

# IMF Publication



#### Editor's Note

The first research summary in this issue surveys research done at the IMF on *macroeconomic policies and income distribution*. Experience shows that widening income disparities tend to erode the political and social consensus required for the sustainability of macroeconomic and structural reforms, especially in developing countries. The need to understand the linkages between macroeconomic policies and income distribution has, therefore, become an important focus of IMF research.

In light of recent developments in some emerging markets, *dollarization*—the subject of the second article—is both highly topical and of considerable analytical interest.

The country/area study in this issue covers the *euro area*. With the advent of European Economic and Monetary Union, IMF surveillance of this area has involved analytical work on issues common to all twelve countries, as well as on areawide issues relating to indicators, instruments, and transmission channels of macroeconomic policies.

The special topic article describes a new IMF website on *Balance of Payments Statistics*—a useful compilation of data sources and information on conceptual issues related to external sector statistics. Also included in this issue are the summaries of proceedings of two recent IMF conferences, including the second Annual IMF Research Conference.

—Eswar Prasad

#### Research Summaries

### Macroeconomic Policies and Income Distribution

Aleš Bulíř



*The relationship between income inequality and economic policies is of considerable interest to both academics and policymakers. It is also a complex one: macroeconomic policies, structural changes, and redistributive interventions affect income distribution, while income inequality considerations can influence the selection of policies and reforms as well as their implementation and degree of success. The increasing focus on poverty alleviation in IMF-supported*

*programs has further highlighted the need for a better understanding of the nexus between macroeconomic policies and income distribution. This article provides an overview of IMF research in this area.*

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### Dollarization

Andrew Berg



*Dollarization manifests itself in two forms: one voluntary and the other largely involuntary. The former type, called full or de jure dollarization, occurs when a country adopts a foreign currency, often the U.S. dollar, as its sole legal tender. The involuntary form, called partial or de facto dollarization, is less under the direct control of the authorities and occurs when a foreign currency circulates alongside a national currency, with bank deposits and loans possibly*

*also denominated in a foreign currency. Most researchers place full dollarization within the realm of exchange rate regime choices in the economic literature, while partial dollarization is typically analyzed as an outcome of disorderly macroeconomic conditions. These two branches of analysis are nonetheless closely linked, as full dollarization is a more attractive choice for countries that find themselves largely dollarized de facto. This article surveys recent research at the IMF on the theoretical and empirical aspects of both partial and full dollarization.*

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**IMF Staff Papers**

**Volume 49, Issue 1**

*Symposium on Forecasting  
Performance*

**Introduction**

Francis X. Diebold

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**Comparing Projections and  
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Alberto Musso and Steven Phillips

**Further Cross-Country Evidence  
on the Accuracy of the Private  
Sector's Output Forecasts**

Grace Juhn and Prakash Loungani

**Purchasing Power Parity and the Real  
Exchange Rate**

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**Tax Policy, the Macroeconomy, and  
Intergenerational Distribution**

Ben J. Heijdra and Jenny E. Ligthart

**Money Demand in Mongolia: A Panel  
Data Analysis**

Torsten Sløk

**The Distribution of Fixed Capital in  
the Multinational Firm**

Alexander Lehmann

*IMF Staff Papers*, the IMF's scholarly journal, edited by Robert Flood, publishes selected high-quality research produced by IMF staff and invited guests on a variety of topics of interest to a broad audience, including academics and policymakers in IMF member countries. The papers selected for publication in the journal are subject to a rigorous review process using both internal and external referees. The journal and its contents (including an archive of articles from past issues) are available online at the **Research at the IMF** website at <http://www.imf.org/research>.

**Macroeconomic Policies** (*continued from page 1*)

The relationship between macroeconomic stabilization and inequality is of keen interest to the IMF's member countries. Stabilization policies can contribute to reductions in inequality by, for example, lowering inflation and reducing the volatility of the exchange rate and other macroeconomic variables. However, a highly unequal income distribution could vitiate the ability of countries to institute sustainable stabilization programs. For instance, rising inequality in some transition economies may have undermined the necessary consensus required to implement market-oriented reforms. Dolinskaya (forthcoming) arrives at this conclusion for Russia, especially given that the redistribution system seems to amplify regional inequality. In contrast, redistributive policies that mitigated the early-transition increase in inequality may have been crucial for the success of Poland's "big bang" reform strategy (Keane and Prasad, forthcoming).<sup>1</sup> Research is under way to analyze in more detail the relationship between inequality and the durability and success of IMF-supported stabilization programs.<sup>2</sup>

IMF staff have made significant contributions to the literature linking various economic and structural policies with income distribution. While some papers have developed theoretical models, the bulk of IMF research in this area has been empirical in nature, emphasizing both cross-country and country-specific studies.<sup>3</sup>

Given the core areas of IMF policy advice, of particular interest have been variables measuring inflation and the volatility of financial variables. Inflation is often regarded as a regressive tax that disproportionately affects the poor. The panel data evidence suggests that inflation indeed worsens income inequality, but inflation variability appears to have an even stronger impact than the level of inflation (Bulíř and Gulde, 2000).<sup>4</sup> Modeling nonlinearities in this relationship differently, Bulíř (2001) finds inflation to be significant for income inequality in cross-country regressions: bringing inflation down from a hyperinflationary level reduces inequality significantly, while further declines bring negligible reductions.<sup>5</sup>

Evidence from a growing body of IMF research suggests that only well-targeted fiscal policies can affect income inequality (and poverty) and that, in the absence of such a targeted mechanism, it may be better to rely on the trickle-down effect of economic growth on inequality.<sup>6</sup> In addition, the success in affecting inequality depends on the scope of redistribution policies and their execution. Tanzi (1998) argues that the primary avenue for government to affect income inequality is through its contribution to human capital creation.<sup>7</sup> Schwartz and Ter-Minassian (1995) claim that there is not necessarily a trade-off between redistributive and efficiency goals of expenditure policies in developing countries, especially over the medium term.<sup>8</sup> Unfortunately, in most of these countries, tax and transfer policies have often not been used effectively to reduce income inequality, in part owing to difficulties associated with the introduction of progressive taxation and targeted redistribution.<sup>9</sup>

The country-specific character of redistribution is difficult to capture in cross-country studies. Individual country case studies are particularly relevant for economies that have undergone severe crises, transition economies, and other economies with pronounced economic changes. Clements (1997) finds that Brazil has been one of the most unequal societies—in part owing to its history of hyperinflation—and income distribution remained unequal after the Real Plan of July 1994, because social expenditures primarily benefit upper-income groups.<sup>10</sup> Baldacci, De Mello, and Inchauste (2002) provide evidence of the impact of the Tequila crisis on Mexico's income distribution.<sup>11</sup> Several pa-

pers have addressed the distributional impact of the profound socioeconomic changes undergone by transition economies.<sup>12</sup> Most authors agree that, while labor earnings disparities widened in the initial stages of transition, consumption and income inequality remained subdued in countries with well-targeted redistribution policies (Keane and Prasad, 2001). In contrast, those countries that failed to establish a system of targeted transfers have seen a significant widening of consumption and income inequality.

Finally, case studies of countries with pronounced economic changes, for example, China, the Philippines, and Uganda, support the notion that redistribution policies and their impact are country specific. China's case is particularly interesting: although regional inequality has widened, the urban-rural income distribution appears to be more equal in fast-growing, coastal regions than in those with little or no trade, and these changes are reinforced by China's redistribution policies.<sup>13</sup> In contrast, income distribution in Philippines has been remarkably stable over the last two decades and little of the "trickle-down" effect of economic growth has been observed.<sup>14</sup> In Uganda, income inequality increased during the 1989–95 period of structural adjustment, owing to a lack of a formal social safety net benefiting the poor.<sup>15</sup>

In research on the OECD countries, Vanhoudt (1997) reports that economic fundamentals explain three-quarters of inequality variation across countries and over time. Cole and Towe (1996) find that the dynamics of the U.S. distribution of income is dominated by cyclical income fluctuations. Decressin (1999) analyzes the Italian redistribution system and concludes that it is not an efficient redistributive and risk-sharing mechanism.<sup>16</sup>

The debate on income inequality in low-income countries is generally overshadowed by concerns about the dynamics of poverty: unlike income inequality, poverty reduction is considered to be a desirable goal of government policies.<sup>17</sup> IMF research on this topic has focused on the linkages between macroeconomic policies, market-oriented reforms, and poverty. On the one hand, there appears to be no medium-term trade-off between stabilization and poverty; that is, fiscal expansion financed with more inflation today does not permanently lower poverty.<sup>18</sup> On the other hand, the evidence suggests that fiscal tightening in the context of IMF-supported structural adjustment programs is associated with increased social spending and less poverty (Gupta, Dicks-Mireaux, Khemani, McDonald, and Verhoeven, 2000).<sup>19</sup>

<sup>1</sup>Irina Dolinskaya, "Transition and Regional Inequality in Russia: Reorganization or Procrastination?" forthcoming IMF Working Paper; Michael Keane and Eswar Prasad, "Inequality, Transfers, and Growth: New Evidence from the Economic Transition in Poland," forthcoming in *Review of Economics and Statistics*.

