

II. PRINCIPAL OUTPUTS AND PROCEDURES ASSOCIATED WITH MULTILATERAL SURVEILLANCE

This background document presents an overview of the IMF's principal outputs and procedures associated with multilateral surveillance, including some of those associated with regional surveillance. The list of outputs is not meant to be exhaustive. In fact, the IMF is involved in many other multilateral surveillance activities of varying degrees of importance, including speeches delivered by management and senior officials, research papers prepared on global and regional issues, and occasional Executive Board papers on systemic themes. There is also the Annual Report, which reports on the activities of the Executive Board. Although the main purpose of the Annual Report is to establish the accountability of the Executive Board to the Board of Governors and to the public at large, it does contain some multilateral surveillance elements. Without diminishing the importance of these and other outputs, we will not consider them here, in part because their multilateral surveillance components are largely a by-product of the activities we discuss below.

We present the key outputs and procedures in the following order. First, we discuss the IMF's global reports, the WEO and the GFSR. Second, we discuss internal exercises, including the vulnerability exercise, the CGER, WEMD, FMU, Financial Systems Trends (FST), commodity market updates, and the Global Markets Monitor (GMM). Third, we take up the IMF's contributions to major international forums, including intergovernmental groups (such as the G-7 and the G-20), Working Party 3 of the OECD, the FSF, and various Basel-based committees. Fourth, we review the principal outputs of area departments' regional work. Fifth, we look at the analytical tools used in support of multilateral surveillance. Finally, we describe the IMF's database for multilateral surveillance. An overview of the global reports, internal exercises, and contributions to some multilateral forums is provided in Table 2.1.

A. Global Reports

The World Economic Outlook

Prepared by RES, the WEO is published twice a year and timed to provide input to the April and September meetings of the IMFC (see Box 2.1 for an evolution of the WEO). Although the report is cleared by management and discussed by the Executive Board, it is published with a disclaimer that "projections and policy considerations are those of the IMF staff and should not be attributed to Executive Directors or to their national authorities." The report is accompanied by a statistical appendix that provides historical data, short-term forecasts of GDP, inflation, balances of payments and fiscal variables, and a medium-term baseline scenario for groups of countries.

Box 2.1. Evolution of the WEO 1/

The WEO originated in 1969 as a background document for informal discussion by the Executive Board and remained, throughout the 1970s, an internal exercise at the IMF intended to provide information to staff and member countries confidentially. In 1971, the Executive Board began holding regular informal discussions of the WEO. By the mid-1970s, the WEO formed the basis for surveillance discussions at meetings of groups of IMF Governors, which were successively known as the Group of Twenty and the Interim Committee. By the late 1970s, “the WEO exercise had developed into a major Fund-wide forecasting project, complemented by analysis of key trends and policy developments.”

The decision to publish the WEO was made in 1980, and the first published version appeared in May of that year. When a summary of the WEO was leaked two years earlier, the resulting media coverage had indicated the desirability of making the projections and policy analysis available to the public. When the Managing Director, sensing that the time was ripe, proposed that the WEO be published, there was no serious opposition from the Executive Board. Four years later, in 1984, “public interest warranted” making the publication semiannual. The semiannual publication schedule has remained ever since.

From the first discussion of publication, tension arose between the staff and the Executive Board regarding the balance between “forthrightness and sensitivity to members’ political concerns.” There was a concern that the WEO might include data on member countries that their authorities did not wish to have published; critical comments from the IMF about members’ policies might also compromise the willingness of the national authorities to discuss confidential policy issues with IMF staff. An unwritten rule was said to have been agreed on the side of secrecy in these cases: Executive Directors were given the opportunity to delete any statement or data referring to their own countries prior to publication. As a result, objections by Board members often resulted in pointed recommendations becoming blurred and entire draft chapters were occasionally deleted before publication.

The world has greatly changed over the past quarter of a century. The amount of country-related information available to the public has increased substantially. With a greater call for accountability in public institutions, the IMF and many of its member countries have accepted the presumption that all country documents, including the staff reports for Article IV consultations, should be published. Under these circumstances, the WEO can now be expected to contain little surprise to the public, and it has become increasingly rare for the Board to request changes to the draft text.

