# MESURVEY

www.imf.org/imfsurvey

Significant milestone achieved

# Twenty-two poorest countries qualify for debt relief under joint IMF-World Bank HIPC Initiative

crucial milestone in providing relief to the poorest countries was reached when IMF Managing
Director Horst Köhler and World Bank President James
D. Wolfensohn announced that 22 eligible countries
(18 of them in Africa) had qualified for debt relief under the Heavily Indebted Poor Countries (HIPCs) Initiative.
This means these countries begin to be spared some
\$34 billion in debt-service obligations. Once they reach their completion points under the initiative, these countries will see their foreign debt reduced by two-thirds on average, reflecting relief under traditional mechanisms, the HIPC Initiative, and additional bilateral actions.

In their December 22 joint statement, Köhler and Wolfensohn said:

"In this millennium year, the Bretton Woods institutions have been determined to play their part in tackling one of the most pressing challenges of our time—helping the poorest members of the world community to share in the prosperity enjoyed by so many. A key element has been debt relief for the heavily indebted poor countries.

"In 1996, the IMF and the World Bank launched an initiative with many other partners to reduce the debt of the HIPCs to (Please turn to the following page)

Interview with Eduard Brau

# Treasurer's Department has important role in mobilizing, managing, safeguarding resources

September 1999. Brau, a German national, joined the IMF in August 1969 and, prior to assuming his present position, held various positions, including Deputy Director of the IMF's European II Department and Director of the Office of Internal Audit and Inspection. He spoke recently with the IMF Survey and discussed the work of the Treasurer's Department and issues facing the IMF in the department's area of responsibility.

atively little idea of all the responsibilities—both internal and external—of the Treasurer's Department. What are these functions and how does the department carry them out?

Brau: Treasurer's is the financial arm of the IMF. We

IMF SURVEY: Many readers of the IMF Survey have rel-

mobilize, manage, and safeguard the IMF's financial resources.

*Mobilizing* resources involves three areas: First, the work related to quotas, our main source of financial

resources, and in particular to quota reviews and quota increases. Second, the department deals with all aspects of raising the resources for our concessional lending through the Poverty Reduction and Growth Facility (PRGF) and for the Heavily Indebted Poor Countries (HIPC) Initiative. This mobilization effort has kept us very busy over the past year. And third, the department is responsible for the operation of the SDR system, including the special equity allocation of SDRs, which is still pending, and the recent decisions to change the valuation and interest rate on the SDR. (Continued on page 7)



Brau: The Treasurer's Department mobilizes, manages, and safeguards the IMF's financial resources.

International Monetary Fund VOLUME 30 NUMBER 1

January 8, 2001

#### In this issue

22 countries qualify for debt relief

I Interview with Eduard Brau

2 HIPC Initiative

4 HIPC assistance for Zambia

6
Economic issues in sub-Saharan Africa

6 Proposed China quota increase

10 Seminar on statistical quality

14
Price subsidy reform

14
Agreement on
Argentine program

SDR currency basket

17 New economy issues

18 Information economy issues

and ...

10 New on the web

13
Recent publications

15 Selected IMF rates

15 Use of IMF credit

16 IMF Arrangements

1

### Twenty-two poorest countries qualify for debt relief

(Continued from front page) sustainable levels as a way to renew their prospects for growth and to free up resources for vital social needs. Last year, we committed to strengthen that initiative to provide faster, deeper, and broader debt relief. When progress still seemed too slow, we pledged to make every effort to permit at least 20 countries to benefit from debt relief by the end of this year. This goal has been reached and even exceeded.

"In recent weeks, our Executive Boards and staffs have worked intensively to finalize debt relief for many HIPCs. These efforts will lift some \$34 billion in debt-service obligations from the shoulders of 22 eligible countries, 18 of them in Africa (see charts, pages 3 and 4, and table, page 5). As a result, after they reach their completion point and receive full assistance under the enhanced HIPC Initiative, these countries will see their foreign debt reduced by almost half on average. Combined with existing debt-relief programs—such as those of the Paris Club of creditor nations—these countries will see their debts fall, on average, by about two-thirds.

"Much hard work and commitment has been required. The countries concerned have shown their

willingness to put debt relief to effective use to improve the lives of the poor. They have formulated strategies to reduce poverty, to invest in their people's future, and to create the basis for sustained growth in their countries.

"These countries face a continuing challenge to remain focused on long-term goals—even in the face of difficult circumstances, not least the AIDS pandemic affecting so many of them. Together, we have laid a strong foundation and will continue to make every effort to build upon it in all of these 22 countries.

"We shall also continue working to bring debt relief to the remaining heavily indebted poor countries that have yet to qualify for HIPC Initiative assistance. Their already difficult situations are, in many cases, compounded by civil conflict or its immediate aftermath. An end to these conflicts is an essential first step for these countries to rebuild economically and truly benefit from debt relief.

"To ensure that the relief is translated into poverty reduction, the beneficiary countries must continue with their economic, social, and governance reforms. In this context, they will need to design and implement

#### **HIPC Initiative**

The Heavily Indebted Poor Countries (HIPC) Initiative was launched by the IMF and the World Bank in 1996 as the first comprehensive effort to eliminate unsustainable debt in the world's poorest, most heavily indebted countries. In October 1999, the international community agreed to make the initiative broader, deeper, and faster by increasing the number of eligible countries, raising the amount of debt relief each eligible country would receive, and speeding up its delivery. The enhanced HIPC Initiative aims at reducing the net present value of debt at the decision point to a maximum of 150 percent of exports or 250 percent of government revenue, and the assistance will be provided on top of traditional debt-relief mechanisms (Paris Club debt rescheduling on Naples terms, involving 67 percent debt reduction in net present value terms and at least comparable action by other bilateral creditors).

Eligible countries will qualify for debt relief in two stages. In the first stage, the debtor country will need to demonstrate the capacity to use prudently the assistance granted by establishing a satisfactory track record, normally of three years, under programs supported by the IMF and the International Development Association (IDA). In the second stage, after reaching the decision point under the initiative, the country will implement a full-fledged poverty reduction strategy, which has been prepared with broad participation of civil society and an agreed set of measures aimed at enhancing economic

growth. During this stage, the IMF and the IDA grant interim relief, provided that the country stays on track with its IMF- and IDA-supported programs. In addition, Paris Club creditors, and possibly others, are expected to grant debt relief on highly concessional terms.

At the end of the second stage, when the floating completion point has been reached, the IMF and the IDA will provide the remainder of the committed debt relief, while Paris Club creditors will enter into a highly concessional stock-of-debt operation with the country involved. Other multilateral and bilateral creditors will need to contribute to the debt relief on comparable terms.

Some three dozen HIPCs—the great majority of which are sub-Saharan African countries—are expected to qualify for assistance under the enhanced HIPC Initiative. Debt-relief packages are now in place for 22 countries under the enhanced HIPC Initiative framework (Benin, Bolivia, Burkina Faso, Cameroon, The Gambia, Guinea, Guinea-Bissau, Guyana, Honduras, Madagascar, Malawi, Mali, Mauritania, Mozambique, Nicaragua, Niger, Rwanda, São Tomé and Príncipe, Senegal, Tanzania, Uganda, and Zambia), with total committed assistance estimated at some \$34 billion, representing an average net present value stock-of-debt reduction of nearly 48 percent on top of traditional debt-relief mechanisms.

Further information on the HIPC Initiative is available on the IMF's website at www.imf.org/external/np/hipc.htm.

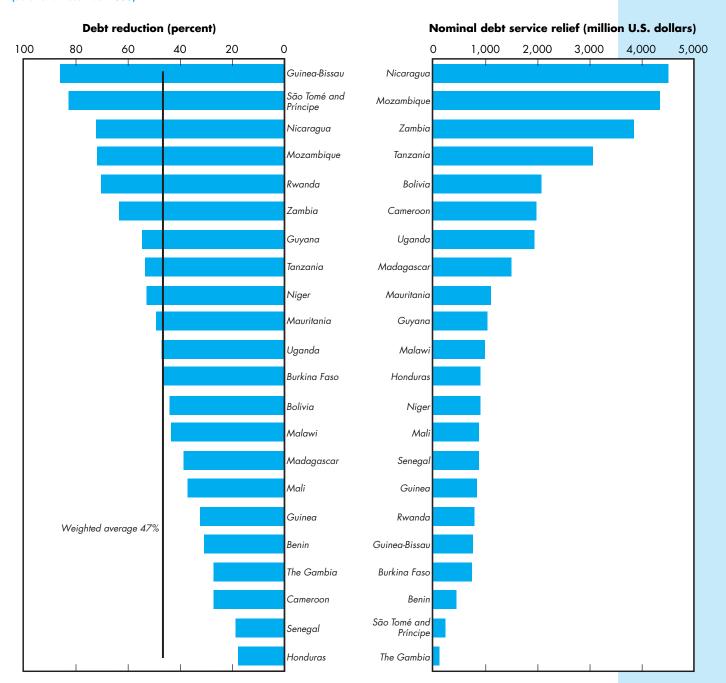
nationally owned poverty reduction strategies. Our institutions and many other partners look forward to helping poor countries in these efforts. We will continue to offer our advice and financial assistance in support of their programs of human development, good governance, and sound economic management.

