



In This Issue

Fiscal Rules	1
Financial Development in Low-Income Countries: Old Questions or New Problems?	1
Policy Discussion Papers	3
Visiting Scholars	4
<i>IMF Staff Papers</i> , Vol. 51, No. 3	5
Country Study: China	7
Working Papers	9
External Publications by IMF Staff, 2004	13
IMF Conference Honors Michael Mussa	16

Editor's Note

This issue marks the departure of *IMF Research Bulletin's* editor Paolo Mauro, who wishes to thank all contributors to the *Bulletin* over the past couple of years. Special thanks go to assistant editor, Archana Kumar; systems consultant, Kellett Hannah; and compositor, Choon Lee. Taking the baton from Paolo, I look forward to maintaining continuity and building on my predecessor's outstanding work on the *Bulletin*. At the same time, I welcome all suggestions from the readers.

—Tito Cordella

Research Summaries

Fiscal Rules

Eduardo Ley



In the past decade, several countries—often reacting against the deterioration of their public finances—have adopted rules constraining the extent of discretionary fiscal policy to correct for the deficit bias. This article summarizes recent IMF research on the potential benefits of rules-based fiscal policy frameworks to enhance policy credibility and fiscal sustainability.

George Kopits and Steven Symansky (1998) define a fiscal policy rule as a permanent constraint on fiscal policy, expressed as a summary indicator of fiscal performance, such as the government budget deficit, borrowing, debt, or a major component thereof. They argue that the strongest case for fiscal rules is based on political economy arguments that the rules correct the bias of short-sighted governments to accumulate public debt at the expense of future generations and that avoiding time-inconsistency issues results in significant credibility gains. These benefits must be weighed against the loss of discretion. Kopits and Symansky also identify a list of characteristics for ideal fiscal rules—the now classic Kopits-Symansky (K-S) criteria—which dictates that an ideal fiscal rule should be well-defined, transparent, simple, flexible, adequate relative to the final goal, enforceable, consistent, and supported by sound policies, including structural reforms if needed.

(continued on page 2)

Financial Development in Low-Income Countries: Old Questions or New Problems?

Thierry Tresselt



Over the last few decades, many low-income countries (LICs) have liberalized their highly repressed financial systems. Financial reforms have led to the elimination of interest rate controls and directed credits, and to the introduction of indirect instruments of monetary policy. However, limited access to financial services remains a pervasive phenomenon in low-income countries. This

paper selectively surveys recent IMF research on the development of financial systems in low-income countries, including LICs' experience with financial liberalization, the determinants of financial reform, the relationship between financial deepening and growth, and the factors explaining the lack of access to formal finance.

(continued on page 5)

Fiscal Rules *(continued from page 1)*

Kell (2001) evaluates the two fiscal rules introduced in the United Kingdom in 1997—a golden rule and a debt rule—against the K-S criteria. Although Kell concludes that U.K. fiscal rules broadly measure up strongly against the K-S ideal characteristics, he also identifies room for improvement—by simply clarifying the benchmarks and objectives—in the policy framework. Moreover, Kell argues that the discrepancy between the two rules and medium-term fiscal plans could undermine the credibility of the fiscal policy framework.

Drawing on international experience, Kopits (2001) re-examines the merits for and against fiscal rules. He identifies three broad lessons. First, governments with a strong reputation for fiscal prudence do not need to be constrained by rules. Second, in countries that lack such a reputation, fiscal rules can indeed provide a useful policy framework that is conducive to stability and growth. Third, to enhance their usefulness, fiscal rules need to meet the K-S criteria at the both national and subnational levels.

Dabán and others (2003) study the design of rules-based fiscal frameworks in the four largest economies in the euro area—France, Germany, Italy, and Spain. They argue that, to avoid procyclicality, the four countries would benefit from incorporating spending rules on deficit and debt targets. Their paper advocates binding spending rules consistent with medium-term debt targets while allowing cyclical revenue fluctuations to affect the budget balance. Dabán and others review implementation issues and suggest that fiscal rules be embedded in medium-term macroeconomic frameworks, applied to the general government, and use comprehensive expenditure targets. On real versus nominal rules, their paper points out that nominal rules may be preferable in countries where cyclical stabilization is a priority, while real rules may be more appropriate when there are automatic indexation clauses for significant expenditures (e.g., entitlements).

Tanner (forthcoming) uses numerical simulations to compare three fiscal regimes: a pure tax-smoothing regime, a balanced-budget rule regime, and a regime in which the government runs primary deficits and accumulates debt in the present. On introducing two sources of uncertainty—output uncertainty and random “sudden stops” to foreign capital flows—Tanner finds that the tax-smoothing regime is preferable to the balanced-budget rule because tax rates have about the same average but are less variable. Also, although over an infinite horizon the economy clearly gains by moving from a deficit regime to a balanced-budget rule, over shorter horizons the issue is not as clear-cut. Under the deficit regime, policymakers can give current constituents their “tax-break,” but only at the expense of higher tax rate variability: in the

event of a credit cutoff, the country must undertake a sharp fiscal adjustment. The simulations conducted by Tanner suggest that the cross-regime trade-offs between higher average tax rates and less dramatic fiscal adjustments may be substantial. He finds that, even in the short run, taxpayers might accept higher taxes in return for a steadier fiscal policy. Basci, Fatih, and Yulek (2004) also use numerical simulations to compare the performance of a variable-surplus rule with a simple fixed-surplus rule. They find that the variable-surplus rule—defined as an increasing function of the debt ratio—performs better than the simple fixed-surplus rule, by reducing debt sustainability concerns and the necessary medium-term primary surplus (Ley, 2004).

When is compliance with a fiscal rule just an illusion? To address the issue of whether fiscal rules lead to genuine fiscal adjustments or simply encourage the use of “creative accounting,” Milesi-Ferretti (2003) develops a model in which fiscal rules are imposed on “measured” fiscal variables, which can differ from “true” variables. In addition to the standard trade-off between deficit bias and margin for cyclical stabilization, he emphasizes a second trade-off between costly window dressing and real fiscal adjustment, relating it to the degree of transparency of the budget. In other words, rules that are imposed when the budget is not transparent yield more creative accounting and less fiscal adjustment. Milesi-Ferretti and Moriyama (2004) examine the degree to which reduction in government debt in EU countries has been more cosmetic—that is, accompanied by a decumulation of government assets—than structural. They find a strong correlation between changes in government liabilities and government assets in the run-up to the Maastricht Treaty.

However, fiscal rules may impose severe constraints on governments willing to undertake structural reforms with associated up-front costs. Beetsma and Debrun (2004) analyze the trade-off between short-term stabilization and long-term growth, and—in the context of the euro area’s Stability and Growth Pact—they find that sometimes fiscal rules may need to be relaxed for countries that are actively pursuing much-needed structural reforms.

The essays in Kopits (2004) explore various aspects of rules-based fiscal policy in emerging markets. In the foreword to the edited collection, IMF Deputy Managing Director Agustín Carstens warns that “a major unifying theme is the sober and balanced assessment which helps counter the unrealistic view (popular in some quarters) that policy rules automatically insure fiscal sustainability and macroeconomic stability.” The first part of the book reviews the macroeconomic setting and rationale for rules-based policies in emerging markets, taking into account relevant political economy aspects. Drazen (2004) examines how

properly designed fiscal rules can be a useful means for building reputation and can serve as a disciplining device, as long as they are accompanied by various procedural rules—including those that prevent creative accounting practices. Hausmann (2004) observes that emerging market economies would benefit from fiscal rules that aim not only at eliminating deficits and reducing debt ratios but also, more importantly, at containing the risk in the composition of the debt. Perry (2004) argues that Latin American economies—subject to high macroeconomic volatility, which is often aggravated by the procyclical stance adopted under various fiscal adjustment programs—ought to follow a rule that incorporates a countercyclical stance through a structural balance target or a stabilization fund. The openness of emerging market countries to high capital mobility, according to Kopits (2004), underscores the case for predictable time-consistent macroeconomic policies and, in particular, for well-designed fiscal policy rules. Nonetheless, fiscal rules by themselves do not guarantee sound fiscal management. Schick (2004) emphasizes the critical role of political will in the success of any fiscal policy rule, when supported by appropriate procedural rules. He notes that the recent literature on fiscal institutions and budgetary process neglects political will and fails to distinguish between formal rules and informal practices. Schick identifies innovations in budget procedures that are conducive to strengthening political will and enforcement of rules. Several other papers in the second and third sections of *Rules-Based Fiscal Policy in Emerging Markets: Background, Analysis, and Prospects* are devoted to design issues at the national and subnational levels of government.