1/ This is largely based on Boughton (2001), pp. 227–232. All the quotes are from this source.

The forecasting process commences with the U.S., Japan, euro area and U.K. desks providing six-month LIBOR projections, and RES making an assumption on oil prices. Using these initial assumptions, the staff responsible for key countries produces its initial forecasts, which in turn allow RES to forecast the export prices of nonfuel commodities. In addition to the global commodity assumptions, RES also releases Global Economic Environment (GEE) data, which include projections for individual countries.

RES takes the lead in the production of the WEO, frequently interacting with area and other functional departments to ensure the basic global consistency of forecasts. Other functional departments regularly contribute sections, boxes or other material. In addition, RES regularly communicates with ICM, which is responsible for the other main product, the GFSR (described in greater detail below). The two departments exchange their initial outlines early in the production process in order to avoid unnecessary overlaps, and at various stages cooperate on data and messages.

Table 2.1. Key Outputs and Procedures Associated with Multilateral Surveillance

Title	Coverage	Typical length	Frequency	Dissemination	Responsible department(s)
Global reports					
World Economic Outlook (WEO)	Global	200+ pages	Semiannual (normally April and September)	Public	RES
Global Financial Stability Report (GFSR)	Systemically important markets	200+ pages	Semiannual (normally April and September)	Public	ICM
Internal exercises					
Vulnerability Exercise (VE)	About 50 emerging markets		Semiannual	Internal, restricted	Area departments, PDR, RES, ICM, FAD, MFD, STA
Coordinating Group on Exchange Rate Issues (CGER)	Major industrial countries	5–10 pages of text + 8 pages of tables/graphs	Semiannual	Internal, including Executive Directors	RES, PDR
World Economic and Market Developments (WEMD)	Global	Oral + 60 page handout of tables and charts	5–6 times per year	Executive Board	RES
Financial Market Update (FMU)	Systemically important markets	12–14 page update of GFSR	Semiannual (normally June and November)	Internal, on-line	ICM
Financial Systems Trends (FST)	Global, banking and insurance	25–30 pages	Semiannual	Internal, restricted	MFD
Commodity market updates	Global	Varies, 1–10 pages	Daily to quarterly	Data are public	RES
Global Markets Monitor (GMM)	Global	Varies, 4–12 pages	Daily	Internal	ICM
Contributions to multilateral forums					
IMF input into intergovernmental groups (e.g., G-7 and G-20)	Global and regional		Periodic	Restricted	RES
IMF input into other international forums (e.g., WP3 and FSF)	Global and regional		Periodic	Restricted	RES, ICM, MFD
IMF input into the Basel-based committees	Global and regional		Periodic	Restricted	ICM, MFD

The Global Financial Stability Report

The GFSR, which succeeded the International Capital Markets Report and the Emerging Markets Financing, presents the views of IMF staff on potential weaknesses in the global financial system. A statistical appendix presents tables and graphs on financial market variables in industrial countries and emerging markets, with the data obtained from both external and internal sources, including the WEO, BEL,⁴ and Financial Soundness Indicators databases. Like the WEO, the GFSR is cleared by management and discussed by the Executive Board, but it is published with a disclaimer that “the analysis and policy considerations are those of the contributing staff and should not be attributed to the Executive Directors, their national authorities, or the IMF.”

In choosing the issues to cover, ICM consults with the private sector and regulators; meetings in conjunction with capital market missions and intergovernmental forums are used for this purpose. In the preparation of the report, moreover, the GFSR extensively draws information from ICM’s regular informal contact with market participants, including commercial and investment banks, hedge funds, securities companies, pension funds, stock and futures exchanges, and credit rating agencies. In contrast with the WEO, however, the involvement of the IMF’s other departments is limited, except for a section on banking sector issues contributed by MFD.