"But the international community must play its full part to improve the lot of poor countries, for there cannot be a good future for the rich nations if the poor nations do not share prosperity. The combination of improved policies and debt relief will not be enough in most cases. We need to make sure that the HIPC Initiative is supported by all creditors, including official bilateral and commercial creditors that have yet to provide the required debt relief. Also, it is important to resolve the remaining funding issues for some multilateral creditors and to ensure that financing for the HIPC Initiative is truly additional and does not come at the expense of other aid flows. More broadly, we call upon industrial countries to raise their official development



# Enhanced HIPC Initiative: comparative debt reduction and debt relief for 22 decision point countries

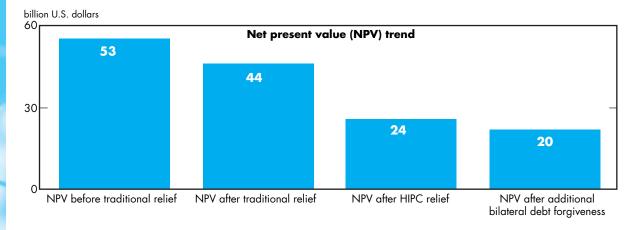
(as of end-December 2000)

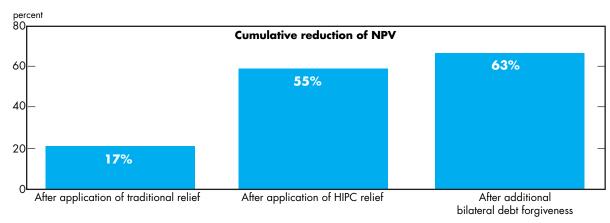




# Enhanced HIPC Initiative: debt-service reduction for 22 decision point countries

(as of end-December 2000)





Note: The debt stock before any relief is estimated at \$53 billion in NPV terms or \$73 billion in nominal terms.

# IMF, World Bank Boards approve accelerated HIPC assistance for Zambia

In approving assistance under the enhanced HIPC Initiative for Zambia on December 1, the IMF's Executive Board agreed to change the rules for the provision of such assistance to allow for accelerated delivery of relief.

In a statement issued following the Board's decision to approve \$602 million in net present value terms as part of a total \$3.8 billion package from Zambia's creditors (IMF News Brief No. 00/111), IMF Deputy Managing Director Shigemitsu Sugisaki said "the new rules permit, under exceptional circumstances such as Zambia's, for the IMF to accelerate delivery of debt relief. This action was taken to address a hump in Zambia's total debt-service payments originating from Zambia's arrears clearance operation to the Fund in 1995.

"In the absence of HIPC assistance," Sugisaki said, Zambia's debt service would have more than doubled next year to over \$420 million. However, as a result of the IMF Board's decision today, and coupled with decisions by other creditors under the HIPC framework, it is clear that Zambia's debt-service payments in each of the next three years will be lower than this year. The IMF will effectively reduce by about two-thirds Zambia's debt to the IMF." The total package agreed for Zambia is equivalent to about \$2.5 billion in net present value terms, or approximately 63 percent of Zambia's net present value of debt outstanding at end-1999 after the full use of traditional debt-relief mechanisms.

"The decision by the IMF Executive Board, combined with a substantial increase in net resource transfer to Zambia, will help give the country the resources that will permit a significant increase in social expenditures in real terms, especially to fight AIDS and poverty," Sugisaki explained. The IMF Board's decision came into effect after the World Bank's Executive Board took a similar decision a week later (IMF Press Release No. 00/67, December 8).

Zambia will receive the bulk of the assistance under the enhanced HIPC Initiative when it satisfies a number of conditions, including adoption and implementation of a participatory poverty reduction strategy paper. assistance toward internationally agreed levels. And we urge them to open their markets to the exports of the poor countries, giving them a better chance to succeed on their own. The international community also has an important role in conflict resolution, especially in Africa.

At the turn of the millennium, many parts of the world are enjoying unprecedented prosperity. But we also know that too many people cannot yet meet their very basic human needs. It is time to redouble our efforts to make the global economy work for the good of all."

The text of this statement and other information about the HIPC Initiative are also available on the IMF's website (www.imf.org).

For a comprehensive discussion of the significant progress that has been made in debt relief for the poorest countries, please refer to the interview with Jack Boorman, Director of the IMF's Policy Development and Review Department, which was published in the IMF Survey, December 11, 2000, pages 285-88.



#### HIPC Initiative: committed debt relief and outcome, status as of end-December 2000

	Reduction i Original	n NPV terms Enhanced		Nominal debt- Original	service relief Enhanced		Press	
	HIPC Initiative	HIPC Initiative	Total	HIPC Initiative	HIPC Initiative	Total	release number	Date
Reached decision p	oints (22)							
Benin	•••	265	265	•••	460	460	00/44	July 2000
Bolivia	448	854	1,302	760	1,300	2,060	00/07	January 2000
Burkina Faso	229	169	398	400	300	700	00/42	June 2000
Cameroon		1,260	1,260		2,000	2,000	00/56	October 2000
The Gambia	•••	67	67	•••	90	90	00/68	December 20
Guinea		545	545		800	800	00/85	December 20
Guinea-Bissau		416	416		790	790	00/71	December 20
Guyana	256	329	585	440	590	1,030	00/61	November 20
Honduras		556	556		900	900	00/41	July 2000
Madagascar <sup>1</sup>		814	814		1,500	1,500	00/81	December 20
Malawi		643	643		1,000	1,000	00/77	December 20
Mali	121	401	523	220	650	870	00/52	September 20
Mauritania		622	622		1,100	1,100	00/09	January 2000
Mozambique	1,716	254	1,970	3,700	600	4,300	00/28	April 2000
Nicaragua		3,267	3,267		4,500	4,500	00/78	December 20
Niger		521	521		900	900	00/76	December 20
Rwanda		453	453		810	810	00/84	December 20
São Tomé and Prín		97	97		200	200	00/74	December 20
Senegal		488	488		850	850	00/36	June 2000
Tanzania		2,026	2,026		3,000	3,000	00/26	April 2000
Uganda	347	656	1,003	650	1,300	1,950	00/06	January 2000
Zambia		2,499	2,499		3,820	3,820	00/67	December 20
Total	3,117	17,202	20,320	6,170	27,460	33,630	00/07	December 20
Total	3,117	17,202	20,320	0,170	27,400	33,030		
Still to be considered	ed (13)							
Possible early cases								
Chad		157	157		250	250	Reviewed	July 2000
Ethiopia		636	636		1,300	1,300	Reviewed	November 19
Côte d'Ivoire	345		345	800		800	Approved <sup>2</sup>	March 1998
Subtotal	345	793	1,138	800	1,550	2,3502	ripproved	111111111111111
Others	2.10	. , , ,	2,100	200	2,000	_,550		
Burundi								
Central African R								
Congo, Dem. Rep								
Congo, Rep. of								
Liberia	•••	•••	•••		•••	•••		
Myanmar	•••	•••	•••	•••	•••	•••		
Sierra Leone	•••	•••	•••	•••		•••		
Somalia	•••	•••	•••	•••	•••	•••		
Sudan	•••	•••	•••	•••		•••		
	•••	•••	•••	•••	•••	•••		
Togo		•••	•••			•••		
Total debt relief	2.462	17.005	21.457	( 070	20.010	25.000		
committed <sup>3</sup>	3,462	17,995	21,457	6,970	29,010	35,980		

<sup>1</sup>Preliminary.

<sup>2</sup>Approved debt relief under the original framework.

<sup>3</sup>Countries that reached their decision points under the enhanced HIPC framework through December 2000 and Côte d'Ivoire, which reached its decision point under the original framework. Note: NPV = net present value. Ghana and Lao PDR are not seeking HIPC debt relief.

Data: HIPC Initiative country documents; World Bank and IMF staff estimates

**Issues Brief** 

# African countries face challenges in tackling major problems of reducing debt

fter two decades of economic stagnation and little progress in poverty reduction, the seeds of an economic renaissance in sub-Saharan Africa, with faster growth and less poverty, have been sown in recent years through innovative measures such as the IMF's Poverty Reduction and Growth Facility (PRGF) and the joint IMF–World Bank Heavily Indebted Poor Countries (HIPC) Initiative. A recently released IMF Issues Brief outlines the key policy issues that countries in the region will need to address and the contribution that the international community, including the IMF, will need to make to build on recent gains and establish a cycle of sustained high-quality growth. This and other Issues Briefs are available on the IMF's website (www.imf.org).

In reviewing the economic record, the Issues Brief observes that, following disappointing economic performance in the 1980s and the early 1990s, sub-Saharan Africa's performance improved in1995–97 and real per capita incomes began to rise. This improvement reflected primarily a new commitment by many countries to sound macroeconomic policies and more open and better managed economies, to address their daunting economic and social challenges and to improve their terms of trade.

Despite the recent progress, the Issues Brief cautions, growth remains fragile, standards of living are still very low, and poverty is widespread. Health and education indicators continue to be poor and job opportunities have often not kept pace with the growth of the labor force. The region has been unable to share fully in the benefits of globalization. In most countries, inadequate infrastructure, weak tax administration and poor enforcement, lack of transparency in tax and investment policies, poor communications, undeveloped financial services, and weak judiciaries have all militated against fuller engagement in the international economy. Armed conflicts also frequently damage economic prospects. The spread of HIV/AIDS is reducing labor productivity and human welfare dramatically.

The Issues Brief points out that faster sustainable growth is essential for improving living standards and reducing poverty: given the low level of per capita income in the region, redistribution alone would barely dent the problem of poverty. In addition to the need to maintain the focus both on macroeconomic stability—through appropriate fiscal, monetary, and exchange rate policies—and on structural reforms to improve the efficiency of markets, there are fundamental challenges in three key areas:

• To design and implement comprehensive policy strategies that promote faster growth and poverty reduc-

tion and at the same time have broad public support.

- To improve governance, promote the rule of law, encourage openness and transparency of government, reduce opportunities for corruption, and create a more favorable environment for private sector investment and production.
- To strengthen external payments positions. Debt relief in support of poverty-reducing policy programs has an important role here, especially for the lowestincome heavily indebted countries.

The IMF provides its member countries in Africa, as elsewhere, with policy advice, financial assistance when needed in support of economic policy programs, and technical assistance. Between 1987 and 1999, financial assistance was provided through the Fund's Enhanced Structural Adjustment Facility (ESAF). But in late 1999, the ESAF was transformed into the Poverty Reduction and Growth Facility (PRGF), signifying a new approach to policy programs and poverty reduction, adopted in collaboration with the World Bank and other international creditors and donors (see *IMF Survey Supplement*, September 2000, pages 16–17).