<sup>2</sup>Anna Ivanova, Wolfgang Mayer, Alexandros Mourmouras, and George Anayiotos, "What Determines the Success or Failure of Fund-Supported Programs?" forthcoming IMF Working Paper.

<sup>3</sup>Theoretical papers include: Sanjeev Gupta, Hamid Davoodi, and Rosa Alonso-Terme, "Does Corruption Affect Income Inequality and Poverty?" IMF Working Paper 98/76, 1998, and also forthcoming in *Economics of Governance*; Antonio Spilimbergo, Juan Luis Londono, Miguel Szekely, "Income Distribution, Factor Endowments, and Trade Openness," *Journal of Development Economics* (June 1999); Giacomo Corneo, Olivier Jeanne, "Pecuniary Emulation, Inequality and Growth," *European Economic Review* (October 1999); Arye L. Hillman, "Poverty, Inequality, and Unethical Behavior of the Strong," IMF Working Paper 00/187, 2000; Li Hongyi, Danyang Xie, Heng-fu Zou, "Dynamics of Income Distribution," *Canadian Journal of Economics* (November 2000); Era Dabla-Norris and Paul Wade, "Rent Seeking and Endogenous Income Inequality," IMF Working Paper 01/15, 2001; Stefania Scandizzo, "Counterfeit Goods and Income Inequality," IMF Working Paper 01/13, 2001; Robert M. Townsend and Kenichi Ueda, "Transitional Growth with Increasing Inequality and Financial Deepening," IMF Working Paper 01/108, 2001.

<sup>4</sup>See Aleš Bulíř and Anne-Marie Gulde, "Inflation and Income Inequality: Further Evidence on Empirical Links," IMF Working Paper 95/86, 1995, and also published in *Finance a úvěr* Vol. 50 (April), 2000.

## Books from the IMF

### Silent Revolution: The International Monetary Fund, 1979–89

James M. Boughton

This volume—fourth in a series of histories of the institution—covers a decade when the IMF came of age as a participant in global financial markets and as a development partner for emerging economies. Part One of the book describes how the IMF conducted surveillance of macroeconomic and exchange rate policies, how the annual World Economic Outlook became a major tool for analyzing policy effects, and how the IMF supported policy coordination efforts of the major industrial countries. Part Two analyzes the debt crisis and explains how the IMF worked with indebted countries and their creditors to develop a strategy for resolving the crisis. Part Three examines IMF lending to developing countries, including how several countries fell into arrears to the IMF and how the tactics for dealing with the problem progressed. Part Four examines how the institution evolved throughout the 1980s and how it raised the financial resources to do its work.

Full-text versions (or, in some cases, detailed summaries) of books published by the IMF are available online at the **Research at the IMF** website at <http://www.imf.org/research>. Follow the link to IMF Publications.

## Books from the IMF

### The Modern VAT

Liam Ebrill, Michael Keen,  
Jean-Paul Bodin, and  
Victoria Summers

Probably the most important tax development of recent years has been the remarkable rise of the value-added tax (VAT), now a central component of the tax systems of over 120 countries. In particular, the VAT has recently become a key component of tax reform in many developing countries. The IMF Fiscal Affairs Department has played a major role in this process, and this book—the first comprehensive treatment of the tax for over a decade—sets out the lessons of its unique experiences.

The book is aimed at academics, policymakers, practitioners, and others with an interest in this increasingly important tax. Starting with an assessment of the key principles of the VAT, and new evidence on its effectiveness, the book covers the central issues in both policy design (such as the optimal rate structure, treatment of financial services and other problem areas) and administration (including audit, refund processing, and organizational structures).

Full-text versions (or, in some cases, detailed summaries) of books published by the IMF are available online at the **Research at the IMF** website at <http://www.imf.org/research>. Follow the link to IMF Publications.

<sup>5</sup>Aleš Bulíř, “Income Inequality: Does Inflation Matter?” *IMF Staff Papers*, Vol. 48, No. 1, 2001.

<sup>6</sup>Michael Sarel, “How Macroeconomic Factors Affect Income Distribution: The Cross-Country Evidence,” IMF Working Paper 97/152, 1997; Gary G. Moser, “Economic Growth and Poverty Reduction in Sub-Saharan Africa,” IMF Working Paper 01/112, 2001; Aleš Bulíř, “The Impact of Macroeconomic Policies on the Distribution of Income,” *Annals of Public and Cooperative Economics*, Vol. 72 (June), 2001.

<sup>7</sup>Vito Tanzi, “Fundamental Determinants of Inequality and the Role of Government,” IMF Working Paper 98/178, 1998. See also Hong-Sang Jung and Erick Thorbecke, “The Impact of Public Education Expenditure on Human Capital, Growth, and Poverty in Tanzania and Zambia: A General Equilibrium Approach,” IMF Working Paper 01/106, 2001.

<sup>8</sup>Gerd Schwartz and Teresa Ter-Minassian, “The Distributional Effects of Public Expenditure—Update and Overview,” IMF Working Paper 95/84, 1995, and also published in *Journal of Economic Surveys*, Vol. 14 (July) 2000. See also Vito Tanzi, Ke-young Chu, and Sanjeev Gupta, eds., *Economic Policy and Equity* (Washington, DC: International Monetary Fund, 1999).

<sup>9</sup>Ke-young Chu, Hamid Davoodi, and Sanjeev Gupta, “Income Distribution and Tax and Government Social Spending Policies in Developing Countries,” IMF Working Paper 00/62, 2000; Howell H. Zee, “Inequality and Optimal Redistributive Tax and Transfer Policies,” IMF Working Paper 99/60, 1999.

<sup>10</sup>Benedict Clements, “Income Distribution and Social Expenditure in Brazil,” IMF Working Paper 97/120, 1997.

<sup>11</sup>Emanuele Baldacci, Luiz R. De Mello, and Gabriela Inchauste, “Financial Crises, Poverty, and Income Distribution,” IMF Working Paper 02/4, 2002. See also Benedikt Braumann, “High Inflation and Real Wages,” IMF Working Paper 01/50, 2001 for a model description of the nexus between high inflation and poverty.

<sup>12</sup>Caroline van Rijckeghem, “Albania’s Early Transition, 1991–93: What Administrative Data Tell Us About Income Distribution and Poverty,” *Economic Systems*, Vol. 22 (December), 1998; Peter K. Cornelius and Beatrice S. Weder, “Economic Transformation and Income Distribution: Some Evidence from the Baltic Countries,” IMF Working Paper 96/14, 1996; Michael Keane and Eswar Prasad, “Consumption and Inequality During the Transition to a Market Economy: Poland, 1985–92,” *IMF Staff Papers*, Vol. 48 (Special Issue), 2001; Vincent R. Koen and Steven Phillips, “Price Liberalization in Russia: The Early Record,” IMF Working Paper 92/92, 1992; Sanjeev Gupta, Christian Schiller, and Henry Ma, “Privatization, Social Impact, and Social Safety Nets,” IMF Working Paper 99/68, 1999.