B. Internal Exercises

Vulnerability Exercise

The vulnerability exercise, initiated in 2001 as a quarterly exercise to identify key vulnerabilities and crisis risks, is a semiannual interdepartmental activity that covers about 50 emerging market economies. The output of this exercise is a confidential report to management, drafted by PDR but also signed off by RES and ICM, which summarizes the staff’s assessment of macroeconomic, financial, fiscal and external vulnerabilities as well as political risks. (Near-term crisis risks are assessed quarterly for a subset of countries with high vulnerability rating.) The rating of crisis vulnerability is based on quantitative indicators—the global outlook and corporate sector vulnerability (provided by RES), market sentiment on exchange rates and default risks (ICM), banking sector vulnerability (MFD), vulnerability in the public sector for selected countries (Fiscal Affairs Department, FAD), and external sector vulnerability (PDR). Although the report is not shared with the Executive Board, staff’s assessments could be presented to the Board as part of WEMD sessions (see below).

⁴ Bonds, Equities and Loans database. The BEL database contains information on international primary issuance in numerous asset classes, such as equities, loans, loan facilities, bonds, fixed income facilities and other fixed income instruments.

Coordinating Group on Exchange Rate Issues

The CGER was established in 1995 as an interdepartmental working group to assess the likely medium-term path of major country exchange rates, and to identify any significant misalignments that might occur. The main output of CGER is a semiannual report on the exchange rates of the euro area and 10 industrial countries (the United States, Japan, the United Kingdom, Switzerland, Canada, Australia, New Zealand, Norway, Sweden, and Denmark), the preparation of which is timed to coincide with the WEO forecasting cycle. RES and PDR co-chair the CGER, but RES's Economic Modeling Division takes the lead in preparing a major portion of the report. The report is circulated to management and department heads; following management clearance, a portion of the report is also given to Executive Directors for information. The assessments of CGER are expected to provide inputs into exchange rate surveillance by country teams in the context of Article IV consultations, and its coverage is being expanded to include emerging market economies.

World Economic and Market Developments

The WEMD exercise is a periodic updating of world economic and market developments by the IMF's Economic Counselor, aimed at informing the Executive Board. The Executive Board's WEMD session normally takes place five times a year, with another session added if warranted by global developments; sessions in June and November are coordinated with ICM, which simultaneously prepares a Financial Market Update (see below). The Board presentation is made orally by the Economic Counselor, supported by a one-page summary of the global outlook and issues for Board discussion and some 60 pages of tables and graphs. The views expressed, including on risks and potential policy responses to those risks, represent the personal judgment of the Economic Counselor and do not require management clearance before the Board discussion.

The WEMD process starts with a brainstorming session within RES and, when the WEMD is done jointly with ICM, includes RES discussions with ICM early on to coordinate how the macroeconomic and capital market aspects will be covered. An "issues for comment" outlining current developments and proposing issues for Board discussion is circulated to other departments, including PDR, ICM, MFD, the Finance Department (FIN), the Secretary's Department (SEC), and area departments. This document accompanies a set of tables and graphs that are sent to Executive Board members some days before the Board presentation. RES makes a "dry run" presentation to representatives from relevant departments to receive any final comments before the Board session.

Financial Market Update

The FMU is a 12–14 page note prepared by ICM in June and November to summarize developments in global financial markets following the latest GFSR. The note is published on the IMF's intranet and, as such, is available to all staff. The preparation of each issue coincides with the June and November WEMD sessions. The FMU does not involve a formal internal review process within the IMF, so that it is strictly an ICM take of market

developments over the most recent quarter. It is presented to the Executive Board before it is finalized and placed on the intranet.

Financial Systems Trends

The FST is a semiannual 25–30 page document on global and regional banking and insurance trends, prepared by MFD in March and September. It is intended to provide input to relevant country desks regarding vulnerabilities to contagion, and at a greater frequency than can be done through the regular Article IV cycle. It evolved out of the Quarterly Financial System Review, which were tied to the (then quarterly) vulnerability exercise. Explicit country rankings were removed from what eventually became the FST, and are discussed only in the context of the (now semiannual) vulnerability exercise. The focus is on countries with potential vulnerability concerns, though large systemically important countries are also covered. The FST distills information obtained in the course of MFD's bilateral surveillance work into lessons on cross-country themes. It is reviewed by ICM and area departments and released around the same time as the WEO and the GFSR.

