

---

REPORT BY THE U.S.

# General Accounting Office

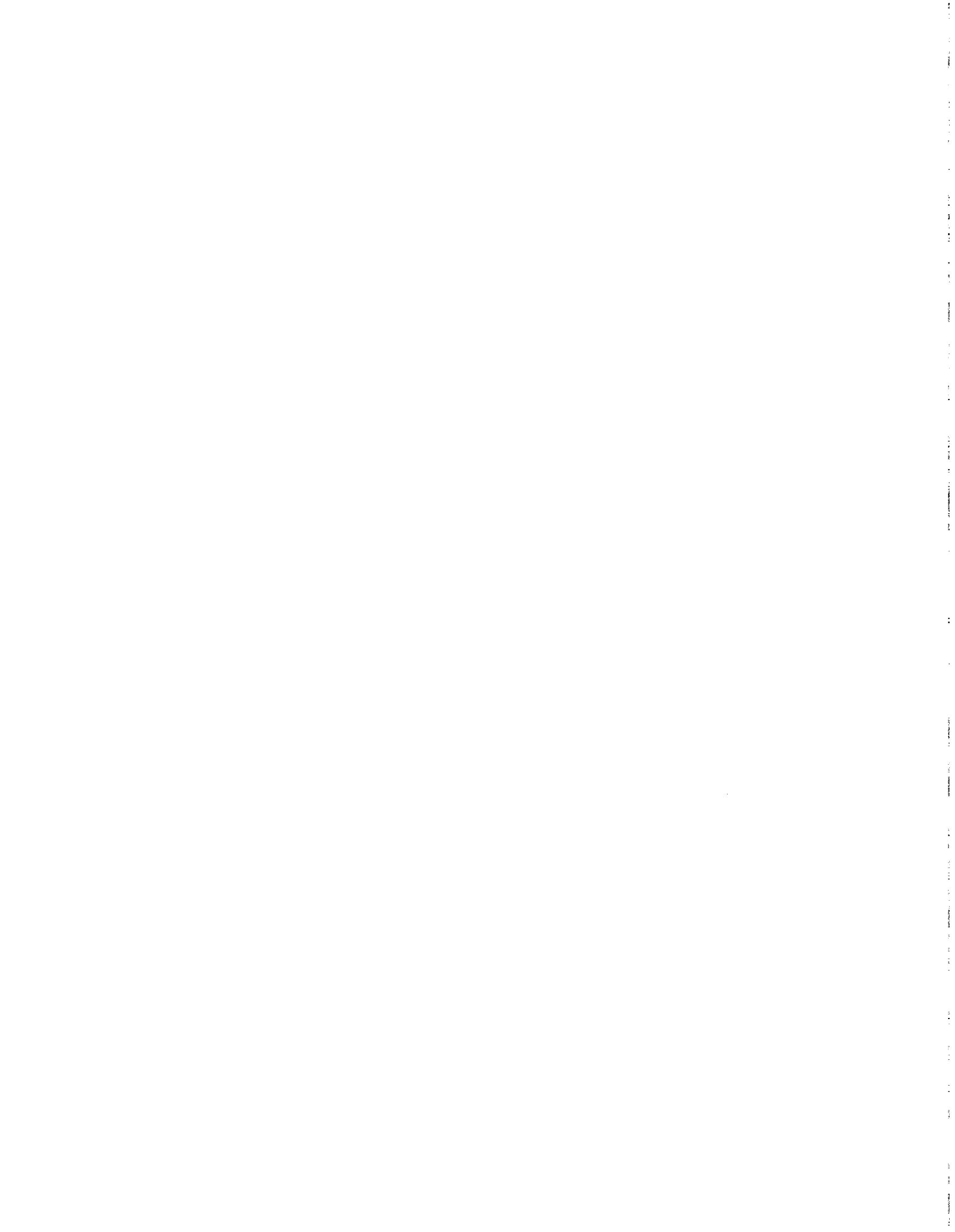
---

## Bank Examination For Country Risk And International Lending

The U.S. bank regulatory authorities have adopted a uniform examination system for evaluating and commenting on country risk to U.S. banks with relatively large foreign lending. GAO found that the system's objectives need to be better communicated, its standards and administration are good but could be improved, and its impact is questionable.



GAO/ID-82-52  
SEPTEMBER 2, 1982





UNITED STATES GENERAL ACCOUNTING OFFICE  
WASHINGTON, D.C. 20548

INTERNATIONAL DIVISION

B-207990

The Honorable C. T. Conover  
Comptroller of the Currency

The Honorable Paul A. Volker, Chairman  
Board of Governors  
Federal Reserve System

The Honorable William M. Isaac, Chairman  
Federal Deposit Insurance Corporation

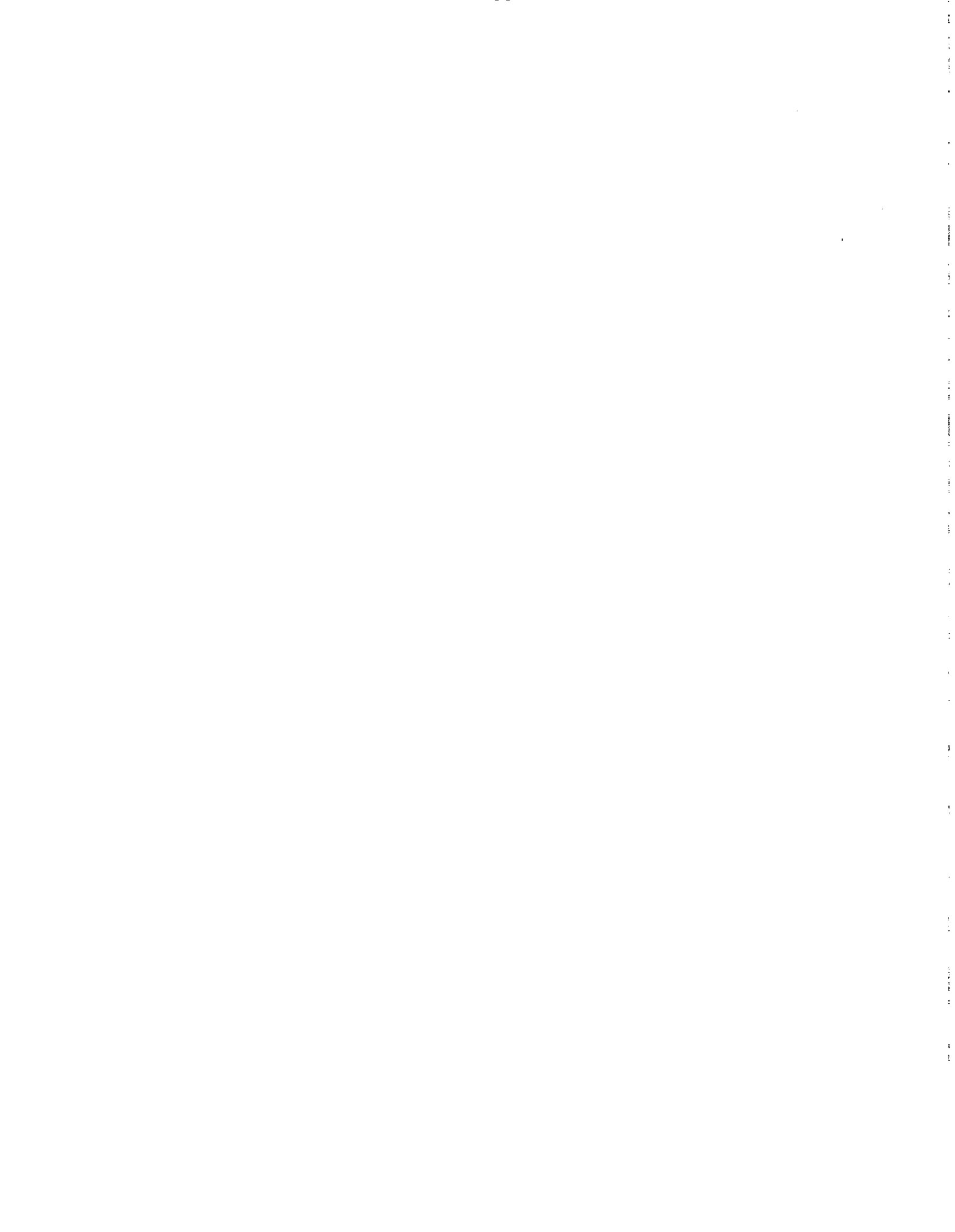
This is our report on the uniform examination system for evaluating and commenting on country risk to U.S. banks with significant foreign lending. The system, adopted by the Office of the Comptroller of the Currency, the Federal Reserve, and the Federal Deposit Insurance Corporation as part of the broader bank examination process, became effective in the spring of 1979.

Throughout the report, we have made recommendations to you for making the system more effective. As you know, section 236 of the Legislative Reorganization Act of 1970 requires the head of a Federal agency to submit a written statement on actions taken on our recommendations to the House Committee on Government Operations and the Senate Committee on Governmental Affairs not later than 60 days after the date of the report.

We are sending copies of this report to the Director, Office of Management and Budget; House and Senate Committees on Appropriations; House Committee on Government Operations; Senate Committee on Governmental Affairs; and other cognizant congressional committees and subcommittees.

*Frank C. Conahan*

Frank C. Conahan  
Director



D I G E S T

A high level of international lending is needed to support international economic growth and to expand U.S. exports. However, increased international lending has intensified exposure of U.S. banks to country risk--the possibility that adverse economic, social, or political circumstances may prevent a country's borrowers from making timely (or in the extreme, any) repayment of interest or principal.

The U.S. bank regulatory authorities--the Office of the Comptroller of the Currency, the Federal Reserve, and the Federal Deposit Insurance Corporation--as part of the broader bank examination process, have adopted a uniform examination system for evaluating and commenting on country risk to U.S. banks with relatively large foreign lending. The system, which became effective in the spring of 1979, in essence consists of identifying countries with actual or potential debt-servicing problems, calling loans to these countries to the attention of bank management in examination reports, and evaluating bank internal country exposure management systems. Information in examination reports about countries with potential debt-servicing problems (known as "weak" and "moderately strong" countries), where bank loans are above certain levels in relation to capital, is referred to as "special comments." The system is advisory for banks. (See p. 1.)

The Interagency Country Exposure Review Committee, composed of representatives of each of the three bank regulatory agencies, subdivides 75 monitored countries into four groups: those with actual or imminent debt-servicing difficulties and those categorized as weak, moderately strong, and strong. It also prepares country developments descriptions for bank examiners to use in commenting on bank exposures, and it has prepared guidelines and procedures for bank examiner analyses of banks' systems for managing country exposures. (See pp. 3, 5, and 6.) GAO assessed major aspects of the uniform country risk examination system's objectives, standards, administration, and impact upon banks. (See pp. 1 and 2.)