<sup>13</sup>Anuradha Dayal-Gulati and Aasim M. Husain, “Centripetal Forces in China’s Economic Take-off,” IMF Working Paper 00/86, 2000, and also forthcoming in *IMF Staff Papers*; Jahangir Aziz and Christoph Duenwald, “China’s Provincial Growth Dynamics,” IMF Working Paper 01/3, 2001; Shang-jin Wei and Yi Wu, “Globalization and Inequality: Evidence from Within China,” forthcoming IMF Working Paper.

<sup>14</sup>Philip R. Gerson, “Poverty, Income Distribution, and Economic Policy in the Philippines,” IMF Working Paper 98/20, 1998.

<sup>15</sup>Calvin McDonald, Christian Schiller, and Kenichi Ueda, “Income Distribution, Informal Safety Nets, and Social Expenditures in Uganda,” IMF Working Paper 99/163, 1999.

<sup>16</sup>Patrick Vanhoudt, “Do Labor Market Policies and Growth Fundamentals Matter for Income Inequality in OECD Countries? Some Empirical Evidence,” *IMF Staff Papers*, Vol. 44 (September), 1997; Jeffrey Cole and Christopher M. Towe, “Income Distribution and Macroeconomic Performance in the United States,” IMF Working Paper 96/97, 1996; Jörg Decressin, “Regional Income Redistribution and Risk Sharing: How Does Italy Compare in Europe?” IMF Working Paper 99/123, 1999.

<sup>17</sup>See IMF Staff, “Should Equity Be a Goal of Economic Policy?” *Finance and Development*, Vol. 35 (September), 1998; Paul Cashin, Paolo Mauro, Catherine Pattillo, and Ratna Sahay, “Macroeconomic Policies and Poverty Reduction: Stylized Facts and an Overview of Research,” IMF Working Paper 01/135, 2001.

<sup>18</sup>Mahmood H. Khan, “Rural Poverty in Developing Countries—Issues and Policies,” IMF Working Paper 00/78, 2000; Geoffrey Bannister and Kamau Thugge, “International Trade and Poverty Alleviation,” IMF Working Paper 01/54, 2001; Zuzana Brixiová, Aleš Bulíř, and Joshua Comenetz, “The Gender Gap in Education in Eritrea in 1991–98: A Missed Opportunity?” IMF Working Paper 01/94, 2001; Prakash Chander, “Subsidy Reforms and Poverty Alleviation,” IMF Working Paper 01/126, 2001; Paul R. Masson, “Migration, Human Capital, and Poverty in a Dual-Economy of a Developing Country,” IMF Working Paper 01/128, 2001; Paul Holden and Vassili Prokopenko, “Financial Development and Poverty Alleviation: Issues and Policy Implications for Development and Transition Countries,” IMF Working Paper 01/160, 2001; Alfredo Cuevas, “Short- and Long-Term Poverty and Social Policy in a ‘Snakes and Ladders’ Model of Growth,” IMF Working Paper 01/172, 2001; Ana Corbacho and Gerd J. Schwartz, “Mexico: Experience with Pro-Poor Expenditure Policies,” IMF Working Paper 02/12, 2002.

<sup>19</sup>Sanjeev Gupta, Louis Dicks-Mireaux, Ritha Khemani, Calvin McDonald, and Marijn Verhoeven, *Social Issues in IMF-Supported Programs*, IMF Occasional Paper No. 191, 2000. See also Sanjeev Gupta, Benedict Clements, and Erwin Tiongson, “Public Spending on Human Development,” *Finance and Development*, Vol. 35 (September), 1998.

## Dollarization *(continued from page 1)*

Much of the research on partial dollarization has focused on its underlying causes. Savastano (1996) emphasizes that, while macroeconomic instability is the cause of dollarization, its manifestation depends on the institutional framework. Countries that did not allow dollar deposits, for example, observed more capital flight and increased use of foreign currency, whereas countries with sufficiently flexible financial systems, such as Brazil, saw a proliferation of indexed domestic currency instruments, instead of dollarization.<sup>1</sup> A central feature of de facto dollarization is that it tends not to abate, even after the macroeconomic instabilities that caused it have been brought under control. Mongardini and Mueller (2000) find some econometric evidence of such a “ratchet effect” in foreign currency deposits in the Kyrgyz Republic, but not in cash dollars in circulation (for which they have some survey data).<sup>2</sup>

The literature on partial dollarization makes a distinction between currency substitution—dollarization of money as a means of payment—and asset substitution, which refers to dollarization of stores of value. Earlier research, such as Agénor and Khan (1996), focused on currency substitution, examining the rate of return on foreign currency in money demand functions.<sup>3</sup> As Savastano (1996) notes, however, most of the available data is on interest-bearing, foreign-currency time deposits, for which a focus on asset substitution makes more sense. Moreover, the Asian crisis motivated increased analysis of dollarized loans as well as other financial deposits; large quantities of loans were dollar-denominated and this had important implications for the economic effects of exchange rate fluctuations. More recent research on dollarization has thus concentrated on asset substitution.

Ize and Levy-Yeyati (1998) show that the degree to which the financial system is dollarized depends on relative volatilities of the inflation rate (more volatility makes foreign currency deposits less risky) and the real exchange rate (more volatility makes these deposits more risky in terms of domestic prices). Ize and Levy-Yeyati also explain the persistence of dollarization after stabilization in terms of the fact that real exchange rate volatility, in many cases, decreases faster than inflation volatility.<sup>4</sup> Catão and Terrones (2000) present a model of the banking system which emphasizes how banking and credit market imperfections determine deposit and loan dollarization.<sup>5</sup> Mourmouras and Russell (2000) show how, in the absence of interest-bearing bank deposits, foreign currency surrender requirements may lead to smuggling as a way for residents to accumulate cash dollars.<sup>6</sup>

The implications of partial dollarization for monetary and exchange rate policies and financial supervision is critical to the operational work of the IMF. Berg and Borensztein (2000) conclude that a high degree of currency substitution strengthens the case for fixing the exchange rate, while dollarization as asset substitution has various offsetting effects.<sup>7</sup> Ize (2001) argues that inflation targeting may be feasible even in the presence of substantial currency and asset substitution.<sup>8</sup> Baliño and others (1999) emphasize that dollarization—understood as asset substitution—has implications similar to those of capital account openness in general.<sup>9</sup> Poirson (2001) concludes that countries with a high degree of partial dollarization are, in fact, more likely to choose a more rigid exchange rate regime.<sup>10</sup>

## Policy Discussion Papers

**Policy Discussion Paper No. 01/2**  
The IMF and Civil Society: Striking a Balance  
*Thomas C. Dawson II and Gita V. Bhatt*

**Policy Discussion Paper No. 01/3**  
Providing Health Care to HIV Patients in Southern Africa  
*Markus Haacker*

**Policy Discussion Paper No. 01/4**  
Globalization Facts and Figures  
*Paul R. Masson*

**Policy Discussion Paper No. 01/5**  
Reviewing Some Early Poverty Reduction Strategy Papers in Africa  
*Caroline M. Robb and Alison M. Scott*

**Policy Discussion Paper No. 01/6**  
Financial Sector Regulation and Supervision: The Case of Small Pacific Island Countries  
*Klaus-Walter Riechel*

**Policy Discussion Paper No. 01/7**  
Monetary Operations and Central Bank Balance Sheets in a World of Limited Government Securities  
*Mark D. Zelmer*

IMF researchers have analyzed a variety of country experiences with partial dollarization. Unterberdoerster (2002) discusses the case of Vietnam; Fritz-Krockow and others (2001) look at Haiti; and Rumbaugh and others (2000) analyze dollarization in Cambodia. Zamaróczy and Sa (forthcoming) estimate the amount of cash dollars in circulation in Cambodia and conclude that the country is almost completely dollarized. Lizondo and others (2001) analyze monetary policy and the advisability of inflation targeting in Peru.<sup>11</sup>

Interest in full dollarization has grown sharply in recent years, both out of dissatisfaction with the alternatives and because several countries, including El Salvador and Ecuador, joined Panama among the ranks of sizable, fully dollarized countries. Berg and Borensztein (2000) analyze the costs and benefits of full dollarization as compared with its closest alternative, a currency board. They attempt to quantify the tradeoffs in the case of Argentina, in particular the cost of foregone seignorage and possible benefits from lower borrowing costs. They observe, however, that the potentially most important considerations—notably, the loss of the “exit option” to devalue in the face of major shocks, and the advantages of deeper integration—are harder to evaluate. They conclude that two groups of countries are most likely to find dollarization attractive: those already highly integrated with the United States (or other country whose currency is to be adopted) and those already highly dollarized de facto.<sup>12</sup> Calvo and Reinhart (2000) also point out that countries that are already substantially dollarized de facto will lose little in going to full dollarization.<sup>13</sup>