Commodity Market Updates

What we call commodity market updates refers to a series of notes and reports prepared by RES's Commodities Unit, which is charged with the task of maintaining a database of principal commodity prices and producing their forecasts. These notes and reports include a WEO appendix on commodity market developments, a quarterly report on OPEC production and semiconductor markets, a weekly report on the oil market, daily email updates on oil market developments, and a fortnightly report on non-oil commodities. Oil price projections, an integral part of the WEO global assumptions, are based on information from futures markets. Forecasts for other commodities are produced two or three times in each WEO cycle, usually jointly with the World Bank. The IMF and the World Bank complement each other, with the IMF paying greater attention to commodities with large weight in world trade, and the World Bank to those which are particularly important for low income countries. The Bank and the IMF each follow about 70 commodities.

Global Markets Monitor

The GMM is an internal report prepared daily by ICM. Depending on the content, its length varies from as short as a few pages to over 10. It summarizes major global market developments in different market segments and also occasionally presents ICM's interpretations and analysis of current issues. It is made available internally at ICM's website.

C. Contributions to Multilateral Forums

Intergovernmental groups

The Research Department regularly prepares "surveillance notes" for key multilateral forums to which the IMF is invited to attend, such as the G-7 and the G-20; other departments may

contribute additional pieces, when relevant. G-7 ministerial meetings take place four times a year on average, and G-20 ministerial meetings are held once a year. The Managing Director usually attends these ministerial meetings. G-7 and G-20 deputies' meetings are also held regularly, and the IMF is represented by the First Deputy Managing Director or other senior officials.

The surveillance note for a particular meeting is usually requested by its secretariat or the country holding the chairmanship. The notes are subject to an internal review process and must be cleared by management before transmitted, through the Executive Directors, to the relevant authorities. These intergovernmental group meetings come up at regular intervals. Given the proximity of many of these meetings, a note usually does not differ too much from the preceding one in terms of the description of global economic developments and prospects, and some officials may understandably find them rather repetitious. Staff does its best to respond to last-minute requests for additional material on a particular issue, but what it can do is limited by the lack of adequate infrastructure within the IMF.

Other international forums

Multilateral surveillance also takes place at the OECD's Economic Policy Committee (EPC) and two of its working parties (WP1 and WP3). While IMF staff attends all of these meetings, it is only at WP3 that the IMF is represented at a very senior level, usually the Economic Counselor. WP3 meetings, which typically last a full day, consist of three sessions covering: (i) the short-term economic outlook; (ii) policy questions at the current juncture; and (iii) special themes (e.g., global imbalances). For each session, the lead discussant is designated ahead of the meeting. The IMF's role is to help inject a global perspective.

WP3 covers only the G-10 countries, and constitutes one of the few groups in the OECD where attendance is restricted to a subset of its members. As a consequence, WP3 has a higher profile than the EPC itself, with the participation of Vice Ministers or their equivalents. In addition, representatives from the IMF, the ECB, the European Commission, and the OECD also attend. The fact that no decisions are taken contributes to a lively and frank exchange of views at WP3. According to senior officials interviewed by the evaluation team, meetings of WP3 have evolved into a useful dialogue between Europe, the United States, and Japan on policy issues of mutual interest, and the discussion informs decisions taken at home.

The Financial Stability Forum brings together senior officials responsible for financial stability in major countries to identify emerging issues. It was established by the G-7, but also includes the central banks of the Netherlands, Hong Kong SAR, Singapore, and Australia, as well as some international organizations and committees. The FSF meets twice a year, typically in March and September. In addition, there are ad hoc "regional" meetings to which the authorities of a particular region are invited. The IMF has two seats and is usually represented by the Directors of ICM and MFD, who subsequently prepare a formal information note to the Executive Board. The IMF provides background documents to the forum, and IMF representatives are invited to make a presentation on global macroeconomic

developments. A Deputy Director of ICM attends a vulnerability discussion, which is held about a month before the full meeting.