SYSTEM OBJECTIVES NEED TO BE  
BETTER COMMUNICATED

The system's overall objective is to help bring about adequate diversification of bank exposures. However, the objectives of special comments have not been clearly communicated to bankers. (See p. 6.)

Recommendation

The Comptroller of the Currency, the Chairman of the Board of Governors of the Federal Reserve System, and the Chairman of the Federal Deposit Insurance Corporation should ask their representatives to better and more clearly communicate the objectives of special comments to bankers. (See p. 7.)

SYSTEM STANDARDS GOOD,  
BUT COULD BE IMPROVED

The Interagency Committee did a good job identifying countries with actual or imminent payments arrearages. However, many other countries were identified as having potential debt-servicing problems that did not incur payments arrearages. (See pp. 8 and 9.)

Since special comments appear to have had little impact on bank lending at present (see ch. 5), there probably have not been any actual adverse consequences of designating countries as having potential debt servicing problems that did not incur payments arrearages. However, if special comments become a significant factor in bank lending, then needlessly designating countries as having potential debt servicing problems could unduly inhibit international lending and/or increase its costs. With projected continued large needs for international finance, this could result in slower economic growth for some countries and could dampen U.S. export expansion. (See p. 9.)

Other major components of the system could be improved, such as the analyses the Committee uses to make country selections. (See p. 9 to 12.)

GAO believes that the guidelines and procedures that examiners are to use for analyzing bank country exposure management systems are comprehensive and focus on the key elements of such systems. (See p. 12.)

## Recommendations

The Comptroller of the Currency, the Chairman of the Board of Governors of the Federal Reserve System, and the Chairman of the Federal Deposit Insurance Corporation should ask their representatives to the Interagency Committee to improve country studies so they will be more useful in grouping monitored countries according to potential debt-servicing problems. (See pp. 10 and 11.)

## THE SYSTEM IN PRACTICE

The system stresses uniformity among examiners and agencies, and there is also much uniformity in practice. For example, GAO found that examiners were using the Committee's current list of risky countries and the most current descriptions of country developments. Examiners also were commenting in examination reports on exposures in countries with debt-servicing problems and on other risky countries when required. (See p. 13.)

However, there were areas where greater uniformity is needed. For example, special comments in the majority of recent Office of the Comptroller of the Currency examination reports for GAO's sample of banks had some analyses beyond a country writeup and the composition of the exposure, but recent reports of the Federal Reserve and Federal Deposit Insurance Corporation rarely contained such analyses. (See pp. 14 to 16.)

GAO also found little consistency as to when specially commented exposures were highlighted; i.e., put on page one of examination reports. Items on page one of an examination report receive the most attention. (See p. 16.)

Office of the Comptroller of the Currency and Federal Reserve examiners addressed the key elements of bank country exposure management systems for most of the banks they reviewed, but Federal Deposit Insurance Corporation examiners did so less frequently. GAO also found that for this part of the examination, documentation could be much improved. (See pp. 17 and 18.)

On the basis of examination materials prepared by examiners on bank country exposure management systems, it appears that most banks with larger exposures had adequate systems. For most banks with

smaller exposures, lack of information in examination materials precluded evaluation of system adequacy. (See p. 19.)

### Recommendations

The Comptroller of the Currency, the Chairman of the Board of Governors of the Federal Reserve System, and the Chairman of the Federal Deposit Insurance Corporation should:

- Require examiners to include additional analyses in special comments. (See p. 15.)
- Require examiners routinely to review fully bank country exposure management systems and include documentation in supporting workpapers. (See p. 18.)
- Ask their representatives to the Inter-agency Committee to establish criteria for when specially commented exposures require highlighting. (See p. 16.)

GAO also made other recommendations for improving administration.

### SYSTEM IMPACT QUESTIONABLE

The results of regression and other analyses suggest that special comments by bank examiners have had little impact in restraining the growth of specially commented exposures. Since the uniform country risk examination procedures are only a few years old and available data covers an even shorter time, these assessments should be considered as only tentative. (See pp. 20 and 21.)

The conclusion that special comments have had little impact supports GAO's recommendations for establishing objectives for special comments and communicating them to bankers and for establishing criteria when exposures require highlighting. (See p. 21.)

GAO could not gauge the impact of the system in improving bank country exposure management systems because information on deficiencies in bank systems, such as no limits on foreign loans, is incomplete. However, it is likely that impact on bank systems would be enhanced if there were more reviews of all key elements of bank systems, as



recommended above, and if all outstanding deficiencies were routinely checked. (See pp. 21 and 22.)

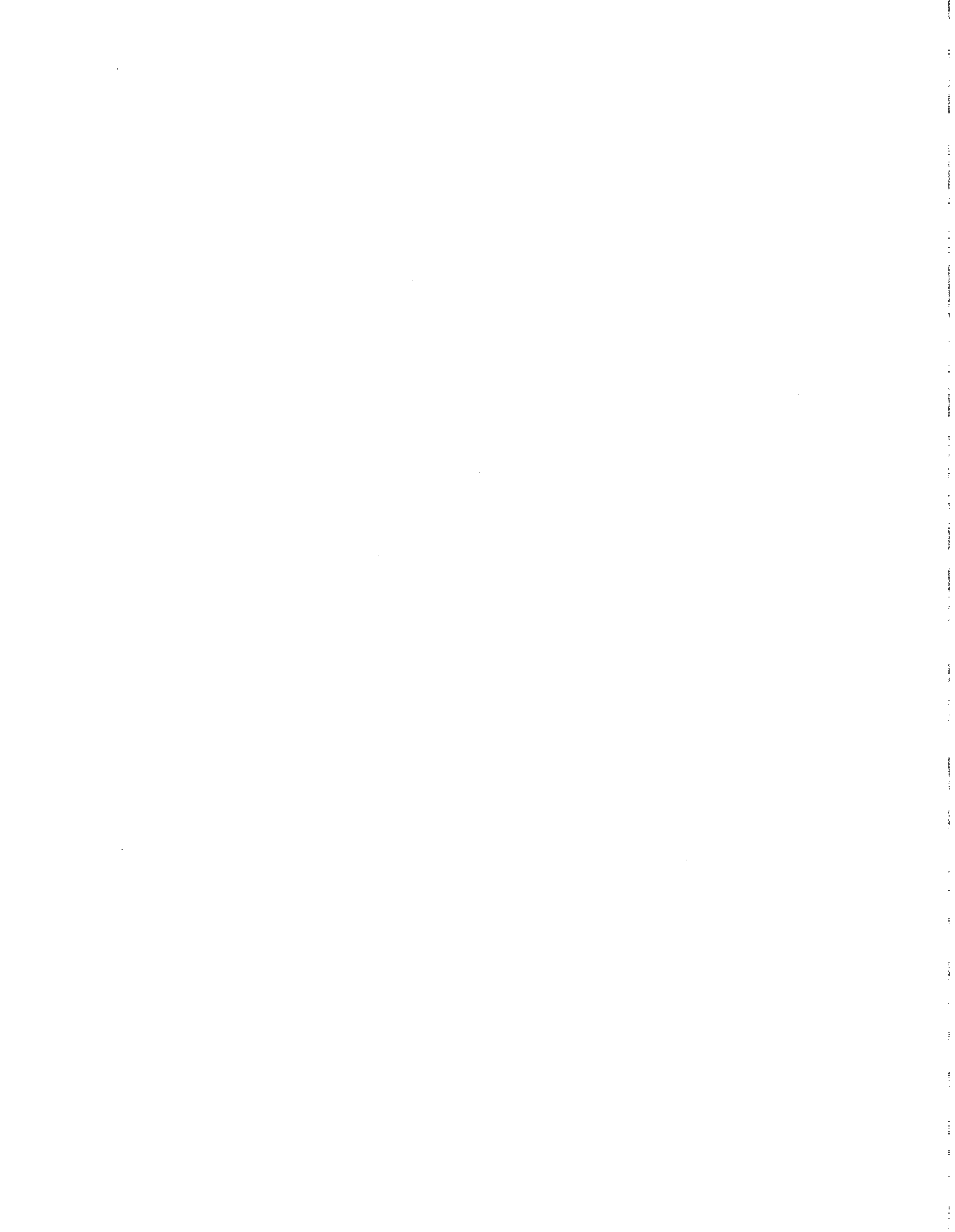
### Recommendation

GAO recommends that the Comptroller of the Currency, the Chairman of the Board of Governors of the Federal Reserve System, and the Chairman of the Federal Deposit Insurance Corporation require examiners routinely to follow up on all outstanding recommendation/criticisms, with notations in subsequent examination reports. (See p. 22.)

### AGENCY COMMENTS

The Federal Deposit Insurance Corporation has directed its representatives to consider all of GAO's recommendations and the Federal Reserve has directed its representatives to consider those dealing with country analyses and implementation of the examination system. (See pp. 32 and 39.) The Office of the Comptroller of the Currency agreed with most of the recommendations for improving the administration of the system. (See p. 36.) All three agencies agreed with the recommendations for highlighting and for communicating the objectives of special comments to bankers. (See pp. 7 and 16.)

Agency comments are discussed in the relevant chapters of the report. The complete texts of agency comments are included in appendixes III, IV, and V.



## C o n t e n t s

		<u>Page</u>
DIGEST		i
CHAPTER		
1	INTRODUCTION	1
	Objectives, scope, and methodology	1
2	THE SYSTEMS AND ITS OBJECTIVES	3
	Categorization of countries and bank exposures	3
	Examiner citations for country exposures	5
	Examination of bank systems for monitoring country exposures	5
	Agency comments	6
	System goals	6
	Recommendation	7
3	STANDARDS OF THE SYSTEM	8
	Interagency committee selections	8
	The screens	9
	Recommendation	9
	Agency comments	10
	Country studies	10
	Recommendation	10
	Agency comments	11
	Comment levels	11
	Guidelines and procedures for analysis of banks' country exposure management systems	12
4	THE SYSTEM IN PRACTICE	13
	Special comments	13
	Uniformity	13
	Recommendation	14
	Agency comments	14
	Analysis	14
	Recommendations	15
	Agency comments	16
	Highlighting	16
	Recommendation	16
	Agency comments	16
	Bank country exposure management systems	17
	Examiner coverage	17
	Recommendations	18
	Agency comments	18
	Adequacy of bank systems	18

		<u>Page</u>
5	IMPACT ON BANKS	20
	Bank lending and special comments	20
	Agency comments	21
	Bank country exposure management systems	21
	Recommendations	22
	Agency comments	22
APPENDIX		
I	Alternative models for assessing the potential for debt-servicing problems	24
II	The model used to assess impact of special comments and regression results	27
III	Comments by the Board of Governors of the Federal Reserve System on the draft GAO report	31
IV	Comments by the Comptroller of the Currency on the draft GAO report	33
V	Comments by the Federal Deposit Insurance Corporation on the draft GAO report	37

#### ABBREVIATIONS

FDIC	Federal Deposit Insurance Corporation
FR	Federal Reserve System
GAO	General Accounting Office
OCC	Office of the Comptroller of the Currency
IMF	International Monetary Fund

## CHAPTER 1

### INTRODUCTION

The level of international lending by U.S. banks has created a two-sided problem. On the one hand, a high level of lending is needed to support international economic growth and to expand U.S. exports. On the other hand, increased foreign lending has intensified the U.S. banking system's exposure to country risk--the possibility that adverse economic, social, or political circumstances may prevent a country's borrowers from making timely (or in the extreme, any) repayment of interest or principal.