Several papers have looked more closely at the various costs and benefits of dollarization. Bogetić (2000) argues that growing partial dollarization and financial development imply that seignorage losses from dollarization would be small in many cases.<sup>14</sup> Parsley and Wei (2001) find that currency boards, and especially dollarization, strongly promote goods market integration, far beyond what is directly associated with exchange rate stability alone.<sup>15</sup>

Dollarization is sometimes seen as an irreversible decision but Liberia, one of only two countries with a long history of dollarization (the other is Panama) reintroduced its own currency in the 1980s. Indeed, Abrams and Cortés-Douglas (1993) provide what amounts to a manual for introducing a new currency, based on the experiences of countries that “de-dollarized” after the breakup of the Soviet Union.<sup>16</sup>

As Mishkin and Savastano (2000) emphasize, actual experiences with dollarization are limited, and the long history of dollarization in the most important case, Panama, is mixed.<sup>17</sup> Bogetić (2000) reviews the experience of Panama and concludes that it has been broadly positive. De la Torre and oth-

ers (forthcoming) describe the deep banking and exchange rate crisis that led to Ecuador’s January 2000 move to full dollarization and emphasize dollarization’s stabilizing role; Offerdal and others (2000) provide an early, cautiously positive, assessment of the outcome.<sup>18</sup> The addition of countries like Ecuador and El Salvador to the ranks of fully dollarized countries will provide important material for future research.

<sup>11</sup>Miguel Savastano, “Dollarization in Latin America: Recent Evidence and Some Policy Issues,” IMF Working Paper 96/4, 1996; also published in P.D. Mizen and E.J. Pentecost, eds., *The Macroeconomics of International Currencies: Theory, Policy and Evidence* (Aldershot: Edward Elgar, 1996).

<sup>12</sup>Ioannes Mongardini and Johannes Mueller, “Ratchet Effects in Currency Substitution: An Application to the Kyrgyz Republic,” *IMF Staff Papers*, Vol. 47, No. 2, pp. 218–37, 2000. Also see notable earlier work on dollarization by Ratna Sahay and Carlos Végh, “Dollarization in Transition Economies: Evidence and Policy Implications,” IMF Working Paper 95/96, 1995; also published in P.D. Mizen and E.J. Pentecost, eds., *The Macroeconomics of International Currencies: Theory, Policy and Evidence* (Aldershot: Edward Elgar, 1996).

<sup>13</sup>Pierre-Richard Agénor and Mohsin S. Khan, “Foreign Currency Deposits and the Demand for Money in Developing Countries,” *Journal of Development Economics*, Vol. 50, pp. 101–18, 1996; Stanley Black, Charalambos Christofides, and Alex Mourmouras use a model of currency substitution to analyze money demand during the run-up to a currency crisis in “Convertibility Risk: The Precautionary Demand for Foreign Currency in a Crisis,” IMF Working Paper 01/210, 2001.

<sup>14</sup>Alain Ize and Eduardo Levy-Yeyati, “Dollarization of Financial Intermediation: Causes and Policy Implications,” IMF Working Paper 98/28, 1998; also forthcoming in the *Journal of International Economics* as “Financial Dollarization.”

<sup>15</sup>Luis Catão and Marco Terrones, “Determinants of Dollarization: The Banking Side,” IMF Working Paper 00/146, 2000.

<sup>16</sup>Alex Mourmouras and Steven H. Russell, “Smuggling, Currency Substitution and Unofficial Dollarization: A Crime-Theoretic Approach” IMF Working Paper 00/176, 2000.

<sup>17</sup>Andrew Berg and Eduardo Borensztein, “The Choice of Exchange Rate Regime and Monetary Target in Highly Dollarized Economies,” IMF Working Paper 00/29, 2000.

<sup>18</sup>Alain Ize, “Implications of Partial Dollarization for Inflation Targeting: A View from the Dollarization Literature,” (in Spanish) in *Revista de Estudios Económicos*, Nro. 7 (junio 2001), Banco Central de Reserva del Perú.

<sup>19</sup>Thomas Baliño, Adam Bennett, and Eduardo Borensztein, “Monetary Policy in Dollarized Economies,” IMF Occasional Paper No. 171, 1999.

<sup>20</sup>Hélène Poirson, “How Do Countries Choose Their Exchange Rate Regime?” IMF Working Paper 01/46, 2001.

<sup>21</sup>Olaf Unterberdoerster, “Foreign Currency Deposits in Vietnam—Trends and Policy Issues,” in David Cowen, Olaf Unterberdoerster, Chanpen Puckahtikom, and Nita Thacker, *Vietnam: Selected Issues and Statistical Appendix*, IMF Country Report 02/5, 2002; Bernard Fritz-Krockow, Eric Verreydt, Werner Keller, and Randa Sab, “Deposit and Loan Dollarization in Haiti,” in *Haiti: Selected Issues*, IMF Staff Country Report No. 01/04, 2001; Thomas Rumbaugh, Kotaro Ishi, Hong Liang, and Atsushi Masuda, “Dollarization and the Monetary Regime,” in *Cambodia: Selected Issues*, IMF Staff Country Report No. 00/135, 2000; Mario de Zamaróczy and Sapanha Sa, “Macroeconomic Adjustment in a Highly Dollarized Economy: The Case of Cambodia,” forthcoming IMF Working Paper; and Saul Lizondo, Andrew Wolfe, Dale Chua, Juan Pablo Córdoba, and Andrea Richter, “The Design and Challenge of Monetary Policy in Peru,” in *Peru: Selected Issues*, IMF Staff Country Report No. 01/51, 2001. IMF country reports are available online in full-text format at [www.imf.org/publications](http://www.imf.org/publications).

<sup>12</sup>Andrew Berg and Eduardo Borensztein, "The Pros and Cons of Full Dollarization," IMF Working Paper 00/50, 2000, forthcoming in James Dean, Dominick Salvatore, and Thomas Willett, eds., *The Dollarization Debate* (Oxford University Press).

<sup>13</sup>Guillermo A. Calvo and Carmen Reinhart, "Reflections on Dollarization," in Alesina and Barro, eds., *Currency Unions* (Stanford: Hoover Institute Press), 2000. See also their "Capital Flow Reversals, the Exchange Rate Debate, and Dollarization," in *Finance and Development*, Vol. 36 (September), pp. 13–15, 1999.

<sup>14</sup>Zelko Bogetić, "Official Dollarization: Current Experiences and Issues," *Cato Journal* (fall), pp. 179–213, 2000. See also by the same author "Full Dollarization: Fad or Future?" *Challenge*, March/April 2000, pp. 17–48; "The Calculus of Full Dollarization," *Central Banking*, Vol. 11, No. 2, 2000, and "Seignorage and Dollarization," *Central Banking*, Vol. 10, No. 4, 2000.

<sup>15</sup>David Parsley and Shang-Jin Wei, "Limiting Currency Volatility to Stimulate Goods Market Integration: A Price-Based Approach," IMF Working Paper 01/197, 2001.

<sup>16</sup>Richard Abrams and Hernán Cortés-Douglas, "Introduction of a New National Currency: Policy, Institutional, and Technical Issues," IMF Working Paper 93/49, 1993.

<sup>17</sup>Frederic Mishkin and Miguel Savastano, "Monetary Policy Strategies for Latin America," NBER Working Paper No. 7617, 2000.

<sup>18</sup>Augusto de la Torre, Roberto García-Saltos, and Yira Mascaró, "Banking, Currency, and Debt Meltdown: Ecuador Crisis in the Late 1990s," forthcoming in *Latin American Financial Crises*, ed. by Albert Berry (University of Toronto); and Erik Offerdal, Mariano Cortés, Mayra Zermeño, Alvin Hilaire, Gabriela Inchauste, Fernando Delgado, Antonio Pancorbo, and Werner Keller, *Ecuador: Selected Issues and Statistical Annex*, IMF Staff Country Report No. 00/125, 2000.