In conjunction with this new approach, the IMF and the World Bank, together with other creditors and donors, intensified their efforts under the HIPC Initiative (see related articles in this issue of the *IMF Survey*).

#### IMF proposes quota increase for China

In a press release issued on January 4, IMF Managing Director Horst Köhler announced that the IMF had proposed a quota increase for China.

"The Executive Board of the IMF has proposed to the IMF Board of Governors an increase in China's quota to SDR 6,369.2 million (about \$ 8.4 billion at today's exchange rate) from SDR 4,687.2 million (about \$6.2 billion). The proposal responds to a request by China for a special increase in its quota to better reflect its position in the world economy following the resumption of Chinese sovereignty over Hong Kong SAR. The proposed quota represents about 3.0 percent of total quotas," Köhler said.

The adoption of the proposal to increase China's quota requires a majority of 85 percent of the total voting power and Governors are being asked to vote by February 5, 2001. China will have 30 days from the approval by the Governors to consent to, and pay, the increased quota subscription. The proposal provides that 25 percent of the quota increase, SDR 420.5 million (about \$550 million), be paid in SDRs or usable currencies specified by the IMF, with the remainder paid in China's own currency. The increase in China's quota would bring total IMF quotas to SDR 212.4 billion (about \$278.5 billion).

### Treasurer's Department has large financial role

(Continued from front page) Managing resources covers activities that range from general policies on the use of IMF resources all the way to the nitty-gritty of accounting and financial reporting. Let me give you a few examples. On the policy side, and together with other departments, we advise management and the Board on policies on the use of IMF resources, such as the interest rate charged on IMF lending and on net income to be applied to the IMF's precautionary balances. We invest the \$11 billion in PRGF and HIPC grant and deposit resources. We make all the disbursements when countries borrow from the IMF and also manage all SDR transactions between SDR holders. And internally, the department effects and controls all

The third important function is *safeguarding resources*. It is the role of the Treasurer's Department to assess and monitor financial risks to the IMF and to help protect the IMF against arrears from member countries and to safeguard resources more generally. The department takes the lead in formulating policies to deal with existing arrears and the complex work of finding financial solutions to clear the arrears of specific members.

administrative expenditures, including the payroll.

*IMF SURVEY*: In what ways has your view of the Treasurer's Department's role changed during the past year and what changes do you envisage in the coming period?

BRAU: I was impressed by the breadth of activities in the department, and much of the core work that I just described to you will continue. But I have set new priorities in the past year. First, in April 2000 we began a new investment policy for about \$11 billion in resources in the PRGF and HIPC Trusts. The income from these resources will be used to subsidize PRGF lending and help finance the IMF's share of HIPC debt reduction. Until recently, the IMF invested only in short-term deposits with the Bank for International Settlements (BIS). We have now diversified under a conservative strategy and are investing the bulk of these resources in short-term, fixed-income securities with the BIS and external investment managers, including the World Bank and private managers. Our aim is to realize, over a longer term, something like 50 basis points in additional revenue. On a portfolio of \$11 billion, this means over \$50 million in additional income annually—a very significant sum in additional support for our poorest member countries. We are on track toward our goal in the first six months of operation of the new strategy.

Our second priority is to become much more open and transparent concerning all of our financial operations and our financial structure. This also means, more generally, that we have to communicate better with the public. A third priority has been the new safeguards assessments under a policy adopted by the Board last spring.

Finally, we have taken a close look at our internal priorities. One priority is to improve our personnel and managerial practices and to enhance staff mobility both within and outside the department. The other is to achieve two major systems renewals: first, to put in

place a first-class financial information, operating, accounting, and reporting system for the benefit of all users, including member countries; and second, to put in place a new administrative processing and accounting, and budget execution and



Brau: You can now find on our website all significant information on the IMF.

**IMFSURVEY** 

reporting system that will allow further significant streamlining of administrative procedures. To lay a basis for this, we reorganized the department last summer on clear functional lines.

*IMF Survey:* A recently introduced page on the IMF's website provides detailed financial information about the IMF. Are you planning further dissemination of information on the web?

Brau: The IMF is a public institution that attracts a lot of interest. I believe we should welcome and respond to this interest with disclosure and full accessibility of information. This is what we've tried to do on the financial website. The response has been very positive, with, I'm told, 20,000 visits to our website every month.

You can now find on our website all significant financial information on the IMF. This includes quarterly data on the financing of our lending operations. It includes a comprehensive record of all our loans on a country-specific basis with monthly updates. We update all of the key financial numbers weekly, including liquidity, interest rates, SDR rates, HIPC disbursements, approvals of financial arrangements, and disbursements and repayments under arrangements—they are all there.

We also posted the IMF's new financial statements. For the first time, these statements have been prepared in full compliance with international accounting standards and now reflect international best practice as far as disclosure, format, and intelligibility are concerned. The IMF should certainly lead in this area and fully practice what we advise others to do.



*IMF SURVEY:* During the Annual Meetings, there was some discussion about giving developing countries a greater voice in decision making. What effect would any change have on the balance of voting power? Will there be another quota increase in the next several years?

BRAU: This is clearly a very important issue, because it is basic to the acceptance of the IMF as a global institution. The quota and voting shares of member countries should reflect their relative economic position in the world economy. Many countries consider that the existing distribution of quotas does not live up to this requirement. A year and a half ago, management appointed a group of independent experts, chaired by Professor Richard Cooper of Harvard University, to make proposals on a new quota formula. This group made a number of useful suggestions—in particular, to update the formulas to take account of the fact that capital account transactions are much more important now. But in the end, their work did not produce satisfactory quota formulas that would command wide support. The Board's work program foresees that the staff will propose alternative quota formulas, building on the work of the Cooper group, in the hope that something more widely acceptable will emerge. That's a priority for us and also a difficult task; we hope inspiration will strike us.

Realism in this area is important. The next general quota review must be completed by January 2003. At present, the IMF's liquidity is at a historic high and, if the projections in the latest *World Economic Outlook* are correct, our liquidity will remain ample in the immediate future. Of course, very large financing needs could strike, but even if financial needs arise like those experienced during the Asian crisis, we could handle that with the existing level of liquidity. And we also have the capacity to borrow under the New Arrangements to Borrow if the stability of the international monetary system is under threat. So there may not be a need to increase aggregate quotas.

A large-scale reallocation of quota shares according to a new quota formula could be done only in the context of a general quota increase. If there is none, one should look for selective quota adjustments for the few countries whose quota shares—according to a new formula—are most out of line. This would increase the absolute quotas of a handful of countries and reduce the shares of all the rest by small amounts, which should be doable. Separately, the Board is also now working on a selective quota increase for China to reflect the return of Hong Kong to Chinese sovereignty in 1997.

*IMF Survey*: The Board has been reviewing the IMF's financial facilities. What is the overall purpose of this review and the changes that are being introduced?

Brau: These have been very major reforms—the first comprehensive reform of the IMF's financing facilities in many years. The purpose has been to adapt the

IMF's facilities to the changing global environment. So one thrust of the reforms was to adapt IMF facilities to the reality that most members have increasing access to private capital markets, which has changed the nature of the balance of payments difficulties they face. A second aim was to adapt the facilities—in particular, the Contingent Credit Lines [CCL]—to make them more useful in crisis prevention.

The review also abolished some little-used facilities—the Buffer Stock Financing Facility, the Contingency Financing Facility, and IMF support for policies on Currency Stabilization Funds and for Debt and Debt-Service Reduction—while retaining the emergency and postconflict assistance provision as a special policy. So the IMF really now has a set of streamlined core financing facilities ready for use.

For the CCL, one aim was to make it a more attractive instrument for crisis prevention by reducing the CCL's surcharge over the regular rate of charge to 150 basis points. If it's drawn upon, it will be 150 basis points cheaper than the Supplemental Reserve Facility [SRF]. We reduced the commitment fee for large commitments under all financial facilities.

In the case of Stand-By Arrangements, the Extended Fund Facility, and the Compensatory Financing Facility [CFF], there are two important changes. One is the introduction of expectations regarding early repayments of IMF loans, which are intended to discourage overly *long* use of IMF resources. Staff analysis has shown that in slightly more than the majority of past cases, the balance of payments improvement was much faster than projected, enabling the member to repay its loans earlier. If the balance of payments situation of the country does not improve quickly enough to repay early, the burden is on the member to request an extension from the Board, and the Board can grant this; in this case, the member has to repay on the original schedule.

The second major change is intended to discourage overly *large* use of IMF resources, through a surcharge of 100 basis points on IMF credit outstanding (other than under the CFF) in excess of 200 percent of quota. For IMF credit outstanding in excess of 300 percent of quota, there is a surcharge of 200 basis points. This surcharge should also encourage members to repay earlier.

These changes are important from two perspectives. First, the higher likelihood of capital account crises—and thus use of the CCL and the SRF—with larger access but much shorter repayment periods means that in the future we can expect to see greater swings in the amounts of IMF credit outstanding. Second, we will see shorter use of IMF resources and lower amounts, because members have a sharper incentive to repay when IMF credit is no longer needed. Our resources will revolve faster, enabling us to deal with more financing needs with the existing pool of resources.

# *IMF SURVEY:* Given the IMF's current liquidity situation, do you think there's a possibility that conditions may come together to reignite the debate about the need for another SDR allocation?