The U.S. bank regulatory agencies--the Office of the Comptroller of the Currency (OCC), the Federal Reserve (FR), and the Federal Deposit Insurance Corporation (FDIC)--examine banks for financial soundness. OCC examines the approximately 4,500 nationally chartered banks, FR examines the approximately 1,000 State-chartered banks which are members of FR, and FDIC examines the approximately 9,300 State-chartered banks which are not members of FR but are insured by FDIC.

As part of the broader examination process, the U.S. bank regulatory agencies have adopted uniform examination procedures for evaluating and commenting on country risk to U.S. banks with relatively large foreign lending. Rising foreign lending has increased the importance of bank examination for country risk. For major U.S. banks, foreign assets account for one-third or more of total assets.

The uniform country risk examination system was announced in November 1978 and became effective in the spring of 1979. The Interagency Country Exposure Review Committee manages the system. The Committee consists of nine members--one headquarters representative in a senior/mid-management or staff position and two senior examiners from each agency. The system essentially consists of identifying countries with actual or potential debt-servicing problems, calling loans to these countries to the attention of bank management in examination reports, and evaluating bank internal country exposure management systems.

The country risk examination system is advisory. Its overall objective is to help bring about adequate diversification of bank exposures (international loans) among countries. Diversification is viewed as the primary means of moderating country risk in a bank's portfolio of international loans.

### OBJECTIVES, SCOPE, AND METHODOLOGY

Our review focuses on how the country risk examination system identifies countries with potential debt-servicing problems, calls exposures (loans) to these countries to the attention of bank management in bank examination reports, and evaluates bank country

exposure management systems. We assess standards, administration, and impact upon banks. Our objectives are to improve the design and implementation of the uniform country risk examination system and to test for its impact.

To assess standards we examined component parts, primarily as reflected in materials prepared for the Interagency Country Exposure Review Committee by the Federal Reserve Bank of New York and in agency materials for examiners on the results of the Committee work. We also discussed standards with members of the Interagency Committee and officials of the Federal Reserve Bank of New York.

To assess administration, we reviewed available 1978-81 examination reports and workpapers for 102 banks in four regions (New York, San Francisco, Chicago, and Atlanta). These regions include the major international banking centers. The 102 banks accounted for about 50 percent of the total number of banks examined under the uniform country risk examination system and for a much larger proportion of total international lending.

Generally, examination reports were reviewed in Washington and the workpapers at their field locations. In each region, we reviewed workpapers for all banks for which officials told us country risk examinations had been made. The reports and workpapers we examined were generally those available in Washington and at field locations at the time of our review in each region (New York, March-June 1981; San Francisco, July-September 1981; Chicago, September-October 1981; and Atlanta, October-November 1981). We also interviewed Washington and regional bank regulatory officials and officers of banks examined in each region.

Linear regression analysis was the primary methodology used to measure impact on bank exposures. A full discussion of the methodology is included in chapter 5 and appendix II.

We performed our review in accordance with our "Standards for Audit of Governmental Organizations, Programs, Activities, and Functions."

## CHAPTER 2

### THE SYSTEM AND ITS OBJECTIVES

The country risk examination system essentially consists of identifying countries with actual or potential debt-servicing problems, calling loans to these countries to the attention of bank management in examination reports, and evaluating bank internal country exposure management systems.

The country risk examination system is advisory. The overall objective is to help bring about adequate diversification of bank exposures (international loans) among countries. Diversification is viewed as the primary means of moderating country risk in a bank's portfolio of international loans.

Banks subject to country risk examinations are generally those which file semiannual country exposure reports with their respective agencies. An exposure report is required when a bank has a foreign branch, subsidiary, or Edge or Agreement Corporation 1/ and foreign exposures of more than \$20 million. Banks which file country exposure reports account for about 75 percent of all banks examined for country risk. Non-reporting banks may also be examined if their foreign exposures are considered sufficiently large. 2/

### CATEGORIZATION OF COUNTRIES AND BANK EXPOSURES

The Interagency Country Exposure Review Committee that manages the system meets three times a year to review the debt-repayment capacities of monitored countries. Countries are designated as "classified" 3/ if they have interrupted or are about to interrupt debt servicing. The remaining countries are designated as "weak," "moderately strong," and "strong." Classified, weak, and moderately strong countries are generally reassessed every year. The Committee also prepares one paragraph country-development descriptions for classified, weak, and moderately strong countries.

- 
- 1/ Edge or Agreement Corporations are domestic corporations chartered solely for foreign banking or financial activities.
- 2/ In commenting on our draft report, the FDIC stated that country risk examination procedures are followed for all banks it examines which conduct international lending. However, in an earlier letter to GAO, the FDIC had indicated that this examination applies generally to reporting banks and to those non-reporting banks with sufficiently large exposures.
- 3/ More precisely, it is bank exposures or portions of bank exposures in countries which are classified.

Classification is based on reports of banks having arrearages in payments from countries. Designations of weak, moderately strong, and strong countries are based on "screens" of economic indicators, country studies, briefings by economists, and information about country developments obtained by bank examiners from large banks with substantial international banking expertise. The Committee uses all of this information in assigning countries to different categories. Economic and financial data, as well as subjective evaluations of social and political stability are considered.

The "screens" subdivide 75 monitored countries into three groups based on five indicators of debt service capability. <sup>1/</sup> The screens are regarded as the "anchor" for Committee selections of risky countries. Preparation of this information for the Committee is the responsibility of the Federal Reserve Bank of New York.

The most current values are used for each indicator in a screening; in practice, this means that the data used is one to two years old. The indicators are:

- (1) Current account balance as a percentage of goods and services exports.
- (2) 3-year cumulative current account balance as a percentage of 3-year average goods and services exports.
- (3) Net interest payments as a percentage of goods and services exports.
- (4) Net interest payments as a percentage of international reserves excluding gold.
- (5) Debt-service payments as a percentage of goods and services exports.

Monitored countries are ranked with respect to each indicator. Countries which rank in the first quartile for two or more indicators are placed in group I; countries which rank above the median for two or more indicators, less countries in group I, are placed in group II; and the remaining countries are placed in group III. Groups I and II correspond approximately to weak and moderately strong countries, respectively.

Country studies, called country notes, assess recent economic, political, and social developments in a country. They are generally prepared by the Federal Reserve Bank of New York, as requested by the Interagency Committee. Studies are generally prepared once a year for classified, weak, and moderately strong

---

<sup>1/</sup> Data for each indicator is not available for all 75 countries.



countries. The studies are usually structured into brief sections on overview, economic performance, domestic economic policy, balance-of-payments performance, balance-of-payments policies, external debt, and political and social factors; there are three tables with data on the structure of the economy, external debt, and balance of payments. A country is given a risk assessment ranging from very high to low and each major aspect is rated by the staff.

#### EXAMINER CITATIONS FOR COUNTRY EXPOSURES

When a bank examiner cites a bank for loans to a classified country, the examination report will include the dollar amounts of all loans, the country writeup prepared by the Committee, and the composition of loans.

Information in examination reports about countries with potential debt servicing problems, where banks' loans are at or above certain levels in relation to capital, is referred to as "special comments." For loans to weak and moderately strong countries, bank exposures are itemized and specially commented if exposures exceed 10 percent of capital in weak countries <sup>1/</sup> and 15 percent of capital in moderately strong countries. <sup>2/</sup> Special comments will consist of the country writeup and a paragraph on the composition of the bank's exposure. Examiners are not required to further analyze a specially commented exposure but we were informed that they have been encouraged to do so since mid-1980.

In addition, examiners are to list all "concentrations of country exposures" without comment. Country exposures are listed if they exceed 5, 10, and 25 percent of bank capital for weak, moderately strong, and strong countries, respectively.

#### EXAMINATION OF BANK SYSTEMS FOR MONITORING COUNTRY EXPOSURES

Perhaps the most potentially important part of the country risk examination is the examiner's analysis of the system used by a bank for monitoring and controlling country risk. The Committee has prepared guidelines and procedures for the examiner

- 
- <sup>1/</sup> For exposures between 5 and 10 percent of capital, there is a presumption in favor of commenting if amounts due in excess of 1 year exceed 5 percent of capital; if these amounts are less than 5 percent, the presumption is against commenting.
- <sup>2/</sup> For exposures between 10 and 15 percent of capital, there is a presumption in favor of commenting if amounts due in excess of 1 year exceed 7.5 percent of capital; if these amounts are less than 5 percent, there is a presumption against commenting. Exposures of less than 10 percent of capital are not to receive comment.

to use in reviewing a bank's own country risk management system which focus on three questions: (1) do the banks analyze country economic, social, and political developments? (2) do they set dollar limits on exposures? (3) do they adequately monitor and control country exposures against assigned limits?

#### AGENCY COMMENTS

The OCC does not believe that we have placed the country risk examination system in the context of overall bank supervision, and criticizes us for not discussing the linkage among the components of the system.

We carefully explained in chapter 1 that the country risk examination system is part of the broader bank examination system. This broader system was analyzed in our February 26, 1982, overview of bank supervision. <sup>1/</sup> The current report is a detailed review of one aspect of the system. We also believe that we adequately described the system and the linkages among components in this chapter. OCC does not explain its comments by indicating what we have failed to cover nor how this would affect our specific findings, conclusions, and recommendations.

#### SYSTEM GOALS

The bank regulatory agencies' uniform country risk examination system is advisory for banks. Its overall objective is to help bring about adequate diversification of exposures among countries. Diversification is viewed as the primary means of moderating country risk in a bank's portfolio of international loans. However, adequate diversification is not defined.

In our opinion, the objective of advice on specially commented exposures (those in weak and moderately strong countries exceeding stated levels in relation to bank capital), the authorities' early warning of potential country risk problems was also unclear.