Kopits (2004) draws several lessons for policymakers from the contributed essays: (1) in emerging market countries, just as in advanced economies, fiscal rules need the support of the electorate; (2) as a corollary, although in principle it is preferable to enshrine fiscal rules in the constitution or in a high-level law, informal rules might be equally effective as long as they are backed by broad public consensus; (3) macroeconomic policy rules can be viable only if underpinned by strong procedural rules, including good practices in transparency and accountability; (4) markets have far lower tolerance for relatively high public-debt-to-GDP ratios in emerging market countries than in advanced economies; (5) in emerging market countries, fiscal rules must be designed to take into account significant macroeconomic volatility; (6) as an alternative, particularly for economies with nonrenewable resources, a commodity stabilization fund that complements limits on the budget deficit and expenditure can cushion pressures stemming from wide fluctuations in the terms of trade; (7) fiscal decentralization requires considerable care in the design and enforcement of rules; and (8) for fiscal policy rules to be credible, initiating key long-term structural reforms early on is indispensable.

References

- Basci, Erdem, Ekinci, M. Fatih, and Murat Yulek, 2004, “On Fixed and Variable Fiscal Surplus Rules,” IMF Working Paper 04/117.
- Beetsma, Roel M.W.J., and Xavier Debrun, 2004, “Reconciling Stability and Growth: Smart Pacts and Structural Reforms,” *Staff Papers*, International Monetary Fund, Vol. 51, No. 3.
- Dabán, María T., Enrica Detragiache, Gabriel Di Bella, Gian M. Milesi-Ferretti, and Steven A. Symansky, 2003, *Rules-Based Fiscal Policy in France, Germany, Italy, and Spain*, IMF Occasional Paper No. 225 (Washington: International Monetary Fund).

Policy Discussion Papers

Policy Discussion Paper No. 04/1
Intraregional Trade in Emerging Asia
Harm H. Zebregs

Policy Discussion Paper No. 04/2
Tax Administration and the Small Taxpayer
Parthasarathi Shome

Policy Discussion Paper No. 04/3
Issues in the Establishment of Asset Management Companies
Stefan N. Ingves, Steven A. Seelig, and Dong He

- Drazen, Allan, 2004, "Fiscal Rules from a Political Economy Perspective," in *Rules-Based Fiscal Policy in Emerging Markets: Background, Analysis, and Prospects*, ed. by George F. Kopits (London: Palgrave Macmillan).
- Hausmann, Ricardo, 2004, "Good Debt Ratios, Bad Credit Ratings: The Role of Debt Structure," in *Rules-Based Fiscal Policy in Emerging Markets: Background, Analysis, and Prospects*, ed. by George F. Kopits (London: Palgrave Macmillan).
- Kell, Michael S., 2001, "An Assessment of Fiscal Rules in the United Kingdom," IMF Working Paper 01/91.
- Kopits, George F., 2001, "Fiscal Rules: Useful Policy Framework or Unnecessary Ornament?" in *Fiscal Rules* (Rome: Banca d'Italia).
- , ed., 2004, *Rules-Based Fiscal Policy in Emerging Markets: Background, Analysis, and Prospects* (London: Palgrave Macmillan).
- , and Steven A. Symansky, 1998, *Fiscal Policy Rules*, IMF Occasional Paper No. 162 (Washington: International Monetary Fund).
- Ley, Eduardo, 2004, "Fiscal (and External) Sustainability" (unpublished; Washington: International Monetary Fund). Available via the Internet: <http://econpapers.hhs.se/paper/wpawuwpppe/0310007.htm>
- Milesi-Ferretti, Gian M., 2003, "Good, Bad, or Ugly? On the Effects of Fiscal Rules with Creative Accounting," *Journal of Public Economics*, Vol. 88, Nos. 1–2, pp. 377–94.
- , and Kenji Moriyama, 2004, "Fiscal Adjustment in EU Countries: A Balance Sheet Approach," IMF Working Paper 04/143.
- Perry, Guillermo, 2004, "Can Fiscal Rules Help Reduce Macroeconomic Volatility?" in *Rules-Based Fiscal Policy in Emerging Markets: Background, Analysis, and Prospects*, ed. by George F. Kopits (London: Palgrave Macmillan).
- Schick, Allen, 2004, "Fiscal Institutions Versus Political Will," in *Rules-Based Fiscal Policy in Emerging Markets: Background, Analysis, and Prospects*, ed. by George F. Kopits (London: Palgrave Macmillan).
- Tanner, Evan C., "Fiscal Rules and Countercyclical Policy: Frank Ramsey Meets Gramm-Rudman-Hollings," *Journal of Policy Modeling*, forthcoming.

Visiting Scholars, April–June 2004

- Christopher Adam**; University of Oxford, U.K.; 5/24/04–5/28/04
- Mark Aguiar**; University of Chicago; 4/19/04–4/30/04
- Rajeev Ahuja**; Indian Council for Research on International Economic Relations, India; 3/15/04–4/16/04
- Philippe Bacchetta**; Study Center Gerzensee, Switzerland; 4/12/04–4/30/04
- Roel Beetsma**; University of Amsterdam; 6/14/04–6/25/04
- Graham Bird**; University of Surrey, U.K.; 4/5/04–4/16/04
- Brock Blomberg**; Claremont McKenna College; 4/19/04–4/23/04, 6/14/04–6/25/04
- Henning Bohn**; University of California at Santa Barbara; 4/29/04–4/30/04
- Edward Buffie**; Indiana University; 4/26/04–4/30/04
- James Cassing**; University of Pittsburgh; 6/23/04–7/2/04
- Jean Chateau**; CEPII, France; 6/28/04–7/9/04
- Daniel Cohen**; Université de Paris, France; 4/28/04–4/30/04, 5/3/04–5/7/04
- Douglas Diamond**; University of Chicago; 6/21/04–6/23/04
- Raymond Fisman**; Columbia University; 4/12/04–4/16/04, 2/17/04–4/30/04
- Marc Flandreau**; Institut d'Etudes Politiques, France; 3/29/04–4/1/04
- Jeffrey Frieden**; Harvard University; 5/10/04–5/14/04
- Alejandro Gay**; National University of Córdoba, Argentina; 3/29/04–4/30/04
- Simon Gilchrist**; Boston University; 5/3/04–5/7/04, 5/10/04–5/14/04
- Douglas Irwin**; Dartmouth College; 4/26/04–4/30/04
- Harold James**; Princeton University; 4/29/04–4/30/04
- Sunghyun Henry Kim**; Tufts University; 4/19/04–4/23/04
- Koe Patrice Kla**; CIRES, Côte d'Ivoire; 3/15/04–4/23/04
- Jozef Konings**; LICOS, Centre for Transition Economics, Belgium; 4/12/04–4/23/04
- Philip Lane**; Trinity College Dublin, Ireland; 4/20/04–4/23/04
- Warwick McKibbin**; Australian National University; 6/14/04–6/25/04, 6/28/04–7/5/04
- Enrico Minelli**; CORE, Belgium; 4/5/04–4/12/04
- Rose Ngugi**; University of Nairobi; 6/21/04–7/30/04
- Stephen O'Connell**; Swarthmore College; 4/26/04–4/30/04
- Christopher Otrok**; University of Virginia; 5/19/04–6/17/04
- Joseph Pearlman**; London Metropolitan University, U.K.; 5/10/04–5/21/04
- Sandra Poncet**; University of Clermont-Ferrant and University of Paris XIII; 4/5/04–4/30/04
- Bruce Preston**; Columbia University; 4/19/04–4/23/04
- Romain Ranciere**; University of Pompeu Fabra, Spain; 5/3/04–5/5/04
- Carmen Reinhart**; University of Maryland; 11/14/03–4/30/04, 5/3/04–9/30/04
- James Robinson**; University of California, Berkeley; 4/27/04–4/28/04
- Dani Rodrik**; Harvard University; 6/24/04–6/25/04
- Shanker Satyanath**; New York University; 4/19/04–4/21/04, 4/22/04–4/30/04
- Christopher Sims**; Princeton University; 5/19/03–4/30/04
- Nathan Sussman**; Hebrew University, Israel; 6/21/04–7/2/04
- Michael Tomz**; Stanford University; 4/19/04–4/30/04
- Mehmet Tosun**; University of West Virginia; 5/10/04–5/14/04
- Kenji Wada**; Keio University, Japan; 3/29/04–4/2/04
- Yishay Yafeh**; Hebrew University, Israel; 6/28/04–7/2/04