### Call for Papers Third Annual IMF Research Conference

The third Annual Research Conference of the IMF will take place at the organization's headquarters in Washington, DC, on November 7–8, 2002. The conference will provide a forum to discuss innovative research by IMF staff and leading outside economists and will facilitate an exchange of views among the participants. The main theme of this year's conference will be **Capital Flows and Global Governance**, which can be interpreted broadly. More information and details about possible topics can be found at the **Research at the IMF** website at [www.imf.org/research](http://www.imf.org/research).

Interested contributors should submit a proposal to the Program Committee (email to [ARC2002@imf.org](mailto:ARC2002@imf.org)) by **March 22, 2002**. The Program Committee will evaluate all proposals in terms of originality, analytical rigor, and policy relevance and will communicate its decision by late April. The Program Committee consists of S. Wei (Chair), X. Debrun, G. Gelos, H. Huang, O. Jeanne, L. Kodres, and A. Spilimbergo.

## IMF Staff Papers, Special Issue November 2001 Proceedings of the First Annual IMF Research Conference

Edited by Eduardo Borensztein and Robert Flood

This special issue of *IMF Staff Papers* contains a selection of papers presented at the first annual IMF Research Conference held in Washington, DC, in November 2000. The papers in this volume were written by IMF authors and invited contributors from a group of distinguished outside scholars. Also included is the text of the first Mundell-Fleming lecture, delivered by Maurice Obstfeld, and a set of remarks by Robert Mundell on the intellectual history of the Mundell-Fleming model.

### International Macroeconomics: Beyond the Mundell-Fleming Model

Maurice Obstfeld (University of California at Berkeley)

### Do Monetary Handcuffs Restrain Leviathan? Fiscal Policy in Extreme Exchange Rate Regimes

Antonio Fatás (INSEAD and CEPR) and Andrew K. Rose (University of California at Berkeley)

### Exchange Rate Regimes and Economic Performance

Eduardo Levy-Yeyati and Federico Sturzenegger (Universidad Torcuato Di Tella)

### The Interest Rate-Exchange Rate Nexus in Currency Crises

Gabriela Basurto (Inter-American Development Bank) and Atish Ghosh (IMF)

### Consumption and Income Inequality During the Transition to a Market Economy: Poland, 1985–92

Michael Keane (Yale University) and Eswar Prasad (IMF)

### Bail-Ins, Bailouts, and Borrowing Costs

Barry Eichengreen (University of California at Berkeley) and Ashoka Mody (IMF)

### Crisis Resolution and Private Sector Adaptation

Gabrielle Lipworth and Jens Nystedt (IMF)

*IMF Staff Papers*, the IMF's scholarly journal, edited by Robert Flood, publishes selected high-quality research produced by IMF staff and invited guests on a variety of topics of interest to a broad audience, including academics and policy-makers in IMF member countries. The papers selected for publication in the journal are subject to a rigorous review process using both internal and external referees. The journal and its contents (including an archive of articles from past issues) are available online at the **Research at the IMF** website: <http://www.imf.org/research>.



## Country/Area Study

**The Euro Area**

Zenon G. Kontolemis



*The introduction of a single currency in Europe in January 1999 and the changeover to euro notes and coins on January 1, 2002 present new challenges to policymakers. In this context, a sound understanding of the new environment is vitally important. Recent research at the IMF on the euro area has been motivated by the need to shed light on a wide range of issues, with a specific focus on providing the tools that will allow policymakers to evaluate the appropriateness of areawide macroeconomic policies. This article provides an overview of this research and focuses on work covering monetary, exchange rate, and fiscal policies.*

Since the beginning of Stage Three of European Economic and Monetary Union (EMU) in January 1999, the European Central Bank (ECB) has conducted monetary policy at the euro-area level. The ECB's framework, which aims at preserving price stability in the euro area, consists of a two-pillar strategy.

Under the first pillar, the ECB announces a reference value for the growth of the monetary aggregate M3 and revises it annually. This reference value serves as a guidepost for developments in the monetary sector in that any persistent deviations from that value signal risks to price stability. The underlying assumption is that a stable money demand for the euro area exists. This has motivated research at the IMF on examining the stability of euro-area money demand and the appropriateness of the ECB's reference value (Calza, Gerdesmeir and Levy, 2001; Kontolemis, 2001).<sup>1</sup> More specifically, Kontolemis (2001) shows that the reference value for M3 growth chosen by the ECB is somewhat low, based on recent trends, and argues that—given the uncertainty relating to velocity trends—a monitoring range may be more desirable, from a communication viewpoint, than a point reference value.

Under the second pillar, the ECB monitors a wide range of other economic indicators—including output developments—that may contain information regarding risks to price stability. In this respect, the measure-

ment of the output gap is crucial for policymakers. Ross and Ubide (2001) provide one of the first attempts to measure the euro-area output gap.<sup>2</sup> In addition to comparing different measures of the output gap, their paper assesses how these compare in forecasting inflation and in mimicking the properties of coincident measures of the business cycle.

Understanding the monetary policy transmission mechanism in the common currency area is, of course, crucial for the ECB. Research at the IMF has focused on measuring and explaining differences in the transmission mechanism of monetary policy across countries (for example, Ramaswamy and Sloek, 1998), and drawing implications for policymaking at the euro-area level.<sup>3</sup> Clements, Kontolemis, and Levy (2001) observe that the large differences in the responses of prices and output to (unanticipated) changes in interest rates, across the 12 countries cited in earlier research, reflected both differences in the countries' monetary frameworks prior to adopting the euro, as well as differences in the monetary policy transmission mechanisms as such.<sup>4</sup> The study attempts to isolate and explain differences that are due to the transmission mechanisms themselves, and hence are likely to persist under EMU.<sup>5</sup> By taking into account the new institutional framework of EMU—fixed intra-euro-area exchange rates and a common monetary policy across countries—the study provides a better measure, than earlier work, of the effects of (unanticipated) monetary policy changes on prices and output for the euro area as a whole and across countries. Moreover, the study shows that differences in the financial systems across euro-area countries are important and explain some of these differences in the transmission mechanism. In a related study, Belaisch, Kodres, Levy and Ubide (2001) provide an in-depth look of the banking system in the euro area and highlight some of the differences across countries.<sup>6</sup>

In this uncertain environment, the continuing weakness—and unpredictability—of the euro exchange rate has complicated the formulation of monetary policy. A recent contribution by Meredith (2001) attempts to explain the sources of the depreciation of the euro since January 1999.<sup>7</sup> This paper argues that the depreciation of the euro since the introduction of the common currency is a continuation of a trend observed since the mid-1990s. This trend is largely explained by the strong

performance of the U.S. stock market since the beginning of the 1990s, relative to Europe, and is not the consequence of the introduction of the euro as such.<sup>8</sup> The surge in equity prices since the mid-1990s created a demand shock that disproportionately affected the United States. More recently, the fall in the euro is also attributed to (global) portfolio shifts that followed the introduction of the new currency. Hence, the ECB's monetary policy actions are not considered directly related to the decline in the exchange rate value of the euro, and should remain focused on the broader macroeconomic environment rather than on exchange rate considerations.<sup>9</sup>

Fiscal policy remains highly decentralized across the 12 euro-area countries, although countries are required to abide by the rules of the Stability and Growth Pact (SGP). According to the SGP, countries are committed to achieving sound fiscal positions by adhering to a medium-term budgetary objective of "close to balance or surplus." Work at the IMF dating back to 1997 discusses the institutional setup of the SGP (see Begg, 1997, for example) and its ability to overcome a past procyclical bias, which was an unfortunate historical characteristic in many euro-area countries (Jaeger, 2001, for example).<sup>10</sup> Indeed, recent work in this area focuses on asymmetric fiscal policy behavior over the cycle and the way that institutions, including the SGP, can prevent this practice. Related research by Detragiache, Milesi-Ferretti, Daban, and Symansky (2001) explores the benefits of rules-based approaches to fiscal policymaking in the four largest economies of the euro area and argues that countries should place more emphasis on spending rules within the SGP.<sup>11</sup>

In addition, recent IMF research on the euro area has also addressed other related issues. Decressin, Estevao, Gerson, and Klingen (2001) demonstrate that output growth in France, Germany, Italy and Spain, during the last expansion, has been more employment intensive than during previous growth episodes and argue that this is a result of sustained wage moderation in the euro area.<sup>12</sup> Finally, Ford and Gerson (2001) examine the policy implications of inflation differentials in the euro area, and conclude that in cases where such differentials are not driven by macroeconomic fundamentals such as productivity differentials, fiscal policy is a more appropriate means to offset them.<sup>13</sup>

<sup>1</sup>A. Calza, D. Gerdesmeier, and J. Levy, "Euro Area Money Demand: Measuring the Opportunity Costs Appropriately," IMF Working Paper No. 01/179, 2001; Z. G. Kontolemis, "The ECB's Monetary Stance: First Pillar Considerations," IMF Country Report, No. 01/201, 2001.