Representatives of the Interagency Committee told us that the objective of the advice is to get banks to slow down or to stop expansions of specially commented exposures. This seems to be a feasible goal for banks to achieve within the one-year timeframe of the risk assessments. However, there is nothing about the current commenting procedures that indicates when a sufficient slowdown has been achieved. The only signal is the cessation of special comments when exposures actually fall below comment levels.

Because there are no announced specific objectives for special comments, the goals are subject to interpretation. Hence,

---

<sup>1/</sup> Despite Recent Improvements, Bank Supervision Could Be More Effective and Less Burdensome (GGD-82-21).

we believed that objectives needed to be clarified and communicated to bankers. We thus proposed that the agencies clarify objectives and brief bankers about them. The agencies' comments on our draft report attempted to clarify the objectives and the agencies agreed that they should be better communicated to bankers. They said the objective of the special comments is to insure that banks make loan decisions with full knowledge of the risks involved. Such an explicit statement is helpful. However, other comments in the agencies' letters tended to somewhat confuse the situation again. For example, in explaining why exposures greater than 15 percent of capital in moderately strong countries should receive special comments, the FDIC said that without such a category "any hope of tempering bank lending before serious problems were encountered would be lost." This statement appears to reveal that the FDIC sees the goal of special comments not only as having the banks weigh the information but also having them temper their lending.

#### Recommendation

We recommend that the Comptroller of the Currency, the Chairman of the Board of Governors of the Federal Reserve System, and the Chairman of the Federal Deposit Insurance Corporation ask their representatives to better and more clearly communicate the objectives of special comments to bankers.

CHAPTER 3

STANDARDS OF THE SYSTEM

INTERAGENCY COMMITTEE SELECTIONS

We tested how well the Interagency Country Exposure Review Committee did in designating countries as classified, weak, moderately strong, and strong. The test periods included the year following the October 1979 designations and the year following the October 1980 designations. The following table shows the Committee's designations as of October 1980 and the number of countries with actual or imminent arrearages during the following year.

<u>Designation of monitored countries as of October 1980</u>		<u>Countries with actual or imminent arrearrages during ensuing year</u>
<u>Designation</u> (note a)	<u>Number</u>	
<u>Classified</u> - countries with actual or imminent arrearages	7	6
<u>Weak</u> - countries experiencing a number of economic, social, and political problems, or a significant problem deemed correctable if remedial managerial actions are, or can be taken in the near term	16	3
<u>Moderately strong</u> - countries experiencing a limited number of identifiable economic, social, or political problems which are not presently of major concern	19	
<u>Strong</u> - countries experiencing no perceivable economic, social, or political problems of significance or none which are not mitigated by other factors	13	
<u>Not designated</u>	<u>20</u>	<u>1</u>
Total	<u>75</u>	<u>10</u>

a/ The definitions in the table of weak, moderately strong, and strong countries are working definitions of the OCC and not the Interagency Committee.

During the year following October 1980, only one country which was not included in the Committee's designations as classified or weak had actual or imminent arrearages.

Hence, we conclude that the Interagency Committee did a good job identifying countries with actual or imminent payment arrearages. However, many other countries were identified as having potential debt-servicing problems that did not incur payments arrearages.

In that none of the countries in the moderately strong category had arrearages during our test periods, we proposed that the agencies consider requiring special comments only for weak countries. The agencies felt that specially commenting on moderately strong countries as well as weak countries served as an alert to potential adverse consequences of concentrations of exposure.

Since special comments appear to have had little impact on bank lending at present (see ch. 5), there probably have not been any adverse consequences of specially commenting on countries that did not incur payments arrearages. However, if special comments become a significant factor in bank lending, then needlessly designating countries as having potential debt-servicing problems could unduly inhibit foreign lending and/or increase its costs. With projected continued large needs for international finance, this could result in slower economic growth for some countries and could dampen U.S. exports.

#### THE SCREENS

A primary input in the Interagency Committee's determinations of weak, moderately strong, and strong countries is the indicator ranking of countries (the screens). The screening process simply consists of ratio analysis (see p. 4) which has a number of limitations. For example, it provides no quantitative measure of the potential for payments arrearages. The field of financial analysis has developed a number of alternative analytical approaches which perform the desired analysis in a way that provides more and better information than ratio analysis.

We examined alternative models for assessing the potential for the occurrence of bank arrearages. Among those we looked at were a linear relationship, discriminant analysis and logit analysis. Appendix I contains the technical analysis of the logit model, linear relationship, and discriminant analysis.

We found in reviewing the technical literature that the most suitable model appears to be logit analysis. It provides a procedure that insures the selection of indicators which are statistically significant. It also yields a quantitative measure of the potential for payment arrearages. This latter advantage gives a more meaningful breakdown of countries into subgroups.

#### Recommendation

We recommend that the Comptroller of the Currency, the Chairman of the Board of Governors of the Federal Reserve System, and

the Chairman of the Federal Deposit Insurance Corporation ask their representatives to the Interagency Committee to request the Federal Reserve Bank of New York to experiment with alternative models to the present screens.

#### AGENCY COMMENTS

The OCC believes we have overemphasized the importance of the screens, although it does want efforts to improve the screens to continue.

Our view of the importance of the screens is primarily based on what agency officials told us; in fact, the term "anchor" was used by one representative to underscore the significance of the screens.

#### COUNTRY STUDIES

Country studies, called country notes, assess recent economic, political, and social developments in a country. We reviewed the 50 country notes prepared for the three Interagency Committee meetings in 1981. We found them to be generally good descriptions of recent country developments and, therefore, of use in arriving at judgments about countries' current and prospective debt problems. However, we did encounter a number of shortcomings.

1. Most studies did not adequately cover even near-term future developments (i.e., within 1 year) and did not deal with longer term developments. While the tables contained data (i.e., projections) for the next year's external debt, debt service, and current account balance, there was no data for next year on such items as forecasts of income growth, price changes, unemployment, reserves, and capital flows. Also, in most cases the text discussed developments through the current year but did not cover the following year.
2. Monetary and fiscal policies often were not fully analyzed.
3. How a country managed with monetary and fiscal ceilings under recent International Monetary Fund (IMF) loans often was not discussed.
4. Most studies did not cover key political and social factors.

Since country studies are an input into the Committee's country selections, they should be improved.

#### Recommendation

We recommend that the Comptroller of the Currency, the Chairman of the Board of Governors of the Federal Reserve System, and

the Chairman of the Federal Deposit Insurance Corporation ask their representatives to the Interagency Committee to improve country studies by providing:

1. More discussion, analysis, and projections of key economic variables for the near future.
2. More intensive analysis of monetary and fiscal policies.
3. Routine discussion of performance under the most recent IMF loans.
4. A consistent framework for evaluating political and social developments including assessment of internal stability, succession, external security threats, relations with the United States, and relations with other countries.

#### AGENCY COMMENTS

The FR has directed its staff to consider our recommendations on country analysis in seeking ways to improve the country risk examination system. The OCC agrees with the thrust of our recommendation for improving country studies.

The FDIC, on the other hand, objects to our listing of shortcomings in country studies. It believes that such factors which are negative and critical to a country's ability to service debt are covered in the country studies.

We believe that the factors we have itemized as lacking in many country studies, whether positive or negative, are always important in assessing a country's ability to service its debt and need to be included.

The FDIC also states that updating of information and projections are covered by oral presentations.

We did not have access to the oral presentations, so we cannot assess their content. However, we believe that the country studies should cover all major dimensions of a country's economic, social and political development. Moreover, we note that the FDIC only indicates that the oral presentations ". . . update information and provide official projections. . ." but does not suggest that they cover the other factors we have itemized.

#### COMMENT LEVELS

The selection of 10 and 15 percent of capital as the critical levels for examiners to make special comments on exposures in weak and moderately strong countries is a subjective determination. Conceptually, these critical levels of country risk concentration may be linked to the historical limitation on bank lending to one

borrower of 10 percent. All the borrowers in any one country may be thought of as a single borrower when country risk is involved.

However, neither the historical single borrower limitation nor the related country risk limitations are based upon analysis of the relationship between concentration and the possibility of bank financial disruption or failure. Discussion with country risk experts indicates that there is no simple relationship between exposure and capital. Moreover, a recent study of risk and capital adequacy in commercial banks could not develop a measure of "nondiversification" related to the possibility of loss. 1/

GUIDELINES AND PROCEDURES FOR ANALYSIS OF  
BANKS' COUNTRY EXPOSURE MANAGEMENT SYSTEMS

We found that the guidelines and procedures are comprehensive and focus on the key elements of country exposure management systems.

---

1/ The author states that this may be because historically the rate of loss resulting from lack of diversification in most cases has been low. See S. J. Maisel (ed.), Risk and Capital Adequacy In Commercial Banks, Univ. of Chicago Press, 1981, p. 57.



## CHAPTER 4

### THE SYSTEM IN PRACTICE

The country risk examination system is implemented by examiners of the Federal Government's bank regulatory agencies. Uniformity is stressed for examiners in all three agencies in characterizing and commenting on country exposures and in analyzing bank country exposure management systems. The list of classified, weak, moderately strong, and strong countries is the same for each agency, as are mandatory comment levels (exposures in excess of 10 and 15 percent of bank capital for weak and moderately strong countries, respectively). Examiners are to use the same country developments descriptions in commenting on classified and other risky exposures for the same countries for similar examination periods and to follow the same guidelines and procedures when reviewing bank country exposure management systems.

The need for uniformity among examiners and the three regulatory agencies was noted in comments by GAO and others on the lack of uniformity that existed before the present system was adopted. In March 1977 testimony before the Subcommittee on Financial Institutions Supervision, Regulation and Insurance of the House Committee on Banking, Currency and Housing, we noted that different approaches between the FR and the OCC in evaluating loans to foreign governments, businesses, and individuals had caused some banks' loans to be classified differently than other banks' loans to the same country or foreign business; even within the FR, two approaches were taken to evaluate loans subject to country risk. In our January 1977 report, "Federal Supervision of State and National Banks" (OCG-77-1), we recommended that the Chairman of the Board of Governors of the Federal Reserve System and the Comptroller of the Currency develop and use a single approach for classifying loans subject to country risk.

#### SPECIAL COMMENTS

##### Uniformity

In our sample of 102 banks' examination reports, we found that almost without exception, examiners of the three agencies were characterizing country exposures uniformly. Examiners were using the most recent results of Committee meetings. They were commenting on exposures in classified countries, and in risky countries when (mandatory) comment levels were exceeded, and they used the same country descriptions when commenting on exposures in the same countries for similar examination periods. Thus, our concern that examiners uniformly characterize essentially the same exposures in particular countries has been satisfactorily addressed by the regulatory agencies in practice as well as in design.