BRAU: The condition for an SDR allocation is that there should be a long-term global need to supplement existing reserve assets. For more than two decades now, that need has not been identified by the required 85 percent majority of the Board. The world economy is in rather good shape, and I just don't see the conditions that could lead to consideration of a general SDR allocation. But we do have the fourth amendment of the Articles, which provides for a onetime "equity" allocation of some SDR 21 billion. This would double the amount of SDRs outstanding. The amendment was agreed by the Board of Governors in 1997 specifically to permit those countries that have never received an SDR allocation to receive one. Ratification of this is still in progress. As of December 2000, 98 members, with 65 percent of the voting power, have accepted, and we need 110 with 85 percent. Those who have still to accept include Argentina, Australia, Brazil, Indonesia, Kuwait, Malaysia, Russia, Ukraine, the United States, and Venezuela.

# *IMF Survey*: The IMF's finances have been criticized for being overly complex. Is it possible to simplify them?

BRAU: The accounting arrangements and financing of the HIPC Initiative and the PRGF are indeed complex, for the very simple reason that we will bend over backwards, if necessary, to have member countries give us grant resources for our poorest member countries. Donor countries have their own budget problems and often go to great lengths to get us these moneys, so we need to be receptive to complex procedures. We need not apologize, but rather we must express our gratitude for the financing.

Is the General Resources Account—the basic financing mechanism of the IMF-complex? In reality, it is not. But it is unique and it employs a special terminology. This puts a special obligation on us to be as transparent and as lucid as possible. We obtain reserve assets from countries in strong external positions in proportion to their quota share. On the reserve assets we use, we pay interest at the SDR interest rate, which is based on three-month market rates. We turn around and lend these assets out under the financing facilities we discussed earlier at a rate of charge that is higher than the interest rate we pay our creditor members. The margin is sufficient to finance our administrative expenditures and provide some additions to precautionary balances. That is it. It's quite simple.

Our financial mechanisms become complex in two areas. First, we make adjustments to the rate of remuneration—what we pay our creditor members—and to the

rate of charge because we have to deal with the financial consequences of arrears by a few member countries. This complexity will disappear when arrears disappear.

The second complexity comes from onetime operations, such as off-market gold transactions to help finance HIPC. They are complex because there was opposition from members to our implementing a straightforward on-market way of mobilizing a part of our gold holdings.

It's also important to recognize that decisions of the Board on anything affecting the rate of charge and net income require a 70 percent majority of the votes, which may require compromises nobody is entirely happy with. Sometimes, when a compromise is struck, the staff is asked at the same time to come up with "simplifications."

Transparency is an asset here. I have asked my staff to review all the proposals for simplification of the IMF's finances made over the past decade. Most of them were impractical and of interest only to a narrow group of members, but a few were realistic in principle. We will set out the reasons why they were not adopted and what can or cannot be done in terms of reducing complexity.

# *IMF Survey*: Why was the Safeguards Assessment Unit set up and what do you see as its role?

Brau: The genesis of this new policy was the widely reported instances of misreporting by some members under IMF-supported programs—which is a very real problem—and widespread allegations of misuse of IMF resources, for which no evidence has ever been adduced. Certainly misreporting is a serious matter, because it goes to the heart of the integrity of our operations. The Board reviewed our entire panoply of measures to ensure that resources were being used for the purposes intended. It concluded that ex post policies, which deal with misreporting once it has occurred, needed to be strengthened. This has now been done. But the Board also concluded that the IMF should employ certain ex ante policies, which hitherto we have not done. This would involve safeguards assessments to determine whether the accounting, financial reporting, audit, and internal financial control mechanisms of a member's central bank are adequate for proper management of its resources, including IMF resources provided to it. If vulnerabilities are identified, staff would propose remedies, including measures that would be implemented prior to further disbursements of IMF resources. The Board adopted this policy, effective July 1, 2000, and the Safeguards Assessment Unit carries it out.

This work is ongoing and sensitive, and extra care is needed to do it correctly. We believe that if this safeguards framework had been applied in recent highprofile cases of misreporting, there would have been a fair chance that we would have detected what later gave rise to the problems of misreporting.

# **IMFSURVEY** We will bend over backwards, if necessary, to have member countries give us grant resources for our poores member countries.



Joint IMF-Korea seminar

# Experts discuss trends and approaches to assessing statistical quality

tatistical quality is an important and timely topic, increasingly recognized as key to the future of statistics. The need to have a clearer view of statistical quality brought together leading experts from national and international statistical agencies at the Statistical Quality Seminar 2000, cosponsored by the Korea National Statistical Office (KNSO) and the IMF, and held in Jeju Island, Republic of Korea, on December 6–8, 2000. The seminar was jointly funded by the Korean authorities and the Japan Administered Account, under which Japan contributes to the IMF's training and technical assistance activities. The seminar covered a broad range of issues related to data quality, including trends and approaches to statistical quality assessment and national experiences in assessing and improving the quality of official statistics. In his opening remarks, Young-Dae Yoon, KNSO

Commissioner, noted that there was broad recognition that statistical quality was a multidimensional concept that went well beyond traditional views that equated data quality with accuracy. This set the stage for the enthusiastic and thought-provoking exchange of views that followed.

#### **Creating a framework**

Presenting the lead-off paper, "Toward a Framework for Assessing Data Quality," Carol S. Carson, Director of the IMF's Statistics Department, explained that work on data quality has been under way in the IMF for some time. The subject had been tackled using a two-pronged approach—attention was given first to defining data quality and, second, to developing a structure and a common language that could be used as a framework to assess data quality. This led to two

#### Available on the web (www.imf.org)

#### **Press Releases**

00/67: \$3.8 Billion in Debt-Service Relief for Zambia, December 8

00/68: \$91 Million in Debt-Service Relief for The Gambia, December 14

00/69: \$76 Million PRGF (approved in principle) for Niger, December 14

00/70: \$18 Million PRGF for Guinea-Bissau, December 15 00/71: \$790 Million in Debt-Service Relief for Guinea-Bissau, December 15

00/72: \$142 Million PRGF (approved in principle) for Moldova, December 15

00/73: Second Annual PRGF for Mozambique, December 19 00/74: \$200 Million in Debt-Service Relief for São Tomé and Príncipe, December 20

00/75: Membership and \$151 Million in Postconflict
Assistance for Federal Republic of Yugoslavia, December 20
00/76: \$890 Million in Debt-Service Relief for Niger,
December 20

00/77: \$1 Billion in Debt-Service Relief for Malawi,

00/78: IMF–World Bank to Support Debt Relief of \$4.5 Billion for Nicaragua under HIPC, December 21

00/79: \$58 Million PRGF (approved in principle) for Malawi, December 21

00/80: \$7.5 Billion for Turkey under Supplemental Reserve Facility, December 21

00/81: \$1.5 Billion in Debt-Service Relief for Madagascar, December 22

00/82: Extension of Stand-By Credit for Bosnia and Herzegovina, December 22 00/83: \$12 Million PRGF (approved in principle) for Rwanda, December 22

00/84: \$810 Million in Debt-Service Relief for Rwanda, December 22

00/85: \$800 Million in Debt-Service Relief for Guinea, December 22

00/86: \$144 Million PRGF for Cameroon, December 22 00/87: New Currency Amounts for SDR Valuation Basket, December 29 (see page 15)

01/01: IMF Proposes Quota Increase for China, January 4, 2001 (see page 6)

#### **News Briefs**

00/114: \$13 Million PRGF (approved in principle) for The Gambia, December 11

00/115: IMF Completes Estonia Review, December 13 00/116: Final Approval of PRGF for Former Yugoslav Republic of Macedonia, December 15

00/117: Köhler Statement on Strengthened Argentine Program, December 18 (see page 14)

00/118: Fourth Review for Ukraine under Extended Arrangement, December 19

00/119: First Review of PRGF and \$1.2 Million Credit for São Tomé and Príncipe, December 19

00/120: First and Second Review for Nicaragua under PRGF, December 20

00/121: \$10.5 Million PRGF (approved in principle) for Guinea, December 20

00/122: Final Approval of PRGF for Moldova, December 21  $\,$ 

00/123: Final Approval of PRGF for Niger, December 27

00/124: Final Approval of Third Annual PRGF for Guinea, December 27

00/125: Final Approval of PRGF for Malawi, December 28

initiatives—the establishment of the IMF's Data Quality Reference Site (see box, page 12), and the development of generic and data set—specific quality assessment frameworks.

Carson explained that the emerging frameworks were the product of an extensive, iterative consultation process with statisticians from a broad range of national and international organizations. They were designed to be a flexible, comprehensive tool for assessing data quality that could be used by statisticians and nonstatisticians alike. The frameworks, which aimed to bring together best practices and internationally accepted concepts and definitions in statistics, were developed by drawing on the growing literature on data quality, the Statistics Department's practical experience, and feedback from extensive consultations, as well as field testing by IMF staff. The frameworks were a work in progress and in the coming months would be subjected to further field testing and additional rounds of consultations with statisticians and others. Further work on the frameworks would include the development of additional data

set–specific frameworks, possibly in collaboration with other international statistical organizations in cases where the data set lay outside the IMF's traditional macroeconomic focus.

Participants appreciated the work undertaken by the IMF, emphasizing that it filled an important gap.