<sup>2</sup>K. Ross, and A. Ubide, "Mind the Gap: What Is the Best Measure of Slack in the Euro Area?" IMF Working Paper No. 01/203, 2001.

<sup>3</sup>R. Ramaswamy and T. Sloek, "The Real Effects of Monetary Policy in the European Union: What Are the Differences?" *IMF Staff Papers*, Vol. 45, No. 2, pp. 374–95, 1998, (Washington: International Monetary Fund).

<sup>4</sup>B. Clements, Z. G. Kontolemis, and J. Levy, "Monetary Policy Under EMU: Differences in the Transmission Mechanism?" IMF Working Paper No. 01/102, 2001.

<sup>5</sup>A related paper that covers the four largest countries in the euro area is M. Ciccarelli, and A. Rebucci, "The Transmission Mechanism of European Monetary Policy: Is There Heterogeneity? Is it Changing over Time?" forthcoming IMF Working Paper.

<sup>6</sup>A. Belaisch, L. Kodres, J. Levy, and A. Ubide, "Euro-Area Banking at the Crossroads," IMF Working Paper No. 01/28, 2001.

<sup>7</sup>G. Meredith, "Why Has the Euro Been So Weak?" IMF Working Paper No. 01/155, 2001.

<sup>8</sup>Another contribution discussing the degree of capital market integration across euro-area countries and the implications for future capital flows within the euro area is J. Decressin and P. Disyatat, "Capital Markets and External Accounts: What to Expect from the Euro," IMF Working Paper No. 00/154, 2000.

<sup>9</sup>A number of contributions by IMF staff on the euro are also included in the volume by P. Masson, T. Krueger, and B. Turtelboom, eds., *EMU and the International Monetary System* (IMF: Washington DC, 1997).

<sup>10</sup>D. Begg, "The Design of EMU," IMF Working Paper No. 97/99, 1997; A. Jaeger, "Cyclical Fiscal Policy Behavior in the EU Countries," IMF Country Report No. 01/201, 2001.

<sup>11</sup>E. Detragiache, G. M. Milesi-Ferretti, T. Daban, and S. Symansky, "Rules-Based Fiscal Policy and the Fiscal Framework in France, Germany, Italy, and Spain," IMF Country Report No. 01/203, 2001.

<sup>12</sup>J. Decressin, M. Estevao, P. Gerson, and C. Klingen, "Job-Rich Growth in Europe," IMF Country Report No. 01/203, 2001. A related paper discussing the issue of high and persistent rates of unemployment in Europe is "Chronic Unemployment in the Euro Area: Causes and Cures," *IMF World Economic Outlook*, May 1999.

<sup>13</sup>R. Ford, and P. Gerson, "Cyclically Advanced Euro-Area Economies: Consequences and Policy Options," IMF Country Report No. 01/95, 2001.

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[www.imf.org/research](http://www.imf.org/research)

## Second Annual IMF Research Conference

Summary by Jeromin Zettelmeyer

The second Annual IMF Research Conference was held in Washington, DC, on November 29–30, 2001. The conference focused on the economic consequences of large devaluations and currency crises, stabilization policies in emerging markets, and the political economy of economic reforms and IMF programs. The Mundell-Fleming lecture was delivered by the Chief Economist of the IMF, Kenneth Rogoff, in honor of Rudiger Dornbusch, whose influential “overshooting model” of the exchange rate was published 25 years ago. The conference agenda and brief descriptions of the papers follow.

### The Consequences of Large Devaluations and Currency Crises

#### Why Are Rates of Inflation So Low After Large Contractionary Devaluations?

*Ariel Burstein, Martin Eichenbaum, and Sergio Rebelo (Northwestern University)*

Discussant: Ilan Goldfajn (PUC Rio and Banco Central do Brasil)

#### Credit Stagnation in Latin America

*Adolfo Barajas (IMF) and Roberto Steiner (Universidad de los Andes)*

Discussant: Alejandro Werner (Banco de México)

#### Boom-Bust Cycles in Credit-Constrained Economies: Facts and Explanation

*Aaron Tornell (UCLA) and Frank Westermann (University of Munich)*

Discussant: Paolo Pesenti (Federal Reserve Bank of New York)

#### Output Response to Currency Crises

*Poonam Gupta (IMF), Deepak Mishra (World Bank), and Ratna Sahay (IMF)*

Discussant: Nouriel Roubini (New York University)

#### Cheap Labor Meets Costly Capital: The Impact of Devaluations on Commodity Firms

*Kristin Forbes (U.S. Treasury)*

Discussant: Jingqing Chai (IMF)

#### Economic Integration and the Exchange Rate Regime: How Damaging Are Currency Crises?

*Axel A. Weber and Günter Beck (Frankfurt University)*

Discussant: Charles Engel (University of Wisconsin)

### Stabilization Policies and Economic Reforms

#### The Effectiveness of Fiscal Policy in Stimulating Economic Activity: An Empirical Investigation

*Emanuele Baldacci, Marco Cangiano, Selma Mahfouz, and Axel Schimmelpfennig (IMF)*

Discussant: Alberto Alesina (Harvard University)

#### Interest Rate Effects on Output: Evidence from a GDP Forecasting Model for South Africa

*Janine Aron and John Muellbauer (Oxford University)*

Discussant: Eswar Prasad (IMF)

#### Why Do Many Disinflations Fail?

*Javier Hamann and Alessandro Prati (IMF)*

Discussant: Holger Wolf (George Washington University)

#### IMF Programs: Who Is Chosen and What Are the Effects?

*Robert Barro (Harvard University) and Jong-Wha Lee (Korea University)*

Discussant: Tim Lane (IMF)

#### Budget Support versus Project Aid: A Theoretical Appraisal

*Tito Cordella and Giovanni Dell’Ariccia (IMF)*

Discussant: Craig Burnside (World Bank)

#### What Determines Individual Preferences Over Market Reform? Microeconomic Evidence from Russia

*Stephanie Eble and Petya Koeva (IMF)*

Discussant: Anders Åslund (Carnegie Endowment for International Peace)

#### What Explains the Success and Failure of Fund-Supported Programs?

*Anna Ivanova (IMF), Wolfgang Mayer (University of Cincinnatti), Alex Mourmouras and George Anayiotos (IMF)*

Discussant: Patrick Conway (University of North Carolina)

#### Conditionality and Ownership in IMF Lending: A Political Economy Approach

*Allan Drazen (Tel-Aviv University)*

Discussants: Jeffrey Frieden (Harvard University), and Mohsin Khan (IMF)

The papers presented in the first set of sessions examined the consequences of large devaluations and currency crises from four angles: inflation, credit, real output, and economic integration. **Burstein, Eichenbaum and Rebelo** ask why inflation

after large contractionary devaluations has typically been much lower than purchasing power parity would predict. Their paper gives an answer that is consistent with the law of one price holding for pure tradeables. First, they point out the share of internationally tradeable goods in the CPI is much lower than typically assumed once one accounts for distribution services and goods produced locally for the domestic market. Second, they present an equilibrium model in which a devaluation generates low nontradeables inflation because the crisis tightens private borrowing constraints. **Barajas and Steiner** present a set of stylized facts on the credit slowdown in several Latin American countries since 1998, and attempt to econometrically disentangle the causes of the slowdown for Colombia, Mexico, and Peru. **Tornell and Westermann** document the stylized facts of boom-bust credit and output cycles in emerging markets in the last two decades. They go on to present a tradeables/nontradeables model with asymmetric financing constraints and balance sheet effects that rationalizes these cycles, and use the restrictions implied by their model to estimate a structural vector autoregression.