One notable difference in format among agencies, however, is that OCC examiners distinguish between moderately strong and

weak countries, grouping the latter together with classified countries, while the FR and FDIC do not differentiate between moderately strong and weak countries, grouping the two together. A potential result of this lack of uniformity is that management of a bank examined by OCC might be less willing to extend credit to a borrower in a weak country than management of a bank examined by the FR or FDIC or that management of a bank examined by the FR or FDIC might be less willing to extend credit to a borrower in a moderately strong country than management of an OCC-examined bank.

### Recommendation

We recommend that the Comptroller of the Currency, the Chairman of the Board of Governors of the Federal Reserve System, and the Chairman of the Federal Deposit Insurance Corporation have their examiners group countries together in the same way in examination reports.

### Agency comments

The OCC agrees with our recommendation.

### Analysis

While there has been overall uniformity in the way exposures in various countries are characterized by examiners of all three agencies, we noted differences in analysis in special comments. Although examiners of the three agencies are required to make use of a standard writeup describing the economic, political, and social conditions in a country and to show the composition of an exposure when making special comments on a bank's exposure in a country, further analysis of an exposure is left to their discretion. Differences in the substance and amount of detail in the additional analysis may convey different messages to bank management concerning the "appropriateness" of the bank's exposure in a particular country. We noted that the substance and amount of detail provided have varied greatly over time and among agencies and examination reports. In some cases, the extent of comments varied for different countries within a single examination report.

Until late 1980, examiners generally provided little additional analysis in special comments. After a series of training seminars was held in late 1980, examiners started providing more analysis.

Special comments have at times included comparisons between (1) a bank's exposure in a particular country at the date of examination and at the date of the previous examination, (2) a bank's exposure in a particular country and the limit for that country, and (3) a bank's exposure in a particular country and the exposures of other banks in the same country. The regulatory authorities have especially emphasized these last comparisons. In 1980, they began using country exposure reports to develop

bar charts which enable examiners to determine whether a bank's exposure in a country is in line with that of other banks.

Although the amount of analysis has increased since the fall of 1980, there are still inconsistencies among examination reports as to the extent of such analysis or whether it is to be included in special comments at all. Of the 43 examination reports we reviewed dated September 30, 1980, and later that contained special comments, 17 contained analysis (for at least one country receiving special comments) beyond breakdowns of country portfolios by maturities or types of borrowers and country developments write-ups. Of the 17 reports, 13 included comparisons between present and prior exposures, 13 included comparisons between exposures and country limits, and 7 included comparisons between exposures of the subject bank and other banks. While the majority of OCC bank reports contained some such additional analysis (15 of 24), reports for banks examined by the FR and FDIC rarely did (1 of 13, and 1 of 6, respectively).

We believe that increased analysis in special comments is significant in that it calls management's attention to exposures which are not only at or above special comment levels but also which may have increased substantially since the prior examination, which may have exceeded bank country limits, or which may be out of line with exposures of other banks. Comparisons with other exposures, especially, may provide information about which bank management is not fully aware. This analysis has been singled out by bank officials we interviewed as useful in evaluating their country portfolios.

Examiners of the OCC use a different universe in making comparisons with other banks than do those of the FR and FDIC. OCC examiners' bar charts show comparisons for national banks only, while FR and FDIC bar charts show comparisons for national, state member, and state non-member banks.

### Recommendations

We recommend that the Comptroller of the Currency, the Chairman of the Board of Governors of the Federal Reserve System, and the Chairman of the Federal Deposit Insurance Corporation require their examiners to:

- Include analysis beyond country writeups and portfolio compositions in special comments. (OCC has already done much in this regard.) Such analysis might include comparisons of present exposures with prior exposures, with country limits established by bank management, and with exposures of other banks.
- Use the same universe of banks (all banks reporting under the country exposure reporting system) for making comparisons. This would not preclude the agencies from

establishing different categories for separately analyzing banks of different sizes.

#### Agency comments

The OCC agrees with both recommendations and states that it is now implementing them.

#### Highlighting

In our review of examination reports of the 102 banks, we found little consistency as to when specially commented exposures are highlighted, i.e., put on "page 1" of examination reports. ("Page 1" may extend over several pages.) It is generally accepted that items on page 1 of a report receive the greatest attention by bank management, and thus, highlighting is especially significant. OCC examiners highlighted 6 percent, FR examiners 12 percent, and FDIC examiners 28 percent of specially commented exposures.

There are inconsistencies in highlighting between agencies and between examination reports. For example, exposures in one country were highlighted in 22 examination reports; in 9 cases highlighted exposures exceeded twice the mandatory comment level, but in the other 13 cases, highlighted exposures were less than twice the mandatory comment level. In contrast, in 37 cases there was no highlighting of bank exposures in the same country, although they exceeded twice the mandatory comment level. These 37 cases included one which was 105 percent of capital and three others which were 71, 60, and 58 percent of capital, respectively.

Exposures in another country were highlighted in 15 examination reports; in 5 cases highlighted exposures exceeded twice the mandatory comment level, but in the other 10 cases they were less than twice the mandatory comment level. In contrast, there was no highlighting in 40 cases, although exposures exceeded twice the mandatory comment level. These 40 cases included an exposure which was 82 percent of capital, two which were 72 percent of capital, and two which were 64 and 53 percent of capital, respectively.

#### Recommendation

We recommend that the Comptroller of the Currency, the Chairman of the Board of Governors of the Federal Reserve System, and the Chairman of the Federal Deposit Insurance Corporation ask their representatives to the Interagency Committee to establish criteria for when specially commented exposures require highlighting.

#### Agency comments

All three agencies agree with the recommendation.

## BANK COUNTRY EXPOSURE MANAGEMENT SYSTEMS

According to the regulatory authorities, an adequate bank system for managing country exposures has three essential elements: (1) the ability to analyze country economic, political, and social developments, (2) the establishment of country limits, and (3) the monitoring and controlling of country exposures through an internal reporting system. The Interagency Committee's guidelines and procedures for analyzing bank country exposure management systems are designed to enable the examiner to address these three key elements.

We believe that these guidelines and procedures are comprehensive and should enable the examiner to analyze bank systems. In checking bank systems, the examiner is to review a bank's international lending policies, reports to the board of directors or appropriate committee, and analyses of individual country conditions; discuss the bank's international lending philosophy with senior management; and complete a country risk internal control questionnaire. The latter consists of 15 questions, including whether (1) country limits are established, (2) significant changes in country conditions and/or levels of exposure are brought to the attention of a bank's board or its designated committee in a timely manner, (3) country limits are revised in response to substantive changes in economic, political, and social conditions in a particular country, (4) country limits are reviewed and updated at least annually, (5) procedures for exceeding country limits are clearly defined, (6) there is a program to have lending officers periodically visit countries, (7) current country analysis information is maintained, and (8) there is a formal reporting system for country risk.

### Examiner coverage

We reviewed examination reports and workpapers for the 102 banks to see whether examiners addressed the three key elements of a bank's country exposure management system. OCC and FR examiners addressed all three elements in examination materials for the majority of banks they examined (78 and 92 percent, respectively) but FDIC examiners did so less frequently (49 percent). There may have been some cases where examiners addressed all three elements, especially where there were no deficiencies, but did not record their complete investigations in examination materials.

We reviewed the workpapers to determine whether examiners provided support for reviewing all three key elements of a bank's country exposure management system. 1/ We found that there was

---

1/ We did not review workpapers for one OCC-examined, 3 FR-examined, and 11 FDIC-examined banks because of their unavailability or because there was no indication in the examination report that a review of the bank's system had been made. Such banks are excluded from figures reported above.

documentation for the majority of banks examined by the FR and OCC (67 and 63 percent, respectively) but only for a relatively small number of banks examined by the FDIC (15 percent).

We found a similar agency pattern with respect to major pieces of documentation required by the Interagency Committee's guidelines and procedures. OCC examiners included the internal control questionnaire for 20 of 40 banks (50 percent) for which we reviewed workpapers; FR examiners, for 10 of 21 banks (48 percent); and FDIC examiners, for only 1 of 27 banks (4 percent). Banks' written policies on country risk were included by OCC examiners in the workpapers for 25 of 40 banks (63 percent); by FR examiners, for 15 of 21 banks (71 percent); and by FDIC examiners, for 9 of 27 banks (33 percent).

### Recommendations

We recommend that the Comptroller of the Currency, the Chairman of the Board of Governors of the Federal Reserve System, and the Chairman of the Federal Deposit Insurance Corporation require their examiners to:

- Routinely review bank country exposure management systems fully when they make country risk examinations.
- Include such items as internal control questionnaires, memorandums of discussions with bank officials, sample country studies, and country limit and reporting documentation in supporting workpapers; when such items do not exist, this should be noted in the workpapers.

### Agency comments

The FDIC states that its general philosophy in examinations is not to require examiners to document or comment upon systems which are found to be adequate.

We believe that comments and documentation should be made for bank systems which are adequate as well as for those which are inadequate. They are needed to demonstrate that the system has been satisfactorily reviewed by examiners and to facilitate subsequent examinations, especially if there is a turnover of personnel.

### Adequacy of bank systems

We attempted to gauge the adequacy of bank systems for country exposure management for our sample banks from examination materials prepared by bank examiners. Bank systems were considered adequate if examiners indicated that all three key elements of banks' country exposure management systems were present, with evidence of this in the workpapers, and there were no outstanding

recommendations or criticisms. 1/ It is important to stress that our own assessments of adequacy would not necessarily be similar. To make our own assessments we would have to conduct our own bank examinations.

We found that the majority of banks with larger exposures (\$1 billion or more) had systems which could be deemed adequate (75 percent). 2/ For most banks with smaller exposures, system adequacy could not be determined (61 percent) because of lack of information in bank examination materials. 3/ We determined that for banks with smaller exposures, 14 percent had systems that could be considered adequate and 26 percent had systems that could be considered inadequate.

---

1/ Examiner recommendations/criticisms deal with missing key elements or serious shortcomings in the key elements.

2/ Only one of the 28 banks with larger exposures had a system which could be considered inadequate.

3/ System adequacy could not be determined for 21 percent of banks with larger exposures.

## CHAPTER 5

### IMPACT ON BANKS

This chapter discusses our efforts to determine the impact that special comments by bank examiners have had on international bank lending and the impact that examination of country exposure management has had on bank management systems. Since the uniform country risk examination procedures are only a few years old and available data covers even a shorter time, these assessments should be considered as only tentative.

#### BANK LENDING AND SPECIAL COMMENTS

One way in which special comments might affect bank lending is to reduce exposures relative to capital to below comment levels. If a bank has a specially commented exposure and reduces its exposure to below comment levels, the exposure will not receive a comment in the subsequent examination period. To test this hypothesis, we selected those countries for which at least 10 banks received special comments on their exposures in 1979 and we calculated the number of banks receiving comments in both 1979 and 1980 relative to the number of banks receiving comments in 1979. A large proportion receiving comments in both years suggests that comments had little impact.

