange Market Intervention

	Indonesia		Korea		Thailand	
Regime	B-E	G-W	B-E	G-W	B-E	G-W
Fixed or Managed Floating	0.92	0.91	0.80	0.77	0.95	0.94
Free Floating	0.66	0.75	0.80	0.81	0.74	0.76

Note:
B-E and G-W indicate measures suggested by Bayoumi and Eichengreen (1998) and Glick and Wihlborg (1997). See Section 5, footnote 9, for the measures.

The available pieces of evidence presented above therefore demonstrate that like many other emerging market economies, Korea, Thailand, and Indonesia have occupied the hollow middle of the exchange rate regimes by moving to an intermediate solution. One important question to be addressed is then: what have been the objectives of market intervention in these countries? The analysis of intra-day high-frequency data suggests that market intervention has been geared to stabilise high-frequency exchange rate movements in Korea. There may be other possible reasons for managing the exchange rates of local currency vis-à-vis the US dollar in the three countries.

Smoothing-out operations for high frequency exchange movements may be necessary after a crisis, when agents' expected exchange rates might become overly sensitive to the exchange rate they observe in the market. Under such a circumstance, the authorities' smoothing-out operations could help market participants establish their expectations on the future movements of both the real and nominal exchange rates by minimising the effect of noise trading (Hernandez and Montiel, 2001).

If stabilising the nominal exchange rate is the main objective, then Hernandez and Montiel (2001) argue that the exchange rate smoothing would lead to substantial fluctuations in the stock of foreign reserves around a certain level that is deemed to be appropriate for intervention and

achieving other objectives. However, they do not find any evidence that Korea and other East Asian crisis-hit countries have used their reserves to conduct smoothing-out operations; instead, the stocks of reserves have exhibited a systematic tendency to increase over time in these countries.

The three crisis countries may not have been concerned about stabilising their dollar exchange rates as much as they have been about stabilising either the nominal or real effective exchange rate. These countries may have had good reasons to peg their exchange rates to or to manage them against a basket of the currencies of the countries with which they have established extensive trade relations.[10] If this is the case, it is likely that the US dollar, the Japanese yen and the euro are the major components of the baskets. The Korean authorities, for example, would manage the won-dollar exchange rate to offset fluctuations in the US dollar-yen or the US dollar-euro bilateral exchange rates. When the yen depreciates vis-à-vis the US dollar, as it has in recent periods, one would expect an intervention to engineer a depreciation of the won against the US dollar so that the nominal effective exchange rate would remain relatively stable. Hernandez and Montiel attempted to find evidence that any of the East Asian countries were managing their bilateral exchange rates vis-à-vis the US dollar to stabilise a nominal effective exchange rate, but they failed.

Since Korea and other crisis-hit countries in East Asia have followed export-led development strategies and are likely to continue to rely on exports for growth, one might conjecture that policymakers have intervened in the foreign exchange market to stabilise the real effective exchange rates. Once again, Hernandez and Montiel do not find any evidence that may support the conjecture. If the authorities were as sensitive to maintaining export competitiveness as they are often claimed to be, then one might conjecture that they would intervene more actively to reverse the exchange rate movement when the exchange rate appreciates than when it depreciates. To examine this possibility, we have estimated the volatility of the exchange rates separately for days of depreciation and appreciation. If they are more likely to step in when it appreciates, then it can be expected that the volatility of the exchange rate may be lower when it appreciates than otherwise. Our results shown in Table 7 support our hypothesis on the asymmetric pattern of intervention in the case of Korea. The volatility of the daily exchange rate of the Korean won is significantly lower during the days of appreciation compared to those of depreciation. However, we could not find a similar result for Indonesia and Thailand.

10 Hernandez and Montiel (2001) speculate that the East Asian countries may have preferred a basket pegging to fixing to the US dollar because the importance of the US as their trading partner has declined and they may want to use the exchange rate as a nominal anchor.

Table 7 Volatility of the Exchange Rate for Depreciation and Appreciation

Classifications	Indonesia	Korea	Thailand
Depreciation (σ_A)	1.07	0.34	0.36
Appreciation (σ_B)	1.17	0.28	0.38
σ_A / σ_B	0.91	1.21*	0.95

Notes:
Figure indicates standard deviation of daily changes in exchange rates.
* Reject the null hypothesis of $\sigma_A = \sigma_B$ at 5% level.
Sample period: 2 Jan 1999 - 31 Dec 2000.

While Hernandez and Montiel do not find any evidence that the authorities of the three countries were intervening to stabilise either the nominal or real effective exchange rates, we find that movements of the dollar exchange rates of the three countries have been rather sensitive to changes in the yen-dollar exchange rate. To measure this sensitivity, we have estimated the following autoregressive equation using the monthly data from January 1999 to April 2001.

$$\Delta s_t^i = c + \beta_1 \Delta s_{t-1}^i + \beta_2 \Delta yen_t + \beta_3 \Delta yen_{t-1} + \varepsilon_t^i \qquad (3)$$

where s_t^i is the log of the dollar exchange rate of the country i at time t, and yen_t is the yen-dollar exchange rate at time t. If the three countries are concerned about losing their export competitiveness vis-à-vis Japan, β_2 would be positive. The results of this estimation are reported in Table 8. They show that β_2 is positive and statistically significant in Korea. Correlation coefficients between the real effective exchange rate of Japan and those of the three countries also confirm our findings in Table 8. The coefficient between Korea and Japan is very high at 0.92, whereas it is relatively low in the case of both Thailand and Indonesia (see Table 9). These results indicate that Japan is a more important export competitor in both East Asian and other markets to Korea than it is either to Thailand or Indonesia.

In summary, what were the Korean policymakers trying to achieve in intervening in the foreign exchange market? The empirical evidence provided by our analysis (Park, Chung, and Wang, 2001) and Hernandez and Montiel (2001) suggests that their objectives have been: (i) to stabilise the won-dollar exchange rate by smoothing out fluctuations caused by noise-trading; (ii) to resist appreciation of the real effective exchange rate after the crisis; and (iii) to build a reserve buffer to financial vulnerabilities the economy may have to face while undergoing financial and corporate

Table 8 Effects of Changes in Yen-Dollar Exchange Rate

Independent Variables	Indonesia	Korea	Thailand
	Dependent Variable: Δs^i_t		
C	0.012	0.002	0.006
	(0.998)	(0.737)	(1.634)
Δs^i_{t-1}	0.229	0.429	0.291
	(1.031)	(2.630)**	(1.425)
Δyen_t	-0.343	0.443	-0.027
	(-0.693)	(3.430)*	(-0.189)
Δyen_{t-1}	0.005	-0.019	-0.042
	(0.010)	(-1.280)	(-0.301)
R^2	0.05	0.44	0.09
D.W.	1.63	1.74	1.83

Notes:
Figures in parenthesis indicate t-values.
*, ** Significant at, respectively, 1% and 5% level.
Sample period: Jan 1999 - Apr 2001.

Table 9 Correlation of Real Effective Exchange Rates

Indonesia-Japan	Korea-Japan	Thailand-Japan
0.56	0.92	0.50

Note:
Figures indicate monthly correlation coefficients of real effective exchange rates between Jan 1999 - Apr 2001.

Source: JP Morgan website.

restructuring. Although Hernandez and Montiel de-emphasise the significance of the first objective, in a country like Korea where many firms in the trade sector have a limited access to hedging facilities, the authorities have been under constant pressure to moderate fluctuations in the won-dollar exchange rate (Park, Chung, and Wang, 2001).

6 Monetary Independence

The question of whether free floating has increased autonomy in the conduct of monetary policy will be examined in this section. Edwards and

Savastano (1998) examined the Mexican case and found that the Bank of Mexico systematically adjusted its monetary policy in response to changes in the exchange rate even during the free floating regime. In contrast, E. Borensztein *et al*. (2001) examined the effects of changes in the US interest rate on local interest rates, and found that the magnitude of the effects is much smaller under the free floating regime than the currency board system, indicating a higher degree of monetary autonomy with a more flexible exchange rate regime. Their analysis includes Mexico, Singapore, Australia, Canada, and New Zealand for the floating system, and Hong Kong and Argentina for the currency board system. Extending their approach to the panel data of 47 countries, Goldfajn and Olivares (2000) found a similar result.

In this section, we empirically examine whether the introduction of a free floating system has affected the degree of monetary independence in Indonesia, Korea and Thailand following an approach similar to that of Borensztein *et al*. (2001). Our empirical model is specified as:

$$\Delta r_t^i = c + \alpha \Delta f_t + \varepsilon_t^i \qquad (4)$$

where r_t^i is the interest rate of country i at time t, and f_t is a foreign shock variable. The magnitude of foreign shocks is denoted by Δf_t. The foreign shocks examined in this study are changes in the US interest rate, the log of the US stock prices, and the log of the yen-dollar exchange rate.

In our examination, it will be assumed that the effects of foreign shocks are transmitted through arbitrage dictated by the uncovered interest parity (UIP). Even though the bond markets are not well developed and incompletely open to foreign investors in all three countries, the UIP could hold if borrowing from international financial markets by domestic residents is permitted.

The UIP condition is:

$$r^i = r^f + (E^e - E) / E \qquad (5)$$

where r^f is the foreign interest rate (US interest rate), E is the exchange rate of domestic currency against the US dollar, and E^e is the expected exchange rate.

As for the effects of foreign shocks on domestic financial variables, one would expect:

(i) When the US interest rate rises, domestic firms and financial institutions tend to borrow more from domestic sources than from the international financial markets. They will also try to substitute domestic currency debts for dollar-denominated obligations. Consequently, the domestic interest rate rises and the currency depreciates.

(ii) In response to the rise in the US stock price, the domestic stock price is also expected to rise, and market participants are likely to speculate that the increase in the expected returns of domestic stocks will induce more capital inflows. Thus, E^e appreciates and hence the dollar-denominated borrowing will be less costly. The shift to the foreign currency borrowing leads to a fall in the domestic interest rate, and the local currency appreciates.

(iii) When the Japanese yen depreciates against the dollar, E^e depreciates because the current account is expected to deteriorate due to the loss of export competitiveness caused by the weaker yen, making the dollar denominated borrowing more costly. The domestic interest rate then rises, and the local currency depreciates.

In an economy with the flexible exchange rate system, foreign shocks are expected to be absorbed through changes in the exchange rate. Thus, the effects of the shocks on domestic interest rates would be weaker when the exchange rate floats freely than when it is either fixed or managed. That is, Δf_t would be statistically significant, in the fixed or managed floating regime, whereas its significance may disappear in the free floating regime or the absolute value of its coefficient will be smaller even though it remains significant. The statistical insignificance implies a higher degree of monetary autonomy. If the effects of foreign shocks are transmitted to the domestic financial markets, it is expected that $\alpha > 0$ for the US interest rate and the yen-dollar rate, and $\alpha < 0$ for the US stock price.

The sample period for equation (4) for the fixed or managed floating system runs from May 1, 1995 to April 30, 1997 and for the free floating regime from November 1, 1998 to October 31, 2000. The earlier period of the 1997 crisis is excluded to avoid skewness of the results.

In our empirical investigation, we have selected only those days when large foreign shocks occurred instead of using the entire set of daily observations in the sample period. Sample points chosen are the 50 largest changes in f_t in the two different exchange rate regimes: that is, our sample includes only 50 days of largest absolute changes in f_t. Accordingly, sample observations actually used in estimating equation (4) are not in a consecutive time sequence. This would mitigate the problem arising from the simplicity of equation (4). We assume that if the domestic interest rates vary in a consistent manner on the days of large foreign shocks, changes on these particular days are related to the foreign shocks rather than other factors that are not considered in equation (4).

The variables representing foreign shocks are the US Federal Funds rate, the Dow Jones Industrial Index, and the closing yen-dollar rate on the New York market. For domestic interest rates of the three East Asian countries, this study uses their call money market rates.

Table 10 Summary of Daily Change in Foreign Stocks
(percentages)

Statistics	Fixed or Managed Floating		Free Floating	
	50 Largest observations	Full sample period	50 Largest observations	Full sample period
	Absolute Changes in US Interest Rate			
Average	0.79	0.17	0.42	0.1
Standard Deviation	0.50	0.27	0.22	0.1
	Absolute Changes in Yen/Dollar Rate			
Average	0.67	0.19	0.75	0.2
Standard Deviation	0.29	0.20	0.22	0.2
	Absolute Changes in US Stock Prices			
Average	0.72	0.24	1.06	0.4
Standard Deviation	0.20	0.21	0.32	0.3

Note:
Sample period: fixed or managed floating regime, 1 May 1955 - 3 Apr 1997; free floating regime, 1 Nov 1998 - 31 Oct 2000.

Source: Bloomberg.

Table 10 summarises the three sets of observations of the foreign shocks chosen for the study. It can be seen that the averages of 50 largest shocks are three or four times larger than that of the entire sample. The standard deviations of the sets observation of the three variables are also no less than those of the entire samples. This indicates that the 50 largest observations for each foreign shock variable can be separated out from the others in the sample period.

Any changes in f_t (foreign shocks) may affect the domestic interest rates with a lag. In order to account for the existence of the lag, equation (4) is modified to include lagged terms of f_t.

$$\Delta r^i_{t+k} = c + \alpha \Delta f_t + \sum_{j=1}^{k} \beta_j \Delta f'_{t+j} + \varepsilon^i_t \qquad (6)$$

Equation (6) specifies that a foreign shock observed at time t influences the domestic interest rate at $t+k$. It should be noted that large other foreign shocks that may occur between $t+1$ and $t+k$ could also affect the domestic interest rate at $t+k$. In order to estimate α properly, it is then important to

capture the effects of large foreign shocks at time $t + j$ subsequent to observation of a large foreign shock at time t. For this purpose, equation (6) introduces another variable $\Delta f'_{t+j}$, which takes a value other than zero only when a large shock occurs at time $t+j$. If there is no large foreign shock at $t + j$, then $\Delta f'_{t+j} = 0$.

Equation (6) can also be used to detect the presence of various effects of foreign shocks. For instance, when $k = 1$, β_1 captures the contemporaneous effect on the domestic interest of changes in the foreign shock variable for two consecutive days. When $k = 2$, β_1 gauges one day lagged effect of a change in f_t for two consecutive days. Similarly, β_2 measures the contemporaneous effect of a large change in f_t that follows two days later after an initial foreign shock was observed at time t. If $\Delta f'_{t+j}$'s are statistically significant in equation (6) whereas Δf_t is not in equation (4), this means that domestic interest rates respond to foreign shocks only when the shocks are sustained. The estimation results of equations (4) and (6) are reported in Table 11. Our study estimates equation (6) only for k=1 and 2.

In equation (6), the coefficients of Δf_t are positive as expected in both Korea and Thailand when foreign shocks are represented by changes in the US Federal Funds rate. In the free floating exchange rate system, the estimates of α are smaller than they were during the managed or fixed exchange rate period, but Δf_t is not significant in either country. None of the independent variables in equation (6) is statistically significant even at the 10 percent level, indicating that the lagged effects of any exogenous external shock measured by the US Federal Funds rate on the domestic interest rate are negligible.