#### **IMESURVEY**

Carol S. Carson, Director of IMF Statistics Department (left), and Young-Dae Yoon, KNSO Commissioner



00/126: Final Approval of Second Annual PRGF for Nicaragua, December 28

00/127: Final Approval of Third Annual PRGF for Rwanda, December 28

01/01: IMF Managing Director Welcomes U.S. Interest Rate Cut, January 3, 2001

#### **Public Information Notices (PINs)**

00/103: Barbados, December 4

00/104: St. Kitts and Nevis, December 4 00/105: Republic of Congo, December 7

00/106: Romania, December 12 00/107: Zimbabwe, December 13

00/108: Pakistan, December 14

00/109: Kazakhstan, December 18

00/110: Postprogram Monitoring Discussion, Thailand, December 20

00/111: Seychelles, December 26

#### **Transcripts**

Press briefing, Thomas Dawson, IMF External Relations Department Director, December 12

Economic Forum: "The Information Economy: New Paradigm or Old Fashion?" December 5 (see page 18)

### Letters of Intent and Memorandums of Economic and Financial Policies (date posted)

Estonia, December 13 Nicaragua, December 13 Republic of Congo, December 14 Moldova, December 15 Mozambique, December 19 Guinea, December 20 Niger, December 20 São Tomé and Príncipe, December 20

Turkey, December 21

Rwanda, December 21

Ukraine, December 21

Cameroon, December 27

#### Poverty Reduction Strategy Papers (date posted)

Guinea-Bissau (interim), December 15

Macedonia, Former Yugoslav Rep. of (interim), December 15

Moldova (interim), December 21

Niger (interim), December 27

Guinea (interim), December 28

Madagascar (interim), December 28

Malawi (interim), December 28

Nicaragua (interim), December 28

Rwanda (interim), December 28

#### Concluding Remarks for Article IV Consultations (date posted)

Poland: Preliminary Conclusions, December 13

#### Report on the Observance of Standards and Codes (date posted)

Pakistan, December 7

#### Other

Financing IMF Transactions, Quarterly Report:

June 1-August 31, 2000, December 12

IMF Financial Activities, December 8, December 15,

December 22

IMF Financial Resources and Liquidity Position,

1998-November 2000

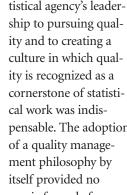
Policies for Faster Growth and Poverty Reduction in Sub-Saharan Africa and the Role of the IMF: An Issues Brief, December 20 (see page 6)

They felt that it was necessary to find a common language understandable to both specialists and nonspecialists. Tim Holt (Southampton University) underscored the importance of broad consultation and detailed discussions within the international community on these issues. He noted that the transparency of the process was fundamental to building countries' confidence in, and support for, the data quality assessment frameworks.

#### **Country experience**

Representatives from a number of countries presented papers outlining their own experiences in promoting data quality. Participants shared the view that the

> commitment of a statistical agency's leadership to pursuing quality and to creating a culture in which quality is recognized as a cornerstone of statistical work was indispensable. The adoption of a quality management philosophy by itself provided no magic formula for



ensuring statistical quality. Rather, for a quality culture to take root, it had to be promoted consistently and be supported by institution-wide processes and systems. Takanobu Negi, Director General of the Japan Statistics Center, emphasized that the determined commitment of statistical institutions to quality was the only way to ensure that users would have confidence in the statistics they produced.

It was recognized that countries followed different approaches to assessing and ensuring data quality. Some focused more on the process by which statistics were produced, others focused on statistical products or on the institutional framework for producing statistics, while still others paid attention to a combination of these. Paul Cheung, Chief Statistician of the



Carol Carson (left); Paolo Garona, Director, UN Economic Commission for Europe; and Michael Colledge, Statistics Directorate, Organization for Economic Cooperation and Development.

#### **Data Quality Reference Site**

The papers presented at the Statistical Quality Seminar 2000 are available through a link on the IMF's Data Quality Reference Site (DQRS) on the IMF's website at http://dsbb.imf.org.dqrs. The DQRS introduces definitions of data quality, describes trade-offs among aspects of data quality, and gives examples of evaluations of data quality. It also includes a bibliography of articles about data quality and a section that includes articles on data quality written by IMF staff and other work in progress in the IMF on data quality.

Singapore Department of Statistics, strongly favored focusing on the quality of the product, noting that it would be difficult to expect that one framework could serve all purposes. Romulo Virola, Secretary General of the Philippines National Statistical Coordination Board, concurred and also highlighted the importance of having adequate resources to ensure statistical quality. Other participants noted that, although the quality of the statistical product was paramount, this was closely related to the quality of a country's statistical institutions. Moreover, managing the quality of the statistical process could not be separated from ensuring the quality of statistical products.

#### **Further initiatives**

John Cornish, Statistics New Zealand, and several others emphasized that quality assessment should not be an end in itself. Statistical agencies also needed to ask about the implications of quality assessments for users of statistics and about the analytical usefulness of the data that was disseminated. Participants shared the view that the main objective of any quality assessment should be to identify areas for improvement and that, as suggested by Dong-Nyong Lee, Director of the Economic Statistics Department of the Bank of Korea, quality assessment should be seen as prevention and not as punishment. Huang Langhui, National Bureau of Statistics of China, noted that statistical offices needed to deal with both the real and the perceived quality of their products. In China, these issues were being dealt with in an environment in which competition from private sector data providers had contributed to the perception that timeliness of statistics carried a premium over accuracy. This was placing considerable pressure on China's already stretched official statistical system.

Participants welcomed the ongoing efforts of the United Nations Statistical Division (UNSD) to disseminate the examples of good statistical practices embodied in the Fundamental Principles of Official Statistics. In his paper, Willem de Vries, Deputy Director of the UNSD, reviewed what implementation of the Fundamental Principles might mean in practice, noting the importance of institutional factors as the basic foundation for statistical quality in a broad sense. Susan Linacre of the U.K. Office for National Statistics, noted that, although they came at the subject from different directions, there was a significant degree of commonality between the Fundamental Principles and the IMF's data quality assessment framework. Participants viewed the IMF's and UN's efforts in the area of data quality as important global initiatives that would help educate data users on the quality of official statistics and would support countries in their efforts to improve data quality. More needed to be done to help statistical

agencies, especially those at an early stage of development, to develop the skilled staff and a quality culture that was needed to face the challenges ahead of them.

A number of participants noted that the environment that is being measured is changing rapidly. Thus, having a flexible, comprehensive framework in which to situate data quality was essential to the future of statistics. They indicated that a quality

assessment framework, such as the one developed by the IMF, would need to be viewed as a dynamic tool to encourage improvement and innovation in statistics. The IMF would need to be prepared to continue to enhance and refine the assessment framework to reflect the experience gained with its application over time and in a variety of settings.

Candida Andrade IMF Statistics Department

#### **IMF**SURVEY

#### **Recent publications**

#### **Books**

Equity and Efficiency in the Reform of Price Subsidies: A Guide for Policymakers, S. Gupta, M. Verhoeven, R. Gillingham, C. Schiller, A. Mansoor, and J.P. Cordoba (\$15.00) (see page 14)

#### Occasional Papers (\$20; academic rate: \$17.50)

200: *Pension Reform in the Baltics: Issues and Prospects*, Jerald Schiff, Niko Hobdari, Axel Schmmilpfennig, and Roman Zytek

201: *Developments and Challenges in the Caribbean Region*, Samuel Itam and others

202: Adopting Inflation Targeting: Practical Issues for Emerging Market Countries, Andrea Schaechter, Mark R. Stone, and Mark Zelmer

#### Working Papers (\$10.00)

00/183: Optimal Inventory Policies When the Demand Distribution Is Not Known, Erik Larson, Lars Olson, and Sunil Sharma

00/184: The Asymmetric Effects of Exchange Rate Fluctuations—Theory and Evidence from Developing Countries, Magda Kandil

00/185: How Can Fiscal Policy Help Avert Currency Crises? George Kopits

00/186: Transparency in Central Bank Financial Statement Disclosures, Kenneth Sullivan

00/187: Poverty, Inequality, and Unethical Behavior of the Strong, Arye Hillman

00/188: Endogenous Money Supply and Money Demand, Woon Gyu Choi and Seonghwan Oh

00/189: To "B" or Not To "B"—A Welfare Analysis of Breaking Up Monopolies in an Endogenous Growth Model, Danyang Xie

# IMF Staff Country Reports (\$15.00)

00/154: Gabon: Statistical Annex

00/155: India: Recent Economic Developments

00/156: Spain: Selected Issues

00/158: Barbados: 2000 Article

IV Consultation—Staff Report; Statement by Staff

Representative; Public

Information Notice

Following Consultation; and Statement of the Barbados Authorities

00/159: Romania: 2000 Article IV

Consultation—Staff Report; Statement by

Staff Representative; and Public Information Notice Following

Consultation

00/160: Argentina: Selected Issues and Statistical Annex

00/161: Barbados: Statistical Appendix

00/162: Seychelles: Recent Economic Developments

00/163: St. Vincent and the

Grenadines: Recent Economic Developments

00/164: Argentina: 2000 Article IV Consultation and First Review

Under the Stand-By

Arrangement, and Request for Modification of Performance Criteria—Staff Report and Public Information Notice Following Consultation



Publications are available from IMF Publication Services, Box X2001, IMF, Washington, DC 20431 U.S.A. Telephone: (202) 623-7430; fax: (202) 623-7201; e-mail: publications@imf.org.

For information on the IMF on the Internet—including the full texts of the English edition of the IMF Survey, the IMF Survey's annual Supplement on the IMF, Finance & Development, an updated IMF Publications Catalog, and daily SDR exchange rates of 45 currencies—please visit the IMF's website (www.imf.org). The full texts of all Working Papers and Policy Discussion Papers are also available on the IMF's website.



# IMF publishes guide for policymakers on how to design and implement price-subsidy reforms

rice-subsidy reform is a key element of IMF-supported programs in many countries because it releases resources for social services, improves efficiency, and facilitates pro-poor growth. Nevertheless, it may have adverse social and political effects. Based on its experiences in a broad range of countries, the IMF has published a guide for policymakers on how to design and implement sound price-subsidy reforms that take into account both economic and social considerations. A brief description of the guide, which was prepared by staff of the Expenditure Policy Division in the IMF's Fiscal Affairs Department, follows.

#### **Speed**

Large budgetary savings from price-subsidy reform are difficult to achieve in the short run. Of 23 countries for which data are available, only 2 eliminated subsidies in one year, while 6 achieved significant savings over two years. Many countries needed time to provide protection to the poor through temporary social safety nets before they initiated price reforms. The guide shows that the speed of reform is affected by how quickly the fiscal benefits from the reform can

be realized and the cost of protecting the poor, the availability of social protection instruments and administrative capacity to design and implement social safety nets, and the willingness of governments to implement reforms.