Basel-based committees

The IMF is a member of several standard-setting committees, including the Basel Committee on Banking Supervision and its Core Principles Liaison Group, the International Association of Insurance Supervisors (IAIS), the Financial Action Task Force (FATF), the Committee on Payment and Settlement Systems, and a committee of the International Organization of Securities Commissions (IOSCO). Although standard setting may not be what is normally considered to be a multilateral surveillance activity, it nonetheless constitutes a vehicle through which the IMF contributes to creating a more stable international financial system. The IMF is uniquely qualified to provide inputs to this process because of its extensive bilateral surveillance and technical assistance work in the financial sectors of a large number of countries outside the G-10.⁵

The IMF contributes to global standard setting work in two ways. First, it brings global and emerging market perspectives to what is largely a G-10 process. In recent years, the IMF has also communicated its formal views to the standard setting bodies through the Executive Board at least once a year for each set of standards. On occasion, IMF representatives are included in these bodies' drafting committees. Second, the IMF helps to disseminate the work of the standard-setting bodies to countries that are not represented. To this end, MFD has sometimes collaborated with Basel-based bodies to arrange meetings between a core group of assessors and non-G-10 supervisors. Within the IMF, MFD provides training for area department staff on the practical application of the globally accepted standards.

D. Regional Work

Regional work by area departments takes several forms and works through various vehicles, including occasional cross-country analytical work and regional policy discussions with national authorities. Area departments have expanded their regional work in recent years and announced their intention to make further efforts in this area.⁶ Two types of regional work have become increasingly formalized: surveillance of currency unions and regional outlooks (Table 2.2). Of the two, the former has a strong bilateral orientation because it covers the monetary and exchange rate policies of member countries that have been delegated to regional institutions.

⁵ Such work includes the preparation of Reports on Standards and Codes (ROSCs) and FSAP exercises.

⁶ As noted in the respective FY2006 business plans for AFR (para 10), APD (paras 12 and 15), EUR (paras 4, 12 and 14), MCD (para 13), and WHD (introduction and para 7).

Table 2.2. Key Regional Work Outputs

Surveillance activity	Frequency	Dissemination	Responsible department(s)
Euro Area Article IV	Annual, with 6-monthly update	Staff report public since 1998	EUR
WAEMU	Annual	Report public since 2001	AFR
CEMAC	Annual	Report public since 2003	AFR
ECCU	Annual, with 6-monthly update	Report public since 2004	WHD
Sub-Saharan Africa Regional Economic Outlook	Annual, with update	Public	AFR
Middle East and Central Asia Regional Economic Outlook	Annual since 2005, replacing earlier semiannual Middle East and North Africa report and part of CIS report.	Public	MCD
Asia-Pacific Regional Outlook	Semiannual since 2004, 3 times a year 2001–03	Public since 2005	APD
Latin American and Caribbean Regional Outlook	Annual public dissemination, with internal updates 2-3 times a year	Public since 2005	WHD

As to the surveillance of currency unions, drawing on the experience with euro area surveillance, a decision was recently adopted by the Executive Board to formalize discussions with the regional institutions of the Central African Economic and Monetary Union (CEMAC), the Eastern Caribbean Currency Union (ECCU), and the West African Economic and Monetary Union (WAEMU) in the context of the Article IV process.⁷ In all these cases, staff reports summarizing the discussions with the regional institutions are prepared. As to regional outlooks, four area departments are involved. AFR, APD, and MCD recently began to publish comprehensive outlooks for their respective regions (consisting of a review chapter and some analytical chapters), while WHD makes a more focused report electronically available to the public.

In addition, there are regional outreach efforts. In 2005, area departments took initiatives to promote the regional dissemination of the main messages of the WEO. In the weeks following the release of the WEO in September 2005, area departments held a number of seminars in different regions of the world, to which they invited officials, academics, market participants, and representatives of the press. These presentations were meant to reinforce the key messages of the WEO by drawing its regional implications. In some cases, regional outlooks (or updates of them) were distributed in connection with these meetings.

⁷ See “Fund Surveillance Over Members of Currency Unions,” SM/05/429, December 2005.