Financial Development in Low-Income Countries *(continued from page 1)*

Detragiache and Ueda (2004) and Khan and Senhadji (2000) survey a large body of literature that establishes that financial development is essential for economic growth. McKinnon (1973) and Shaw (1973), who were among the first to argue that financial repression was hampering the development of low-income countries by preventing them from exploiting valuable investment opportunities, are seminal to this literature. Since the 1980s, the IMF has supported the dismantling of controls and restrictions on financial systems as part of its programs. IMF researchers have examined the state of financial systems in low-income countries, including the countries' experiences with financial liberalization.

Over the last few decades, financial liberalization has taken place worldwide, and along many dimensions (Abiad and Mody, 2003). Low-income countries have been no exception. Mehran and others (1998) explain that, by the late 1980s, sub-Saharan African countries recognized the debilitating effects of financial repression and started to liberalize their financial systems. The authors find that while substantial progress was made in the 1990s both in establishing market-based monetary policy instruments and in strengthening banking supervision, many problems remained unaddressed. According to Gelbard and Leite (1999), these problems include wide interest rate spreads, insufficient capital adequacy ratios, ineffective judicial system, and high nonperforming loans. They also find that access to credit by the private sector has not improved on average.

Why do countries decide to liberalize or repress their financial systems?

Although there is little research on the political economy aspects of liberalization of financial systems in LICs, examining the experience of developed countries can shed some light on the challenges ahead. Rajan and Zingales (2003) develop a theory in which incumbents oppose financial market development because it breeds competition. Their theory helps explain the reversal of financial market development in the twentieth century. Moreover, they find that trade openness is correlated with financial deepening when the capital account is open, a finding consistent with their theory based on the politics of interest groups. Abiad and Mody (2003) study the determinants of financial reforms along six dimensions of policy reform—credit controls, interest rate controls, entry barriers, regulations, privatization, and restrictions on international financial transactions—in a sample of countries that includes several low-income countries. They find that, at relatively high levels of financial repression, IMF program conditionality appears to have a strong influence on reform, which declines thereafter, and trade openness appears to hasten reforms. They also show that financial reforms are to some extent self-sustaining. Finally, they find that balance of payments crises make reforms more likely, while banking crises have the opposite effect by triggering the nationalization of banks. Demirgüç-Kunt and Detragiache (1998) find, however, that financial liberalization in a poor institutional and regulatory environment contributes to financial fragility even while improving financial development.

Financial liberalization has fostered competition in the banking system in several countries (Dell'Arricia, 2003). In India, financial liberalization lowered intermediation costs and profitability of commercial banks, and led to a decline in industry concentration (Koeva, 2003). Barajas, Steiner, and Salazar (1999) find, in Colombia, a positive effect of financial liberalization and foreign bank entry on bank operational efficiency. Hardy and Bonaccorsi di Patti (2001) conclude that financial liberalization in Pakistan improved the welfare of depositors and led to intensified competition. Macroeconomic indicators of financial deepening, however, have improved only modestly in African countries, according to Favara

IMF Staff Papers

Volume 51, Number 3

Monetary Policy and Long-Horizon Uncovered Interest Parity

Menzie D. Chinn and Guy Meredith

Reconciling Stability and Growth: Smart Pacts and Structural Reforms

Roel M.W.J. Beetsma and Xavier Debrun

Macro Effects of Corporate Restructuring in Japan

Se-Jik Kim

Would “Cold Turkey” Work in Turkey?

Oya Celasun, R. Gaston Gelos, and Alessandro Prati

Singapore Inc. Versus the Private Sector: Are Government-Linked Companies Different?

Carlos D. Ramírez and Ling Hui Tan

Monetary Policy Rules, Asset Prices, and Exchange Rates

Jagjit S. Chadha, Lucio Sarno, and Giorgio Valente

Trade Liberalization and Real Exchange Rate Movement

Xiangming Li

Optimal Central Bank Conservatism and Monopoly Trade Unions

Helge Berger, Carsten Hefeker, and Ronnie Schöb

(2003). In Sudan, reforms have not addressed systemic problems in the financial system, including bank restructuring (Kireyev, 2001). Mlachila and Chirwa (2002) document an increase in real interest rates following liberalization, which is partially attributed to high monopoly power in Malawi.

Recent research suggests that the relationship between financial deepening and growth may be more complex than generally thought. Favara (2003) finds that the link between finance and growth is weak, and concludes that finance matters only at intermediate levels of economic development. Similarly, Gaytan and Rancieres (2004) conclude that the impact of finance on growth generally increases with income levels, and that financial deepening is weakly correlated with economic growth in low-income countries. In a sample of middle- and low-income countries in the Middle East and North African region, Creane and others (2004) find no effect of financial deepening on growth, while an institutional variable is strongly significant. One potential explanation is that indicators of financial deepening may be weakly correlated with the capacity of the financial system in identifying and financing profitable projects. Abiad, Oomes, and Ueda (2004) in fact find that financial liberalization, rather than financial deepening, improves allocative efficiency. Noting these limitations, Townsend and Ueda (2001, 2003) calibrate a model for Thailand, instead of relying on growth regressions, and find that gradual financial deepening both reinforces and is reinforced by growth.

Financial systems in low-income countries are highly segmented between formal and informal lending institutions. Several factors over and above financial repression may limit the penetration of organized bank lending in poor and rural areas. Tressel (2003) develops a theory in which informal and semiformal lenders have an advantage in collecting local information that allows them to lend in environments with poor enforcement of property rights. Thus, in low-income countries, organized banking and informal lending appear to complement, rather than be substitutes for, one another, even though financial deepening is necessary for economic growth.