The results are shown in the table below for 6 countries for which at least 10 banks received special comments in 1979. 1/ The

Banks Receiving Special Comments in  
Both 1979 and 1980 (note a)

(1)	(2)	(3)	(4)
<u>Country</u>	<u>Number of banks receiving special comments in 1979</u>	<u>Number of banks in col. (2) which received special comments in 1980</u>	<u>Column (3) ÷ column (2) in percent</u>
A	17	12	71
B	22	16	73
C	10	7	70
D	23	16	70
E	10	8	80
F	59	49	83

a/ Excludes banks for which no 1980 examination report was available.

Source: Bank examination reports

---

1/ There were 2 additional countries for which at least 10 banks received special comments in 1979, but their risk categorizations changed during the 1979-80 period.



proportion of banks with special comments in both years ranges from 70 to 83 percent. This suggests that the country risk procedures may have had little impact in getting banks to reduce their exposures to below comment levels.

It must be emphasized that the results are only suggestive. Other factors, such as the previously attained exposure level and changes in the economic outlook of countries, may mask the impact of special comments. Also, as previously discussed, the goal of special comments may be to reduce the growth of commented exposures rather than to achieve below-comment levels. Furthermore, the program has only been in effect for a relatively short time.

To adjust for weaknesses in the above simple comparisons, we constructed and tested an econometric model of changes in exposures which has special comments as a determining factor.

We applied this model separately for bank exposures in eight weak and moderately strong countries for which at least 10 banks received special comments in 1979. The results suggest that special comments have had little impact in restraining bank lending. A technical description of the model and a detailed description of the results are in appendix II.

We believe that our findings and conclusions about the limited impact of special comments support our other recommendations for clearly communicating objectives for special comments to bankers and for establishing criteria for when exposures require highlighting.

#### AGENCY COMMENTS

The FR does not disagree with our conclusion that special comments have thus far had a limited impact on bank lending but stresses that this conclusion is "premature." As indicated above, we also believe that our conclusion is "tentative," because the system is only a few years old. Moreover, the FR recognizes that there is a need to make the system more effective and believes that our recommendations for highlighting and for ensuring that banks understand the system are especially helpful for improving impact.

#### BANK COUNTRY EXPOSURE MANAGEMENT SYSTEMS

To assess the impact of country risk examinations in improving bank country exposure management systems, we attempted to compare examiner recommendations or criticisms for improvement 1/ accepted by our sample of 102 banks with needed improvements. A disadvantage of this type of analysis is that it does not isolate the impact of the bank regulatory authorities from that of other

---

1/ Examiner recommendations or criticisms relate to missing key elements or serious shortcomings in key elements.

factors, e.g., the impact of banks on their own improving their country exposure management systems. Unfortunately, it was not possible to make such an assessment because neither the number of accepted recommendations or criticisms nor the number of needed recommendations or criticisms are known.

In bank examination materials we reviewed, we found eight recommendations/criticisms which were accepted in whole or in part. However, we were informed that examiners sometimes only note continuing deficiencies; i.e., in this case, outstanding recommendations/criticisms which have not been accepted. Hence, banks may have accepted additional recommendations/criticisms, although this was not indicated in examination materials. 1/ Similarly, while we know the number of recommendations/criticisms for which examiners reviewed at least one key element of a bank system and identified shortcomings (52), 2/ there were 30 banks for which examiners either did not address all three key elements or there was no evidence of such review. Hence, there may be additional recommendations/criticisms.

While it is not possible to gauge impact, it is likely that impact would be enhanced if there were more reviews of the three key elements of bank country exposure management systems. Impact might be further enhanced if examiners routinely checked on the status of all outstanding recommendations/criticisms, whether accepted or not, and commented accordingly in examination reports. Such followups are also necessary for gauging impact.

### Recommendations

Our previous recommendation for more reviews of all key elements should help to improve bank systems. We also recommend that the Comptroller of the Currency, the Chairman of the Board of Governors of the Federal Reserve System, and the Chairman of the Federal Deposit Insurance Corporation require that examiners routinely follow up on all outstanding recommendations/criticisms, with notations in subsequent examination reports.

### AGENCY COMMENTS

The OCC agrees with the recommendation to follow up on outstanding recommendations/criticisms and states its examiners are to do so and to record the results in their workpapers. The OCC does not believe that a notation in the examination report is necessary unless the recommendation/criticism remains outstanding.

---

1/ Moreover, there were 34 outstanding recommendations/criticisms for which no subsequent examination reports were available at the time of our review; banks may also have accepted some of these.

2/ This number excludes repeat recommendations/criticisms.

While it may be OCC policy to have examiners follow up on outstanding recommendations/criticisms and to indicate the results in workpapers, we found exceptions to the rule in practice in our audit work.

We recommend that corrections of deficiencies as well as those which are still outstanding be recorded in examination reports, because examiner supervisors and other reviewing officials who may not have easy access to workpapers would then know that all deficiencies had been reviewed and their status ascertained.

ALTERNATIVE MODELS FOR ASSESSING THE  
POTENTIAL FOR DEBT-SERVICING PROBLEMS

One alternative is to estimate a linear relationship between selected economic indicators and the probability of a country experiencing debt-servicing difficulties. Historically, the latter variable can assume only a value of 1 (i.e., 100 percent probability) in the case of a debt-servicing problem, or a value of 0 when there is no problem. However, probability values estimated from a linear relationship can fall outside the 0-1 range and hence cannot be interpreted as probabilities. This is the major shortcoming of the linear model and prevents its useful application to this problem.

Discriminant analysis distinguishes between a group of countries that experience debt-servicing difficulties in a particular year and another group that does not by means of a set of explanatory variables. The discriminant function represents a linearly weighted combination of the variables that will maximize the ratio of variance between the groups to variance within the groups. A critical value of the function, which distinguishes countries likely to have debt-servicing difficulties from those that are not, is selected by the analyst based upon weights assigned to type I and type II errors.

Frank and Cline, using debt rescheduling as the measure of debt-servicing difficulty, obtain type I errors of 0 for two of their discriminant functions and associated type II errors of 9 and 19.7 percent. <sup>1/</sup> However, this good performance is at least partially mitigated by the inability to ascertain the significance of the explanatory variables used in the discriminant function. <sup>2/</sup> Another drawback to discriminant analysis is the assumption of two distinct groups, one which does and one which does not encounter debt-servicing difficulties; it is more likely that countries form a continuum of abilities to service debt.

---

<sup>1/</sup> C.R. Frank, Jr., and W. K. Cline, "Measurement of Debt Servicing Capacity," Journal of International Economics, Aug. 1971, p. 338.

<sup>2/</sup> It cannot be assumed that the explanatory variables in a discriminant function are multivariable normally distributed. Hence error rates and t-statistics based on such error rates may be biased.

Logit analysis appears to alleviate these difficulties 1/ and it has also resulted in low type I and type II errors. A logistic function, a non-linear relationship, is fitted by the method of maximum likelihood to the relationship between the probability of debt-servicing difficulty (historically 0 if in a given period a country has had no problem and 1 if it has) and economic indicators. 2/ Once the coefficients of the economic indicators have been estimated, and those which are insignificant eliminated, new data (or projections of data) on the indicators for a country for a particular period can be applied to the estimated coefficients to estimate the probability that a country will experience debt-servicing difficulties.

To establish a "risky" group of countries the analyst must choose a cut-off probability of debt-servicing difficulty such that if the estimated probability for any country in a particular period is at or above that level, the country will be placed in the risky group. For bank regulatory authorities who are likely to stress avoidance of risk, the analyst is likely to pick a cut-off probability which has associated with it a zero or low type I error.

---

1/ According to Feder and Just, in logit analysis, the maximum likelihood estimators of the coefficients of the explanatory variables are consistent and asymptotically unbiased and efficient. Because of asymptotic normality of the coefficient estimates, asymptotic tests are available for testing the significance of potential economic variables. G. Feder and R. E. Just, "A Study of Debt Servicing Capacity Applying Logit Analysis," Journal of Development Economics, Mar. 1977, pp. 29-30. Logit analysis assumes that countries form a continuum of risk with respect to debt servicing problems.

2/ In a logit model of debt-servicing difficulty,

$$P(X) = \frac{e^{B'X}}{1 + e^{B'X}}$$

where P is the probability of encountering debt service difficulty; e is the exponential operator; X is a vector of relevant economic indicators; and B is a vector of fixed coefficients serving as weights. P(X) ranges between 0 and 1; it increases with higher values of an indicator if the corresponding B coefficient is positive, and it declines with higher values of a given indicator if the corresponding B coefficient is negative. The sum B'X is approximated by a first order Taylor series expansion and the B coefficients are estimated by the method of maximum likelihood.

In the logit model developed by Feder and Just and refined and applied by Feder, Just, and Ross 1/, the type I error is 0 and the type II error is 13 percent, with a cut-off probability of 0.03. Thus it appears that use of this type of model can yield a low type II error as well as a low type I error and reduce overpredicting.

In their model, the probability of rescheduling 2/ is a logistic function of the debt service ratio, the ratio of foreign exchange reserves to imports, the ratio of commercial foreign exchange inflows (net medium and long-term loans from commercial sources and direct investment less repatriated direct investment income) to debt-service payments, the ratio of non-commercial foreign exchange inflows (net medium and long-term loans and grants from public sources, workers' remittances, and net current transfers) to debt-service payments, the ratio of exports to gross national product and the ratio of real per capita gross national product to U.S. per capita gross national product.

For application to the problem of country risk in bank lending the logit model may have to be modified. For the dependent variable, the probability of debt-servicing difficulty, the analyst should develop a series on bank arrearages by country. If the available series does not contain a large enough number of observations, it could be supplemented (or replaced) with the International Monetary Fund's series on country payments arrears. The countries covered should include as many developed countries and Communist countries as possible as well as developing countries, 3/ on the basis of available data or data which can reasonably be estimated. With a different measure of the probability of debt-servicing difficulty and a different set of countries, it may be necessary also to modify the selection of economic indicators.

---

1/ G. Feder, R. Just, K. Ross, "Projecting Debt Servicing Capacity of Developing Countries," Nov. 1979 (unpublished paper).

2/ Defined to include "serious" debt-service arrearages as well as debt rescheduling.

3/ The Feder, Just, and Ross model applies only to developing countries.