When the foreign shock variable is represented by the US stock price index, it has no measurable effect on the domestic interest rate in the free floating regime in all three countries. However, a large change in the US stock price produces predictable lagged effect on the domestic interest in the managed floating system in Korea. In the case of Thailand, the estimation results show that large changes in f_t that occur every two other days exert significant negative effects on the domestic interest rate under a fixed exchange rate system as the model predicts. Lagged effects of the US stock price changes on the call rate in Indonesia are also detectable, but the signs of β_1 and β_2 are shown to be positive against the model's prediction.

After the three countries moved to the free floating regime in late 1997, the results of estimation of both equations (4) and (6) suggest that changes in the US stock price index have had little effect on the domestic interest rates of these countries. None of the independent variables included in equations (4) and (6) appears to have any explanatory power. However, these results should not be taken at their face value, because stock prices of these countries do move rather quickly in response to changes in the Dow

Table 11 Effects of Foreign Shocks on Domestic Interest Rates

A. Shocks from US Interest Rates

Independent Variables	Fixed or Managed Floating			Free Floating		
	Dependent Variables					
	Δr_t	Δr_{t+1}	Δr_{t+2}	Δr_t	Δr_{t+1}	Δr_{t+2}
			Indonesia			
C	-0.296	0.200	0.205	0.007	-0.147	-0.152
	(-1.189)	(0.834)	(0.583)	(0.052)	(-1.050)	(-0.956)
Δf_t	-0.404	-0.270	0.342	-0.221	0.361	0.222
	(-1.517)	(-0.973)	(0.792)	(-0.798)	(1.117)	(0.599)
$\Delta f'_{t+1}$		-0.547	-0.104		-0.095	0.544
		(-1.191)	(-0.152)		(-0.209)	(1.055)
$\Delta f'_{t+2}$			0.352			0.008
			(0.275)			(0.007)
			Korea			
C	-0.221	-0.048	-0.116	-0.012	0.006	-0.011
	(-2.483)*	(-0.534)	(-1.218)	(-1.044)	(0.353)	(-0.748)
Δf_t	0.094	-0.031	-0.079	0.015	0.003	-0.034
	(0.991)	(-0.296)	(-0.680)	(0.643)	(0.075)	(-0.946)
$\Delta f'_{t+1}$		0.217	-0.219		0.020	0.010
		(1.261)			(0.386)	(0.197)
$\Delta f'_{t+2}$			0.336			0.027
			(0.974)			(0.272)
			Thailand			
C	-0.341	-0.205	-0.296	-0.008	-0.073	0.167
	(-1.043)	(-0.580)	(-1.203)	(-0.109)	(-1.190)	(-0.367)
Δf_t	0.511	-0.362	-0.256	0.227	-0.046	-0.039
	(1.460)	(-0.887)	(-0.852)	(1.509)	(-0.324)	(-0.060)
$\Delta f'_{t+1}$		0.508	-0.350		0.059	-0.089
		(0.753)	(-0.738)		(0.296)	(-0.069)
$\Delta f'_{t+2}$			0.129			
			(0.145)			

Table 11 (continued)

B. Shocks from US Stock Prices

Independent Variables	Fixed or Managed Floating			Free Floating		
	Dependent Variables					
	Δr_t	Δr_{t+1}	Δr_{t+2}	Δr_t	Δr_{t+1}	Δr_{t+2}
			Indonesia			
C	0.242	-0.051	-0.276	-0.006	0.010	-0.052
	(0.683)	(-0.198)	(-1.108)	(-0.060)	(0.354)	(-0.613)
Δf_t	23.008	28.888	-20.611	-0.255	1.836	-6.617
	(0.487)	(0.859)	(-0.628)	(-0.030)	(0.717)	(-0.866)
$\Delta f'_{t+1}$		234.68	99.268		0.916	0.558
		(2.062)**	(0.898)		(0.202)	(0.041)
$\Delta f'_{t+2}$			153.548			1.765
			(1.929)***			(0.078)
			Korea			
C	-0.054	0.033	0.019	0.022	-0.012	-0.003
	(-0.830)	(0.053)	(0.286)	(1.716)***	(-1.182)	(-0.288)
Δf_t	2.548	2.897	-17.707	-1.401	-0.041	0.806
	(0.294)	(0.414)	(-2.042)**	(-1.219)	(-0.046)	(0.821)
$\Delta f'_{t+1}$		-10.135	-23.702		-0.038	-0.394
		(-0.428)	(-0.812)		(-0.024)	(-0.225)
$\Delta f'_{t+2}$			12.858			-3.510
			(0.611)			(-1.213)
			Thailand			
C	-0.164	0.244	-0.055	-0.168	-0.003	-0.040
	(-0.530)	(0.705)	(-0.247)	(-0.889)	(-0.074)	(-0.819)
Δf_t	-36.372	17.372	40.915	17.655	-1.943	5.698
	(-0.880)	(0.381)	(1.385)	(-1.082)	(-0.471)	(1.303)
$\Delta f'_{t+1}$		90.548	-83.390		5.588	-4.378
		(0.587)	(-0.839)		(0.771)	(-0.562)
$\Delta f'_{t+2}$			-175.749			0.823
			(-2.453)			(0.530)

Table 11 (continued)

C. Shocks from Yen-Dollar Exchange Rates

Independent Variables	Fixed or Managed Floating			Free Floating		
	Dependent Variables					
	Δr_t	Δr_{t+1}	Δr_{t+2}	Δr_t	Δr_{t+1}	Δr_{t+2}
			Indonesia			
C	0.143	0.350	-0.203	0.035	-0.159	0.031
	(0.622)	(0.933)	(-0.630)	(0.355)	(-1.328)	(0.230)
Δf_t	-12.797	-12.275	74.783	8.246	-37.084	17.167
	(-0.405)	(-0.234)	(1.689)	(0.649)	(-2.395)**	(0.950)
$\Delta f'_{t+1}$		33.840	-146.230		22.691	-181.296
		(0.319)	(-1.640)		(0.583)	(-4.104)
$\Delta f'_{t+2}$			-79.048			-56.185
			(-0.809)			(-0.804)
			Korea			
C	-0.059	0.034	0.010	0.009	-0.004	-0.005
	(-0.798)	(-0.311)	(-0.853)	(0.660)	(-0.288)	(-0.437)
Δf_t	1.024	-21.596	-8.222	1.246	-1.792	0.488
	(0.101)	(-1.409)	(-0.503)	(0.685)	(-0.985)	(0.315)
$\Delta f'_{t+1}$		20.060	0.080		-1.539	1.098
		(0.648)	(0.002)		(-0.336)	(0.290)
$\Delta f'_{t+2}$			3.225			3.142
			(0.089)			(0.524)
			Thailand			
C	-0.217	0.128	0.032	0.195	-0.161	-0.009
	(-1.940)	(0.514)	(0.258)	(0.934)	(-0.835)	(-0.270)
Δf_t	19.361	-40.598	37.032	10.715	-13.292	3.269
	(1.217)	(-2.264)**	(2.122)	(0.401)	(-0.532)	(0.752)
$\Delta f'_{t+1}$		36.247	-46.885		-29.806	16.350
		(1.009)	(-1.335)		(-0.475)	(1.538)
$\Delta f'_{t+2}$			1.943			16.328
			(0.050)			(0.971)

Notes:
Figures in parenthesis indicate t-values.
, * Significant at respectively 5% and 10% level.

Jones Industrial Index. The statistical significance under the free floating regime reported in Table 11 therefore may reflect the segmentation of the financial system between the shock and other financial markets in the countries under consideration.

Our estimation results do not change substantially when the yen-dollar exchange rate is used as an external shock variable. In the case of Korea, estimated equations (4) and (6) do not provide any evidence as to whether there has been any increase in monetary autonomy after adopting the free floating system. One could detect a one-day lagged effect in Indonesia during the free floating regime period, but β_1 in equation (6) has a wrong sign. Only the experience of Thailand partly confirms our hypothesis: the lagged effects of changes in the yen-dollar rate were substantial when the exchange rate was pegged to the dollar, but they disappeared with the deregulation of the foreign exchange market.

In summary, our empirical estimation has failed to establish whether and to what extent the effects of changes in the US interest rate are transmitted to the domestic financial markets of the three East Asian countries in either the free floating or managed floating system. Although there is evidence suggesting that the linkage between changes in the US stock prices and the domestic interest rates in East Asia has weakened since these countries moved to the free floating regime, this result must be interpreted with caution.

Fluctuations in the yen-dollar exchange rate have had weaker effects on the interest rate in Thailand since it adopted the free floating system. However, a similar shift in the exchange rate regime does not appear to have increased monetary autonomy in Korea. In Indonesia, the shift in fact has amplified the effects of changes in the yen-dollar exchange rate on the domestic economy. In view of the preceding discussion, there is no strong evidence indicating that monetary independence has increased in the three East Asian countries since they moved to the flexible exchange rate system.

7 Concluding Remarks

It appears that policymakers of Indonesia, Thailand, and Korea have legitimate concerns about the workings of the free floating exchange rate system. They adopted the system with the expectation that it would lessen their vulnerabilities to speculative attack after the crisis broke out in 1997. It is perhaps too early to assess the macroeconomic performance of East Asian floaters, in particular whether the free floating exchange rate system has speeded up recovery from the crisis or whether it has made these

emerging market economies less susceptible to currency crises. The available evidence does not necessarily suggest that the system will be more effective in preventing future crises in East Asian emerging market economies than other exchange rate regimes.

East Asian countries' experiences with the free floating exchange rate system suggest that the large swings in the nominal exchange rate have undermined viability of a macroeconomic model which relies on inflation targeting as the base of monetary policy. Such a model ignores current account imbalances on the ground that they are automatically resolved through capital account transactions. In many emerging market economies, such an automatic mechanism of adjustment does not exist. If fiscal policy is used to correct a large current account deficit, it conflicts with inflation targeting.

While our empirical study admittedly suffers many limitations, it does not suggest that the three countries have attained a higher degree of monetary independence: the free floating exchange rate system does not appear to play a shock-absorber role as it is expected. More importantly, given various market imperfections and prevalence of noise trading, the floating rate system may lead to a serious misalignment of the real exchange rate, making it difficult to maintain export competitiveness of the East Asian economies. This is the most constraining factor as far as the adoption of a free floating exchange rate system in East Asia is concerned, in particular when most of the East Asian countries have relied on export expansion as the engine of growth and they continue to do so.

Does our analysis mean that alternative macroeconomic policy frameworks such as floating with capital control or intermediate regimes with capital mobility may be more appropriate to emerging market economies? Can the inflation targeting system serve as a nominal anchor in emerging market economies? Before responding to these questions it is perhaps necessary to examine further the progress and prospects of regional economic integration in East Asia. If indeed there are economic and political forces that are integrating East Asian countries into a single regional entity *à la* the EU, then one might argue that these countries should consider moving to an intermediate regime with or without pegging to a common basket of currencies to pave the way for the eventual creation of a common currency area in East Asia.

References

Bayoumi, T. and B. Eichengreen (1998), "Exchange Rate Volatility and Intervention: Implications of the Theory of Optimum Currency Areas",

In: *Journal of International Economics*, Vol. 45, pp. 191-209.
Blinder, A. (1999), "Eight Steps to a New Financial Order", In: *Foreign Affairs*, Vol. 78, September/October, pp. 50-55.
Borensztein, E., J. Zettelmeyer, and T. Philippon (2001), "Monetary Independence in Emerging Markets: Does the Exchange Rate Regime Make a Difference?", IMF Working Paper 01/1, International Monetary Fund, Washington D.C.
Calvo, G. A. and C. Reinhart (2000a), "Fear of Floating", mimeo, University of Maryland.
——— (2000b), "Fixing for Your Life", mimeo, University of Maryland.
Dornbusch, R. (1999), "The Target Zone Controversy", mimeo, February.
Edward, S. and M. Savastano (1998), "The Morning After: The Mexican Peso in the Aftermath of the 1994 Currency Crisis", NBER Working Paper No. 6516.
Eichengreen, B. and R. Hausmann (1999), "Exchange Rate and Financial Fragility", NBER Working Paper No. 7418.
Feldstein, M. (1998), "Refocusing the IMF", In: *Foreign Affairs*, Vol. 77, pp. 20-33.
Fischer, S. (2001), "Exchange Rate Regimes: Is the Bipolar View Correct?", Distinguished Lecture on Economics in Government delivered at the meetings of the American Economic Association, New Orleans, 6 January.
Frankel, J. (1999), "No Single Currency Regime is Right for All Countries or At All Times", NBER Working Paper No. 7338.
Furman, J. and J. Stiglitz (1998), "Economic Crises: Evidence and Insights from East Asia", In: *Brookings Papers on Economic Activity*, 1998:2, pp. 1-136.
Glick, R., and C. Wihlborg (1997), "Exchange Rate Regimes and International Trade", In: B. Cohen (ed.), *International Trade and Finance: New Frontiers for Research*, Cambridge University Press, Cambridge.
Goldfajn, I. and G. Olivares (2000), *Can Flexible Exchange Rates still Work in Financially Open Economies?*, Studies on International Monetary and Financial Issues for the Group of Twenty Four.
Goldfajn, I. and S. Werlang (2000), "The Pass-Through from Depreciation to Inflation: A Panel Study", Working Paper No. 423, Department of Economics, PUC-Rio.
Hausmann, R., M. Gavin, C. Pages-Serra, E. Stein (1999), "Financial Turmoil and the Choice of Exchange Rate Regime", IDB Working Paper No. 400, Inter-American Development Bank, Washington D.C.
Hernandez, L. and P. Montiel (2001), "Post-Crisis Exchange Rate Policy in Five Asian Countries: Filling Hollowing Middle", Paper presented at the IMF High Level Seminar on Exchange Rate Regimes: Hard Peg or

Free Floating, Washington D.C., March 19-20.
Kim, W. and S. Wei (1999), "Foreign Portfolio Investors Before and During a Crisis", NBER Working Paper No. 6968.
McCallum, N. (1997), "Inflation Targeting in Canada, New Zealand, Sweden, the United Kingdom, and in General", In: I. Kuroda (ed.), *Towards More Effective Monetary Policy*, MacMillan, London.
Mussa, M, P. Masson, A. Swoboda, E. Jadresic, P. Mauro and A. Berg (2000), *Exchange Rate Regime in Increasing Integrated World Economy*, IMF Occasional Paper No. 193, International Monetary Fund, Washington D.C.
Park, Y. C., C.-S. Chung and Y. Wang (2001), "Fear of Floating: Korea's Exchange Rate Policy after the Crisis", In: *Journal of the Japanese and International Economies*, Vol. 15, pp. 225-251.
Svensson, L. (1992), "An Interpretation of Recent Research on Exchange Rate Target Zones", In: *Journal of Economic Perspectives*, Vol. 6, pp. 119-144.
——— (1997), "Inflation Forecast Targeting: Implementing and Monitoring Inflation Targets", In: *European Economic Review*, Vol. 41, pp. 1111- 1146.
——— (2000), "Open-Economy Inflation Targeting", In: *Journal of International Economics*, Vol. 50, pp. 155-183.
Velasco, A. (2000), "Exchange-Rate Policies for Developing Countries: What Have We Learned? What Do We Still Not Know?", G-24 Discussion Paper No. 5, UNCTAD and Center for International Development at Harvard University.
Williamson, J. (2000), *Exchange Rate Regimes for East Asia: Reviving the Intermediate Option*, Policy Analysis in International Economics No. 60, Institute for International Economics, Washington D.C.