Using a large panel of countries and crisis episodes, **Sahay, Gupta, and Mishra** find that the consequences of currency crises on GDP differ widely. About 40 percent of currency crises in fact seem to be *expansions*. Crises tend to be contractionary if they are preceded by large capital inflows, occur at the height of a boom and in an open capital account environment, and if competitors also devalue. **Forbes** studies the effects of devaluations on the output growth and profitability of commodity firms between 1996 and 2000, and finds that devaluations tend to stimulate output and profits in the short run, but that long-run effects are mixed and depend on capital labor ratios and changes in real interest rates. Finally, **Weber and Beck** examine economic integration, measured by the degree to which consumer prices move in tandem across different locations. They find that the major currency crises of the 1990s had significant disintegration effects by this measure, both through increased “border effects” (i.e., disintegration across countries) and by increasing relative price dispersion within countries.

Four of the papers presented on the second day dealt with issues associated with stabilization policies and economic reforms: **Aron and Muellbauer**, who look at monetary transmission in a particular country case (South Africa), **Baldacci, Cangiano, Mahfouz, and Schimmelfennig**, who explore the effectiveness of fiscal policy in responding to a recession in a broad selection of countries, and **Hamann and Prati**, who ask why some stabilizations are quickly reversed while others have more enduring success. The main finding of Hamann

and Prati’s paper is that about 85 percent of dichotomous outcomes (success or failure) can be predicted without knowledge of poststabilization domestic variables. Exchange rate–based stabilizations appear more likely to succeed, and initial conditions such as the level of precrisis inflation, a history of inflation, and the structure of political institutions matter. Finally, **Eble and Koeva** look at the determinants of support for market reforms using a Russian longitudinal household survey. Their main finding is that economic self-interest goes a long way toward explaining why individuals are opposed to or in favor of market reforms; however, ideological factors also appear to be important in explaining the preferences of particular groups, such as pensioners.

The remaining four papers focused specifically on issues related to IMF (or other international financial institutions) lending and conditionality. **Barro and Lee** show that IMF stabilization loans have no effect on long-run growth once the endogeneity of the lending decision—which may depend on borrower characteristics which themselves affect growth—is properly dealt with (simple regressions show a negative relationship). Their analysis uses political and institutional variables, such as the size of the borrower country’s quota, its political proximity to the U.S. and other big shareholders as regression instruments. **Cordella and Dell’Ariccia** show that an international donor’s choice between conditional budget support and project aid should depend on the trade-off between two distortions: the fungibility problem associated with project aid, and the inability to observe all relevant government actions in the case of conditional budget aid. **Ivanova, Mayer, Mourmouras, and Anayiotos** analyze the determinants of IMF program implementation and find that domestic political economy factors, such as the strength of special interests, lack of political cohesion, and ethnic and linguistic divisions contribute crucially to program failure.

Finally, **Drazen** surveys the debate on the relationship between conditionality and ownership, pointing out some incongruences and suggesting how they could be resolved. He then develops the case in which there is full ownership on the side of the borrower country government, but conditionality is nevertheless desirable because it strengthens the position of the government vis-à-vis an interest group that opposes reforms.

Selected papers from this conference will be published in a special issue of *IMF Staff Papers* in 2002.

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Proceedings of IMF conferences and seminars, including agenda and papers, can be obtained through the “Conferences, Seminars and Workshops” link at the Research at the IMF website at <http://www.imf.org/research>.

# Seminar on Investor Relations: A Tool for Crisis Prevention

Summary by Ralph Chami

*The IMF and the Institute of International Finance jointly hosted the first seminar on investor relations in Washington, DC, on November 5–6, 2001. The seminar, organized by the IMF Institute, brought together country officials and international lenders and investors. The participants examined the role that Investor Relations Programs (IRP) can play in sovereign borrowing and discussed the experience of countries with existing IRPs. Seminar participants, by and large, felt that IRPs had a positive impact on attracting foreign capital and lowering its cost, but cautioned against seeing them as substitutes for sound economic policies in debtor countries.*

## Investor Relations as a Tool of Crisis Prevention

*Frank Savage (Savage Holdings LLC) and Robert Pozen (Fidelity Investments)*

## The Perspective of Investors and Lenders

*Mohamed A. El-Erian (PIMCO), Douglas E. Smee (Citigroup, Inc.), and Amy Falls (Morgan Stanley)*

## Corporate Investor Relations Practices

*Cees Maas (ING Group) and James R. Ryan (Lockheed Martin Corporation)*

## The Role of Investor Relations Programs in Recent Cases:

### Brazil During the Argentine Crisis in 2001

*Graham Stock (J. P. Morgan Chase & Co.), Thomas Trebat (Salomon Smith Barney), and Lorenzo L. Perez (IMF)*

### Argentina 2001

*Arturo C. Porzecanski (ABN AMRO), Paulo C. Leme (Goldman Sachs), and Marcelo R. Figuerola (IMF)*

### Turkey 2001

*Marco Annunziata (Deutsche Bank AG), David Lubin (HSBC), and Susan Schadler (IMF)*

## Investor Relations Practices by Leading Emerging Market Authorities

*Rodrigo Brand (Ministry of Finance and Public Credit, Mexico), Dong-Kyu Shin (Ministry of Finance and Economy, Korea), Jacek Tomorowicz (Ministry of Finance, Poland), and Lambertus van Zyl (South African Reserve Bank)*

## “Best Practice” for Investor Relations

*George Handjinicolaou (Merrill Lynch & Co., Inc.), Klaus Friedrich (Dresdner Bank AG), and William Streeter (Fitch Ratings, Ltd.)*

Anne Krueger and Charles Dallara welcomed the participants and asked them to examine the ways in which a frank, meaningful, and sustained dialogue between country authorities and international lenders could contribute to stabilizing and lowering the risks associated with cross-border flows of private capital.

The idea of having an IRP has its roots in modern corporate finance theory. With its emphasis on maximizing shareholder value, the theory recognizes the crucial role information asymmetry, and attendant incentive problems of moral hazard and adverse selection, play in determining the capital structure of a corporation.<sup>1</sup> Equity financing, being an unsecured form of lending, is very susceptible to informational problems. As a consequence, historically the debt contract has been preferred by lenders.<sup>2</sup> Academics and practitioners alike have realized the importance of reducing informational asymmetries for ameliorating the agency problem, and the perception of risk by outside investors.<sup>3</sup> Such information provision has been pivotal for the development of equity markets and, as a consequence, has allowed firms to reduce their reliance on debt and internal funding as the main sources of finance.<sup>4</sup>

Corporations in the United States have long recognized the importance of providing stakeholders with relevant and timely information and their investor relations offices (IROs) assist stakeholders in differentiating among investment choices.<sup>5</sup> The information exchange between borrowers and lenders has been given considerable structure and substance through financial disclosure regulations (which, in the United States, are formulated by the Securities and Exchange Commission).

What is an IRO? At the corporate level, an IRO is the main link between a firm and its stakeholders. Such an office also benefits other observers such as ratings agencies and analysts. The office is charged with maintaining regular contact with market participants, providing them with timely and reliable financial data, and conveying to the market the management’s vision and philosophy. This helps in differentiating the firm from its competitors, and contributes to enhancing its brand name. An IRO also serves the equally important role of conveying to management the markets’ assessment of the firm’s actions and future prospects. Seminar participants from the corporate sector stressed that an IRP represents good risk management practice, in that it helps foster a culture of accountability within the firm.

A country's IRO can be located either within the central bank or the ministry of finance. A sovereign IRO's credibility depends on its ability to provide the market with timely and reliable data, realistic assessments of policies, and discussion of a believable forward-looking strategy. An IRP not only allows officials to communicate with investors, but also provides invaluable feedback from the market to country officials regarding the market's perception of policies. It should provide an open and candid line of communication not only in normal periods, but also during times of stress.