THE MODEL USED TO ASSESS IMPACT OF  
SPECIAL COMMENTS AND REGRESSION RESULTS

The model has the following form.

$$G_t = A + b_1 (E/C)_t + b_2 DT_t + b_3 DC_{t-1} + e_t$$

Variable Descriptions

<u>Variable</u>	<u>Definition</u>
$G_t$	Either the change in a bank's exposure/capital ratio in a country or the rate of growth in its exposure in that country in year t.
$(E/C)_t$	A bank's exposure/capital ratio in a country at the beginning of year t.
$DT_t$	A dummy variable to reflect the change, if any, in economic, social, and political factors affecting a country between one year and the next year. (0 in the first year and 1 in the second year.)
$DC_{t-1}$	A dummy variable indicating whether a bank received special comments on its exposure in a particular country in the year t-1. (0 for no comments and 1 for special comments.)
A	A constant.
$e_t$	Random error term.
t	1979, 1980.
$b_i$	Estimated regression coefficients, $i = 1 - 3$ .

The model is essentially a pooled cross-sectional regression of changes in exposures in any one country among banks. We assume that a change in an exposure in any country for the same time period differs from bank to bank because of differences in already attained exposures (exposure/capital ratio at the beginning of the period), whether the previous period's exposure was specially commented or not, and differences in management and knowledge of foreign and domestic credit conditions. We

would expect special comments to restrain bank exposures if they had an impact; hence, the sign of the special comments variable should be negative.

We do not have an explicit variable to measure bank management and knowledge of foreign and domestic credit conditions; instead, we assume that they differ among asset-size bank groups (but are the same for members of the same size group) and we run separate regressions for each size group. We differentiate between (1) the largest nine money center banks, (2) the next 15 largest banks (ranging in asset size from the 10th largest to the 24th largest), (3) the next largest banks with assets of \$5 billion or more (ranging in size from the 25th to the 36th largest banks), (4) all banks with assets of \$5 billion or more (36 largest banks), and (5) banks with assets of less than \$5 billion (all others).

One potential problem with the model is that there may be a high correlation between the special comments and exposure/capital ratio variables (multicollinearity) because whether a bank receives special comments for a weak or moderately strong country exposure depends upon its exposure/capital ratio. Such a correlation might understate the significance of the special comments variable. To reduce or eliminate this type of correlation, we included observations for the period prior to the introduction of the uniform country risk exposure system (1979 for the dependent variable and 1978 for the special comments and exposure/capital ratio variables) in the regressions when there would have been little correlation because the overwhelming number of banks were not subject to the uniform country risk examination procedures. 1/ This, in turn, necessitated the use of a variable for measuring any economic, social, and political changes which could influence each bank's exposure in any one country over time. (DT--the time variable) 2/

The regressions cover the eight weak and moderately strong countries for which at least 10 banks received special comments

---

1/ The uniform system was in effect on a pilot basis for State member banks in the New York, Chicago, and San Francisco Federal Reserve Districts in 1978 and early 1979. We ran two variants of each regression; one treats special comments for such banks as if the system began for them in 1978; the other ignores any special comments which they received during this testing period. The regressions under both variants indicated no significant multicollinearity.

2/ With the introduction of earlier period observations and the time variable, the model is modified from a pure cross-sectional regression to a pooled cross-sectional-time regression.



in 1979. The banks included in the regression are those reporting under the country exposure reporting system. They account for more than 75 percent of the banks receiving uniform country risk examinations and are the only banks for which data on country exposures and exposure/capital ratios are available for the same time periods. Information on special comments was obtained from bank examination reports.

The variant of the model which used the change in the exposure/capital ratio yielded statistically better results. For this variant of the dependent variable, 11 of the 40 equations 1/ had adjusted coefficients of determination of 0.25 2/ or more, and there was at least one equation meeting this criterion for five of the eight countries.

The regression results for this form of the dependent variable are shown in the following table. In only one equation was the special comments variable negative and statistically significant. (In one other case, where the dependent variable was measured as growth in exposure, was the special comments variable negative and statistically significant.) These results suggest that special comments have had little impact in restraining bank lending.

---

1/ Excluding one case where the adjusted coefficient of determination was greater than 0.25 but not significant.

2/ Counting only one of the two variants of the special comments variable. See footnote 1 on p. 27.

Impact of Special Comments on Bank Foreign Exposure (note a)

Dependent variable: Change in exposure/capital ratio

Regression	Country (Bank size group)	$\bar{R}^2$	Constant term	Independent Variables (Standard Errors)			Number of observa- tions
				Exposure/ capital ratio	DT	DC (Special comments) 2/ (note b)	
1	B (25-36)	0.5696	0.0241 (0.0169)	0.413* (0.184)	-0.0210 (0.0230)	0.0567 (0.0452)	14
2	C (All others)	0.4198	0.00199 (0.00637)	-0.289* (-0.0524)	0.0168* (0.00803)	0.182* (0.0368)	64
3	E (36 largest)	0.2760	0.0367* (0.00984)	-0.347* (0.0688)	-0.0110 (0.0102)	0.0156 (0.0173)	64
4	E (9 largest)	0.2637	0.0593* (0.0265)	-0.396* (0.133)	-0.00395 (0.0264)	0.0268 (0.0325)	18
5	E (10-24)	0.5938	0.0449* (0.0122)	-0.441* (0.0907)	-0.0135 (0.0125)	-0.0559* (0.0255)	28
6	F (36 largest)	0.4483	0.0170* (0.00435)	-0.354* (0.0628)	0.0145* (0.00399)	0.00214 (0.00662)	54
7	F (9 largest)	0.2770	0.0207 (0.0120)	-0.342* (0.132)	-0.00876 (0.00754)	-0.00356 (0.00987)	16
8	F (10-24)	0.5153	0.0232 (0.00715)	-0.521* (0.112)	-0.0168* (0.00588)	0.00711 (0.0107)	24
9	F (25-36)	0.4923	0.0210* (0.00722)	-0.516* (0.203)	0.0184* (0.00792)	0.0075 (0.0175)	14
10	G (9 largest)	0.3097	0.0744 (0.0626)	-0.254* (0.110)	-0.000484 (0.0442)	0.0865* (0.0471)	18
11	G (10-24)	0.3128	0.0642 (0.0463)	-0.399* (0.128)	0.0245 (0.0328)	0.0249 (0.0322)	28

---

\* t - statistic significant at 90 percent confidence level

a/ Results reported are for regressions with adjusted coefficients of determination ( $\bar{R}^2$ ) equal to or greater than .25.

b/ Variant of comment variable which treats pilot runs of system in the same way as when system became effective nationally except for regression number 5 where comment variable is only significant and negative for other variant of comment variable. See footnote 1/ on p. 27.

BOARD OF GOVERNORS  
OF THE  
FEDERAL RESERVE SYSTEM  
WASHINGTON, D. C. 20551



ADDRESS OFFICIAL CORRESPONDENCE  
TO THE BOARD

June 30, 1982

Mr. William J. Anderson  
Director  
General Government Division  
United States General Accounting Office  
Washington, D.C. 20548

Dear Mr. Anderson:

The Board appreciates the opportunity to respond to the draft report entitled, "Bank Examination System for Country Risk and International Lending." The Board appreciates the time and resources devoted to this project by the GAO, and it will find the report useful in the ongoing review of this relatively new system. The Board's comments on specific items addressed by the GAO are presented below.

In our banking system, the ultimate decisions on extensions of credit are made by the managements of individual banks. The comment levels are not designed to be limits and banks are not required to reduce credit below the comment levels. As Board representatives have previously stated, comments on concentrations are advisory in nature. The comments are designed to caution senior bank officials of risks involved in extending significant amounts of credit that could be adversely affected by actual or potential debt servicing problems in particular countries. Banks are expected to take those risks into consideration in arriving at their lending decisions.

The Board shares the GAO's belief that the country risk examination system should not unduly influence the flow of international credit. The present system is designed with that goal in mind. The examination report includes comments on country risk only where a country is not meeting its payment obligations or where the particular bank under examination already has a significant amount of credit, in relation to its capital funds, outstanding to the country. As a result, most countries are not commented on in the vast majority of banks that are engaged in international lending.

The Federal Reserve, however, believes that it is necessary to alert banks to the potentially adverse consequences of concentrations of exposure, even in countries where conditions are currently satisfactory. As events in recent years have shown,

Mr. William J. Anderson

-2-

circumstances can change rapidly in today's world. While it may be possible to identify potential problems a short time before payment difficulties arise, banks with large amounts of credit outstanding to a country would require substantial time to adjust their portfolios in an orderly manner.

The report states that the examiners' comments on concentrations of exposure have had a "questionable" impact on bank lending, but acknowledges that the finding is "tentative." The Board believes that in view of the large number of factors that affect international lending, data limitations, and the brief time the system has been in effect, such judgements are premature. Also, a strong correlation between comments and lending behavior should not necessarily be expected. However, the Federal Reserve is reviewing ways to make the system more effective. In this regard, the GAO suggestions for highlighting particular exposures on "page 1" of the examination report and for ensuring that management fully understands the procedures used are especially helpful.

The draft report makes a number of suggestions to improve country analysis and implementation of the examination system. The Board has instructed its staff to consider these comments as it looks at ways to improve the system on a cost effective basis.

Sincerely,



William W. Wiles  
Secretary to the Board



---

Comptroller of the Currency  
Administrator of National Banks

---

Washington, D. C. 20219

July 8, 1982

Mr. William J. Anderson  
Director  
General Government Division  
U. S. General Accounting Office  
441 G Street, NW  
Washington, DC 20548

Dear Mr. Anderson:

We appreciate the opportunity to respond to GAO's draft report entitled "Bank Examination for Country Risk and International Lending." The draft report contains numerous recommendations to both federal regulators and the Interagency Country Exposure Review Committee. The Office of the Comptroller of the Currency (OCC) offers the following general comments for GAO's consideration.

We feel there are some key elements missing from GAO's draft report. A discussion of the linkage among the component parts of the country risk review process as well as the linkage between the Interagency Committee and the overall federal bank supervisory system is essential to completely understanding the supervision process. The component parts of the review are designed to be consistent with the overall objectives of the Interagency Committee.

The federal regulatory agencies' policies, practices and procedures for examining country risk and international lending are complementary and supplementary to overall bank supervision policies. The Interagency Committee does not perform a separate and distinct supervisory function, but rather functions as one component of the overall program for bank supervision. This important linkage between the Committee and the supervisory process needs to be recognized in order to understand the dynamics of the entire process.

-2-

### System and Objectives

Contrary to the GAO recommendation, the OCC believes objectives for special comments concerning country risk exposure are established and in place. However, the OCC concurs that the federal banking agencies should strengthen the manner in which those objectives are communicated to bankers. Specifically, the objectives of the special comments in federal banking agencies' country risk system are:

- o promoting adequate diversification in the country exposures of U.S. banks by identifying actual and potential risks;
- o commenting on those risks vis-a-vis the level of a bank's exposure and the way banks manage those exposures; and,
- o expecting the banks to review the appropriateness of their exposure given the perspectives of the agencies.