Comment on "East Asia's Experiences with the Free Floating Exchange Rate System," by Yung Chul Park and Chi-Young Song

Brian Kahn

The central theme of the Park and Song paper is to consider the important issue of the extent to which greater exchange rate flexibility has contributed to increased monetary policy independence. This issue has also been discussed in a recent IMF Working Paper by Borensztein, Zettelmeyer and Philippon.[1] What I would like to do (at the end of my comment) is to highlight the IMF results and compare them with those of Park and Song.

I won't address the issues raised in the first part of the paper in any detail because I think most of these have already been discussed, particularly in the discussion about John Williamson's paper. I want to just make a couple of points. One is the question of shallow markets and exchange rate movements. I think this is a problem that most emerging markets have faced. However, what we have seen in a number of emerging market economies, including South Africa, is that having fairly broad and relatively sophisticated financial markets as well as relatively deep foreign exchange markets, does not guarantee less volatility and it could even result in greater volatility. South Africa's developed bond market has been a major source of exchange rate volatility as foreigners move into and out of domestic-currency denominated bonds. So it is not always the case that having these broader and more sophisticated financial markets will protect emerging market economies in any meaningful way.

Secondly, it was argued that in Korea and the other East Asian countries there is a lot of pressure to target the real and the nominal exchange rate simultaneously. Obviously this can only be successfully achieved if inflation rates are low, as is the case in East Asia. In such a case the difference between the real and the nominal exchange rate becomes less of an issue and targeting both at the same time is not a problem. However, this is not

1 Borensztein, E.R., J. Zettelmeyer, Th. Philippon (2001), "Monetary Independence in Emerging Markets - Does the Exchange Rate Regime Make a Difference?", Working Paper WP/01/1, International Monetary Fund, Washington D.C., January.

From: New Challenges of Crisis Prevention,
FONDAD, December 2001, www.fondad.org

the case where the domestic inflation rate is significantly higher than the foreign inflation rate. For example, targeting the nominal exchange rate under such circumstances will result in an appreciation of the real exchange rate. Conversely a stable real exchange rate will require a nominal depreciation in line with the inflation differential.

Regarding the issue of volatility, the paper goes to some lengths to show that exchange rate volatility increased with the adoption of a more flexible exchange rate regime. This is not a surprising outcome, particularly given the high degree of volatility of capital flows that existed in East Asia after the crisis – as documented in the paper – and also given the volatile political situation in Indonesia. I don't find it a particularly surprising result therefore that Indonesia's volatility under flexible exchange rates is that much higher than the other countries reviewed. To me the real question here is: how would these countries have coped with these new patterns of capital flows if they had had a fixed exchange rate system or a managed float? If the exchange rate is not flexible, something else has to give.

Related to the above, the real exchange rate movements depicted in Figure 1 of the Park and Song paper do not seem to support the argument of significantly higher volatility. Eyeballing the real exchange rate graphs does not really show a highly or significantly more volatile real exchange rate in these countries *after* the initial shock of the Asian crisis. If you look at the trends, in a number of cases they don't look as if they are a major source of volatility.

With respect to the tests on monetary policy independence, I don't have a particular problem with the actual tests that were applied. However, I am not convinced that these results are actually showing us anything about what is happening to monetary policy independence. If we look at the results for the first model that is used, none of the situations yields significant results for either the fixed or flexible periods. The conclusion in the paper is that there is no strong evidence indicating that monetary policy independence has increased in the three Asian countries since the move to flexible exchange rates. In my view, this is too strong a conclusion. I would argue that the results show there is no evidence that monetary policy independence has *not* increased. We would have expected significance under the fixed exchange rate system, but there are no significant results. The results improve slightly, but not convincingly, in the other two models that are used.

The paper by Borensztein, Zettelmeyer and Philippon also covers the question of monetary policy independence under different exchange rate regimes, but takes a slightly different approach. They do not compare single countries' overall fixed and flexible exchange rate periods. Rather, they look at two different countries in different regions that adopted a

fixed exchange rate regime and compared this to the experience of selected countries in the same regions that adopted a floating exchange rate regime. It is therefore not strictly comparable to the study by Park and Song. The IMF study looks at the impact, firstly, of international interest rates and the changes of risk premia on emerging market international bonds. They compare the extreme cases of Hong Kong and Singapore, which have a fixed and a floating regime respectively. They then look at Argentina and Mexico as the two polar cases in Latin America, and later on they also look at a few other countries by doing impulse response studies for Canada, New Zealand, Chile and Australia.

With respect to Asia, they found that the interest rate linkage between Hong Kong and US monetary policy was one for one, which is a really strong result, while the interest rate in Singapore increased by only 0.3 basis points compared to a 1.0 basis point increase in US rates. There was also significant but moderate depreciation in Singapore when US interest rates increased. So this result comes out quite strongly and provides evidence that a flexible exchange rate regime does allow for some monetary policy independence. Although they found in the case of Hong Kong a very large response of interest rates to shocks in emerging market risk premia, this was not the case for Singapore.

The results of the comparison between Argentina and Mexico, with respect to interest rate shocks, were not as strong as in the case of Hong Kong and Singapore. There does not seem to be any difference in the behaviour of interest rates with respect to changes in the international risk premium. So according to this IMF study, floating exchange rates did not seem to provide any appreciable benefits in insulating the Latin American economies, such as Mexico, from shocks in international risk premia.

Overall, the paper by Park and Song is a valuable contribution to the work in this area. Yet, I think it is still probably a bit early to draw hard and fast conclusions from the above two studies given the fact that the timeframe we are looking at is relatively short.

From: New Challenges of Crisis Prevention,
FONDAD, December 2001, www.fondad.org

Floor Discussion of "Exchange Rate Policies in Developing Countries"

Choosing the Appropriate Exchange Rate Regime

Manuel Marfán, who participated as a deputy minister of finance throughout most of the 1990s in the discussions of exchange rate policy in Chile, stressed that the choice of an exchange rate regime depends, first of all, on what you would like it to achieve.

"It is an instrument that can be used for different purposes. If the exchange rate is important for resource allocation and investment decisions in the long term, for export growth and things like that, then the real exchange rate should be maintained as stable and credible as possible so that investors have some certainty. The idea is to give a long-term signal of stability, for instance by applying a band. The exchange rate can also be used as a nominal anchor if there is hyperinflation. In that case, the exchange rate should achieve stabilisation. The exchange rate is also an important price for financial decisions in a globalised world. When assets and liabilities are in different currencies, the expected changes in exchange rates are very important. Perhaps you should then let the financial market forces determine what happens to the exchange rate.

In the Chilean case, I strongly supported the band, because I thought that the resource allocation component of the exchange rate was the most important. However, a problem with the band is that there are a lot of speculative attacks on it. Moreover, the efforts of policymakers to maintain a stable exchange rate are very costly and, in general, nobody backs the decisions you need to take.

In the beginning of the 1990s, the Chilean central bank had two more or less equally important targets: inflationary targets and current account targets. As time went by, the central bank followed worldwide recommendations and started giving more weight to inflationary targets and less weight to current account targets, because a current account deficit could be addressed by fiscal policy. However, who is responsible for what happens to the current account in the end? That is not delineated and has no consensus. In my view, the central bank should be responsible for the excess of private expenditures and the fiscal policymakers should be responsible for the excess of public expenditure. For the central bank this implies that it needs to understand the stability of the currency in a broad sense that goes beyond inflation and includes the role of the exchange rate in maintaining a sustainable balance of payments."

From: New Challenges of Crisis Prevention,
FONDAD, December 2001, www.fondad.org

Stephany Griffith-Jones argued that the volatility of capital flows makes a band regime highly unstable. "That is why a lot of countries have been abandoning these regimes in times of crisis, not only Chile, Russia and Indonesia, which John mentioned. The costs are not just the loss of reserves but the very high interest rates, the negative effects on the banking systems and, above all, the costs to the real economy. Making a band regime stable would have to involve tougher control of capital flows than even many people in this room would want and would be accepted internationally. If the misalignment becomes too large, we need to have more controls on capital flows, particularly on the highly speculative flows. Otherwise the whole thing will not hold."

Liliana Rojas-Suárez stressed that exchange rate discussions cannot be separated from the situation in which the domestic financial system finds itself. "Many countries don't dare to float because they fear what the exchange rate consequences are going to be for the financial system. At the same time, they don't dare to fix, because if they have to defend the exchange rate, they have to increase the interest rate, which will also affect the financial system. Basically, there is a fear to implement proper monetary and exchange rate policy because a country is not ready to face the trade-off between the exchange rate and the financial system. What Chile has done is to create a system in which the government is not protecting the private sector anymore; it is allowing them to take the risk. The governor just mentioned the support of hedge instruments in assessing the currency mismatch risks that banks are taking by making loans. The currency mismatch should be taken into account when you assess the level of capital or provisions that a banking system should have. Perhaps non-tradables should have a higher level of requirement? What makes Chile work is that it has stopped protecting the private system from taking risks, because it has considered the trade-offs. It can float too because it is in a much better situation to make the financial system compatible with the exchange rate system."

Brian Kahn pointed at he difficulty of determining the right level of the exchange rate in his country, South Africa. "The rand is now undervalued and there have been a succession of speculative attacks on it. Every time the South African central bank has tried to intervene to protect the rand, the net result has been a loss of reserves and a continued downward path. It is not a trivial matter to sort out exactly where the appropriate and real exchange rate is. In 1996, I was among those who believed we could stabilise the exchange rate at a level that was about 30 percent higher than where it is now in real terms. Although the rand may still be undervalued, the 1996 level also caused a lot of problems because it was certainly not an appropriate level.

From: New Challenges of Crisis Prevention,
FONDAD, December 2001, www.fondad.org

What variables do you have to look at with today's levels? To what extent is internal equilibrium defined in terms of full employment? Since we have 25 percent unemployment in South Africa, are we saying that, considering the rand is currently undervalued, our natural rate of unemployment is 25 percent? Those are the problems we are facing. While it is not clear how speculators can keep subjecting the rand to frequent speculative attacks, they seem to be able to do so quite consistently. There is very little that can be done. The current position of the central bank is to just let it float, which has costs to the reserves."

Zdeněk Drábek pointed at yet another aspect of exchange rate regimes: their time frame and exit strategy. "In the beginning of an exchange rate regime, people are very happy with their performance. Then after a few years, the regime collapses. For example, a year ago we were pleased with the Turkish exchange rate regime and everybody was pleased, up to certain point, with the Czech fixed exchange rate regime. John referred to cases of involuntary exits in his paper. When do policymakers face a major problem? How long should a particular regime be maintained? It may be perfectly rational to move from one regime to the next, depending on the objectives the government sets itself. In the stabilisation phase, it might be more rational to think of anchors on the exchange rates even though this may not be the best thing for your exports, and even though you may need to have a different regime later on. If that is true, it raises another question: how do you exit from a given exchange rate regime? The exit strategy for the change from one regime to the next is a major issue for all of us."

Summarising some of the points made by previous speakers, Amar Bhattacharya emphasised the importance of initial conditions for choosing the appropriate exchange rate regime. "First, on the external side, capital flows have become a much more important factor. Second, on the internal side, the link to the domestic financial system has become a much more important parameter. The trade-off that arises in this nebulous pursuit of stability is: how do you pursue stability without giving excessive insurances? That very much depends on initial conditions. What you would do today in Chile is not what you might have done a few years ago. What are the prerequisites for graduating from one regime to another? The Chilean experience may be quite in contrast to the current East Asian experience because the prerequisites are quite different. That raises another question: even if you have a floating exchange rate regime, how could you limit yourself only to inflation targeting or how could the central bank act as a centre for managing the non-public sector part of the expenditure issues?"

Referring to Marfán's distinction between inflation targeting and current account targeting, José Antonio Ocampo observed that it would be

From: New Challenges of Crisis Prevention,
FONDAD, December 2001, www.fondad.org

fictitious for today's policymakers to separate these two types of targeting. "In the past, for the central banks that tended to have separate external and internal balance targets, it was a clear distinction. But nowadays, whatever you do with respect to the exchange rate will have an effect on inflation and whatever you do in terms of interest rates will have an effect on the exchange rates. You have to face the trade-offs in policymaking. By the way, I do not like inflation targeting because it is the wrong way of doing monetary policy. As Stephany said, capital account regulation must be added to almost any exchange rate system, particularly to the intermediate regimes."

Reply by John Williamson

"I do not think it is fictitious to have separate external and internal balance targets just because there is interdependence. Interdependence says that you need a general equilibrium solution to the problem, but it does not say that separating those targets is not useful. How does inflation targeting match up as a way of formulating the internal balance target? It can be problematic if it is interpreted very strictly and in terms of a price index that does not attempt to take out anything such as oil shocks and so on. If those things get fed in, no account is taken of the desirability of stabilising real output by getting a relatively slow return to one's targeted exchange rates. While inflation targeting can be problematic, it has been interpreted reasonably sensibly and has worked quite well in some countries. So I am not hostile to inflation targeting unless it is interpreted totally rigidly.

Chile's exchange rate volatility has been much smaller than many other currencies since it floated, and let us hope it stays that way. It has been the case in other countries that there is a lot of volatility over time – and not just short-run volatility, but large misalignments. It will be interesting to see how the market handles the Chilean peso. Maybe it is small enough that it will not get pushed around by these chaps who enjoy playing games with currencies. That is the sort of danger that needs to be minimised.

Carlos' comment, that volatility is less in Chile than all other floating countries except Canada raises the question of whether it has anything to do with the fact that it has a reference rate? More empirical evidence is needed before we can say.

Turkey actually built in an exit strategy. It was the first time a country said it was going to use the exchange rate to stabilise but wanted to end up with a floating exchange rate with a gradually widening band. I am afraid they got clobbered there. It was not just the fault of the exchange rate regime. No exchange rate system can survive a public row with the prime minister.

From: New Challenges of Crisis Prevention,
FONDAD, December 2001, www.fondad.org

The problem of picking an equilibrium exchange rate target is not trivial at all. You cannot hope to get it more accurate than plus or minus 10 or 15 percent. One reason for advocating a wide range for the band is to accommodate that degree of uncertainty in the target. Even after accommodating that degree of uncertainty, there may still be times when the market has pushed the rate to an over- or undervalued level.

It is really paradoxical to argue that you can only make this intermediate regime work if you have capital controls. If we are going back to the 1960s, and say that we can only make an intermediate regime work if we do not have the capital mobility of today, then I would say we have failed and better think again about loosening up the exchange rate regime some more."

East Asia's Experiences with the Free Floating Regime

Pingfang Hong observed that volatility in exchange rates would not necessarily imply a move away from fundamental equilibrium as seems to be the assumption in the paper by Park and Song. "If there is a very high volatility at just around the equilibrium rate, that does not mean you are moving away from equilibrium, but just up or down. That is the way the market tries to locate the equilibrium. In a fixed rate regime case, the government assumes it knows what the equilibrium is, so it takes the risk. But when the regime changes to floating, the market supplies the demand force to locate the equilibrium. Both a fixed and a floating exchange rate regime can cause misalignment by either the government or the market. We know that it is difficult for both the market and the government to distinguish between the speculation bubble and the fundamental equilibrium."