References

- Abiad, Abdul, and Ashoka Mody, 2003, "Financial Reform: What Shakes It? What Shapes It?" IMF Working Paper 03/70.
- Abiad, Abdul, Nienke Oomes, and Kenichi Ueda, 2004, "The Quality Effect: Does Financial Liberalization Improve the Allocation of Capital?" IMF Working Paper 04/112.
- Barajas, Adolfo, Roberto Steiner, and Natalia Salazar, 1999, "Foreign Investment in Colombia's Financial Sector," IMF Working Paper 99/150.
- Creane, Susan, Rishi Goyal, Ahmed Mushfiq Mobarak, and Randa Sab, 2004, "Evaluating Financial Sector Development in the Middle East and North Africa: New Methodology and Some New Results," *Topics in Middle Eastern and North African Economies*, 2004, Vol. 6, Proceedings of the Middle East Economic Association. Available via the Internet: <http://www.sba.luc.edu/orgs/meea/index.htm>.
- Dell'Arricia, Giovanni, 2003, "Banking Systems in a Financially Integrated World," *IMF Research Bulletin*, Vol. 4, No. 1, pp. 1–6.
- Demirgüç-Kunt, Asli, and Enrica Detragiache, 1998, "Financial Liberalization and Financial Fragility," IMF Working Paper 98/83.
- Detragiache, Enrica, and Kenichi Ueda, 2004, "Does Financial Sector Development Help Economic Growth and Welfare?" in *World Economic Outlook, April 2004* (Washington: International Monetary Fund), Box 4.1, pp. 149–50.
- Favara, Giovanni, 2003, "An Empirical Reassessment of the Relationship Between Finance and Growth," IMF Working Paper 03/123.
- Gaytan, Alejandro, and Romain Rancieres, 2004, "Wealth Intermediation, and Growth" (unpublished; Washington: International Monetary Fund and Barcelona: CREI).
- Gelbard, Enrique A., and Sergio Pereira Leite, 1999, "Measuring Financial Development in Sub-Saharan Africa," IMF Working Paper 99/105.
- Hardy, Daniel C., and Emilia Bonaccorsi di Patti, 2001, "Bank Reform and Bank Efficiency in Pakistan," IMF Working Paper 01/138.
- Khan, Mohsin S., and Abdelhak S. Senhadji, 2000, "Financial Development and Economic Growth: An Overview," IMF Working Paper 00/209.
- Kireyev, Alexei, 2001, "Financial Reforms in Sudan: Streamlining Bank Competition," IMF Working Paper 01/53.
- Koeva, Petya, 2003, "The Performance of Indian Banks During Financial Liberalization," IMF Working Paper 03/150.
- McKinnon, Ronald I., 1973, *Money and Capital in Economic Development* (Washington: Brookings Institution).
- Mehran, Hassanali, Piero Ugolini, Jean Philippe Briffaux, George Iden, Tonny Lybek, Stephen Swaray, and Peter Hayward, 1998, *Financial Sector Development in Sub-Saharan African Countries*, IMF Occasional Paper No. 169 (Washington: International Monetary Fund).
- Mlachila, Montfort, and Ephraim W. Chirwa, 2002, "Financial Reforms and Interest Rate Spreads in the Commercial Banking System in Malawi," IMF Working Paper 02/6.
- Rajan, Raghuram, and Luigi Zingales, 2003, "The Great Reversals: The Politics of Financial Development in the Twentieth Century," *Journal of Financial Economics*, Vol. 69, pp. 5–50.
- Shaw, Edward S., 1973, *Financial Deepening in Economic Development* (New York: Oxford University Press).
- Townsend, Robert M., and Kenichi Ueda, 2001, "Transitional Growth with Increasing Inequality and Financial Deepening," IMF Working Paper 01/108.
- , 2003, "Financial Deepening, Inequality, and Growth: A Model-Based Quantitative Evaluation," IMF Working Paper 03/193.
- Tressel, Thierry, 2003, "Dual Financial Systems and Inequalities in Economic Development," *Journal of Economic Growth*, Vol. 8, pp. 223–57.

Country Study

China

Thomas Rumbaugh



China's transformation into a dynamic, private sector-led economy and its integration into the world economy have been among the most dramatic global economic developments of recent decades. This article summarizes recent IMF research on key aspects of China's economy, as well as the main policy challenges that will need to be addressed for China to maintain sustained high growth and continued integration with the global economy.

China's growth performance over the past two decades has been impressive, with GDP growth averaging almost 8 percent. China now ranks as the sixth-largest economy in the world (at market exchange rates). The expansion of China's role in the world trading system has been no less remarkable, with its overall share in world trade rising from less than 1 percent in 1979 to 6 percent in 2004. Tseng and others (2003) summarize IMF research, conducted during 2000–02, on macroeconomic aspects of China's emergence over the past 20 years, including growth dynamics, financial development, foreign direct investment (FDI), state enterprise reform, and trade and exchange rate policy. More recently, an IMF Occasional Paper, *China's Growth and Integration into the World Economy: Prospects and Challenges* (Prasad and others, 2004), presents an overview of research conducted during 2003–04.

The expansion of China's international trade has been a particularly noteworthy aspect of its rising prominence in the world economy. Rumbaugh and Blancher (2004) and Prasad and Rumbaugh (2003) analyze China's rapidly growing trade and conclude that this process has been facilitated by trade reforms and the general opening of the economy leading to a surge in FDI and increased integration with the global trading system. Interestingly, they also find that the rapid expansion of China's trade thus far is not unprecedented in either its scope or speed. Other Asian economies, such as Japan, Korea, and the newly industrialized economies, were able to maintain even higher export growth rates, on average, for about a 30-year period. China's trade expansion reflects greater specialization of production within the Asian region, with China now serving as the final processing and assembly platform via which a large quantity of imports from other Asian countries go to Western countries. These changes have resulted

in a shift in China's bilateral trade balances, with its increasing trade surpluses with Western industrial countries being offset by rising trade deficits with many Asian countries. China's imports from all trading partners, including developing countries, are growing rapidly (Yang, 2003), and it is now the third-largest importer of developing countries' exports after the United States and the European Union.

China experienced two recent episodes of mild deflation (1998–2000 and 2001–02) despite sustained high output growth. Kumar and others (2003) discuss this experience in their study on deflation, while Feyzioğlu (2004) discusses general price developments and shows that supply-related factors have been key determinants of price dynamics in China, especially during the deflationary episodes. Some of the supply factors are transitory, including the declines in commodity prices at the beginning of each of these episodes and restraints on administrative price increases. There are also longer-term factors on the supply side, such as productivity gains from strong investment, a series of tariff reductions, state enterprise reform, and adoption of new technologies, that continue to exert significant downward pressures on prices. A large labor surplus in rural areas and excess capacity in some state enterprises are also keeping costs and prices down. More recently, particularly in 2004, commodity prices and strong growth of monetary aggregates have supported price increases.

A great deal of debate and international attention has focused on China's exchange rate regime. China maintains a de facto fixed exchange rate regime, with the renminbi linked to the U.S. dollar within a narrow trading band. Zhongxia (2003) explores the relationship among real interest rates, the real exchange rate, and balance of payments developments and finds that significant and usually nonmonotonic interactions exist between these variables. Wang (2004) applies several techniques for estimating a currency's "equilibrium exchange rate" to China. She examines the issue from a medium-term perspective and finds a range of estimates with the results sensitive to the underlying assumptions. This research can be interpreted, therefore, as an indication that the exchange rate may not be substantially undervalued. The analysis also shows how different sources of shocks could affect the medium-term path of the exchange rate. It concludes that the currency's

value will be inexorably linked to the ongoing structural reforms of the economy, including the further opening of domestic markets to foreign goods and services in line with World Trade Organization (WTO) commitments. The medium-term movement of the exchange rate will also depend on the nature and pace of liberalization of capital controls.

Fedelino and Singh (2004) analyze China's public debt and implications for fiscal sustainability. With relatively low explicit government debt and a modest budget deficit, China does not face immediate concerns of fiscal sustainability. However, the government faces a number of possible future obligations associated with potential losses in the state-dominated banking system, the future funding requirements of the pension system, and rising expenditure pressures, especially for education, health, and other social programs. The authors also analyze issues related to intergovernmental fiscal relations. Center-local fiscal relations have not been effective in reducing income disparities, and the resources available to provinces, especially the poorer ones, have not kept pace with their rising expenditure mandates. A series of working papers have discussed several aspects of fiscal relations in China. Ahmad and others (2002) assess the changing nature of relations between the provinces and the central government; Ahmad, Singh, and Fortuna (2004) discuss reform options for improving intergovernmental transfers; and Ahmad, Singh, and Lockwood (2004) focus on the impact of possible tax reforms, their distribution across provinces, and possible options for compensation. Research on China's tax system includes studies on issues related to the taxation of the financial sector (Zee and others, 2004) and on options for reforming the personal income tax (Zee and Hameed, 2004).

The fiscal implications of potential losses in the banking system underscore the urgency of financial sector reform in China. Barnett (2004) reviews bank lending practices and the dominance of state-owned banks. He also identifies the steps being taken to improve the stability of the banking system as the domestic banks prepare to face intense competition in 2006, when, under WTO accession commitments, the financial sector is opened up to foreign banks.

Many of the inefficiencies in the Chinese economy ultimately result in poor labor market outcomes. Unemployment and "underemployment" of a significant portion of the rural population remain pressing concerns as the economy adjusts to the effects of state-owned enterprise reforms and WTO accession. Brooks and Ran (2003) analyze recent labor market developments and conclude that, even with

strong output growth, the unemployment problem in China is likely to worsen over the next few years because of restructuring in the rural and state enterprise sectors. Removing barriers to growth by private firms will be crucial for creating more jobs and mitigating social pressures caused by the shifting of labor from agriculture to other parts of the economy and from the state to the private sector. Further progress will also be needed in strengthening the social safety net, including the pension system, unemployment insurance, health care, and the minimum living allowance. Cheng (2003) reviews some of the economic implications of demographic trends and finds that lower fertility rates will eventually reduce the growth in labor supply over the longer term, leading to lower savings rates and lower productivity of capital.