#### **Targeting**

Social safety nets should be targeted to the poor with minimal leakage to the nonpoor and be consistent with economic incentives and macroeconomic targets. An accurate means test would provide such efficient targeting, but assessing household income is often not feasible. As an alternative, benefits can be targeted to certain population categories (for example, children, the elderly, and the unemployed) or those living in certain areas. In cases where basic data on the poor are lacking, and governance and the administrative capacity are weak, countries have established self-targeted social safety nets. Self-targeting includes food-forwork programs and public works programs. It can also involve subsidizing lower-quality necessities mainly consumed by the poor, such as brown sugar and coarser rice. Finally, government can protect the poor by limiting subsidies to a fixed low quantity for

#### Köhler announces agreement on strengthened Argentine program

In a news brief issued on December 18, IMF Managing Director Horst Köhler said he was "pleased to announce that the Argentine authorities and an IMF staff team have reached agreement on a strengthened economic program, aimed at boosting the productivity and competitiveness of the Argentine economy and ensuring medium-term fiscal balance. This should improve the investment climate and, together with enhanced domestic and external confidence, lay the ground for sustained economic growth in Argentina.

"I am now prepared to recommend to the IMF Executive Board an increase of Argentina's access to IMF financing by SDR 5.2 billion (about \$6.7 billion) to a total of SDR 10.6 billion (equivalent to about \$13.7 billion at the current U.S. dollar–SDR exchange rate), or 500 percent of quota. Of the total, 100 percent of quota (\$2.74 billion) will be made available under the Supplemental Reserve Facility, with the remainder provided under normal Stand-By terms. The enhanced financial support from the IMF is expected to be complemented by new loan commitments from the World Bank and the Inter-American Development Bank for the next two years, totaling nearly \$5 billion, and a \$1 billion loan from the government of Spain, to be disbursed in 2001, pari passu with the Stand-By Arrangement. A drawing in the

amount of about \$2 billion of the accumulated rights under the existing precautionary Stand-By Arrangement is expected to take place in the coming days.

"I welcome the understanding reached by the authorities with private sector market participants to provide financial support on the order of \$20 billion, of which about \$13.5 billion is expected to be disbursed in 2001.

"The Argentine economy continued to suffer in 2000 from the impact of adverse external and domestic developments, which prevented a sustained recovery of economic activity and set back the government's efforts to reduce the fiscal deficit. The government is responding to these developments through a strengthened growth-oriented economic strategy, aimed at promoting an acceleration of productivity growth and further improvements in competitiveness. The strategy centers on a strong commitment by the federal and the provincial governments to steadily reduce their deficits, reaching balance by, at the latest, 2005; wide-ranging structural fiscal reforms to underpin this commitment; and a broadening and acceleration of the efforts to further modernize and open up the economy. Successful implementation of these policies will also have an important and positive impact in the region," Köhler

The text of IMF News Brief No. 00/117 is also available on the IMF's website, www.imf.org.

each household or by providing cash transfers equal to the loss to poor households resulting from price-subsidy reform.

#### **Political considerations**

When reform targets the poor, middle-class groups may lose. As a result, public support for reforms may erode. Violence may even erupt, though it has been the exception and is often not triggered by subsidy reform alone. To evaluate political risks, policymakers should quantify losses, identify winners and losers, and assess their political strength. Political fallout can be minimized by embedding subsidy reform in a broadly publicized program that engenders broad support and yields widespread benefits.

#### **Key lessons**

The guide draws a number of key lessons from country experiences. Mechanisms for protecting the poor should be established before initiating subsidy reform and should be temporary. The risk of political disruption is highest when rapid reform is attempted with-

Selected I	MF rates			
Week beginning	SDR interest rate	Rate of remuneration	Rate of charge	
December 11	4.70	4.70	5.45	
December 18	4.68	4.68	5.42	
December 25	4.34	4.34	5.03	
January 1	4.60	4.60	5.33	

The SDR interest rate and the rate of remuneration are equal to a weighted average of interest rates on specified short-term domestic obligations in the money markets of the five countries whose currencies constitute the SDR valuation basket. The rate of remuneration is the rate of return on members' remunerated reserve tranche positions. The rate of charge, a proportion of the SDR interest rate, is the cost of using the IMF's financial resources. All three rates are computed each Friday for the following week. The basic rates of remuneration and charge are further adjusted to reflect burdensharing arrangements. For the latest rates, call (202) 623-7171 or check the IMF website (www.imf.org/cgi-shl/bur.pl?2000).

General information on IMF finances, including rates, may be accessed at www.imf.org/external/fin.htm.

Data: IMF Treasurer's Department

Members' use of IMF credit (million SDRs)						
	During November 2000	January– November 2000	January– November 1999			
General Resources Account	214.02	3,088.39	8,906.47			
Stand-By Arrangements	160.58	2,011.68	6,429.07			
SRF	0.00	0.00	3,636.09			
EFF	53.45	1,076.72	1,797.00			
CFF	0.00	0.00	680.40			
PRGF <sup>1</sup>	19.76	393.14	703.83			
Total IMF Credit	233.78	3,481.53	9,610.30			

SRF = Supplemental Reserve Facility

EFF = Extended Fund Facility

CFF = Compensatory Financing Facility

PRGF = Poverty Reduction and Growth Facility

Figures may not add to totals shown owing to rounding.

'Formerly ESAF—the Enhanced Structural Adjustment Facility.

Data: IMF Treasurer's Department

out social protection mechanisms and the government is unpopular. Finally, unrest is minimized through wide consultations, avoiding an undue burden on any single group, and mass information campaigns.

Copies of *Equity and Efficiency in the Reform of Price Subsides:* A *Guide for Policymakers*, prepared by the Expenditure Policy Division of the IMF Fiscal Affairs Department, are available for \$15 each from IMF Publication Services. See page 13 for ordering information.

Photo Credits: Denio Zara, Padraic Hughes, Pedro Márquez, and Michael Spilotro for the IMF, pages 1, 7, 18–20; and the Korea National Statistical Office, pages 11–12.

# IMF determines new currency amounts for SDR valuation basket

In a press release dated December 29, the IMF announced that it had revised amounts for the four currencies that determine the value of the SDR. Effective January 1, 2001, the value of the SDR will be the sum of the values of the following amounts of each currency:

U.S. dollar 0.577

Euro 0.426

Japanese yen 21.0

Pound sterling 0.0984

The decision on the amount of each currency in the SDR valuation basket is the final step implementing the results of the latest review of the method of valuing the SDR (see IMF Press Release No. 00/55, October 12, 2000). Previously, the IMF had determined that the composition of the SDR basket and the weights assigned each currency would be 45 percent for the U.S. dollar, 29 percent for the euro, 15 percent for the Japanese yen, and 11 percent for the pound sterling. The precise amounts of each currency are determined so that the value of the new and existing SDR baskets are the same on the last working day (December 29, 2000) before the new basket comes into effect (January 1, 2001). The actual share of each currency in the valuation of the SDR on any particular day depends on the market values on that day of the fixed amounts of each currency in the basket.

The new SDR interest rate, which will become effective on January 8, 2001, will reflect the new valuation basket as well as the exchange rates and interest rates that prevail at the time of each weekly determination of the interest rate on the SDR. A discrete change in the level of the SDR interest rate may be expected on January 8, 2001, reflecting the changes in the shares of currencies in the SDR valuation basket and the differences in the interest rates on each financial instrument in the basket.

The text of Press Release No. 00/87 is available on the IMF's website (www.imf.org).





#### Stand-By, EFF, and ESAF arrangements as of November 30

Member	Date of arrangement	Expiration date	Amount approved	Undrawn balance	
			· · · · · · · · · · · · · · · · · · ·	on SDRs)	
Stand-By Bosnia and Herzegovina Brazil <sup>1</sup> Cape Verde El Salvador	May 29, 1998 December 2, 1998 February 20, 1998 September 23, 1998	April 28, 2000 December 1, 2001 December 31, 1999 February 22, 2000	39,577.64 77.51 13,024.80 2.50 37.68	13,427.54 24.24 5,969.70 2.50 37.68	
Korea¹	December 4, 1997 July 7, 1999 April 1, 1998 August 5, 1999 July 28, 1999 August 20, 1997	December 3, 2000	15,500.00	1,087.50	
Mexico		November 30, 2000	3,103.00	2,068.60	
Philippines		March 31, 2000	1,020.79	475.13	
Romania		March 31, 2000	400.00	347.00	
Russia		December 27, 2000	3,300.00	2,828.57	
Thailand		June 19, 2000	2,900.00	400.00	
Uruguay	March 29, 1999	March 28, 2000	70.00	70.00	
Zimbabwe	August 2, 1999	October 1, 2000	141.36	116.62	
EFF Argentina Azerbaijan Bulgaria Croatia, Republic of Indonesia	February 4, 1998 December 20, 1996 September 25, 1998 March 12, 1997 August 25, 1998	February 3, 2001 December 19, 1999 September 24, 2001 March 11, 2000 November 5, 2000	11,749.03 2,080.00 58.50 627.62 353.16 5,383.10	6,593.10 2,080.00 5.26 366.12 324.38 1,585.40	
Jordan	April 15, 1999	April 14, 2002	127.88	106.56	
Moldova	May 20, 1996	May 19, 2000	135.00	47.50	
Pakistan	October 20, 1997	October 19, 2000	454.92	341.18	
Panama	December 10, 1997	December 9, 2000	120.00	80.00	
Peru	June 24, 1999	May 31, 2002	383.00	383.00	
Ukraine	September 4, 1998	September 3, 2001	1,919.95	1,207.80	
Yemen	October 29, 1997	March 1, 2001	105.90	65.90	
ESAF Albania Armenia Azerbaijan Benin Bolivia	May 13, 1998 February 14, 1996 December 20, 1996 August 28, 1996 September 18, 1998	May 12, 2001 December 20, 1999 January 24, 2000 January 7, 2000 September 17, 2001	3,800.01 45.04 109.35 93.60 27.18 100.96	1,990.22 23.69 20.93 11.70 10.87 67.31	
Burkina Faso	September 10, 1999	September 9, 2002	39.12	33.53	
Cambodia	October 22, 1999	October 21, 2002	58.50	50.14	
Cameroon	August 20, 1997	August 19, 2000	162.12	36.03	
Central African Republic	July 20, 1998	July 19, 2001	49.44	32.96	
Côte d'Ivoire	March 17, 1998	March 16, 2001	285.84	161.98	
Djibouti	October 18, 1999	October 17, 2002	19.08	16.36	
The Gambia	June 29, 1998	June 28, 2001	20.61	13.74	
Ghana	May 3, 1999	May 2, 2002	155.00	110.70	
Guinea	January 13, 1997	January 12, 2000	70.80	23.60	
Guyana	July 15, 1998	July 14, 2001	53.76	35.84	
Honduras	March 26, 1999	March 25, 2002	156.75	96.90	
Kyrgyz Republic	June 26, 1998	June 25, 2001	73.38	43.00	
Macedonia, FYR	April 11, 1997	April 10, 2000	54.56	27.28	
Madagascar	November 27, 1996	July 27, 2000	81.36	40.68	
Mali	Aug 6, 1999	August 5, 2002	46.65	39.90	
Mauritania	July 21, 1999	July 20, 2002	42.49	36.42	
Mongolia	July 30, 1997	July 29, 2000	33.39	21.89	
Mozambique	June 28, 1999	June 27, 2002	58.80	50.40	
Nicaragua	March 18, 1998	March 17, 2001	148.96	53.82	
Pakistan	October 20, 1997	October 19, 2000	682.38	417.01	
Rwanda	June 24, 1998	June 23, 2001	71.40	38.08	
Senegal	April 20, 1998	April 19, 2001	107.01	57.07	
Tajikistan	June 24, 1998	June 23, 2001	100.30	53.34	
Tanzania	November 8, 1996	February 7, 2000	181.59	0.00	
Uganda	November 10, 1997	November 9, 2000	100.43	26.78	
Yemen	October 29, 1997	October 28, 2000	264.75	114.75	
Zambia	March 25, 1999	March 24, 2002	254.45	244.45	
T-4-1			FF 126 60	22.010.06	