Hong found Park and Song's test for the independence of monetary policy too limited and suggested that they should have broadened their definition of monetary independence. "It is only a test of the degree of independence of three financial shocks: interest, exchange and stocks of the US. But these are only financial shocks; there can be also other shocks such as supply side or oil price shocks. Moreover, the definition of independence of monetary policy should not be limited to external shocks. It may also mean that you increase your degree of independence to handle domestic shocks and that you have more monetary policy freedom to deal with domestic demand and supply shocks. That part was not tested at all in the paper."

Amar Bhattacharya argued that the East Asian crisis-hit countries had not really moved to free floating but rather to managed floating. "None of the East Asian countries have a floating regime right now. The magnitudes of reserve movements suggest that they are extreme managed floating

regimes, if anything. So what kinds of regimes are we comparing? To what extent are the regimes being pursued by the East Asian countries a disguised BBC or CBS? There seems to be an almost implicit reference rate. There certainly seems to be some adjustment in the rates, such as an appreciation in Korea and depreciations in the Philippines, while stability reigns in Thailand. Is this a disguised BBC? Is there anything wrong with having a regional device for BBC? After all, central banks share information about reference rates, coordinate around it, and intervene."

Bhattacharya stressed that Asian policymakers responded to the 1997 crisis by using both the exchange rates and interest rates. "It is interesting to compare the responses of Thailand and Indonesia with Malaysia in that context. Even after Thailand developed a fundamental problem, ran out of reserves, let the exchange rate go, and received a huge IMF rescue package, the volatility still continued for a period of time. In the case of Indonesia, the government first let the exchange rate go and then tried to defend it with very high interest rates for a while. As the financial sector reeled, there was a lot of concern about trying to bring down interest rates, but there were no instruments to do it because that really required driving a wedge in the capital account. In contrast, Malaysia let the exchange rate float but insisted on keeping the interest rate quite moderate, never more than 10 to 15 percent, despite mounting inflationary expectations. As a result, although the initial estimates of loan losses were exactly the same for Malaysia, Korea and Indonesia, Malaysia ended up having the lowest losses in the banking system. These examples show that the choice in crisis is not just one about exchange rates but also an issue of interest rates."

Jan Kregel wondered whether East Asian countries would have been better off in facing the crisis if they had adopted in their pegging systems a basket that included both the yen and the dollar. "Because these countries had adjustable pegging and not fixed exchange rate systems, which pegging system would have been the most appropriate choice? There are some studies, one of which came out of the Asian Development Bank, which have suggested that South-East Asia probably would have been better off in facing the crisis, if it had adopted a basket that included the yen and the dollar. This links back to the discussion of John Williamson's paper about current and capital account flows. Would it have been more sensible for Asia to balance its capital account currency, which was primarily the yen, against its current account currency, which was primarily the stabilisation of export earnings in dollars? The kicker to this came in 1996 when the very sharp increase in short-term flows denominated in dollars tended to confuse this rather simple separation between the yen, as the major capital account investment currency, and the dollar, as the major export market currency."

Manuel Marfán said that his conversations with financial authorities of Korea, Singapore and Malaysia in the mid-1990s at APEC meetings had made clear to him that these countries had partly achieved exchange rate stability by effectively influencing the private sector's behaviour. "How did these countries achieve stable exchange rates, for instance, in Korea? We found that foreign investors, including financial investors, had to bargain a lot before they could enter the Korean economy in the mid-1990s. There was a sort of capital account control without any rules but a case-by-case decisionmaking. In Malaysia, when there was a lot of arbitrage and speculation in terms of capital inflows in 1994, they decided to implement a sort of export capital control that was very costly for speculators. They performed that for a few months until they had the reaction they wanted. This is an example of the way in which countries sometimes make crucial decisions that change the logic of the transmission mechanism of policy and private decisions."

Rogério Studart observed that countries that have gone through a period of traumatic financial crises, such as the East Asian countries, are not good cases to assess whether a change in the exchange rate regime has affected the independence of monetary policy. "Such traumas tend to create inertia in the behaviour of both the international investors and the monetary authorities. International investors tend to become very nervous and have their fingers on the trigger all the time, waiting for something to happen. Monetary policymakers, in their turn, want to show that they are more conservative than even the most conservative international investor."

Reply by Chi-Young Song

"I agree with Brian's comment that the high volatility in the free floating regime is not surprising, but the interesting question is how much the volatility has increased after shifting to a free floating system. In Korea, before the free floating regime, there was a sort of managed floating system, called a 'market averages' system, which had a daily reference rate change and some bands with a 5 or 10 percent margin. It was a kind of band or margin exchange rate system. At that time, Korea still had high levels of volatility within the margin. It is worth seeing how much the volatility has changed in Korea since the regime shift.

Brian asked how the East Asian countries cope with high volatility of the exchange rate? In general, high volatility influences the capital market, especially the stock market. In Korea, the high volatility of the exchange rate reduced foreign capital inflows into the stock market. That is why the Bank of Korea tried to intervene to reduce the high volatility of the exchange rate.

Brian also commented that the real exchange rate volatility was not very high after the regime shift but was still higher than before the crisis in the 1990s. From 1996 to 1998, Korea had a very stable real exchange rate movement. But after the crisis, the real exchange volatility increased compared to the entire 1990s. However, I agree that it is still difficult to draw a conclusion because we have had only two years of experience with a free floating system.

In response to Pingfang, our estimation at least allows us to see that the foreign factors are important in affecting the domestic interest rate. Yet, this is still a limited approach in the sense that it does not include domestic economy shocks and other factors that affect the domestic interest rate. We could not consider these factors because we are only using daily observations. In order to include these broader questions we need longer-term data.

Amar is right that, in the long term, the East Asian regime is a disguised BBC. While the Bank of Korea may have some sort of reference rate in mind for the long term, in the short term it is mostly concerned about stabilising the exchange rate."

From: New Challenges of Crisis Prevention,
FONDAD, December 2001, www.fondad.org

Part IV

Counter-Cyclical Efforts at the Regional and International Level

From: New Challenges of Crisis Prevention,
FONDAD, December 2001, www.fondad.org

From: New Challenges of Crisis Prevention,
FONDAD, December 2001, www.fondad.org

Counter-Cyclical Efforts at the Regional and International Level: A Latin American View

José María Fanelli

1 Introduction

I will argue that counter-cyclical policy in an increasingly globalised world needs regional and multilateral measures, for which new institutions should be built.

In a context of globalisation, sound and consistent domestic policies may not be sufficient to ensure macroeconomic stability. To be effective, some counter-cyclical policies may have to be designed and implemented at a level exceeding national boundaries. This calls for international cooperation and the creation of a new institutional setting. Though this issue is very broad, my approach is specific. I adopt a Latin American perspective and, more specifically, a Mercosur perspective. The issue is highly relevant to the region because macroeconomic stability can make a positive and direct contribution to two key goals for Latin American development: acceleration of growth and profitable integration in the world economy.

Latin American countries began to implement structural reforms more than a decade ago. Among these reforms was deregulation of the capital and trade accounts to take advantage of the new opportunities the world economy offered to accelerate growth. This was perceived as the best domestic response to the challenges of globalisation. The results, however, have been mediocre. Table 1 shows GDP and per capita GDP growth rates in the region as a whole and in four representative countries, comparing the 1990s with previous decades.

There are three distinct periods. Two periods of growth (1950-1979 and the 1990s) that are separated by one of stagnation (the lost decade of the 1980s). The recovery of growth in the 1990s is unquestionable. But the performance is far from impressive when assessed on the basis of the performance of the Latin American economies in the 1950s, 1960s and 1970s when the import substitution industrialisation (ISI) policies were the rule rather than the exception. We must take into account, nonetheless, that the point of departure in the 1990s was by no means promising. Most Latin American economies had gone through severe macroeconomic

From: New Challenges of Crisis Prevention,
FONDAD, December 2001, www.fondad.org

Table 1 Latin American GDP Growth Rate
(annual average)

Country or Region	50/59	60/69	70/79	80/89	90/98
Latin America					
Growth Rate	4.9	5.7	5.6	1.7	3.1
Per Capita Growth Rate	2.1	2.8	3.1	-0.4	1.3
Argentina					
Growth Rate	2.4	4.4	3.0	-0.6	5.0
Per Capita Growth Rate	0.6	2.9	1.4	-2.1	3.6
Brazil					
Growth Rate	6.5	6.2	8.6	2.9	1.9
Per Capita Growth Rate	3.3	3.2	6.0	0.8	0.4
Chile					
Growth Rate	3.8	4.5	2.0	3.2	7.3
Per Capita Growth Rate	1.5	2.2	0.3	1.6	5.6
Mexico					
Growth Rate	5.9	7.1	6.5	2.1	3.2
Per Capita Growth Rate	2.9	3.8	3.3	0.0	1.5

Source: Elaborated on the basis of CEPAL (1998 a, b, c, 1999) data.

disequilibria in the 1980s. It is clear that the new economic strategies adopted in Latin America have still not shown their full potential in terms of growth.

This picture of the aggregate evolution of the Latin American economy conceals some important differences. As Table 1 shows, the Chilean and Argentine experiences contrast sharply with Brazil and Mexico. From 1990 to 1998, Chile and Argentina performed better than the Latin American average, while Brazil and Mexico fell behind. It is interesting to note that the situation was just the opposite during the ISI period when the growth rates in Chile and Argentina were lower than in Brazil or Mexico. In the case of Argentina, nonetheless, it seems that the growth rate of the 1990s was unsustainable. The country has been suffering a prolonged recession since the 1998 Russian crisis. These facts suggest that the results of a given development strategy remain uncertain and that the final outcome of specific policies critically depend on historical and idiosyncratic factors.

If the results are not as encouraging as was expected, why are Latin American countries insisting on policies to open their markets for goods, services and capital? And, for that matter, why do multilateral institutions (dominated by developed countries) favour such policies? Both questions have the same simple answer: The deregulation of the capital and trade accounts is promoted because the countries assume that there are *mutual* trade gains to be made. From the Latin American point of view, the potential sources of these gains are clear. They need foreign capital,

technologies and trade to improve their specialisation pattern and sustain productivity growth. Developed countries, on the other hand, need to find more profitable uses for their ageing population's savings. Returns on investment could be higher in the South where capital is more scarce and there is scope to introduce and exploit mature technologies.

Why, then, are these gains not being fully realised? My hypothesis is that countries cannot exploit these potential opportunities because international markets show significant failures and the institutions for coping with these failures have not yet been developed. In a nutshell: institutional development is lagging behind the forces that drive globalisation.

In the particular case of Mercosur countries, there are two market imperfections that are of paramount importance when assessing the obstacles to integration in the world economy. The first has to do with the asymmetric distribution of bargaining power between developed and developing countries. This generates several market distortions like protectionism (especially regarding agricultural products and other products such as steel), and restrictive policies on the transfer of technology. These distortions negatively affect the capacity of Latin American countries to increase their trade volume and diversify exports. They also have direct consequences on the macrodynamics of their economies. The second imperfection concerns capital markets. One particularly important consequence of this type of imperfection is that it makes international capital flows volatile. Latin America (and Mercosur) countries are important players in emerging markets, especially regarding foreign direct investment and government bond markets.

So the problem of volatility has two sides: on the one hand, Mercosur countries are highly exposed to volatility and, on the other, the stability of emerging capital markets can be severely affected by macroeconomic turbulence in Latin America and Mercosur.

In what follows, I develop my argument in two parts. In Section 2, I present and discuss a set of stylised facts associated with trade and international financial markets in Latin America. The objective is to show how interactions between imperfections in international markets and some structural features of the region generate the kind of macroeconomic dynamic that is typically observed in Latin American countries. The main hypothesis behind this exercise is that international market failures and macroeconomic fluctuations are closely associated. Based on this analysis, I draw some lessons on counter-cyclical policies in the second part (Section 3). I will argue that national, regional and multilateral institutions present different "comparative advantages" in performing counter-cyclical policies and, hence, the division of labour between different institutions should be designed carefully.

From: New Challenges of Crisis Prevention,
FONDAD, December 2001, www.fondad.org

2 Structural Features, Market Failures and Macroeconomic Fluctuations

There are four structural features of the Latin American economies that I would like to highlight. I will briefly present them and examine the consequences for cyclical fluctuations.

Latin American Economies Are Closed

In the postwar period, the Latin American economy has been systematically losing ground in world trade. The share of Latin American countries in world trade fell from 7.5 percent in the early 1960s to around 4 percent in the mid-1990s. This reflects the fact that, on average, the Latin American countries failed to open their economies. But it also suggests that this region may have been particularly affected by the protectionism of the developed countries. Figure 1 shows the evolution of the region's degree of openness as compared to other regions in the world. The Latin American countries demonstrate a low and stagnant degree of openness, as indicated by the share of exports and imports to GDP. The more aggressive liberalisation policies implemented in the last decade have only resulted in a mild increase in the share of international trade.

However, this overall picture conceals important dissimilarities in the evolution of Latin American countries in the last decade. There is a sharp difference in the evolution of Chile and Mexico on the one hand and Argentina and Brazil on the other. Figure 2 shows the evolution of openness in the four countries.

It is clear that Argentina and Brazil have been facing serious impediments to open their economies, while Chile and Mexico managed to achieve a much higher share of international trade in their economies. In the case of Chile, the impact of liberalisation and, particularly, devaluation in the mid-1980s appear as the most relevant causes. In Mexico, it seems that NAFTA played a crucial role, since its coefficient of openness shows a strong upward trend in the 1990s.

Industrial Imports Are Financed by Primary Sector Exports

In the last 30 years, Latin American exports became much more diversified. But still, Latin American countries are financing their net imports of industrial goods with primary products. Table 2 shows the evolution of the trade surplus corresponding to the most important trade items classified on the basis of their technological complexity.[1] It provides us a synthetic view of the evolution of the trade specialisation pattern in Latin American countries over the last decades.

Figure 1 Openness - Latin America and Other Regions
(exports plus imports as a percentage of GDP, market prices)

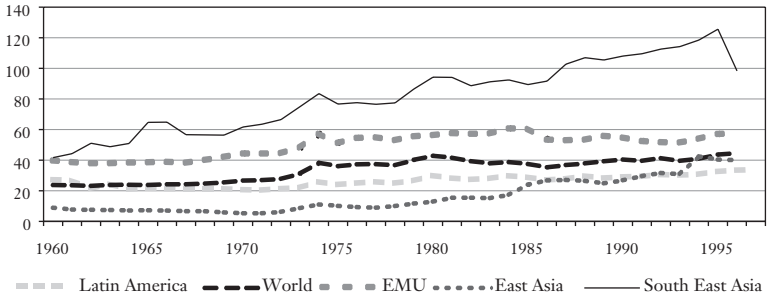
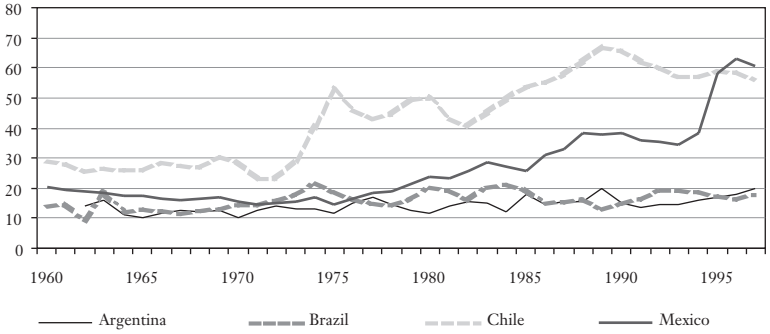


Figure 2 Openness - Argentina, Brazil, Chile, Mexico
(exports plus imports as a percentage of GDP, market prices)



The specialisation pattern is very clear: over the periods under consideration, the region shows a trade deficit in industrial products and a surplus in primary goods. This occurred in spite of the fact that the share of industrial exports in total exports grew from 39 percent in 1965 to 72 percent in 1997. The increase in industrial exports is basically explained by the steady increase in traditional industrial exports and by the increase in exports of scale- and resource-intensive goods. The upward trend in traditional and

1 For a detailed analysis of the Latin American trade specialisation patterns see CEPAL/ECLAC (1997) and Guerrieri (2000). We follow the classification in CEPAL/ECLAC (1997).