What are the future prospects for the Chinese economy? According to recent IMF research, the rapid economic growth and trade expansion could be sustained well into the future based on China's attractiveness as a destination for FDI, a high domestic saving rate, underlying improvements in productivity stemming from reduced barriers to both internal and external trade, and significant surplus labor. However, a number of macroeconomic and structural vulnerabilities need to be addressed for this potential to be fully realized (Feyzioğlu and Wang, 2003; and Feyzioğlu, Spatafora, and Yang, 2004). Boyreau-Debray and Wei (2004) also conclude that China can continue to grow fast if barriers to internal financial integration can be reduced.

References

- Ahmad, Ehtisham, Li Keping, Thomas J. Richardson, and Raju J. Singh, 2002, "Recentralization in China?" IMF Working Paper 02/168.
- Ahmad, Ehtisham, Raju J. Singh, and Mario Fortuna, 2004, "Toward More Effective Redistribution: Reform Options for Intergovernmental Transfers in China," IMF Working Paper 04/98.
- Ahmad, Ehtisham, Raju J. Singh, and Benjamin Lockwood, 2004, "Taxation Reforms and Changes in Revenue Assignments in China," IMF Working Paper 04/125.
- Barnett, Steven, 2004, "Banking Sector Developments," in *China's Growth and Integration into the World Economy: Prospects and Challenges*, IMF Occasional Paper No. 232, ed. by E. Prasad and others (Washington: International Monetary Fund).
- Boyreau-Debray, Genevieve, and Shan-Jin Wei, 2004, "Can China Grow Faster? A Diagnosis on the Fragmentation of the Domestic Capital Market," IMF Working Paper 04/76.
- Brooks, Ray, and Tao Ran, 2003, "China's Labor Market Performance and Challenges," IMF Working Paper 03/210.

- Cheng, Kevin C., 2003, "Economic Implications of China's Demographics in the 21st Century," IMF Working Paper 03/29.
- Fedelino, Annalisa, and Raju Jan Singh, 2004, "Medium-Term Fiscal Challenges" and "Fiscal Federalism," in *China's Growth and Integration into the World Economy: Prospects and Challenges*, IMF Occasional Paper No. 232, ed. by E. Prasad and others (Washington: International Monetary Fund).
- Feyzioglu, Tarhan, 2004, "Price Developments in China," in *China's Growth and Integration into the World Economy: Prospects and Challenges*, IMF Occasional Paper No. 232, ed. by E. Prasad and others (Washington: International Monetary Fund).
- , Nikola Spatafora, and Yongzheng Yang, 2004 "China's Emergence and Its Impact on the Global Economy," in *World Economic Outlook April 2004* (Washington: International Monetary Fund), pp. 82–98.
- Feyzioglu, Tarhan, and Tao Wang, 2003, "China's Dynamic Economy Needs Structural Reforms to Sustain Its Rapid Growth," *IMF Survey*, Vol. 32 (December), pp. 352–55.
- Kumar, Manmohan S., Taimur Baig, Jorg Decressin, Chris Faulkner-MacDonagh, and Tarhan Feyzioglu, 2003, *Deflation: Determinants, Risks, and Policy Options*, IMF Occasional Paper No. 221 (Washington: International Monetary Fund).
- Prasad, Eswar, Steven Barnett, Nicolas Blancher, Ray Brooks, Annalisa Fedelino, Tarhan Feyzioglu, Thomas Rumbaugh, Raju Jan Singh, and Tao Wang, 2004, *China's Growth and Integration into the World Economy: Prospects and Challenges*, IMF Occasional Paper No. 232, ed. by E. Prasad and others (Washington: International Monetary Fund).
- Prasad, Eswar, and Thomas Rumbaugh, 2003, "Beyond the Great Wall," *Finance and Development*, Vol. 40 (December), pp. 46–49.
- Rumbaugh, Thomas R., and Nicolas R. Blancher, 2004, "China: International Trade and WTO Accession," IMF Working Paper 04/36.
- Tseng, Wanda S., and others, 2003, *China: Competing in the Global Economy* (Washington: International Monetary Fund).
- Wang, Tao, 2004, "China: Sources of Real Exchange Rate Fluctuations," IMF Working Paper 04/18.
- Yang, Yongzheng, 2003, "China's Integration into the World Economy: Implications for Developing Countries," IMF Working Paper 03/245.
- Zee, Howell H., and Farhan Hameed, 2004, "Reforming China's Personal Income Tax: An Application of the Pareto Distribution" (unpublished; Washington: International Monetary Fund).
- Zee, Howell H., John Isaac, John King, and Robin Oliver, 2004, *Financial Sector Taxation* (Beijing: State Administration of Taxation).
- Zhongxia, Jin, 2003, "The Dynamics of Real Interest Rates, Real Exchange Rates, and the Balance of Payments in China: 1980–2002," IMF Working Paper 03/67.

IMF Working Papers

Working Paper No. 04/48

Nonresident Deposits in India: In Search of Return?

Gordon, James P.; Gupta, Poonam

Working Paper No. 04/49

Aid and the Dutch Disease in Low-Income Countries: Informed Diagnoses for Prudent Prognoses

Nkusu, Mwanza

Working Paper No. 04/50

The Role of Stock Markets in Current Account Dynamics: A Time Series Approach

Mercereau, Benoit

Working Paper No. 04/51

Missing Link: Volatility and the Debt Intolerance Paradox

Catao, Luis A.; Kapur, Sandeep

Working Paper No. 04/52

Assessing Early Warning Systems: How Have They Worked in Practice?

Berg, Andrew; Borensztein, Eduardo R.; Pattillo, Catherine A.

Working Paper No. 04/53

Sovereign Debt Defaults and Financing Needs

Kruger, Mark; Messmacher, Miguel

Working Paper No. 04/54

Boom-Bust Phases in Asset Prices and Fiscal Policy Behavior

Jaeger, Albert; Schuknecht, Ludger

Working Paper No. 04/55

Banking in Sub-Saharan Africa: What Went Wrong?

Daumont, Roland E.; Le Gall, Françoise; Leroux, François

Working Paper No. 04/56

Growth in the Middle East and North Africa

Hakura, Dalia S.

Working Paper No. 04/57

Measuring a Roller Coaster: Evidence on the Finnish Output Gap

Billmeier, Andreas

Working Paper No. 04/58

Does SDDS Subscription Reduce Borrowing Costs for Emerging Market Economies

Cady, John

Working Paper No. 04/59

How Has NAFTA Affected the Mexican Economy? Review and Evidence

Kose, M. Ayhan; Meredith, Guy M.; Towe, Christopher M.

Working Paper No. 04/60

Economic Integration, Sectoral Diversification, and Exchange Rate Policy in a Developing Economy

Srour, Gabriel

Working Paper No. 04/61

Derivative Market Competition: OTC Versus Organized Derivative Exchanges

Nystedt, Jens

Working Paper No. 04/62

Fiscal Indulgence in Central Europe: Loss of the External Anchor

Berger, Helge; Kopits, George F.; Szekely, Istvan P.

Working Paper No. 04/63

Balance Sheets, Exchange Rate Policy, and Welfare

Elekdag, Selim; Tchakarov, Ivan

Working Paper No. 04/64

Overview of the Indian Corporate Sector: 1989–2002

Topalova, Petia

Working Paper No. 04/65

The Effects of Exchange Rate Change on the Trade Balance in Croatia

Stucka, Tihomir

Working Paper No. 04/66

Prudential Responses to De Facto Dollarization

Ize, Alain; Powell, Andrew

Working Paper No. 04/67

New Estimates of Government Net Capital Stocks for 22 OECD Countries, 1960–2001

Kamps, Christophe

Working Paper No. 04/68

A Bayesian Approach to Model Uncertainty

Tsangarides, Charalambos

Working Paper No. 04/69

Estimation of Economic Growth in France Using Business Survey Data

Kabundi, Alain

Working Paper No. 04/70

Credit Rationing in Emerging Economies' Access to Global Capital Markets

Zoli, Edda

Working Paper No. 04/71

Emerging Strains in GCC Labor Markets

Fasano, Ugo; Goyal, Rishi

Working Paper No. 04/72

Are Uniform Tariffs Optimal?