55,126.68

22,010.86

<sup>1</sup>Includes amounts under Supplemental Reserve Facility. EFF = Extended Fund Facility. ESAF = Enhanced Structural Adjustment Facility. Figures may not add to totals owing to rounding.

Data: IMF Treasurer's Department

Total

Arrangements are designed to rectify balance of payments problems that stem from structural problems.

**Extended Fund Facility** 

# Economists consider impact of "new economy" and prospects for its further expansion

There has been much talk, but little consensus, about whether the performance of the U.S. economy through the 1990s reflects a "new economy" and, if so, what that phenomenon entails. IMF economists, in the course of their annual consultations with member countries, have begun looking at "new economy" issues. Paula De Masi, Deputy Division Chief, and Martin Cerisola, Senior Economist, of the Western Hemisphere Department, and Laura Kodres, Senior Economist, and Marcello Estevao, Economist, of the European I Department, discuss the new economy in the United States, Canada, France, Germany, and the United Kingdom.

#### *IMF Survey*: What is meant by the "new economy"?

DE MASI: During the 1990s, strong economic growth in the United States, combined with low inflation and a pickup in labor productivity growth, led many people to label the phenomenon a "new economy." But there's really little consensus on what is different about the U.S. economy or on what the term means.

Discussions have broadly raised three questions: Have there been fundamental changes in the trade-off between inflation and unemployment? Has the pickup in total factor productivity growth been spurred by spillovers and networking between various businesses? And, more narrowly, has technology triggered increased labor productivity growth? People have been puzzled by how U.S. unemployment declined so sharply without triggering inflation. For economists, this suggests that the nonaccelerating inflation rate of unemployment (NAIRU) may have declined, allowing continued strong growth without inflationary pressures. But at present it is very difficult to say whether the outstanding U.S. unemployment performance is permanent or temporary. Another question is whether one firm's investment in information technology (IT) helps other firms become more productive. But networking effects are extremely difficult to measure, and to date there is little solid evidence to suggest that feedback effects are more prevalent across industries now than they were before. Most empirical research has focused on whether the observed acceleration in labor productivity growth is permanent and whether it can be linked primarily to IT.

# *IMF Survey*: What evidence is there, exactly, of a new economy in the United States and what seems to have spurred its development?

DE MASI: Recent studies have linked the pickup in U.S. labor productivity growth to the dramatically expanded production and use of IT that has occurred since the

mid-1990s. Investment in computers and peripherals has surged by an average annual rate of 45 percent—partially driven by sharp declines in computer prices, which fell by about 24 percent a year. The IT sector, which accounts for a relatively small share of overall U.S. GDP, has seen its contribution to output growth double from the first to the second half of the 1990s, rising to a little over 1 percentage point. And U.S. labor productivity growth has surged—picking up by about 1 percentage point to about 21/2 percent a year.

To see the key role of IT in all this, labor productivity growth can be separated into capital deepening-the amount of capital used per hours worked—and total factor productivity growth—that is, such things as improvements in production processes. In the second half of the 1990s, greater efficiencies in producing computers—particularly semiconductors—boosted total factor productivity growth. And sharply lower computer prices encouraged firms across the economy to raise their investment in technology, which contributed to capital deepening and further boosted labor productivity growth. Recent estimates suggest IT accounts for about two-thirds of the observed pickup in U.S. labor productivity growth in the latter half of the 1990s. The bottom line is that the impact of this technology may be a new development, but the process by which it has affected labor productivity growth is the same "old economy" process we have observed whenever new technologies have been introduced into the economy.

### *IMF Survey*: Is this higher labor productivity growth likely to be permanent?

DE MASI: That's a crucial question right now. It's highly uncertain whether strong productivity growth will continue, but there are promising indications that a portion of this accelerated growth rate in productivity will remain, at least in the near future. During a downturn, of course, a deceleration in productivity growth can be expected for cyclical reasons. But since technology appears to be driving the pickup in labor productivity growth and, given the strong rate of investment in technology over the past few years, a sudden drop-off in labor productivity growth is not expected.

# *IMF Survey*: Is this new economy likely to be reproduced elsewhere? And would the United States' major trading partners, such as Canada, be first in line?

CERISOLA: The Canadian economy is highly, and increasingly, integrated with the U.S. economy, but labor productivity has not accelerated in Canada and, given the degree of integration, this is puzzling. Canada has not

experienced the capital deepening that the United States has, nor has it seen an acceleration in trend total factor productivity growth. Cyclical, as well as structural, factors help explain this. The 1990-91 recession was much more severe and prolonged in Canada than in the United States; recovery was significantly slower; and investment in machinery and equipment was affected. Since 1996, however, investment has been as buoyant in Canada as in the United States, but we have not yet seen the upturn in capital deepening that the United States has had. Growth in the past two years has been much more labor-intensive in Canada.

The Canadian economy also faced several important structural changes—free trade agreements and significant deregulation in its telecommunications, transportation, and financial sectors—that have led to corporate restructuring. This restructuring may not only have delayed the recovery, it may also have contributed to the slow growth in total factor productivity, possibly because of significant lags between the restructuring and the gains in production efficiencies associated with it. The gap in labor productivity growth can largely be traced to developments in the manufacturing sector, where the relative importance of the IT sector is signifi-

cantly smaller in Canada than in the United States. We have seen significant adoption of IT in Canada over the past few years, and although Canada is not as important a producer of IT goods as the United States, productivity growth has been strong in many other Canadian manufacturing industries and sectors.

#### *IMF Survey:* What is the prognosis for the development of new economies in Europe?

KODRES: The story there is similar to Canada's. For most of the euro area, labor productivity growth dropped in the latter 1990s. The region has experienced relatively high growth with low inflation in recent years, but it has not yet seen an acceleration in labor productivity growth. Some of this lag may simply be measurement error, however. When data discrepancies are taken into account, much, but not all, of the difference between the United States and Europe disappears.

An important issue is quality-adjusted prices. The United States adjusts for quality in the prices of computers and software, but only a few European countries do. Without quality-adjusted prices, Europe's real investment in IT equipment appears much lower. For example, when the Bundesbank used U.S. price defla-

#### Economic Forum reviews information technology's impact on productivity and economic prospects

On December 12, an IMF Economic Forum examined "The Information Economy: New Paradigm or Old Fashion?" A group of experts representing different viewpoints discussed the impact of information technology (IT) on pro-

> ductivity growth and the prospects of other industrial countries for achieving a U.S.-style economic expansion.

Thomas J.

Duesterberg, President of the Manufacturers Alliance/MAPI, suggested that the "new economic paradigm" could be characterized

as one in which rapid innovation in IT—combined with globalization, deregulation, and a number of other competitive factors—substantially improved business processes and permanently raised the long-run rate of productivity growth relative to the past quarter century.

Duesterberg provided evidence of how new technologies are altering U.S. business practices. Web-enabled real-time information exchanges between businesses, he said, are yielding significant dollar savings and productivity benefits. The automotive industry, as well as other industries that produce highly engineered products, is on the cutting edge of exploiting the Internet's advantages. In all of these industries, there has been a marked decrease in inventory-to-sales ratios and an enhanced ability to customize products and services to customer demands. IT investment has also increased the efficiency and reliability with which industrial parts are machined and lowered the cost of global communications, making it easier for companies to produce in a variety of locations to serve local markets and use global means of production.

Many of the signs of the new economic paradigm, Duesterberg added, are not obvious to the public but are evident in redesigned business practices, streamlined supply chains, flatter management structures, and other fundamental shifts in how goods and services are designed and produced. The impact of these microlevel changes has been an acceleration in labor productivity growth. U.S. corporations are far from having fully exploited the benefits from IT, so future productivity growth, he observed, is likely to remain strong.