Table 2 Latin America: The Trade Surplus Pattern

	1965	1970	1980	1990	1997
Primary Goods	**4,931**	**5,566**	**23,500**	**36,769**	**46,265**
Agriculture	2,890	3,324	9,077	12,740	19,727
Energy & Mining	2,041	2,243	14,425	24,029	26,538
Industrial goods	**-3,608**	**-5,402**	**-29,543**	**-12,010**	**-70,640**
Traditional	58	656	3,214	7,420	3,006
Scale/Resource Int.	-107	-359	-3,408	4,854	-13,871
Durable	-1,033	-1,359	-7,418	-3,695	-1,412
Technological	-2,527	-4,339	-21,929	-20,588	-58,364
Others	**-22**	**-76**	**-87**	**209**	**-2,970**
Total	**1,301**	**88**	**-6,130**	**24,968**	**-27,345**

Source: Elaborated on the basis of CEPAL (1998,1999).

scale-intensive products was not sufficient to induce a reversal in the sign of the balance of industrial products because of the strong increase in imports of more technologically sophisticated products. It is true, nonetheless, that thanks to the increase in industrial exports over the years, a lower proportion of the deficit in industrial goods is now financed by the primary goods surplus. Notice, on the other hand, that the most important change in the 1990s is the marked increment in the size of the deficit of technologically sophisticated products. The recovery in the investment rate in the more stable macroeconomic setting of the 1990s spills over into greater demand for imported capital goods.

In sum, structural reforms did not revert the pattern of external trade. The Latin American countries still heavily depend on the net exports of primary goods to finance the net imports of industrial products and, particularly, the import of capital goods which are essential for ensuring the accumulation of capital and knowledge in the region. These characteristics of the trade specialisation pattern have important consequences for the macroeconomic dynamics.

Trade Flows Are Highly Volatile

In Table 3 we show the coefficient of variation of the growth rate of exports and imports for Latin America and the four Latin American countries under consideration. To assess the findings, we also list a group of "control" countries. Australia, New Zealand and Canada have been chosen to compare Latin America with high-income countries whose trade structure shows an important share of non-industrial exports. Korea, Italy and

Table 3 Trade and Volatility, 1964-1997

Country	Coefficient of Variation				Correlation	Share
	Exports	Imports	Primary Exports	Industrial Exports	Primary/ Industrial	Primary/ Total
Argentina	1.90	2.70	2.30	1.50	0.50	77.8
Brazil	1.20	1.60	1.50	1.00	0.50	66.3
Chile	2.10	2.10	2.40	1.60	0.40	91.6
Mexico	1.10	1.70	2.00	1.30	-0.10	63.9
Australia	1.10	1.40	1.30	1.20	0.30	81.2
Canada	0.70	0.90	1.30	0.60	0.40	48.7
New Zealand	1.40	1.70	1.70	0.80	0.60	82.6
Korea	0.70	0.80	1.00	0.70	0.50	15.4
Spain	0.70	1.20	1.00	0.70	0.40	34.5
Italy	0.80	1.30	1.20	0.70	0.70	15.8

Source: Elaborated on the basis of World Bank (1999).

Spain, in turn, have been selected because they are small- or medium-sized industrialised countries whose primary exports are very low.

The coefficient of variation of exports tends to be higher in the four Latin American countries than in the control countries. Although there are no important differences with Australia and New Zealand, the dissimilarities with the more industrialised countries are apparent. This suggests that the structure of trade can be a relevant explanatory factor. Notice that the volatility of primary exports is higher than the volatility of industrial exports in all countries, independently of the degree of industrialisation. Consequently, the higher the share of primary products in total exports, the higher will be the volatility of the income stream generated by exports. Notice, nonetheless, that a higher proportion of primary exports is not necessarily synonymous with higher volatility. If the correlation between the proceeds generated by the industrial and primary sectors is negative, there will be a diversification effect that will reduce the volatility of total exports. This is clearly the case of Mexico, which shows a negative correlation. The general case, however, seems to be that a positive correlation exists between primary and industrial exports. Consequently, countries with a larger share of primary exports present a higher volatility in their export proceeds.

The volatility of imports also tends to be higher in Latin American countries and, in the case of Chile and Argentina, it is significantly so. An interesting fact is that the volatility of imports is higher than the volatility of exports, independent of whether the country is industrialised or not.

This stochastic feature of imports suggests that, in general, import markets tend to be more affected by cyclical, financial and real (productivity) shocks and that these shocks are stronger or more frequent in the case of Latin American countries.

Capital Markets Show Important Failures

If international credit markets were perfect, developing countries would be able to demand any amount of credit at the ongoing international interest rate. In such a world, countries would be able to redistribute the effects of external shocks across time and states of nature. The authorities could resort to international credit markets to stabilise consumption and to finance investment until all profitable opportunities are exhausted. Likewise, small countries would be able to diversify a good deal of their national risks. The existence of transaction costs, sovereign risk, uncertainty and asymmetric information precludes this possibility.[2] The recent episodes of instability have proven that it is very difficult to construct a portfolio that diversifies developing country risks when the returns of national stocks are unstable and positively correlated to capital market crises in other emerging countries. This spillover effect is frequently caused by the irrational behaviour of investors. The difficulties in fully exploiting the potential of international credit markets to diversify national risks have enormous economic costs for developing countries.

Developing countries have adapted their policies to the fact that they live in a world in which individual countries may face upward sloping credit curves, credit rationing and incomplete insurance markets. The fluctuations of key macroeconomic variables reflect these constraints and the consequences of adaptive policies. Table 4 present indicators associated with macroeconomic volatility.

There are many facts that deserve examination. First, the most striking difference regarding the coefficients of variation between Latin America and the "control" countries is observed in the case of consumption. If we take industrialised countries like Korea, Spain, Australia, Canada and Italy as our standard to measure consumption volatility, the four Latin American countries show a very high volatility of consumption. Important failures in capital markets seem to obstruct consumption smoothing in Latin America. Economic theory states that, in a setting of complete markets, a country that exports commodities whose prices fluctuate heavily,

2 On the "puzzles" that this situation generates, see Obstfeld and Rogoff (2000) and Heliwell (2000).

Table 4 Volatility and Correlation with US, 1964-1997

Country	Coefficient of Variation			US Growth Correlation	
	Investment Growth	Consumption Growth	GDP Growth	Consumption	GDP
Argentina	7.10	2.40	1.80	-0.29	0.5
Brazil	2.40	0.90	0.90	0.12	0.2
Chile	2.60	2.30	1.10	0.22	0.3
Mexico	3.50	1.00	0.90	0.01	0.1
Australia	2.20	0.50	0.60	0.54	0.2
Canada	1.50	0.70	1.40	0.35	0.5
New Zealand	2.80	1.30	1.30	0.14	0.3
Korea	0.90	0.40	0.40	-0.01	0.2
Spain	2.60	0.70	0.80	0.24	0.3
Italy	4.70	0.70	0.70	0.30	0.3

Source: Elaborated on the basis of World Bank (1999).

can use financial, insurance and derivative markets to stabilise both its national income and consumption (Obstfeld, 1995). If a country could indeed diversify consumption risk, the correlation between national and world consumption would be strong (Basu and Taylor, 1999). However, as Table 4 shows, the correlation between national and world consumption growth (proxied by consumption in the United States) is systematically lower than the correlation between national economic growth and world economic growth. In some instances, the consumption correlation is in fact negative, as in the case of Argentina. One can hypothesise, then, that market incompleteness impedes developing countries from allocating risks efficiently.

Investment volatility tends to be higher in the Latin American countries, as the cases of Mexico and Argentina demonstrate. However, the differences with the control countries are much less marked than in the case of consumption. It seems that beyond financial market imperfections, the size of productivity and demand shocks affecting investment is large in all countries. The only significant exception is Korea, which shows a very small volatility of investment in a period in which the country was growing very fast.

The volatility of the growth process is also high in Latin America and, if compared with the control countries, even very high. Nonetheless, Australia and Canada, two natural resource-rich countries, show a coefficient of variation similar to that of the Latin American countries. But unlike Latin American countries, they show an important ability to manage

risks. So, while the coefficient of variation of GDP growth is similar, the volatility of both consumption and imports is much lower in Australia and Canada. In this regard, one feature that deserves attention is that while in all the control countries the volatility of consumption is lower or, at least, equal to the volatility of GDP, the opposite occurs in Latin America. We believe that this is an additional indication of the difficulties and the welfare costs induced by market failures in financial markets.

Macroeconomic Fluctuations and the (Typical) IMF Response

The combination of these four stylised facts (lack of openness, high variance of export proceeds, dependence on primary surpluses, and imperfect access to international capital markets) seriously affects the short-run macroeconomic dynamics. Imagine a country that has been improving its ability to export "non-traditional" products and that has increased intra-industrial trade, but with its capacity to generate surplus still concentrated in a few primary products. Suppose this country faces a strong fall in the prices of some important "surplus generating" products. This would create a mounting trade deficit. If the country's risks were fully diversified, it would receive compensatory financial revenues, which would make up for the fall in the export proceeds. This would maintain the level of the national income even though the country should be prepared to see a fall in GDP. If market incompleteness precludes the possibility of hedging risks, the country could still resort to international capital markets to finance the temporary current account deficit.

But, in highly incomplete markets, things will be different. Every time a negative shock hits the economy, the lack of diversification of the country's idiosyncratic risk implies, *ceteris paribus*, that the economy will receive the full impact during the shock. As a consequence, there will be a deterioration in the country's financial indicators and, thus, foreign credit will become very expensive. If the increase in financial fragility is sufficiently strong the country may even be rationed out. Under these conditions, the economy will face a tight liquidity constraint in the short run, and the authorities will be obliged to launch a stabilisation package to adjust domestic absorption. In brief, a given level of volatility of export proceeds will have different macroeconomic effects under different degrees of market incompleteness. And, from the point of view of volatility, it is clear that the worst combination is a setting that combines a large variance of export revenues and the absence of key financial and insurance markets.

The Latin American countries and the IMF have developed a highly effective, although costly, technology to adjust the current account. A

privileged tool of this technology is nominal devaluation. This instrument was perceived as particularly useful because, on the one hand, the upward correction of the real exchange rate induces contractionary effects via the savings rate and the credit channel and, on the other, makes tradable production more profitable. In addition to the correction of the exchange rate, the typical adjustment package usually includes monetary and fiscal restraints. The overall effect of these measures is a deepening of cyclical fluctuations. That is, they tend to be pro-cyclical. The most important counter-cyclical role in these packages is played by the external support that is typically associated with them.

The counter-cyclical effects of greater foreign exchange availability work through two main channels: the lessening of the liquidity constraint and the strengthening of solvency via the downward pressure on interest rates. These effects are reinforced if currency depreciation and a lower output generates a (temporary) trade surplus. This latter positive side-effect of recession and depreciation, however, may be counterbalanced by the private sector portfolio decisions. The uncertainty created by a falling output and depreciating currency creates strong incentives to buy foreign exchange, aggravating the short-run liquidity constraints.

In fact, this latter effect is what makes IMF lending to countries under stress so important. Under high financial stress it becomes the only institution that can act counter-cyclically. It is because of this kind of dynamic that counter-cyclical policies should include the key contribution of regional and multilateral arrangements to be effective.

Three characteristics of Latin American countries make this strategy costlier. The first is the low degree of openness. The second is that the price-elasticity of the export supply of primary exports tends to be too low in the short run. The third is that there are not that many industrial sectors "about to become" competitive, that is, competitive enough to rapidly generate a surplus after an appropriate correction in the real exchange rate takes place. This means that the number of "surplus sectors" will not increase in the short run unless a strong contraction in imports and, hence, in output and investment is induced. In this way, the volatility of exports tends to revert into import volatility. Of course, there are other external shocks that could call for a restraint of imports and could generate a similar adjustment pattern. Paramount among them are the changes in international capital markets, for example, abrupt increases in interest rates.

The stop-and-go pattern that these interactions between the structural features and market failures create is deleterious to growth. In Fanelli (2000), I presented a growth regression for Latin American countries in which the coefficients corresponding to both liquidity constraints and income volatility are highly significant. This suggests that reducing

From: New Challenges of Crisis Prevention,
FONDAD, December 2001, www.fondad.org

macroeconomic fluctuations and improving the functioning of capital markets would be highly beneficial to growth.

3 Lessons: The Goals of Counter-Cyclical Policies and the Latin American Agenda

As was stated before, the two main goals for Latin America today are to accelerate growth and to integrate successfully in the world economy. Since macroeconomic stability is key to both objectives, efficient counter-cyclical policies may make a valuable contribution. The particular characteristics of the macroeconomic setting in Latin America must be considered in the design and implementation of counter-cyclical policies.

The first important characteristic is the higher macroeconomic volatility. We have seen that it is closely associated with the existing structural imbalances. This calls for a broader definition of counter-cyclical policies.

If we assume that any policy measure to smooth macroeconomic fluctuations is, by definition, counter-cyclical, it may be useful to distinguish between *short-run* and *structural* counter-cyclical policies. Short-run policies smooth fluctuations, taking the economic structure and the macroeconomic regime as given. Structural policies transform the structure and/or the macroeconomic regime to reduce the size and frequency of cyclical movements. The distinction is a natural consequence of our previous arguments which stressed the role of market failures, institutional flaws, and some features (degree of openness, trade diversification etc.) as sources of macroeconomic instability. This distinction implies that a programme of structural reforms may include counter-cyclical policies, such as measures to complete the market structure and increase its efficiency (to remedy instability-generating market failures); initiatives to restructure institutions and to ensure enforcement of law and regulations, and so on. Note that this view is akin to the optimum currency area approach (Mundell, 1961). It considers structural features to assess the convenience of a specific exchange rate regime and the scope and effectiveness of macroeconomic policies.

A second key characteristic that counter-cyclical policies must take into account is that macroeconomic regimes in Latin America are weak and unstable. We use the concept of "macroeconomic regime" to refer to the institutions and practices that define the set of macroeconomic policies which are feasible under specific circumstances. One important cause of the instability of macroeconomic regimes is the lack of institutional development. At the national level, Latin American countries have always faced strong difficulties in developing "stability friendly" institutions. At

the regional level, there has been a certain lack of political will to create mechanisms for macroeconomic coordination (Mercosur's present situation is a good example); and the institutions of the new international financial architecture are still in swaddling clothes. Likewise, social, political and multilateral practices put severe constraints on the enforcement of regulations and legal norms.