As emphasized by seminar participants, the credibility of an IRP depends crucially on the reputation and experience of those in charge of the IRO. The senior officials in the IRO should be able to moderate effectively the needs and concerns of lenders to key officials and organizations. At the same time, they should also help foster a country strategy for dealing with market players and communicate effectively the views and concerns of policymakers to domestic and international markets.

The credibility of an IRP is enhanced by providing similar information to all stakeholders (domestic and foreign), avoiding rosy forecasts, and disclosing contingent liabilities. If a problem exists, the IRO should alert investors of the potential for bad news, but place it in the proper context by conveying to markets that officials not only understand the nature of the problem, but have also developed strategies for dealing with it. Representatives from large investment banks

emphasized the importance of low turnover among IRO staff for developing and maintaining the trust of market players.

Brazil and Mexico were cited as examples of successful IRPs that had helped "decouple" the countries from others in the region. The benefits of differentiation had included lower interest rate spreads for sovereign debt, and a wider set of financing options. Participants mentioned Turkey as a case where the absence of an effective IRP had hindered the country from benefiting from much needed private capital flows, despite serious attempts at dealing with its financial problems. In his concluding remarks, Gerd Häusler stressed that an IRP is neither a panacea nor a substitute for sound macroeconomic management—a view shared by all participants and, some felt, illustrated by the Argentine case.

<sup>1</sup>See Michael C. Jensen and William H. Meckling, "Theory of the Firm: Managerial Behavior," in *Agency Costs and Ownership Structure*, International Library of Critical Writings in Economics, Vol. 106 (Cheltenham, U.K. and Northampton, Mass.: Elgar, 1999).

<sup>2</sup>See Franklin Allen and Douglas Gale, *Comparing Financial Systems* (Cambridge, Mass: MIT Press, 2000).

<sup>3</sup>See Jonathan Barron Baskin and Paul J. Miranti, Jr., *A History of Corporate Finance* (Cambridge, UK: Cambridge University Press, 1997).

<sup>4</sup>See John Riley, "Silver Signals: Twenty-Five Years of Screening and Signaling," *Journal of Economic Literature*, Vol. 39, 2001, pp. 432–78.

<sup>5</sup>See, for example, the IRO web sites for Lockheed Martin and ING: <http://www.lockheedmartin.com/investor/> and <http://www.ing.com/ing/contentm.nsf/homeinvestors!ReadForm&sc=en>

## Visiting Scholars at the IMF, October–December 2001

Michael Bleaney; University of Nottingham, U.K.  
 Michael Bordo; Rutgers University  
 John Boyd; University of Minnesota  
 Kevin Carey; American University  
 Menzie Chinn; University of California, Santa Cruz  
 Carl Claussen; Central Bank of Norway  
 Giancarlo Corsetti; University of Rome III, Italy  
 Thomas Cosimano; University of Notre Dame  
 Allan Drazen; University of Maryland  
 Jayasri Dutta; University of Birmingham  
 Michael Funke; Universität Hamburg, Germany  
 Pietro Garibaldi; Università Commerciale Luigi Bocconi, Italy  
 Morris Goldstein; Institute for International Economics  
 Cheikh Gueye; BCEAO, Senegal  
 Gregory Hess; Oberlin College

Shigeru Iwata; University of Kansas  
 Mahmood Khan; Simon Fraser University  
 Amartya Lahiri; University of California at Los Angeles  
 Francois Leroux; Ecole des Hautes Etudes Commerciales, France  
 George Mbangah; University of Yaounde II, Cameroon  
 Emmanuel Ogunkola; National University of Lesotho, Lesotho  
 Andrew Rose; University of California, Berkeley  
 Xavier Sala-I-Martin; Universitat Pompeu Fabra, Spain  
 Fondoh Sikod; University of Yaounde II, Cameroon  
 Mark Taylor; Warwick Business School, U.K.  
 Juergen von Hagen; University of Bonn, Germany  
 Thomas Willett; Claremont Graduate University  
 Yishay Yafeh; The Hebrew University, Israel  
 Eduardo Yeyati; Torquato di Tella University, Argentina

## External Publications by IMF Staff, July–December 2001

### Journal Articles

**Asfar, O.; Danninger, Stephan**

Profit Sharing, Employment Stability, and Wage Growth  
*Industrial and Labor Relations Review*

**Balakrishnan, Ravi; Michelacci, Claudio**

Unemployment Dynamics Across OECD Countries  
*European Economic Review*

**Ball, Sheryl; Feltenstein, Andrew**

Bank Failures and Fiscal Austerity: Policy Prescriptions for a Developing Country  
*Journal of Public Economics*

**Bayoumi, Tamim; Mauro, Paolo**

The Suitability of ASEAN for a Regional Currency Arrangement  
*The World Economy*

**Blankenau, William; Kose, Ayhan M.; Yi, Kei-Mu**

Can World Real Interest Rates Explain Business Cycles in a Small Open Economy?  
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## Special Topic

# Balance of Payments Statistics

Marie Montanjees

The IMF Statistics Department has created a public website dedicated to disseminating information on balance of payments concepts, data, and related ongoing statistical work. The website (<http://www.imf.org/bop>) is intended to provide easier access to data sources, information on methodology, as well as updates on various IMF initiatives aimed at improving the quality and timeliness of balance of payments and other external sector statistics.

The vast amount of information available on the IMF Balance of Payments website is organized into separate modules and is accessed through easy links. The contents of the major modules are described below.

- **Balance of Payments Committee:** provides information on the activities of the IMF Committee on Balance of Payments Statistics, a group of expert data compilers established in 1992 to advise the IMF on methodological and compilation issues affecting balance of payments and international investment position statistics. The site publishes the annual reports of the committee and papers on the committee's research activities, such as the statistical measurement of repurchase agreements, drug smuggling, travel expenditures, and shuttle trade.
- **Balance of Payments Newsletters:** provides the IMF's *Balance of Payments Statistics Newsletter* from 1995 to the present. The newsletter contains information on developments in balance of payments statistics taking place in different countries and in international organizations.
- **Balance of Payments Selected Publications:** lists selected publications and working papers on balance of payments topics. The site includes links to the text of the IMF's *Balance of Payments Manual (BPM5)*, the *Balance of Payments Compilation Guide*, the *Balance of Payments Textbook*, and *Financial Derivatives: A Supplement to BPM5*.
- **Direct Investment Methodology:** covers the IMF/OECD survey of data sources and methodological practices used to compile foreign direct investment (FDI) statistics, including the report on the 1997 survey that covered 114 countries. Reports on the 2001 update of the survey for the 30 OECD countries and selected non-OECD countries will be posted on the site shortly, as well as summary descriptions of the compilation practices, data sources, and methodology for specific countries.
- **External Debt Statistics:** provides a link to the text of the interagency *External Debt Statistics: Guide for Compilers and Users*, which covers the measurement and presentation of external debt statistics and the compilation and analytical use of external debt statistics. The site also provides a link to the joint BIS/IMF/OECD quarterly external debt data obtained primarily from creditor and market sources.
- **Financial Derivatives:** covers recent methodological developments in the derivatives area, including a link to the text of a working paper on the statistical measurement of financial derivatives.
- **International Reserves:** covers the data on international reserves and foreign currency liquidity that are now prescribed for the Special Data Dissemination Standard (SDDS). The site includes links to (i) data for 43 IMF member countries, presented in the standard "template" format and in U.S. dollars and (ii) the text of the *International Reserves and Foreign Currency Liquidity: Guidelines for a Data Template*.
- **International Trade in Services:** presents the text of the interagency *Manual on Statistics of International Trade in Services*. The manual was prepared to meet the needs of statistical compilers, governments, and international organizations that use statistical information on services trade in international negotiations, and of researchers and other users who wish to assess developments in international services markets.
- **Portfolio Investment:** covers the IMF Coordinated Portfolio Investment Survey (CPIS), conducted by major investing countries to improve the reporting of portfolio investment data. The site provides information on the first CPIS in 1997 and publishes the text of the *Coordinated Portfolio Investment Survey Guide* (second edition), which sets out the definitions and classifications used for the second CPIS in 2001.