Mark Wynne, Senior Economist and Research Officer of the U.S. Federal Reserve Bank of Dallas, considered why, relative to the United States, European economies have adopted technology less rapidly, have grown at a slower rate with higher rates of unemployment, and have not seen an acceleration in labor productivity growth. He cited three key differences in their business environments to explain why this is so. First, the burden of government is greater in Europe than in the United States, and therefore requires higher tax rates to finance greater levels of government spending. Second, European firms tend to operate in a less competitive envi-



Thomas J. Duesterberg (left) and Mark Wynne

tors to recalculate real annual expenditures on information technology since 1991, it found German investment increased to some 27<sup>1</sup>/<sub>2</sub> percent annually versus the 6 percent recorded using its national statistical methodology. When we attempted to adjust for measurement difficulties, we found that the contribution of IT investment to European output was closer to that in the United States and not as low as we had originally thought. European growth may be a bit higher too. But all this said, there are reasons to believe that Europe, even more than Canada, is behind the curve in the new economy, and this may be partly due to smaller sectors for computer production.

ESTEVAO: Even France, which uses a measurement methodology similar to that in the United States, isn't seeing much of a contribution to labor productivity growth from IT. This is Robert Solow's U.S. productivity paradox of the 1980s: computers were everywhere but in the productivity statistics. The answer, of course, was that computers were not everywhere. IT was too small a proportion of total U.S. capital stock in the 1980s to register a presence. Europe is in that situation now. France and Germany have been investing in IT capital, but they got a late start. Give them five years. If

they continue to invest in this way, you will see bigger contributions to productivity growth from capital deepening. We are not going to see much of a contribution from increased total factor productivity growth in the IT sector, however, because, as in Canada, this sector is a very small portion of total production.

Kodres: Europe's lower rates of capital deepening are also associated with very large drops in unemployment and increases in employment. In Europe, much of this increased employment has come at relatively low skill levels. When you integrate lower-skilled labor into the existing capital stock, labor productivity is likely to decline. The mystery is the drop in U.K. labor productivity, where the bias in the composition of employment is not present. But in the United Kingdom, like Canada, the manufacturing sector is the key. Its productivity has been particularly low, with little capital deepening or investment. But the United Kingdom is now seeing a very sharp pickup in productivity in the service sector and in select areas in manufacturing potentially linked to technology.

ESTEVAO: If you look at France, a lot of the deceleration in labor productivity growth is due to a deceleration in capital deepening. Faced with a large pool of

**IMF**SURVEY

ronment than U.S. firms owing to the smaller size of their domestic markets, greater regulation and nationalization of industries, and higher tariff and nontariff barriers to trade. Third, social and cultural attitudes toward entrepreneurship in Europe tend to hinder new business development.

Although Europe has lagged behind the United States in terms of adopting technology and economic performance, Wynne observed that prospects are bright for improved European performance in the future. The continued process of European economic integration will create a single domestic market for European firms that will allow them to reap the efficiencies that have typically been available only to U.S. firms. Moreover, Europe's common currency, by eliminating exchange rate risk, will deepen and strengthen the single market. Already, a pan-European capital market has emerged, he said, that has facilitated a pickup in merger and acquisition activity. A more favorable business environment is emerging—the result of the integration process, the single market, the more market-friendly policies of governments, deregulation, and privatization. Over time, these will facilitate technological innovation and adoption, potentially creating a "new economy" experience in Europe.

Lawrence Mishel, Vice President, Economic Policy Institute, suggested that although Europe had not experienced a recent pickup in productivity growth, economic conditions in Europe, as measured by a number of indicators, may be better there than in the United States. During the 1990s, growth of real annual compensation was stronger in four other Group of Seven countries than in the United States, and while hourly compensation in the manufacturing sector fell in the United

States, it rose in many European countries. He noted that international comparisons of output per hour worked reveal that, as of 1997, Belgium, the Netherlands, France, and Germany had productivity levels equal to that in the United States. Moreover, productivity growth in Europe over the last three decades has increased twice as fast as in the United States. One explanation for the weaker long-term performance of U.S. productivity growth, Mishel said, is that other economies are catching up—assimilating technological improvements pioneered in the United States. The data on

productivity levels suggest that by the mid-1990s several European countries had caught up to U.S. levels, and many others had significantly narrowed the gap.

Mishel challenged the ideas that a large welfare state, labor protection, strong unions, extensive social insurance, and extensive market intervention pose obstacles to European growth and that the U.S. "model" should be emulated in Europe. Europe has been able to catch up to U.S. productivity levels despite the presence of what some consider impediments. Mishel cited the far greater wage and income inequality in the United States and concluded that, as the European experience illustrated, productivity growth does not necessarily entail a widening in income inequality.



Lawrence Mishel

The transcript of the IMF Economic Forum "The Information Economy: New Paradigm or Old Fashion?" is available on the IMF's website (www.imf.org).



Ian S. McDonald Editor-in-Chief Sara Kane Deputy Editor Sheila Meehan Senior Editor Elisa Diehl Assistant Editor Sharon Metzger Senior Editorial Assistant Lijun Li Editorial Assistant Joann Wheeler Staff Assistant Philip Torsani Art Editor/Graphic Artist Jack Federici Graphic Artist

The IMF Survey (ISSN 0047-083X) is published in English, French, and Spanish by the IMF 23 times a year, plus an annual Supplement on the IMF and an annual index. Opinions and materials in the IMF Survey do not necessarily reflect official views of the IMF. Any maps used are for the convenience of readers, based on National Geographic's Atlas of the World, Sixth Edition; the denominations used and the boundaries shown do not imply any judgment by the IMF on the legal status of any territory or any endorsement or acceptance of such boundaries. Material from the IMF Survey may be reprinted, with due credit given. Address editorial correspondence to Current Publications Division, Room IS7-1100, IMF, Washington, DC 20431 U.S.A. Tel.: (202) 623-8585; or e-mail any comments to imfsurvey@imf.org. The IMF Survey is mailed first class in Canada, Mexico, and the United States, and by airspeed elsewhere. Private firms and individuals are charged \$79.00 annually. Apply for subscriptions to Publication Services, Box X2000, IMF, Washington, DC 20431 U.S.A. Tel.: (202) 623-7430, Fax: (202) 623-7201; e-mail: publications@imf.org.

unemployed, France has, since 1993, taken steps to lower labor costs through targeted reductions in labor taxation. Firms have responded by changing their optimal allocation between capital and labor.

Kodres: The United Kingdom also has very low unemployment. We are likely to see increases in labor productivity growth there, because firms will begin to substitute capital for labor as labor becomes more expensive. Germany never experienced the big drop in productivity that France and the United Kingdom did. German productivity gains have traditionally been at the high end of the scale for Europe, and the country has done an excellent job integrating technology into its

manufacturing processes. Germany is known for taking existing theory and putting it into practice and making it work. And they've made it work via the old economy means of integrating new technology into large manufacturing companies.

ESTEVAO: What's striking is that all of these stories are very much old economy stories. The type of capital is different, but the story is very similar. We don't see much hard evidence of changes in business behavior in major European countries. For instance, in contrast to the U.S. experience, total factor productivity growth has not yet picked up. The accompanying total factor productivity gains and lower inflation that are expected to result from Internet e-commerce and business-to-business (B2B) synergies have not really shown up in the data yet, though there is a lot of anecdotal evidence that suggests these synergies are present. So as of now, the little increase in the contribution of IT to output growth in France, Germany, and the United Kingdom has been due to an increase in IT capital deepening. As I said, it's an "old story."

# *IMF Survey*: Are certain policies or environments more conducive to the new economy?

KODRES: Germany, and most European countries, could find it useful to reduce the red tape small businesses face when they start up and to allow greater labor market flexibility. They might also consider giving greater encouragement to venture capital and to moving beyond bank-related financing opportunities. CERISOLA: The literature stresses that new investment and the speed with which it spreads in the economy tend to be linked with flexible labor markets and other issues, such as tax distortions. In Canada, labor markets tend to be very flexible by as suggested the Organization for Economic Cooperation and Development, though aspects of its employment insurance system may have constrained the functioning of its labor market and increased relative labor costs. The tax burden on capital and labor has been very high by



Paula De Masi (left), Martin Cerisola, Laura Kodres, and Marcello Estevao

international standards, especially relative to the United States, and this may have contributed to lower returns on investment. Recently announced reductions in taxes on personal and corporate income and capital, however, will tend to lower tax rates and eliminate some distortions. These steps are likely to encourage even greater investment in, and adoption of, technology.

# *IMF SURVEY:* The United States has been notable for small, innovative start-up companies. Does the small size stimulate enterprise or innovation?

Kodres: It may reflect the size of the country and the way enterprises are organized. A lot of small start-ups fail, but a good chunk of them are bought out. The ability to buy out a company or dissolve it is less common in continental Europe or even the United Kingdom.

### *IMF Survey*: Is a U.S.-style acceleration in productivity growth likely in Europe?

ESTEVAO: Probably not to the same degree, at least as long as Europe is not a major producer of computers and hardware. And the timing of an acceleration will depend on when the integration of lower-skilled workers comes to a natural halt. Policymakers have been focusing, rightly, on incentives to hire. And the tax burden is still quite high in many European countries. In the U.S. economy, people are paid a lot for a lot of work. But in France, this is taxed heavily. So we are not able to close this story yet. We see high rates of investment in France, but impediments to start-ups and relatively rigid labor markets.

Kodres: There appear to be lower levels of entrepreneurship in Germany and the United Kingdom, compared to the United States, but I am optimistic, given their histories of adopting new technologies and integrating them into manufacturing and the service industry. It will be a long, slow process, and we will have trouble seeing it in the data, but over the next five years, we will probably see a significant introduction of IT in Europe and a pickup in labor productivity growth.