A third characteristic is that Latin America (and Mercosur particularly) is urgently in need of stabilising mechanisms designed to operate at the regional and multilateral levels. To be sure, this does not deny that the quality of domestic policies and institutions matters a lot in the current situation. International initiatives should complement rather than replace consistent national policies. But, this said, note that national efforts may not be sufficient to ensure sustainable growth in the post-Bretton Woods world, characterised by broad swings in real exchange rates; significant deregulation of trade and financial transactions; and, the greater importance of capital flows, which can be highly volatile. Increased volatility and interdependence have given rise to difficult policy challenges because they simultaneously increased the demand for volatility-reducing policies and severely restrained the domestic authorities' autonomy. One expression of this was the appearance of the "trilemma" (Frankel, 1999), that is, the necessity to choose between autonomous monetary policy, exchange rate stability, and free capital mobility. The depth of the recent crises in Asia and the current imbalances in countries like Argentina suggest that emerging economies are facing particularly severe constraints on their ability to implement effective counter-cyclical policies.

These challenges call for creative policy responses. I believe that part of the answer is *to think globally*, that is, to complement domestic counter-cyclical efforts with the development of new policy instruments in the regional and multilateral ambits. Obviously, this demands efficient coordination of the different decision-making levels. But the potential benefits of facing the challenge in terms of institution building are worth the effort.

What goals should Latin American countries pursue in negotiating the regional and multilateral "counter-cyclical" agenda? From our analysis it follows that they need arrangements that can help to:

- minimise the volatility of national income;
- ameliorate international capital market imperfections;
- minimise the variance of foreign exchange proceeds;
- develop international institutions to support more stable macroeconomic regimes.

To think globally also implies identifying the competitive advantages of multilateral organisations vis-à-vis regional and national institutions to

undertake specific counter-cyclical policies. I think the natural division of labour should be the following.

Multilateral organisations (particularly the IMF) and organisations dominated by developed countries like the G-7 should contribute to develop mechanisms to manage the consequences of "systematic" or "global" risks, that is, risks that originate from global coordination failures and spillover effects inherent to the operation of the world economy. These organisations have comparative advantages in helping developing countries to:

- smooth volatility of financial flows and eventually alleviate credit rationing;
- manage disequilibria induced by misalignments in key macroeconomic variables in developed countries (e.g. real exchange rate variations, sudden changes in fiscal or monetary policies that change financial conditions).

Regarding the first point, the rationale to develop multilateral counter-cyclical mechanisms is that volatile capital flows represent a negative externality which requires international coordination. Its consequences must be borne by all those who benefit from international credit markets. Specifically, Latin American countries should demand mechanisms that help them stabilise their foreign exchange revenues, particularly when they face exogenous changes in the overall situation in emerging markets or the international interest rates. This would help to avoid the stop-and-go macroeconomic dynamic generated by the fluctuations in exports or capital inflows. Mechanisms of this kind must be part of the new international financial architecture. The IMF should continue to lend to countries in financial distress. Automatic credit lines should be available to eligible countries, that is, countries with a macroeconomic regime that minimises the probability of financial distress due to moral hazard or misguided fiscal policies. A detailed discussion of these mechanisms, of course, goes beyond my presentation but many interesting proposals have been discussed within the framework of the new international financial architecture (see, for example, Ocampo 2000).

Real exchange rate misalignments mentioned in the second point are relevant to aggregate fluctuations because they may "exogenously" affect Latin American countries' competitiveness. We have seen that the evolution of trade and of foreign credit conditions are highly correlated in Latin America and that the changes in the latter may hamper stability. When negotiating trade liberalisation, Latin American countries should clarify that opening the economy has great benefits, but also entails financial and macroeconomic risks. One of such risks is a significant misalignment in the real exchange rates of developed countries. In this sense, a closer coordina-

From: New Challenges of Crisis Prevention,
FONDAD, December 2001, www.fondad.org

tion of the international trade and financial liberalisation process would have in itself a beneficial effect on macroeconomic stability. Likewise, more linkages should be created between the negotiations under the umbrella of the WTO and the discussions in the G-7 and the IMF on monetary and financial issues. That these linkages need to be considered was apparent in the recent negotiations between Argentina and the IMF. It was stated that, beyond financial support, advancements are necessary in the "4+1" negotiations between Mercosur and the US to ensure the "sustainability" of the Argentine economy. It is auspicious that trade and solvency are seen to be closely associated.

I believe that the possibilities for smoothing fluctuations operating at the regional level have not been sufficiently exploited. Even if there was little progress regarding the new international architecture, it would be possible to implement counter-cyclical initiatives at the region level. Three points deserve attention as possible goals of regional initiatives:

- to improve macroeconomic regimes;
- to exploit opportunities to ameliorate the consequences of financial market failures;
- to reduce the pressure of the external constraint on macroeconomic stability.

If regional agreements are going to contribute to the improvement of macroeconomic regimes, they should create tighter constraints on bad practices and facilitate institution building. The two larger Mercosur countries are facing difficulties in strengthening their macroeconomic regimes and, thus, there can be important mutual gains if a deeper coordination between their macroeconomic policies results in better macroeconomic practices. At present, Argentina has a currency board. This means that, in facing the trilemma, the country renounced monetary autonomy. The regime is very rigid and the country needs more flexible long-run alternatives. In the case of Brazil, after 1999, the country renounced exchange rate stability. But the limits on the autonomy of monetary policy proved to be very narrow. In this context, stronger macroeconomic commitments set at the regional level could strengthen the credibility of macroeconomic policies.

In my view, however, the best signal would be a formal agreement of Mercosur countries that a monetary union will be aimed at in the long run and that the process of implementation will begin immediately. The main purpose would be to show domestic agents and the rest of the world what the region's future macroeconomic regime will be. In another paper (Fanelli, 2001), I detailed the characteristics of the transitional process between the present situation and the monetary union and how the process can be set in motion. The main advantage of such an agreement is that it

From: New Challenges of Crisis Prevention,
FONDAD, December 2001, www.fondad.org

would create incentives to improve the macroeconomic regime. Specifically, it would help enforce the agreements on the convergence of fundamental macroeconomic variables and the harmonisation of fiscal institutions and prudential regulations.

A monetary union in Mercosur is compatible with various "permanent" exchange rate regimes for the region. Williamson's BBC (basket, band, and crawl) proposal is appealing. In any case, I am sure that Mercosur's trade structure calls for a basket peg rather than a dollar peg. Whether a crawl is necessary will depend on the rate of inflation at which the convergence between Argentina and Brazil occurs. The recourse to a band, on the other hand, will depend on the characteristics of the international setting. For example, if the new architecture offers good mechanisms to offset the volatility of capital flows, a band may not be necessary (I examined this in Fanelli, 2001).

A deeper commitment to macroeconomic issues may also facilitate the development of counter-cyclical mechanisms at the regional level. A profitable alternative is to create mechanisms to compensate for the lack of markets for risk management. Pooled funds can be created to exploit negative covariances in the region and save highly valuable foreign exchange. As a consequence of the absence of markets to diversify independent risks, each country is obliged to create its own cushion against external shocks. This can take the form of excessive reserves or the formation of commodity funds (funds to compensate fluctuations in oil, copper, or coffee proceeds). If shocks to different products are idiosyncratic, a mutual gain of trade can be realised by pooling individual funds into a single one. It seems much easier to afford the transaction costs of these initiatives in the framework of existing regional agreements. The *Fondo Latinoamericano de Reservas* is a good example. Besides, it could be possible to coordinate the utilisation of these funds with actions at the multilateral level. Regional funds would hedge independent risks while the IMF, for example, would take care of global ("systemic") risks.

Finally, I believe that regional agreements can make a sizable contribution to macroeconomic stability if they improve trade specialisation patterns and increase the volume of trade. We have seen that the strong dependence on the trade surplus on primary products is a prime source of volatility via its effects on the capacity to import and to meet financial obligations. In the case of Mercosur, the results in the ten years following the *Tratado de Asunción* have been encouraging. There was a significant increment in the trade volume and intra-industrial trade has increased at a higher pace.

In sum, given that in the present international scenario there is not too much room for autonomy, we must learn to pursue our best interests in an

From: New Challenges of Crisis Prevention,
FONDAD, December 2001, www.fondad.org

increasingly interdependent world. This means that national policies must be designed with an eye both on the region and on the global setting. Two points are worth noting. First, domestic institutions must be consistent with regional and multilateral developments. If a new international financial architecture is built, the domestic financial architecture must be consequently adapted. Second, to improve the quality of our integration with the world economy the emphasis should not be on market *liberalisation*, but on market *creation*. Our present market structure is too weak. We need to complete and build markets. In a sense, we have been opening empty jails. Structural counter-cyclical policies that create the conditions for the development of markets for risk management (which are currently missing) can be of paramount importance in this regard.

References

Basu, S. and A. M. Taylor (1999), "Business Cycles in International Historical Perspective", In: *Journal of Economic Perspectives*, Vol. 13, Spring, pp. 45-68.

CEPAL/ECLAC (1998a), *Balance Preliminar de las Economías de América Latina y el Caribe*, Naciones Unidas, Santiago.

——— (1998b), *Estudio Económico de América Latina 1997-98*, Naciones Unidas, Santiago.

——— (1998c), *CEPAL Cincuenta Años. Reflexiones sobre América Latina y el Caribe*, Santiago, Revista de la Cepal, Número Extraordinario.

——— (1999), *Estudio Económico de América Latina 1998-99*, Naciones Unidas, Santiago.

Fanelli, José María (2000), *Macroeconomic Regimes, Growth and the International Agenda in Latin America*, Latin American Trade Network, FLACSO, Buenos Aires.

——— (2001), "Coordinación Macroeconómica en el Mercosur. Balance y Perspectivas", mimeo, BID/Red Mercosur.

Frankel, (1999), "No Single Currency Regime is Right for All Countries or at All Times", NBER Working Paper 7338.

Guerrieri, Paolo, "Trade Openness, Industrial Change and Economic Development", In: Fanelli, J. M. and R. Medhora, *Trade, Competitiveness and Finance. The Developing Countries' Experience*, Routledge, forthcoming.

Helliwell, John (2000), "Linkages Between National Capital Markets: Does Globalization Expose Policy Gaps?", mimeo, University of British Columbia.

Mundell, Robert (1961), "A Theory of Optimum Currency Areas", In:

American Economic Review, November, pp. 509-517.
Obstfeld, Maurice (1995), "The Intertemporal Approach to the Current Account", In: G. Grossman and K. Rogoff (eds), *Handbook of International Economics*, Vol. III, Ch. 34, pp. 1731-1799.
Obstfeld, M. and R. Rogoff (2000), "The Six Major Puzzles in International Macroeconomics: Is There a Common Cause?", NBER Working Paper 7777.
Ocampo, José Antonio (2000), "Recasting the International Financial Agenda", mimeo, ECLAC, Santiago.
World Bank (1999), *World Development Indicators*, The World Bank, Washington D.C.
Williamson, John (2001), "Exchange Rate Policy in Latin America: The Costs of the Conventional Wisdom", in this volume, Part III.

The Pro-Cyclical Effects of the New Basel Accord

Stephany Griffith-Jones and Stephen Spratt

1 Introduction

The 1988 Basel Capital Adequacy Accord was a milestone in the approach to bank regulation and has been adopted by more than 100 countries. Agreement was reached between the member countries of the Basel Committee on Banking Supervision that internationally active banks would hold as capital at least 8 percent of their risk-weighted assets to cover the credit risk.

In recent years criticisms from many quarters have been levelled at the functioning of the 1988 Basel Accord, with critics arguing that the regulatory requirements are crude and do not correspond to actual levels of risk. The consequences have been distortions and biases in the practices of the banking industry. The Bank for International Settlements (BIS) now proposes a new Basel Capital Accord, to be implemented in 2004, which is based on three mutually reinforcing pillars: minimum capital requirements, supervisory review process, and effective use of market discipline.

The new framework retains both the existing definition of capital and the minimum requirement of 8 percent of capital to risk-weighted assets. The major changes proposed are in the measurement of credit risk. We will discuss two approaches to the measurement of credit risk that are envisaged: (a) the Standardised Approach (a modified version of the existing approach); and (b) the Internal Ratings Based Approach.

The focus of our concern is the likely net impact on developing and transition countries of the new Basel Accord if implemented in its current form. Whilst containing many positive elements, we argue that the net effect of the new Basel Capital Accord is likely to be negative. In Section 2 we outline the major proposals contained in the new standardised approach and discuss the most significant potential effects. In Section 3 we examine the proposed internal ratings based approach and discuss its implications in some detail. The final section concludes with an assessment of the likely net effect of the new Basel Accord and some policy proposals.

From: New Challenges of Crisis Prevention,
FONDAD, December 2001, www.fondad.org

2 The Standardised Approach

Risk-weighed assets will continue to be calculated as the product of the amount of exposure and supervisory determined risk-weights. Weights will still be determined by category of borrower: sovereign, bank or corporate.

The major changes from the 1988 Accord are:

- The OECD/non-OECD distinction to be abandoned;
- Creditworthiness to be determined by external credit assessment institutions;
- "Sovereign floor" to be abandoned. That is, banks and corporates may be assigned a higher rating than their sovereign;
- The range of "risk-buckets" is to be increased to reflect the greater differentiation of risk in claims.

Table 1 below gives a contrast between the capital requirements under the 1988 Accord and those contained in the new proposals under the Standardised approach for sovereigns, banks and corporates.

Table 1 The Standardised Approach and the Existing Accord
(percentages)

Type of Borrower		AAA to AA-	A+ to A-	BBB+ to BBB-	BB+ to BB-	B+ to B-	Below B-	Unrated
Sovereign								
1988 Accord	OECD	0	0	0	0	0	0	0
	Non-OECD	100	100	100	100	100	100	100
New Proposals		0	20	50	100	100	150	100
Banks								
1988 Accord	OECD	20	20	20	20	20	20	20
	Non-OECD	100	100	100	100	100	100	100
	Short-Term†	*(20)*	*(20)*	*(20)*	*(20)*	*(20)*	*(20)*	*(20)*
New Proposals	Option 1*	20	50	100	100	100	150	100
	Option 2**	20	50	50	100	100	150	50
	Short-Term††	*(20)*	*(20)*	*(20)*	*(50)*	*(50)*	*(150)*	*(20)*
Corporate								
1988 Accord		100	100	100	100	100	100	100
New Proposals		20	50	100	100	150	150	100

Notes:

† Under the existing Accord, loans to non-OECD banks carry a 20% risk weight for maturities of less than one year, and 100% for loans of greater maturity.

†† Under the new proposals, short-term claims are defined as having an original maturity of three months or less.

* Under the first option, all banks in a given country will be assigned a weight one category less favourable than the sovereign's. A cap of 100% will be imposed except for banks in countries rated less than B- (in this instance a cap of 150% will operate).

** Under the second option, the risk weights assigned to banks will be based on the assessment of external credit assessment institutions of the bank in question.