E. Analytical Tools Used in Multilateral Surveillance

At least three sets of analytical tools support multilateral surveillance. First, the approach used in the vulnerability exercise is based on the analysis of 20 indicators of vulnerability in four sectors: external, public, financial and corporate. Using some thresholds, the methodology assigns the rating of high (H), medium (M) or low (L) to a country for each indicator; a weighting scheme is then used to come up with the final indicator-based rating for the country. While most of the indicators used for this exercise are widely accepted in the literature, use is also made of metrics contributed by the IMF staff's original analysis, including the CGER's assessment of the medium-term paths of major currency exchange rates (see below) and MFD's assessment of data quality and institutional weaknesses in the financial sector. The final rating is given by area departments based on their judgment of country-specific factors, including political risk. A major weakness of this methodology concerns the arbitrary choice of thresholds and weights. Further work is under way to strengthen the empirical basis of vulnerability rating.

Second, two approaches to specify equilibrium conditions are used in the CGER: purchasing power parity (PPP) and macroeconomic (saving/investment) balance. The PPP approach assumes that the real effective exchange rate will be stable over the medium term. The macroeconomic approach estimates the required real exchange rate adjustment by projecting a medium-term saving/investment balance that is consistent with economic fundamentals. This is a multilateral exercise in the sense that real exchange rates are assumed to adjust to clear, for each country simultaneously, the difference between the medium-term equilibrium saving/investment balance and the underlying current account position.⁸

A final major set of analytical tools is the use of global models. Two models have mainly been used in the IMF for policy simulations: MULTIMOD and, more recently, the Global Economy Model (GEM). MULTIMOD is a conventional reduced-form model consisting of several regions, in which global consistency is imposed on the determination of key endogenous variables. GEM is a stochastic dynamic general equilibrium model based on the microeconomic theory of optimizing economic agents (Box 2.2). In both models, the parameters are empirically calibrated to allow policy simulations to generate historically consistent numerical results. Each has its strengths and weaknesses, but the newer GEM has in recent years become the principal tool of policy simulation in the IMF because of its firmer theoretical basis.

⁸ See Isard et al. (2001) for an exposition of this approach.

Box 2.2. Global Models at the IMF

The main role of global models at the IMF has been to generate alternative scenarios, and more recently to analyze the impacts of structural reforms. Their role in producing projections has been limited, as the baseline projections of the WEO remain by and large compilations of the judgments of country desks. A succession of global general equilibrium models have been developed at the IMF, from MERM and WTM in the 1970s to MINIMOD in the 1980s to successive versions of MULTIMOD through the 1980s and 1990s, to the Global Economy Model (GEM) today. 1/

Early global models had blocks for two regions, namely, the U.S. and the rest of the world. This framework was eventually expanded to include separate blocks for Japan, the euro area, the United Kingdom, Canada, small industrial countries, oil exporters, and less developed countries. Paradigm changes have shifted the focus recently from a long-run steady-state analysis (in MULTIMOD) to a dynamic general equilibrium perspective based on microeconomic theory (GEM).

Briefly, MULTIMOD consists of sets of steady-state equations, the parameters of which have been calibrated to match historically observed data outturns. A global consistency mechanism relates real exchange rates to current account flows, and interest rates to a global saving/investment balance. The gradual closing of identified gaps between the starting point and the (assumed) long-run steady state permits an internally consistent analysis of the global effects of policy changes, subject to the usual caveats of uncertainty surrounding the starting point, the model, and the data. 2/

Policy response scenarios specify both monetary and fiscal policy measures. MULTIMOD's treatment of monetary policy is rules-based and nonactivist, taking into account long lags between monetary policy measures and their impact on the real economy. Alternatives for monetary policy specifications include money targets, fixed exchange rates, and inflation forecast-based rules. Fiscal policy aspects are government absorption, distortionary and nondistortionary capital and labor taxes. The fiscal dimension has been considered a relative strength of MULTIMOD.

WEO analysis has made use of MULTIMOD to assess alternative scenarios and policy issues, such as the unwinding of global imbalances among large countries under different assumptions of policy measures taken. Other issues analyzed have included assessing the impact of oil price increases, interdependence among industrial countries, and productivity shocks related to IT developments. Model-based policy discussions in the WEO have occasionally been extended to bilateral surveillance, particularly for large industrial countries. MULTIMOD's weaker theoretical basis and its reliance on backward-looking expectations, however, imply greater susceptibility to drawing misleading policy inferences.