Amiti, Mary

Working Paper No. 04/73

Empirical Exchange Rate Models of the Nineties: Are Any Fit to Survive?

Cheung, Yin-Wong; Chinn, Menzie; Garcia Pascual, Antonio

Working Paper No. 04/74

The Elusive Gains from International Financial Integration

Gourinchas, Pierre-Oliver; Jeanne, Olivier D.

Working Paper No. 04/75

The IMF and the Force of History: Ten Events and Ten Ideas That Have Shaped the Institution

Boughton, James M.

Working Paper No. 04/76

Can China Grow Faster? A Diagnosis on the Fragmentation of the Domestic Capital Market

Boyreau-Debray, Genevieve; Wei, Shan-Jin

Working Paper No. 04/77

From “Hindu Growth” to Productivity Surge: The Mystery of the Indian Growth Transition

Rodrik, Dani; Subramanian, Arvind

Working Paper No. 04/78

Empirical Modeling of Contagion: A Review of Methodologies

Dungey, Mardi; Fry, Renee; González-Hermosillo, Brenda; Martin, Vance

Working Paper No. 04/79

Economic Geography and Wages: The Case of Indonesia

Amiti, Mary; Cameron, Lisa

Working Paper No. 04/80

Political Instability and Growth: The Central African Republic

Ghura, Dhaneshwar; Mercereau, Benoit

Working Paper No. 04/81

The WTO and the Poorest Countries: The Stark Reality

Mattoo, Aaditya; Subramanian, Arvind

Working Paper No. 04/82

Foreign Bank Supervision and Challenges to Emerging Market Supervisors

Song, Inwon

Working Paper No. 04/83

Angola's Fragile Stabilization

Giancarlo Gasha, Jose; Pastor, Gonzalo C.

Working Paper No. 04/84

Does Financial Globalization Induce Better Macroeconomic Policies?

Tytell, Irina; Wei, Shang-Jin

Working Paper No. 04/85

Interest Rate Defenses of Currency Pegs

Sole, Juan

Working Paper No. 04/86

Japan's Distressed Debt Market

Ohashi, Kazunari; Singh, Manmohan

Working Paper No. 04/87

Revisions Policy for Official Statistics: A Matter of Governance

Carson, Carol S.; Khawaja, Sarmad; Morrison, Thomas K.

Working Paper No. 04/88

Productivity Shocks, Learning, and Open Economy Dynamics

Miniane, Jacques

Working Paper No. 04/89

Does Regulatory Governance Matter for Financial System Stability? An Empirical Analysis

Das, Udaibir S.; Quintyn, Marc G.; Chenard, Kina

Working Paper No. 04/90

Forecasting Thailand's Core Inflation

Sun, Tao

Working Paper No. 04/91

Capital Income Taxation and Economic Growth in Open Economies

Palomba, Geremia

Working Paper No. 04/92

A Cointegration Model for Search Equilibrium Wage Formation

Broersma, Lourens; den Butter, Frank A.G.; Kock, Udo

Working Paper No. 04/93

Debt Accumulation in the CIS-7 Countries: Bad Luck, Bad Policies, or Bad Advice

Helbling, Thomas F.; Mody, Ashoka; Sahay, Ratna

Working Paper No. 04/94

Money-Based Versus Exchange-Rate-Based Stabilization: Is There Space for Political Opportunism?

Aisen, Ari

Working Paper No. 04/95

Economic Performance over the Conflict Cycle

Staines, Nicholas

Working Paper No. 04/96

Robust Versus Optimal Rules in monetary Policy: A Note

Demertzis, Maria; Tieman, Alexander F.

Working Paper No. 04/97

Achieving and Maintaining Price Stability in Nigeria

Batini, Nicoletta

Working Paper No. 04/98

Toward More Effective Redistribution: Reform Options for Intergovernmental Transfers in China

Ahmad, Ehtisham; Singh, Raju J.; Fortuna, Mario

Working Paper No. 04/99

Can Debt Crises Be Self-Fulfilling?

Chamon, Marcos

Working Paper No. 04/100

Conditional Lending Under Altruism

Mourmouras, Alexandros T.; Rangazas, Peter

Working Paper No. 04/101

Toward a Framework for Safeguarding Financial Stability

Houben, Aerd; Kakes, Jan; Schinasi, Garry J.

Working Paper No. 04/102

Public Spending Management and Macroeconomic Interdependence

Ganelli, Giovanni

Working Paper No. 04/103

Trade and Industrial Location with Heterogeneous Labor

Amiti, Mary; Pissarides, Christopher

Working Paper No. 04/104

To Buy or Not to Buy? Uncertainty, Irreversibility, and Heterogeneous Investment Dynamics in Italian Company Data

Bond, Stephen; Lombardi, Domenico

Working Paper No. 04/105

Financial Crisis, Economic Recovery and Banking Development in Russia, Ukraine, and Other FSU Countries

Huang, Haizhou; Marin, Dalia; Xu, Chenggang

Working Paper No. 04/106

Challenging the Empirical Evidence from Present Value Models of the Current Account

Mercereau, Benoit; Miniane, Jacques

Working Paper No. 04/107

Multinational Affiliates and Local Financial Markets

Lehmann, Alexander C.; Sayek, Selin; Goo Kang, Hyoung

Working Paper No. 04/108

The End of Textiles Quotas: A Case Study of the Impact on Bangladesh

Mlachila, Montfort P.; Yang, Yongzheng

Working Paper No. 04/109

Performance of Western Hemisphere Trading Blocs: A Cost-Corrected Gravity Approach

Croce, Enzo; Juan-Ramon, V.H.; Zhu, Feng

Working Paper No. 04/110

Financial Integration: A New Methodology and an Illustration

Flood, Robert P.; Rose, Andrew K.

Working Paper No. 04/111

Obstacles to Disinflation: What is the Role of Fiscal Expectations?

Celasun, Oya; Gelos, R. Gaston; Prati, Alessandro

Working Paper No. 04/112

The Quality Effect: Does Financial Liberalization Improve the Allocation of Capital?

Abiad, Abdul; Oomes, Nienke; Ueda, Kenichi

Working Paper No. 04/113

An Approach to Long-Term Fiscal Policy Analysis

Dunaway, Steven V.; N'Diaye, Papa

Working Paper No. 04/114

Sources of Growth in the Democratic Republic of the Congo: A Cointegration Approach

Akitoby, Bernardin A.; Cinyabuguma, Matthias

Working Paper No. 04/115

Ambiguity, Transparency, and Institutional Strength

Erbas, S. Nuri

Working Paper No. 04/116

Assessing the Assessment: A Critical Look at the June 2003 Assessment of the United Kingdom's Five Tests for Euro Entry

Cottarelli, Carlo; Escolano, Julio

Working Paper No. 04/117

On Fixed and Variable Fiscal Surplus Rules

Basci, Erdem; Ekinici, M. Fatih; Yulek, Murat

Working Paper No. 04/118

Why India Can Grow at 7 Percent a Year or More: Projections and Reflections

Rodrik, Dani; Subramanian, Arvind

Working Paper No. 04/119

A New Approach to Taxing Financial Intermediation Services Under a Value Added Tax

Zee, Howell H.

Working Paper No. 04/120

Private Finance and Public Policy

Schinasi, Garry J.

Working Paper No. 04/121

The Contingent Claims Approach to Corporate Vulnerability Analysis: Estimating Default Risk and Economy-wide Risk Transfer

Gapen, Michael T.; Gray, Dale F.; Lim, Cheng Hoon; Xiao, Yingbin

Working Paper No. 04/122

Monetary Policy, Monetary Areas, and Financial Development with Electronic Money

Arnone, Marco; Bandiera, Luca

Working Paper No. 04/123

The Empirics of Foreign Exchange Intervention in Emerging Markets: The Cases of Mexico and Turkey

Guimaraes, Roberto; Karacadag, Cem

Working Paper No. 04/124

Corporate Financial Structure and Financial Stability

Davis, E. Philip; Stone, Mark R.