As well as the greater differentiation between "risk buckets", the new Basel Accord differs from the 1988 Accord in its treatment of short-term claims. Under the existing system all claims on banks incorporated in the OECD are assigned a 20 percent risk-weight. For banks in countries outside the OECD, the risk-weight is also 20 percent for claims of less than one year, but 100 percent for claims of greater duration. According to many observers, this long/short-term distinction for non-OECD borrowers provided an incentive for banks to make short-term loans – this is supported by some evidence that the maturity of loans increases for new OECD entrants (see Reisen, 2000). Clearly short-term external debt was a major factor in the East Asian and other crises; indeed, recent research (see Rodrik and Velasco, 1999) has established econometrically that short-term debt to foreign exchange reserves was the single most important factor explaining currency crises.

The Basel Committee decided, after consultation, to lower the threshold for the preferential treatment of short-term debt from six months (as proposed in the 1999 consultative paper) to three months. This decision reflects the fact that the upper maturity bound in the short-term interbank market is three months. Therefore, under the new proposals, incentives towards short-term lending remain for banks rated between A+ and B-, but the incentive towards short-term lending is less than in the existing Accord, and can thus be seen as a step in the right direction. However, as has been pointed out by Deutsche Bank, the jump in risk weights from 20 to 50 percent between double-A and single-A bands may significantly overstate the increased probability of default, thereby creating a bias against long-term lending to banks rated below double-A. One possible solution to this problem would be to increase the number of "risk buckets" so as to avoid providing significant regulatory biases towards particular types of lending.

Implications

The removal of the OECD/non-OECD distinction is likely to have negative consequences for low rated OECD countries, They will find that the conditions attached to loans more closely reflect their actual rating, rather than the fact of their OECD membership. Conversely, highly rated non-OECD countries (such as Chile) should benefit from more favourable terms. Overall, the elimination of the OECD/non-OECD distinction is a positive development, as it is widely accepted that it had become too blunt a mechanism, which had led to distorted incentives.

The alterations to the current treatment of maturity should remove some, but not all, of the incentives towards short-term lending to banks

From: New Challenges of Crisis Prevention,
FONDAD, December 2001, www.fondad.org

rated below AA-, and thereby raise the aggregate maturity of such lending. Also, the removal of the sovereign floor will benefit highly rated banks and corporates in less highly rated countries. Overall, therefore, the proposals should, as envisaged, more closely align capital requirements with actual risk. This should be to the benefit of highly rated sovereigns, banks and corporates, regardless of OECD membership.

One aspect of the standardised approach that may prove important in determining the overall impact is the proposed use of external credit assessment institutions. The Basel Committee proposes that the ratings of private sector agencies could be supplemented with those produced by national, public export credit agencies (ECAs). This is a reflection of comments on an earlier consultative paper.[1] Many commentators have highlighted the fact that private sector ratings agencies' performance in financial crises is often rather poor. Recent research has also supported the view that private sovereign ratings are inherently pro-cyclical (Reisen, 2000). As ratings agencies have difficulty acquiring an information advantage in relation to sovereigns, they tend to lag rather than lead the markets, thus reinforcing the boom-bust cycle (this is less of a problem with corporate ratings where the agencies may have access to private information). Also, ratings for low rated borrowers have been shown to have a low degree of durability (IMF, 1999). Taking account of such views, the Basel Committee proposes to supplement the use of private agencies for sovereign ratings with national export credit agencies.

One of the primary functions of ECAs is to insure the country risk attached to the provision of export credit to foreign buyers. In 1999 the OECD produced a methodology for the guidance of national ECAs. This details the method for setting benchmarks for minimum export insurance premiums for country risk, and is based on an econometric model of three groups of quantitative indicators: payment experience of a country; financial indicators such as debt-GDP and reserves-imports ratios; and indicators such as inflation and economic growth. The new Basel Accord proposes that supervisors may recognise the country risk scores assigned to sovereigns by ECAs that subscribe to the OECD's methodology (OECD, 1999).

One major advantage of this proposal, in the view of the Basel Committee, is that ECA scores are available for a larger number of sovereigns than are private ratings. This could favour developing countries not rated by private rating agencies, but rated by ECAs, provided the latter

1 For a discussion of the earlier consultative paper, see presentation by C. Miles of the UK's Financial Services Authority and the ensuing debate in the IDS Private Sector Discussion Group (http://www.ids.ac.uk/ids/global/finance/pdfs/psdg1.pdf).

rate them accurately; unfortunately, there are some concerns about the quality and independence of the ratings of several ECAs. It has been suggested that the ratings given by some ECAs may be unduly influenced by the needs of their country's exporters and not therefore entirely objective. The insistence by the Basel Committee that recognised ECAs subscribe to the OECD methodology would seem to be an attempt to ensure some degree of consistency and avoid "helpful" ECAs being "cherry picked". However, despite the fact that the methodology is largely quantitative, there remains a subjective, qualitative element; this implies that it is by no means certain that different national ECAs would produce the same ratings.

The proposed use of ECA ratings to supplement private agencies' assessments of sovereign risk is an attempt to address concerns over the use of private ratings agencies. However, this concern, at least in part, resulted from the inability of private rating agencies to spot the warning signs of looming crisis and adjust their ratings accordingly. However, the UK government's Export Credits Guarantee Department (ECGD) has been criticised for exactly the same problem in a recent report (KPMG, 1999). Thus, it may be that the "pro-cyclical" criticism levelled at the private ratings agencies can also be levelled at ECAs.

In their report on the ECGD, KPMG recommended that it should move further in the direction of best private sector practice. This recommendation has been enthusiastically accepted by the UK Department of Trade and Industry (DTI, 2000). As one of the more sophisticated ECAs, the ECGD may represent something of a vanguard in its enthusiasm to move towards a more "cutting-edge" private sector approach. Indeed, the Department's explicit aim is to encourage other ECAs to follow its lead: "ECGD should continue to press multilaterally for ECAs to adopt risk management systems and policies based on best commercial practice" (DTI, 2000, p. 8).

Objections have been raised to the use of private agencies because of the potentially pro-cyclical implications and the same criticism can be levelled at national export credit agencies. However, the principle of objective, external credit ratings is surely a sensible one. Given that international financial stability can be viewed as a public good, there is a strong argument for having at least some public element involved in credit rating. This could best be done by an appropriate international public institution playing some role in ratings. Such a body could take a view that has a longer-term focus and "sees through" (see Turner, 2000) the economic cycle and thus exert a stabilising influence. Of the major international financial institutions, the BIS has the best track record in terms of spotting potential crises as well as having financial stability as its main objective, and would be well placed to fulfil this role.

From: New Challenges of Crisis Prevention,
FONDAD, December 2001, www.fondad.org

Despite some problematic areas it would seem that many of the criticisms made by developing countries of the existing Accord have been addressed in the standardised approach. The removal of the OECD distinction should be widely welcomed, as should the reduction of the incentives towards short-term lending. Also, the fact that adherence to financial codes and standards is not to be mandatory is a positive development.

3 The Internal Ratings Based Approach

Whilst many of the changes proposed under the standardised approach are to be welcomed, it is the potentially negative impact of widespread adoption of internal ratings based (IRB) approaches that is most troubling. This is all the more so because it is likely that banks operating under the IRB approach will come to dominate the industry. The Basel Committee had assumed that, at least initially, the great majority of banks would operate under the standardised approach, with only the most sophisticated of international banks employing the IRB approach. However, it is also assumed that, over time, increasing numbers of banks will move to the IRB approach and, to advance this process, incentives are embedded in the new Basel Accord to the adoption of IRB. Also, although a greater number of banks are expected to use the standardised approach, the major internationally active banks, that provide the bulk of lending to developing and transition economies and are actively purchasing banks in those countries, are more likely to be in a position to adopt the IRB approach. In fact, following recent consultations, the Basel Committee has concluded that a greater number of major banks than they had initially thought will be in a position to adopt IRB when the Accord is implemented. These developments are likely to have both domestic and international implications for developing and transition countries.

Domestic Implications

Developing country banks are liable to face increased competitive pressure from internationally active banks who have adopted the IRB approach and have further enhanced their existing competitive advantages through the use of more finely-tuned, and therefore lower, capital requirements. Both Deutsche Bank and Moody's have argued that this is likely to lead to smaller banks being at a disadvantage, with further industry-wide consolidation being the ultimate result (Deutsche Bank Global Research, 2001 and Moody's Investors Research, 2001). In developing and transition countries, this may imply an acceleration of trends towards foreign banks controlling

domestic banking industries. This is not only a problem for banks in the developing world. In the US, for example, it is estimated that only 20 of the country's 9000 banks are likely to be in a position to adopt an IRB approach – thus consolidation may be seen both in the developed and developing worlds.

International Implications

Reduced Lending to the Developing World

As has been pointed out, most of the banks lending to emerging countries – the large international banks – would move quickly to adopt the IRB approach. The outcome of these changes is likely to be a significant reduction of bank lending to the developing world, and a sharp increase in the cost of international borrowing for much of the developing world. This is because the incentive, under the existing Accord, to the holding of lower quality loans will be eliminated in the IRB approach. Therefore, it seems very probable that adoption of the IRB approach will produce an increase in the quantity of loans to borrowers rated above BBB, and a fall in loans to borrowers rated below BBB. Given that the majority of such low rated borrowers are in the developing world, one effect of the new Basel Accord will be a reduction in overall levels of lending to emerging markets from internationally active banks.

Recent research, which uses a methodology developed by Deutsche Bank, estimates the likely impact (Helmut Reisen, 2001). We can see from Table 2 that adoption of the IRB approach as currently proposed could result in speculative grade borrowers (BBB- or lower) being effectively excluded from international bank lending. Table 2 also gives some estimates of the likely impact of the new Basel Accord on sovereigns. The estimates show that the proposed changes would be neutral or broadly positive for sovereigns rated triple-B or higher. However, for sovereigns rated below that, the situation would become very problematic. The median sovereign rating for non-OECD countries in 2001 was BB, with 31 of the 53 rated non-OECD countries being rated below BBB. For example, under the current Accord, for double-B rated sovereigns such as Brazil and India, the capital requirement for each $100 lent is $8. Under the standardised approach in the new proposal this would be unchanged, but under the IRB approach the capital required for the same $100 would rise to $30.3 and spreads would have to increase by more than a thousand basic points (bp). This would mean adding around 10 percent to the annual cost of borrowing for countries rated double-B. Even more dramatically, for countries such as Argentina and Pakistan, rated at single-B, spreads would

have to increase by 3709 bp (that is, the cost of borrowing would grow by 37 percent annually) under the IRB approach to produce an equivalent level of risk-adjusted return as under the existing Accord.

Table 2 Sovereign Borrowers

	Risk Weight	Capital required per $100	Breakeven Spread Change bp.*	Examples of Countries in Category
		Double-A (OECD)		
Current	0	0	-	Belgium, Bermuda,
Standardised	0	0	-	Canada, Italy, Portugal
IRB approach	7	0.6	3	
		Triple-B (non-OECD)		
Current	100	8.0	-	China, Egypt, Korea,
Standardised	50	4.0	-50.00	Latvia, Malaysia,
IRB approach	40	3.2	-60.00	Tunisia
		Double-B (non-OECD)		
Current	100	8.0	-	Brazil, Colombia, Costa
Standardised	100	8.0	-	Rica, India, Kazakhstan,
IRB approach	379	30.3	1115	Morocco
		Single-B (non-OECD)		
Current	100	8.0	-	Argentina, Jamaica,
Standardised	100	8.0	-	Mongolia, Pakistan,
IRB approach	630	50.4	3709	Paraguay, Venezuela

Note:
* Indicates the spread movement required to produce the risk-adjusted return achieved under the current Accord.

Sources:
Reisen (2001) and Standard and Poor's Sovereign ratings, June 6, 2001.

The actual impact upon spreads could be lower than predicted above. The main reason is that non-bank investors form a significant part of the investor base and they are indifferent to risk-weights. However, even if these predictions overestimate the impact, they still point towards a significant deterioration in the terms under which sovereigns rated below triple-B are able to access international bank lending. The consequence is therefore likely to be a sharp reduction in bank lending to the developing world.

The implications of this are clear: large parts of the developing world will no longer be able to access international bank lending on terms likely to be acceptable. The impact will be felt most severely in the lowest rated countries – the very countries in most need of such access.

As pointed out by Helmut Reisen, this effect is linked to the fact that the Basel Committee proposes a strongly exponential, rather than a linear, rise of risk weighting along the spectrum of probability of default. Thus, once ratings fall below BBB the capital requirements increase sharply, implying that for the lowest rated borrowers the cost of loans from banks operating an IRB approach is likely to be prohibitively high.

Pro-Cyclical Elements and Counter-Cyclical Measures

Greater use of banks' internal risk management systems also seems likely to be inherently pro-cyclical and therefore likely to amplify the economic cycle, thus increasing both the frequency and scale of crises. As developing countries suffer disproportionately from financial crises – given the relatively small size of their economies vis-à-vis international capital flows, and the thinness of their markets – this is a cause for great concern.

It is accepted that the existing Accord contains pro-cyclical elements and the fear is that greater risk sensitivity will increase this tendency. The drive for risk-weights to more accurately reflect the probability of default is inherently pro-cyclical. During an upturn, average probability of default will fall and thus incentives to lend will increase. Conversely, during a downturn, average probability of default will increase (due to more difficult economic circumstances) and, in consequence, a credit crunch may develop with all but the most highly rated borrowers having difficulty attracting funds.

The Basel Committee has recognised this concern, but argues that the benefits outweigh the costs. However, the trade-offs in terms of costs and benefits are viewed in terms of their impact on the major banks. The developing world will most probably feel the costs disproportionately (reduced lending coupled with increased scale of crises) while simultaneously attracting few, if any, of the benefits. Also, it may be that the Committee is more broadly underestimating the likely impact upon the business cycle and thus the financial system's propensity for crises; these systemic considerations have significant implications for the developed and developing worlds alike.

Early theorists, such as Irving Fisher (1933), emphasised crises as integral parts of the business cycle, often operating as a "trigger" whereby an upswing becomes a downturn. More recently researchers have also seen the business cycle as connected with financial crises and argued for reforms to introduce counter-cyclical elements into the regulatory framework.[2] It is argued that the pro-cyclical aspects of regulation contribute towards

2 See Ocampo's chapter in this volume and Griffith-Jones and Ocampo (2000).

fuelling the "boom" that often precedes a crisis. Consequently, the introduction of counter-cyclical components would work to better manage the boom and so help to avoid costly financial and currency crises. A number of possible counter-cyclical measures have recently begun to be proposed to address these concerns:

1. Capital requirements could vary throughout the business cycle so that, for example, during a boom a higher capital ratio could be required. This would allow banks a cushion so that they could sustain lending in times of recession when capital asset ratios would be lower. Because of different problems with this approach, however, forward-looking provisioning, described in 2 below, seems a better option.
2. Regulators could encourage – or better, require – higher general provisions to be made for possible loan losses to cover normal cyclical risks. In other words, forward-looking provisions would reflect expected losses during a boom, in the expectation that when the downturn or bust comes, measured losses will increase. This approach seems to be the one that commands most support, and even a certain degree of consensus.[3] The mechanism would allow for provisions built up in good times to be used in bad times without affecting reported capital. The simplest way to ensure this would be to maintain higher general provisioning, applied to all loans. Another more complex – but perhaps more precise – approach would be to have especially large provisions during periods of large increases in lending, as often such rapid increases are followed by a slowing down of the economy or by a recession, when losses may increase. To ensure that such rules really are applied, it seems desirable that: (a) they are mandatory and (b) certain rules of thumb are designed ex ante by regulators. The latter is very important to avoid the pressures that typically arise in times of boom, against any tightening.
3. Regulators could place a cap on the value of assets that can be used as collateral. This would protect against inflated asset prices that occur during a boom being used as collateral when, during a downturn, these prices may sharply fall. In this situation, rules could be introduced to average asset price values over the previous five years, for example.
4. Another counter-cyclical mechanism would be to limit lending for property, construction and personal consumption, as these tend to increase substantially in booms. Indeed, research has suggested that this may be a significant factor in booms (McKinnon and Pill, 1997).