In contrast, GEM is a stochastic dynamic general equilibrium model that imbeds behavioral elements from microeconomic theory, designed to address the Lucas critique (i.e., reduced-form parameters are endogenous to the environment in which economic agents operate). At least in principle, GEM's framework makes it possible to draw more robust behavioral inferences in simulations of shocks that differ from what has ever been observed before, or more generally where time-series data are very limited. Estimation only enters the picture in calibration, and VAR analysis is used to construct confidence intervals for conclusions. A Bayesian approach is used for sensitivity analysis and to estimate parameter uncertainty. Unlike MULTIMOD that relies on reduced-form equations for trade links, GEM uses consumer preferences and adjustment costs underpinning demand and supply.

Yet, financial and fiscal aspects have been a weakness of GEM. Given the difficulty of incorporating multiple asset markets into general equilibrium models, GEM has no domestic financial sector, and monetary policy is specified as an interest rate feedback rule. To be able to analyze monetary policy better, RES is currently working with several area departments on a small monetary policy model. RES has also been cooperating with other departments on improving fiscal dimensions of GEM, which initially assumed full Ricardian equivalence with no impact on aggregate demand. A parallel Global Fiscal Model (GFM) has introduced liquidity constraints to the model; sticky wages and prices are being introduced to make GFM compatible with the current structure of GEM (for details, see Bayoumi et al., 2004; and Botman et al., 2006).

Use of GEM in multilateral surveillance began in 2003, with a quantitative assessment of labor and product market reforms in the euro area, but it has more recently become an important tool of alternative scenario analysis. In addition, GEM is becoming a popular tool for bilateral surveillance. GEM-based monetary policy analysis is also evolving.

1/ For a discussion of the early development of global models at the IMF, see Boughton (2001, pp. 254–261) and the references contained therein.

2/ Masson et al. (1990), Laxton et al. (1998), and Isard (2000) provide greater details on the model and its use in policy issues.

F. The IMF's Database for Multilateral Surveillance

The IMF has established in recent years three databases to support its work on multilateral surveillance, including the Global Data Source (GDS); the Bond, Equities and Loans (BEL) database; and corporate sector data. GDS, maintained by RES, provides high frequency data for advanced and systemically important countries; BEL, maintained by ICM, focuses on capital markets in a large number of developing countries, including emerging market economies. The data on the corporate sector are collected by both ICM and RES. These data sets are used in multilateral surveillance work, in conjunction with the IMF's standard economic and financial databases, particularly the *International Financial Statistics* and country desk data.

GDS supersedes earlier efforts to build a high frequency database in the IMF, which began in the mid-1980s. The initial focus was on collecting quarterly (then monthly) data for G-7 countries before the scope expanded to include major emerging markets in the second half of the 1990s. Currently, GDS covers about 50 major industrial and other systemically important countries, and includes macroeconomic, financial market, and commodity market variables. Weekly updates of data collected from internal and external sources enable an informed survey of developments, and allows IMF staff to make cross-country analysis on a consistent basis. A summary of a weekly update is circulated both within RES and to selected individuals outside the department, and is available to all IMF staff electronically.

On the financial market side, BEL provides up-to-date and high frequency information on the capital markets of 172 countries, obtained through a commercial source. The database includes public and private transactions in equity, fixed income and syndicated loan markets, covering maturities, spreads and other specifics. It is updated frequently (daily for bonds and equities and weekly for loans) and is available from the early 1980s, though in varying degrees of quality and completeness. In addition to ICM and RES staff, a large number of IMF economists make use of this dataset. Part of the data is also reproduced as a statistical appendix to the GFSR.

Finally, the multi-country data on the corporate sector consist of two datasets separately maintained by ICM and RES. While both aim to follow developments in the corporate sector in major countries, and both aim to assess corporate sector vulnerability by use of balance sheet information, the two initiatives remain separate efforts at the present. The ICM data primarily concerns the external vulnerability of the corporate sector in emerging markets and goes back to 1990. The RES data, known as Corporate Vulnerability Utility (CVU), provides selected indicators of the following four risks for the corporate sector in industrial countries and emerging markets: external financing, international business cycle, balance sheet, and default. The data on the balance sheets start in 1990 and are updated quarterly. Both ICM and RES efforts mainly feed into the vulnerability exercise (in which industrial countries are not included).