Working Paper No. 04/125

Taxation Reforms and Changes in Revenue Assignments in China

Ahmad, Ehtisham; Singh, Raju J.; Lockwood, Benjamin

Working Paper No. 04/126

From Fixed to Float: Operational Aspects of Moving Towards Exchange Rate Flexibility

Duttagupta, Rupa; Fernandez, Gilda; Karacadag, Cem

Working Paper No. 04/127

Stress Testing Financial Systems: What to Do When the Governor Calls

Jones, Matthew T.; Hilbers, Paul L.; Slack, Graham L.

Working Paper No. 04/128

Parity Reversion in Real Exchange Rates: Fast, Slow or Not at All?

Cashin, Paul A.; McDermott, C. John

Working Paper No. 04/129

Foreign Banks in Emerging Market Crises: Evidence from Malaysia

Detragiache, Enrica; Gupta, Poonam

Working Paper No. 04/130

Zimbabwe: A Quest for a Nominal Anchor

Kovanen, Arto

Working Paper No. 04/131

When in Peril, Retrench: Testing the Portfolio Channel of Contagion

Broner, Fernando; Gelos, R. Gaston; Reinhart, Carmen

Working Paper No. 04/132

Choosing a Budget Management System: The Case of Rwanda

Lienert, Ian C.

Working Paper No. 04/133

The Role of Mature Market Mutual Funds in Emerging Markets: Myth or Mayhem?

Ong, Li L.; Sy, Amadou N.

Working Paper No. 04/134

International Investment Patterns

Lane, Philip; Milesi-Ferretti, Gian M.

Working Paper No. 04/135

Once Again, Is Openness Good for Growth?

Lee, Ha Y.; Ricci, Luca A.; Rigobon, Roberto

Working Paper No. 04/136

Caribbean Business Cycles

Cashin, Paul A.

Working Paper No. 04/137

Debt Maturity and the International Financial Architecture

Jeanne, Olivier D.

Working Paper No. 04/138

Economic Integration, Business Cycle, and Productivity in North America

Cardarelli, Roberto; Kose, M. Ayhan

Working Paper No. 04/139

Risk Instability and the Pattern of Foreign Direct Investment in the Middle East and North Africa Region

Chan, Kitty; Gemayel, Edward

Working Paper No. 04/140

Explaining Efficiency Differences Among Large German and Austrian Banks

Hauner, David

Working Paper No. 04/141

Are Developing Countries Better Off Spending Their Oil Wealth Upfront?

Takizawa, Hajime; Gardner, Edward H.; Ueda, Kenichi

IMF Working Papers and other IMF publications can be downloaded in full-text format from the **Research at the IMF** website: <http://www.imf.org/research>.

External Publications by IMF Staff, 2004

Journal Articles

Agenor, Pierre-Richard; Aizenman, Joshua;

Hoffmaister, Alexander

The Credit Crunch in East Asia: What Can Bank Excess Liquidity Assets Tell Us?

Journal of International Money and Finance

Arora, Vivek; Vamvakidis, Athanasios

The Impact of US Economic Growth on the Rest of the World: How Much Does It Matter?

Journal of Economic Integration

Baldacci, Emanuele; Hillman, Arye L.; Kojo, Naoko C.

Growth, Governance, and Fiscal Policy Transmission Channels in Low-Income Countries

European Journal of Political Economy

Bartolini, Leonardo; Bertola, Giuseppe; Prati, Alessandro

The Overnight Interbank Market: Evidence from the G-7 and the Euro Zone

Journal of Banking and Finance

Borensztein, Eduardo; Gelos, Gaston R.

Leaders and Followers: Emerging Market Fund Behavior During Tranquil and Turbulent Times

Emerging Markets Review

Borensztein, Eduardo; Mauro, Paolo

The Case for GDP-Indexed Bonds

Economic Policy

Bulir, Aleš

Can Price Incentive to Smuggle Explain the Contraction of Cocoa Supply in Ghana?

Journal of African Economies

Bulir, Aleš; Brixiova, Z.

Growth Slowdown Under Central Planning: A Model of Poor Incentives

Economic Systems

Celasun, Oya; Gelos, Gaston R.; Prati, Alessandro

Obstacles to Disinflation: What Is the Role of Fiscal Expectations?

Economic Policy

Chan-Lau, Jorge

Corporate Restructuring in Japan

Capco Institute Journal of Financial Transformation

Chan-Lau, Jorge; Ivaschenko, Iryna

Asian Flu or Wall Street Virus? Price and Volatility Spillovers of the Tech and Non-Tech Sectors in the United States and Asia

Journal of Multinational Financial Management

Chinn, Menzie; Prasad, Eswar S.

Medium-Term Determinants of Current Accounts in Industrial and Developing Countries: An Empirical Exploration

Journal of International Economics

Choi, Woon Gyu; Cook, David

Liability Dollarization and the Bank Balance Sheet Channel

Journal of International Economics (forthcoming)

Choi, Woon Gyu; Oh, Seonghwan

The Money Demand Function with Output Uncertainty, Monetary Uncertainty, and Financial Innovations
Journal of Money, Credit, and Banking

Cubeddu, Luis

Families as Shocks
European Economic Association

Debrun, Xavier; Masson, Paul; Pattillo, Catherine

West African Currency Unions: Rationale and Sustainability
CESifo Economic Studies

Dippelsman, Robert J.; Maehle, Nils Ø.

Treatment of Mobile Phone Licenses in the National Accounts
Review of Income and Wealth

Estevao, Marcello

Do Firms Share Their Success with Workers? The Response of Wages to Product Market Conditions
Economica

Ganelli, Giovanni

Useful Government Spending, Direct Crowding-Out and Fiscal Policy Interdependence
Journal of International Money and Finance

Gelos, Gaston R.

Foreign Currency Debt in Emerging Markets: Firm-Level Evidence from Mexico
Economics Letters

Gelos, Gaston; Roldos, Jorge

Consolidation and Market Structure in Emerging Market Banking Systems
Emerging Markets Review

Gupta, Sanjeev; Clements, Benedict J.; Baldacci, Emanuele; Mulas-Granados, Carlos

The Persistence of Fiscal Adjustments in Developing Countries
Applied Economics Letters

Gupta, Sanjeev; Clements, Benedict J.; Baldacci, Emanuele; Mulas-Granados, Carlos

Fiscal Policy, Expenditure Composition, and Growth in Low-Income Countries
Journal of International Money and Finance

Gupta, Sanjeev; Clements, Benedict J.; Bhattacharya, Rina; Chakravarti, Shamit

Fiscal Consequences of Armed Conflict and Terrorism in Low- and Middle-Income Countries
European Journal of Political Economy

Gupta, Sanjeev; Clements, Benedict J.;

Tiongson, Erwin R.

Foreign Aid and Consumption Smoothing: Evidence from Global Food Aid
Review of Development Economics

Gupta, Sanjeev; Leruth, Luc; de Mello, Luiz;

Chakravarti, Shamit

Transition Economies: How Appropriate Is the Size and Scope of Government?
Comparative Economic Studies

Gupta, Sanjeev; Marijn, Verhoeven; Tiongson, Erwin R.

Public Spending on Health Care and the Poor
Health Economics

Hanousek, Jan; Podpiera, Richard

Czech Experience with Market Maker Trading System
Economic Systems

Kandil, Magda

Exchange Rate Fluctuations and Economic Activity in Developing Countries: Theory and Evidence
Journal of Economic Development

Kandil, Magda; Fahmy, Yasser

The Fisher Effect: New Evidence and Implications
International Review of Economics and Finance

Kandil, Magda; Woods, Jeffrey G.