Measures 3 and 4 would be particularly relevant for domestic bank

[3] See Turner (2000) and Arrow (2001). See also comments by John Williamson and others in this volume, as well as discussions of the IDS May 2001 Private Sector Discussion Group and discussions at the Centre for Financial Innovation on Financial Architecture in London, May 31, 2001.

lending, whereas measure 2 would be relevant for both international and national lending.

Important practical questions remain about the specific modalities of introducing counter-cyclical mechanisms into the regulatory framework. Therefore, further study is required: for example, on appropriate levels of forward-looking general provisioning (that provides enough cushion, but does not excessively increase cost of lending); on tax treatment of such provisioning; and on defining trigger levels for increased provisioning when lending increases too much, should such an approach be chosen. However, the principle of "leaning against the wind" is sensible in a world where financial crises are connected with the business cycle and where pro-cyclical tendencies accentuate the scale and frequency of crises, both in private lending and in standard regulatory practice.

A more specific critique of the characteristics of bank risk management systems has come from Avinash Persaud of State Street Bank (Persaud, 2000). He argues that, whilst many believe that more market sensitive risk management and stronger prudential standards are insufficient as a response to the increase in scale and frequency of crises in recent decades, few doubt the validity of these measures on their own terms. He suggests that reasons exist to doubt the wisdom of this widely accepted view. For Persaud, the rationale behind these measures is that they will better equip markets to reward "good" behaviour and punish "bad" behaviour. However, he argues, evidence exists to suggest that, whilst in the long run markets are discerning in this sense, in the short-run they seem unable to distinguish between good and bad; i.e. market participants' herd and contagion is a common occurrence.

Persaud goes on to argue that, in a herding environment, tighter market-sensitive risk management systems may serve to increase instability, rather than to reduce it as assumed in the new Basel Accord; thus greater use of such systems might result in an increase, and not a reduction, in the incidence of crisis. The trend among market participants, reflected in the New Basel proposals, is to move away from discretionary judgements about risk towards a more quantitative, market-sensitive approach. Increasingly banks manage market risk by setting a daily earnings at risk limit (DEAR). This mechanism addresses the question, "how much can I lose with a 1 percent probability over the next day?" The answer is arrived at by taking the bank's portfolio of positions and estimating the future distribution of daily returns based on past measures of market correlation and volatility. Therefore, increasing volatility and/or correlation will cause the potential loss to rise, and *vice versa*. When DEAR exceeds the limit set, the bank moves to reduce exposure, often by switching into less volatile and less correlated assets.

From: New Challenges of Crisis Prevention,
FONDAD, December 2001, www.fondad.org

A not unlikely scenario is then envisaged, says Persaud: "Imagine that over time a herd of banks has acquired stocks in two risky assets that have few fundamental connections, say, Korean property and UK technology stocks. Imagine too that some bad news causes volatility in UK technology stocks and the banks most heavily invested there find that their DEAR limits are hit. As these banks try to reduce their DEAR by selling the same stocks (Korean property and UK technology) at the same time, there are dramatic declines in prices, rises in volatility in both markets, and rises in the correlation between Korean and UK markets. Rising volatility and correlation trigger the DEAR limits of banks less heavily invested in other markets. As they join the selling milieu, volatility, correlation and contagion rise."

Persaud concludes that: "The paradox is that if one or two banks followed a DEAR limit and others did not, those banks would have an effective risk management system that at the margin would support the financial system. But if every bank were to follow the same approach, given that these banks follow each other into and out of markets, the DEAR limit would contribute to systemic risk. It is ironic, therefore, that the Basel Committee on Banking Supervision is supporting the rapid adoption of these systems across all banks and encouraging investors to follow suit."

It is also ironic and particularly problematic that the new Basel Capital Accord's IRB proposals (which would imply less and more costly as well as more pro-cyclical lending to developing countries), have emerged at the same time as developing countries are being urged to make greater use of private capital flows to replace aid flows, which are in historical decline.

4 Concluding Remarks and Recommendations

This final section will conclude and make some specific suggestions that might help reduce the likely negative effects of the new Basel Accord for developing and transition countries.

From a developing country perspective it may well be that the proposals in the new Basel Accord to move towards an IRB approach will have the greatest lasting impact. The fact that banks who are in a position to adopt this approach will be at a competitive advantage, and that these banks are likely to be the ones in the strongest competitive position anyway, implies two possible scenarios. First, that the large banks that are able to adopt an IRB approach early reinforce and strengthen their market positions and either drive competitors out of business or are able to take them over. The second scenario is that large numbers of banks are able to move to an IRB framework early enough to prevent the first scenario occurring. Either

From: New Challenges of Crisis Prevention,
FONDAD, December 2001, www.fondad.org

way, the result will be a banking industry dominated by banks employing IRB approaches. This is likely to lead to a reduction in lending to developing countries from the major international banks, as the incentive to hold poor quality loans will be sharply reduced. The consequences of a reduction in lending to those poorer countries most in need of funds could be severe. An additional potential impact comes from the systemic impact of widespread adoption of IRB approaches, which could increase procyclicality of lending to developing countries, and thus increase likelihood of crises.

Whilst the proposals contained in the standardised approach are *broadly* to be welcomed, in that they address many (though not all) of the concerns expressed in developing countries about the existing Accord, the introduction of IRB approaches has very problematic implications. It is likely that the widespread adoption of IRB approaches by the major international banks will ensure that the impact of the standardised approach cannot be assessed independently. If, as it seems highly likely, the negative impacts of the IRB approaches outweigh the positive impacts of the standardised approach from a developing country perspective, then the new Basel Accord will merely serve to give with one hand only to take (more) with the other. The systemic implications of greater risk sensitivity in lending patterns are likely to impact upon developed and developing countries alike – although more so on the latter given the smaller size of their economies vis-à-vis international capital flows.

The proposals in the new Basel Accord – particularly those related to the IRB approach – would seem to be driven largely by the wishes of the major international banks. However, it is not clear that what is good for these banks is necessarily good for the stability of the international financial system in general nor the developing world in particular.

As an alternative, the improvements contained within the standardised approach could be developed to further reduce, if not eliminate, incentives towards short-term lending. The number of risk buckets could be expanded to reduce regulatory biases towards lending to certain categories of borrower. In addition, counter-cyclical mechanisms could be introduced into the regulatory framework with the intention of (a) smoothing capital flows, and (b) smoothing the impact of volatile flows on the domestic financial system and therefore on the real economy. One aspect of the standardised approach that has attracted much attention is the proposal to use external credit rating institutions to assign ratings. Objections have been raised to the use of private agencies because of the potentially procyclical implications and, as we saw, the same criticism can be levelled at national export credit agencies. However, the principle of objective, external credit ratings is surely a sensible one. Given that international financial

stability can be viewed as a public good, there is a strong argument for having a public element involved in credit rating. Of the major international financial institutions, the BIS has the best track record in terms of spotting potential crises as well as having financial stability as its main objective, and would be well placed to fulfil this role.

Our recommendations can be summarised as follows:

- Particularly from the perspective of developing countries – but also taking systemic concerns into account – there may be a case for postponing introduction of the IRB approach, until its impact is more thoroughly researched and discussed. If that is not possible, there is a strong case for at least slowing the pace of introduction of the new Basel Accord (e.g. to 2008).
- One particular area of concern is the proposal to adopt an exponential rise in risk weighting along the spectrum of higher probability of default, rather than a linear rise. The impact of this proposal, as described above, would be to increase sharply the costs of borrowing for low rated sovereigns, banks and corporates to the extent that they would be effectively cut off from international bank lending. We therefore propose that, if the IRB approach is to be implemented, the probability of default should grow on a linear and not exponential scale so as to mitigate this effect.
- We also suggest an evaluation of mechanisms to slow down the effect of changes in credit rating on regulatory risk weights (see Turner, 2000). This would be particularly relevant to the IRB approach, but also of interest for the standardised approach. The impact on capital charges of changing risk weights, due either to external ratings or to internal models, could be smoothed if the change was phased in gradually and the phase-in period was long in relation to the cycle. This could significantly reduce pro-cyclicality; however, it could perhaps weaken too much the link between risk and capital, which the new Basel Accord is trying to achieve. An alternative way of doing this is to use moving averages of historical ratings, over two years for example.
- The introduction of a counter-cyclical element to compensate for the inherent pro-cyclicality of the IRB approach needs to be carefully evaluated. As discussed above, the most promising approach, especially for international bank lending, would seem the introduction of higher general provisions against losses.
- We propose a further development of the standardised approach to address remaining issues of concern:
  1. reduce further or eliminate remaining incentives towards short-term lending;
  2. expand number of risk buckets so as to avoid the regulatory

From: New Challenges of Crisis Prevention,
FONDAD, December 2001, www.fondad.org

distortions associated with jumps between buckets;

3. introduce a public element into external ratings to avoid the pro-cyclical problems associated with private sector ratings agencies and ECAs;
4. introduce a counter-cyclical element into the regulatory framework.

The complexity of modern financial markets has led some (including perhaps the Basel Committee) to conclude that effective external regulation is neither feasible nor desirable. This is one of the factors behind the moves towards an IRB approach, with greater emphasis on market discipline. However, it could also be argued that this very complexity increases the need for external regulation, so as to ensure the public good of financial stability.

References

Arrow, K. (2001), "Comment on S. Griffith-Jones' Developing Countries and the New Financial Architecture", presented at the Pontifical Academy of Social Sciences, Vatican, 25-28 April.

Deutsche Bank, Global Research (2001), *The New Basle Capital Accord: Ambitious, complex, but few real surprises*, January (http://research.gm.db.com).

DTI (2000), *Review of ECGD's Mission and Status* (http://www.ecgd.gov.uk).

Fisher, I. (1933), "The Debt Deflation Theory of the Great Depression", In: *Econometrica*, Vol. 1, pp. 227-57.

Griffith-Jones, S. and Ocampo, J.A. (2000), "Facing Volatility and the Concentration of Capital Flows", In: Jan Joost Teunissen (ed.), *Reforming the International Financial System*, FONDAD, The Hague.

IMF (1999), *Capital Markets Report*, International Monetary Fund, Washington D.C., September.

KPMG (1999), *ECDG Risk Management Review* (http://www.ecgd.gov.uk/downloads/kpmg.pdf)

Moody's Investor Services, Global Markets Research (2001), "The New Basel Capital Accord: Towards a Safer Banking Landscape, but Smaller Banks Could be at a Disadvantage", January (http://www.moodys.com).

OECD (1999), "The Knaepen Package: Guiding Principles for Setting Premia Fees under the Arrangement on Guidelines for Officially Supported Export Credits" (www.oecd.org//ech/act/xcred/knaepen-package-en.htm).

Persaud, A. (2000), "Sending the Herd off the Cliff Edge: The Disturbing Interaction Between Herding and Market-Sensitive Risk Management Practices", Institute of International Finance, Washington D.C.

From: New Challenges of Crisis Prevention,
FONDAD, December 2001, www.fondad.org

Reisen, H. (2000), "Revisions to the Basel Accord and Sovereign Ratings", In: R. Hausmann and U. Hiemenz (eds.), *Global Finance from a Latin American Viewpoint*, OECD, Paris.

—— (2001), "Will Basel II Contribute to Convergence in International Capital Flows?", mimeo, OECD Development Centre, Paris.

Turner, P. (2000), "Procyclicality of Regulatory Ratios", CEPA Working Paper Series III on International Capital Markets and the Future of Economic Policy, CEPA Working Paper No. 13, New York, January.

Appendix

List of Participants in the Conference on "A Broad Agenda of Crisis Prevention and Response: Addressing Global Economic Imbalances in the North and Boom-Bust Cycles in the South", held at the Headquarters of the Economic Commission for Latin America and the Caribbean (ECLAC), Santiago de Chile on 1-2 March 2001

Mr. Amar Bhattacharya	Senior Adviser, Poverty Reduction and Economic Management Network, The World Bank, Washington D.C.
Mr. Reynaldo Bajraj	Deputy Executive Secretary, ECLAC, Santiago de Chile
Mr. Humberto Campodónico	Regional Adviser, ECLAC, Santiago de Chile
Mr. Roy Culpeper	President, The North-South Institute, Ottawa
Mr. Zdeněk Drábek	Senior Adviser, Economic Research and Analysis, WTO, Geneva
Mr. José María Fanelli	Senior Research Fellow, CEDES, Buenos Aires
Ms. Stephany Griffith-Jones	Professor, Institute of Development Studies, Sussex University
Mr. Pingfan Hong	Senior Economic Affairs Officer, Department of Economic and Social Affairs, United Nations, New York
Mr. Brian Kahn	Acting Head of the Monetary Policy Research Unit, Member of the Monetary Policy Committee, South African Reserve Bank, Pretoria
Mr. Jan Kregel	Professor of Economics, Bologna and Johns Hopkins University, High Level Expert in International Finance, UNCTAD, New York

Mr. Manuel Marfán	Advisor to the Executive Secretary, ECLAC, Santiago de Chile
Mr. Carlos Massad	Governor, Central Bank of Chile, Santiago de Chile
Mr. Manuel Montes	Program Officer, The Ford Foundation, New York
Mr. José Antonio Ocampo	Executive Secretary, ECLAC, Santiago de Chile
Mr. Andrés Rius	Program Officer, IDRC Regional Office for Latin America and the Caribbean, Montevideo
Ms. Liliana Rojas-Suárez	Visiting Fellow, Institute for International Economics, Washington D.C.
Mr. Chi-Young Song	Professor, School of Economics, Kookmin University, Seoul
Ms. Barbara Stallings	Director, Economic Development Division, ECLAC, Santiago de Chile
Mr. Rogério Studart	Economic Affairs Officer, ECLAC, Santiago de Chile
Mr. Jan Joost Teunissen	Director, Forum on Debt and Development, The Hague
Mr. Andras Uthoff	Coordinator, Special Studies Unit, ECLAC, Santiago de Chile
Mr. John Williamson	Senior Fellow, Institute for International Economics, Washington D.C.

New Challenges of Crisis Prevention: Addressing Economic Imbalances in the North and Boom-Bust Cycles in the South

Edited by Jan Joost Teunissen

This book goes beyond the standard agenda of crisis prevention and explores two themes that ought to have been – but were not – included.

It explores how major industrial countries could address global economic imbalances and how developing countries could counter boom-bust cycles.

Essential reading for those who are interested in crisis prevention and the challenges of global financial governance

Forum on Debt and Development
Noordeinde 107a
2514 GE The Hague
The Netherlands

www.fondad.org

ISBN 90-74208-18-5