GAO infers that the unstated objective of special comments is to reduce bank exposures below comment levels. The federal banking agencies do not interfere with bank lending practices unless a bank is operating in an unsafe manner or is violating the law. Otherwise, the agencies would be in a position of managing private interests and allocating credit.

The OCC has taken steps to strengthen the manner in which we brief bankers concerning the country risk system. OCC's Multinational Division meets annually with the Board of Directors and executive officers of the eleven largest national banks. These meetings include briefings supplementary to the specific comments contained in the Report of Examination. The OCC will expand such meetings to include the larger national banks in regional financial centers. These multinational and regional banks comprise most U.S. bank lending abroad.

### Standards of the System

The OCC believes that a fundamental strength of the Interagency Committee process is its emphatic recognition of the dangers of any attempt to predict precisely a country's external repayment ability. We believe it is difficult to establish any kind of "error" factor on country repayment ability over a short period. The dynamics of balance of payments management and external debt service are just too complex for establishing something as precise as an error factor in the short run.

-3-

It is the inherent non-precision of country analysis that leads the federal banking agencies instead to stratify countries (roughly at first) using computerized data screens, and then, stratify them subjectively, based on a consensus opinion about various data and pertinent social, political, and economic information. This "non-precision" also leads the agencies to not emphasize risk per se, but rather risk vis-a-vis the level of a bank's exposure. Accordingly, the agencies' objectives are moderation of risk concentration and promotion of risk diversification.

The Interagency Committee ranks country exposures as "strong," "moderately strong" or "weak" based on the relative strengths of countries' economic, social and political situation. Although it may be inferred that "weak" countries carry a higher probability of future debt servicing problems than "strong" countries, there is no attempt by the Interagency Committee to predict which countries are likely to incur problems. The major purpose of the ratings is to promote adequate diversification of international loan portfolios.

The Interagency Committee uses two tools as an initial basis for ranking the country exposures. They are data screens and country notes prepared by the Federal Reserve. However, the GAO places too much emphasis on these tools as indicators of potential debt servicing problems.

The OCC disagrees with the draft report which states that the screens are "an anchor" and "primary input" to the Interagency Committee's country risk opinions. It is the policy of the OCC that the screens represent an initial basis for stratifying the large inventory of countries the Committee must review. The screens only provide the Committee with a first step from which to proceed in reviewing detailed data and information provided by the Federal Reserve, U.S. banks and the U.S. Treasury.

The Federal Reserve Bank of New York is working on the development of better and more reliable "screens." This effort should continue, including research on better indicators of problem debt situations.

The OCC supports a review of the country notes process with the goal of strengthening the notes as a tool of the Interagency Committee, though expansion of the notes is unnecessary. The Federal Reserve country notes were never envisioned to be all encompassing documents. They were designed to provide a framework in which the Interagency Committee members conducted their examinations on-site in the banks and analyzed their information for decisions by the Interagency Committee.

-4-

System in Practice

The OCC generally concurs with most of the GAO's recommendations concerning the operation of the country risk system:

- o We will discuss with the Federal Reserve and FDIC uniformity in the grouping of countries by examiners.
- o At present our examiners include analyses beyond the country write-ups and portfolio compositions in special comments. Beginning with the Country Exposure Reports as of December 31, 1981, the OCC uses the same universe of banks for making comparisons.
- o In the report, GAO refers to "highlighting," which is the examiner's professional conclusions about the adequacy of a bank's international lending management. The establishment of criteria for exposure highlighting is warranted as long as the criteria are not quantitative or a "laundry list" approach. Professional conclusions require an assessment of a matrix of complex factors. Care must be exercised to avoid "rigidities" and allow examiners to exercise their own judgment in order to preserve scarce resources and maintain optimal flexibility. This also holds true when establishing guideline and documentation requirements for examiners reviewing country exposure systems.

Impact on Banks

OCC policy requires examiners to follow-up on all outstanding recommendations and criticisms and to reference any action taken in their workpapers. We do not believe a notation in the Report of Examination is necessary unless the deficiency/criticisms remain uncorrected.

Again, we appreciate the opportunity to comment on GAO's draft report and are willing to discuss it further with you or your staff.

Sincerely,



C. T. Conover  
Comptroller of the Currency





FEDERAL DEPOSIT INSURANCE CORPORATION, Washington, D.C. 20429

OFFICE OF DIRECTOR - DIVISION OF BANK SUPERVISION

June 30, 1982

Mr. William J. Anderson, Director  
 General Government Division  
 United States General Accounting Office  
 Washington, D.C. 20548

Dear Mr. Anderson:

Chairman Isaac asked that I respond to your request for comments on the draft report entitled "Bank Examination for Country Risk and International Lending."

We have reviewed the draft report and believe it has some useful insights. However, we feel that the General Accounting Office may have differing views and expectations of the Interagency Country Exposure Review Committee (ICERC) and the country risk examination system than the FDIC. We at the FDIC view the ICERC as an integral part of the country risk examination system which allows the agencies to monitor the quality of international assets of U.S. banks, and a means to encourage risk diversification by bank management. While forecasting is a part of any asset evaluation, we do not emphasize it in ICERC deliberations, nor do we rely on the ICERC to predict when a particular country will experience debt service interruption. The system is designed to systematically report to agency personnel when such interruption has occurred or is highly likely, based on currently available economic, social, and/or political factors.

In testing for the accuracy of the ICERC's projections for potential debt service interruption, the audit measured country designations against two types of errors which the ICERC might make. These are: the error of not identifying for special comment countries which interrupted debt servicing, type I; and identifying for special comment countries which did not interrupt debt servicing, type II. The report states that the ICERC's type I error rate of six percent was very good during the survey period, but that the type II error rate of 53 percent could have been reduced to 23 percent by selecting only countries designated weak for special comment. By not listing moderately strong countries for special comment, the ICERC would be without a vehicle to communicate to the bank supervisors and the bank that countries other than those adversely classified or designated weak bear watching. Thus, any hope of tempering bank lending before serious problems were encountered would be lost. Consequently, we do not feel that a high type II error rate is unsatisfactory, given the definition assigned the moderately strong designation and the purpose for which it is intended. (GAO note: Based on GAO's internal review process, the material to which these agency comments refer was deleted from the report.)

The draft report states that the screens used by the ICERC lack any positive indicators of a country's ability to generate foreign exchange. It should be noted that the indicators give consideration to exports and/or foreign reserves and a country's ability to generate foreign exchange. For example, the current account, the residual of visible and invisible exports from imports, is the numerator in two ratios; and export figures are used as the denominator in two other ratios. The report also notes the lack of absolute values for judging economic performance. We recognize that ratio analysis has shortcomings with regard to absolutes and qualitative factors. The screens are objective indicators and only one part of the analysis and decision making. With regard to having no screen entries for some countries, it has been found, especially in the case of several Communist countries, that data is not reliable.

With respect to the cited shortcomings of the country studies prepared for use by the ICERC, such as near-term future developments not being adequately covered, our experience has been that, where such developments are negative and critical to a particular country's ability to service debt, the country studies do cover and discuss them. It should also be noted that the studies are supplemented by oral presentations to update information and provide official projections.

We question the draft report's statement regarding a correlation between a bank's asset quality rating under the Uniform Financial Institutions Rating System (CAMEL) and the bank's bond rating. While the amount and severity of country risk exposures are a factor in a bank's overall asset quality rating, it does not necessarily follow that our ratings of asset quality would have a direct effect on a bank's bond rating.

To the point of communicating the goals of the country risk examination system, as indicated in the report, it is advisory for banks. It is meant to communicate to banks where the amount of exposures to particular countries are of interest to the banking supervisors and where deficiencies in bank internal systems exist. Where exposures are above comment levels, we expect that banks will weigh our remarks, as well as other facts at their disposal, in extending additional credit. One objective in this regard, as pointed out in the report, is to emphasize adequate risk diversification. The threshold levels of 10 and 15 percent of capital and subordinated debt for designated weak and moderately strong countries were established not as a measure of risk of loss, but rather to inform us of a bank's susceptibility to financial disruption in a particular country and to bring that fact to bank management's attention. We do agree that we must better communicate our objectives to bank management. The FDIC has recently instituted a program whereby Regional Directors meet with certain banks' managements to call attention to and discuss the size of the banks' outstandings to individual countries.

Regarding our approach to assessing bank internal systems for monitoring country risk, the FDIC's general philosophy in examinations is not to require examiners to document and comment upon systems which, after review, are determined to be adequate. Our Manual of Examination Policies includes points

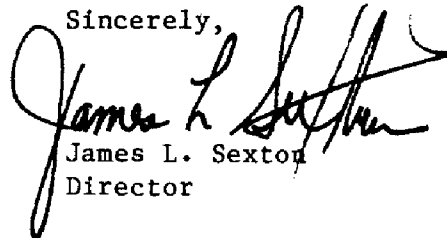
- 3 -

to be addressed and minimum areas of coverage at every examination for country risk. Examiners use the manual, which includes questions to be satisfactorily answered, for guidance. We recognize that, due to the size and nature of the banks supervised by the FDIC, the level of sophistication of internal systems may be quite different from larger multinational organizations. We therefore concentrate on minimum acceptable standards and rely on examiner judgment to determine when greater sophistication is necessary. In this regard, it should be noted that, although we concentrate on those banks with the most significant exposures, we do implement the country risk examination procedures in every FDIC-supervised bank which engages in international lending activities.

The draft report notes the absence of uniformity in examiner analysis of bank exposures and highlighting of exposures on page one of the examination report. We agree that examiners should provide more history of the size of individual country exposures, a comparison of the bank's outstandings versus other banks in its peer group, and efforts the bank is undertaking to monitor exposures. We do not, however, require examiners to highlight exposures merely because they are above established thresholds. We expect comment and supporting analysis when exposures are most egregious or expanding too rapidly. Some minimum requirements for highlighting might be desirable, so long as they do not unduly inhibit examiner judgment.

We have discussed all of the draft report's recommendations with our representatives to the ICERC, and directed those representatives to carefully deliberate the merits of each recommendation in the ongoing development of the country risk examination system.

Sincerely,



James L. Sexton  
Director

(483338)



**For sale by:**

**Superintendent of Documents  
U.S. Government Printing Office  
Washington, D.C. 20402**

**Telephone (202) 783-3238**

**Members of Congress; heads of Federal, State,  
and local government agencies; members of the press;  
and libraries can obtain GAO documents from:**

**U.S. General Accounting Office  
Document Handling and Information  
Services Facility  
P.O. Box 6015  
Gaithersburg, Md. 20760**

**Telephone (202) 275-6241**