Is the Business Cycle Gender Neutral? A Sectoral Investigation
Equal Opportunities International

Keen, Michael; Kotsogiannis, Christos

Leviathan and Capital Tax Competition in Federations
Journal of Public Economic Theory

Keen, Michael; Ligthart, Jenny

Cross-Border Savings Taxation in the European Union: An Economic Perspective
Tax Notes International

Keen, Michael; Mintz, Jack

The Optimal Threshold for a Value-Added Tax
Journal of Public Economics

Keen, Michael; Wildasin, David

Pareto Efficient International Taxation
American Economic Review

Kock, Udo

Social Benefits and the Flow Approach to the Labor Market
Tijdschrift voor Politieke Economie

Kose, M. Ayhan; Kim, Henry

Dynamics of Open Economy Business Cycle Models:
Understanding the Role of the Discount Factor
Macroeconomic Dynamics

Kose, M. Ayhan; Kim, Henry; Plummer, Michael

Dynamics of Business Cycles in Asia
Review of Development Economics

Kose, M. Ayhan; Hirata, Hideaki; Kim, Henry

Integration and Fluctuations: The Case of MENA
Emerging Markets Finance and Trade

Kose, M. Ayhan; Otkrok, Chris; Whiteman, Charles

International Business Cycles: World, Region, and Country
Specific Factors
American Economic Review

Kose, M. Ayhan; Prasad, Eswar; Terrones, Marco

How Does Globalization Affect the Synchronization of
Business Cycles?
American Economic Review, Papers and Proceedings

Kose, M. Ayhan; Sayan, Serder

Nature and Transmission of Business Cycles: The Case of
MENA and Europe
Emerging Markets Finance and Trade

Lumsdaine, Robin; Prasad, Eswar

Identifying the Common Component in International
Economic Fluctuations: A New Approach
The Economic Journal

Milesi-Ferretti, Gian Maria

Good, Bad or Ugly? On the Effects of Fiscal Rules with
Creative Accounting
Journal of Public Economics

Pascual, Antonio G.; Cheung, Yin-Wong

Testing for Output Convergence: A Re-examination
Oxford Economic Papers

Prati, Alessandro; Bartolini, Leonardo

The Execution of Monetary Policy: A Tale of Two
Central Banks
Economic Policy

Spilimbergo, Antonio; Vamvakidis, Athanasios

Real Effective Exchange Rate and the Constant Elasticity of
Substitution Assumption
Journal of International Economics

Sy, Amadou

Rating the Rating Agencies: Anticipating Currency Crises or
Debt Crises?
Journal of Banking and Finance

Other External Publications (Chapters in Books)

Beetsma, Roel; Debrun, Xavier

The Interaction Between Monetary and Fiscal Policies in a
Monetary Union: A Review of Recent Literature
in *Monetary Policy, Fiscal Policies, and Labor Markets:
Macroeconomic Policy Making in the EMU*

den Butter, Frank; Kock, Udo

A Brief History of Social Security in Europe
in *New Social Policy Agenda for Europe and Asia*

den Butter, Frank; Kock, Udo

Social Security, Economic Growth, and Poverty
in *New Social Policy Agenda for Europe and Asia*

Ganelli, Giovanni; Lane, Philip;

Dynamic General Equilibrium Analysis: The Open
Economy Dimension
in *Dynamic Macroeconomic Analysis*

Gupta, Sanjeev

Maintaining Fiscal Control in Developing Countries, A
Comment
in *Brookings Trade Forum 2003*

Keane, Michael; Prasad, Eswar S.

Redistribution and Growth in the Policy Transition: An
Analysis from Political Economy and New Growth Theory
Perspectives
in *Growth and Inequality: Issues and Policy Implications*

Kose, Ayhan; Prasad, Eswar; Terrones, Marco

Volatility and Comovement in a Globalized World Economy:
An Exploration
in *Macroeconomic Policies in the World Economy*

Prasad, Eswar S.

What Determines the Reservation Wages of Unemployed
Workers? New Evidence from German Micro Data
in *Institutions and Wage Formation in the New Europe*

Sy, Amadou

Sovereign Ratings and Financial Crises
in *Sovereign Risk and Financial Crises*

Vamvakidis, Athanasios

Regional Integration and Economic Growth
in *Regional Trading Arrangements*

A full and updated listing of external publications of IMF
staff (from 1997 onward), including forthcoming publica-
tions, can be found in a searchable database at the Research
at the IMF website at <http://www.imf.org/research>.



IMF Research Bulletin

Tito Cordella
Editor

Archana Kumar
Assistant Editor

Kellett Hannah
Systems Consultant

Choon Lee
Composer

The *IMF Research Bulletin* (ISSN: 1020-8313) is a quarterly publication in English and is available free of charge. Material from the *Bulletin* may be reprinted with proper attribution. Editorial correspondence should be addressed to The Editor, *IMF Research Bulletin*, IMF, Room 9-718, Washington, DC 20431 USA or e-mailed to resbulletin@imf.org.

For Electronic Notification:

Sign up at www.imf.org (e-mail notification) to receive notification of new issues of the *IMF Research Bulletin* and a variety of other IMF publications. Individual issues of the *Bulletin* are available at <http://www.imf.org/external/pubs/ft/irb/archive.htm>.

For Print Subscriptions:

Address requests to Publication Services, Box X2004, IMF, Washington, DC 20431 USA; e-mail: publications@imf.org.

IMF Conference Honors Michael Mussa

The IMF Research Department honored Michael Mussa's 60th birthday with a conference held on June 4–5 at the IMF's headquarters in Washington. Michael Mussa, who has made a wide, influential contribution to economic theory and empirics, served as the IMF's Economic Counsellor and Director of the Research Department from 1991 to 2001 and as a member of the President's Council of Economic Advisers from 1986 to 1988. He has also taught at the University of Chicago, the University of Rochester, the City University of New York, the London School of Economics, and the Graduate Institute of International Studies in Geneva.

During his illustrious career, Mr. Mussa extensively studied the macroeconomic problems inherent to open economies and actively contributed to the debate on economic policy design and crises prevention. His work inspired many economists in the academic world and at the IMF.

The conference began with a session on Finance, Growth, and Moral Hazard, which included the following presentations: "The Mussa Theorem" by Olivier Jeanne and Jeromin Zettelmeyer and "Country Insurance" by Tito Cordella and Eduardo Levy-Yeyati. The second session on Economic History and Fund Problems included presentations by Stanley Engerman on "Some Historical Forecasts: On WEO-Type Chapters for 1492, 1787, and 1860" and Robert Fogel on "Reconsidering World War II Expectations of Economic Growth from the Perspective of 2004."

Although Mr. Mussa is best known for his contributions to international finance, his earliest work focused on international trade with special emphasis on the macroeffects of tariffs and the specific factor model of production. It was appropriate, therefore, that the third conference session was dedicated to trade topics and included papers by Douglas Irwin on "Causing Problems? The WTO Review of Causation and Injury Attribution in U.S. Section 201 Cases" and by Richard Clarida and Rachel McCulloch on "U.S. Trade Remedies and the Adjustment Process."

The final session concluded with presentations by two professors from Mr. Mussa's graduate career at the University of Chicago: Robert Aliber on "The Thirty-Five Most Tumultuous Years in Monetary History: Shocks and Financial Traumas" and Arnold Harberger on "The Real Exchange Rate Issues of Concept and Measurement." These papers were followed by the keynote address by Jacob Frenkel and a wine tasting and dinner.

The following presentations were made during the first session of the second day: Hans Genberg and Alexander Swoboda on "Exchange Rate Regimes: Does What Countries Say Matter?" and M. Ayhan Kose, Eswar Prasad, and Marco Terrones on "How Do Trade and Financial Integration Affect the Relationship Between Growth and Volatility?"

The final conference session concluded with Russell Boyer and Warren Young's paper on "Mundell's International Economics: Adaptations and Debates" and Nelson Mark's paper on "Learning, Monetary Policy Rules, and Real Exchange Rate Dynamics."

The conference was organized by Robert Flood. Copies of the papers are available at <http://www.imf.org/external/np/res/seminars/2004/mussa/#prg>. Transcripts of the sessions and videotapes of the entire conference are available from Rosalind Oliver (e-mail: roliver@imf.org).

IMF Trade Conference

On Tuesday, October 19, the IMF Research Department's Trade Unit will host a conference that addresses the implications of trade liberalization for developing countries. The conference will begin at 9 a.m. and is open to the public. It will be held in Meeting Rooms A and B at the IMF Headquarters Building, 700 19th Street, NW, Washington. Please contact Marlene George (mgeorge@imf.org) if you plan to attend. A summary of the conference will be published in the December 2004 issue of the *IMF Research Bulletin*.