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Government Arrears in Fiscal Adjustment Programs

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Abstract

Expenditure arrears, signifying prolonged delays in the government meeting its financial obligations to suppliers and creditors, have become an increasingly common feature of government operations in many developing countries. This paper indicates the significance of arrears in distorting typical measures of fiscal stance as well as their potential role in facilitating the delay of desired fiscal adjustment measures. Following a discussion of the issues involved in defining and measuring different types of arrears, an approach to incorporating arrears into the presentation of government accounts is described. After a brief discussion of the macroeconomic effects of government arrears, the paper concludes with a discussion of the treatment of arrears in programs of fiscal adjustment. A strategy of combining a program of arrears reduction with an appropriate monitoring system for broad aggregates of government expenditure is recommended, with the objective of preventing the emergence of further arrears.

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Summary

In recent years, the emergence of government expenditure arrears, indicating delays in a government's payments to its suppliers and creditors, has become an important fiscal issue. In at least 17 of the 66 countries with Fund programs during 1980 to mid-1985, domestic arrears were a significant problem. Given accounting conventions, arrears may lead to an underestimation of expenditure and, correspondingly, of the macroeconomic impact of government operations and of the size of the fiscal problem facing a country. Since arrears can be viewed as a form of "forced financing" to the government, the government's borrowing requirement may also be underestimated, giving a distorted picture of the sources of credit expansion in an economy and of the degree of adjustment required of the private sector. This paper outlines the practical problems in identifying and measuring domestic arrears in the context of alternative budgetary systems and develops a taxonomy for classifying arrears. This taxonomy is based on the economic type of the payment arrears, the payee to whom the arrears are due, and the payee's residence. Using this classification, the paper recommends approaches to overcoming the drawbacks of a purely cash-basis fiscal accounting in the presence of arrears.

The paper also contains a discussion of the economic effects of government arrears, based on an evaluation of how government arrears are created, whether such arrears were anticipated, and how the payee reacts to payment delays. The differential impact of arrears in amortization payments, as opposed to arrears in expenditures, is explored. This is followed by a discussion of the treatment of arrears in the context of fiscal adjustment programs. When fiscal adjustment has not been on target or there have been unprogrammed shortfalls in other sources of financing, a buildup of arrears may be used by governments to reconcile constraints on domestic bank financing. Such an unprogrammed accumulation in government internal and external arrears may circumvent the desired fiscal adjustment. The paper recommends that countries combine the programming of the reduction of arrears with an appropriate monitoring system for broad aggregates of government expenditures, with the prevention of arrears as this system's primary concern. In this context, the problem of the domestic counterpart of external arrears can be tackled by programming and monitoring transfers to special blocked accounts at the central bank. To be effective, all such methods must be based on a firm policy commitment to view the avoidance of arrears as an integral part of fiscal adjustment.



I. Introduction

In recent years, the emergence of government expenditure arrears, indicating delays in a government's payments to its suppliers and creditors, has become an important fiscal issue. ^{1/} Given accounting conventions, the presence of arrears may lead to an underestimation of expenditure, and correspondingly of the impact of government operations and the size of the fiscal problem facing a country. Since arrears can be viewed as a form of "forced financing" to the government, the government's borrowing requirement may also be underestimated, yielding a distorted picture of the sources of credit expansion in an economy. Arrears have also created problems in the context of adjustment programs. When fiscal adjustment has been less than programmed or there have been unprogrammed shortfalls in other sources of financing, a buildup of arrears may become a means by which governments can reconcile constraints on domestic bank financing. Such an unprogrammed accumulation in government internal and external arrears may circumvent the desired fiscal adjustment.

The objective of this paper is for the reader to gain a fuller appreciation of the significance of the government expenditure arrears problem, with particular emphasis on how the problem may be identified, quantified, presented in fiscal tables, and integrated into policies of fiscal adjustment. Section II provides data on the empirical significance of the arrears problem. Section III discusses the issues involved in defining and measuring arrears. To evaluate the impact of alternative types of arrears, Section IV provides a taxonomy of arrears according to the type of payment from which the arrear originates and the payee to whom the arrear is due. Section V suggests an approach for incorporating arrears into the presentation of government accounts. Section VI discusses the economic effects of arrears. After an examination of the significance of arrears in the context of fiscal adjustment in Section VII, Section VIII provides some concluding remarks.

II. Quantitative Significance of Arrears

While arrears are known to be a prevalent problem in many developing countries, obtaining accurate data on arrears is extremely difficult. The reasons are discussed in Section III. Nevertheless, a brief description of the existing data on arrears may provide some evidence to illustrate the dimensions of the problem.

Government domestic arrears were factors of importance in the financial programs of at least 17 of the 66 countries which had Fund

^{1/} Another, no less important and often interrelated problem, is revenue arrears to the government, for example, taxes levied but not collected and uncollected loan repayments due to the government. The paper will deal with the implications of this other "arrears" problem only tangentially.

programs during the period 1980 to mid-1985. ^{1/} Twelve of these countries were African, 2 were from the Western Hemisphere, 2 were European, and one Asian. It is not possible, because of problems of identification and quantification, to show the entire outstanding stock of government arrears in these countries. However, changes in the stock of arrears, both domestic and foreign, which have been quantified during the course of Fund programs, can be used to give some sense of the magnitude of the flow of arrears, relative to both total government expenditure and total government financing (Table 1). These statistics are simply meant to illustrate the character and significance of the arrears problem. The names of the countries are not shown in order to maintain confidentiality of the sources of data.

Considerable caution is required in appraising these data. The definition of arrears varies across countries, and it may well be that "identified" and "verified" arrears understate the true magnitude of outstanding arrears. Even intertemporal comparisons for any one country are difficult, as one often observes changes in coverage and definition as well as institutional changes in procedures for recording arrears.

Even with these caveats, the size and importance of the arrears problem can be appreciated from the statistics of Table 1. In 7 of the 14 countries shown in Table 1, changes in arrears have been the equivalent of 10 or more percentage points of total recorded expenditures. Such a change is likely to have a considerable impact on the rest of the economy, and yet it cannot easily be discerned from the budget accounts conventionally used to analyze the impact of the budget. As a source of financing, the change in recorded arrears has been 10 percent or more of the total financing requirement of the government's recorded cash deficit in at least one of the years shown in Table 1. For 11 of the 14 countries, the change in arrears has reached over 20 percent of total financing in at least one year; in four countries it has been over 50 percent in at least one year, and in 1981 the increase in recorded arrears in an European country appears to have been equivalent to the overall government financing requirement.

Aside from its magnitude, the change in arrears has displayed a much greater degree of volatility over time than have other fiscal aggregates. For example, consider the impact of such fluctuations in arrears on small economies such as African Country 7, which increased arrears in 1981/82 by 12 percent of total expenditure and reduced arrears by almost 13 percent in 1983/84; or African Country 9, which increased arrears in 1981/82 by almost 19 percent of expenditures and in the following fiscal year reduced them by 9 percent of expenditure. Undoubtedly, some delays in payment may be of a very limited duration--perhaps a few days--others may be more prolonged. While it would be preferable to focus on the latter when measuring the volatility of

^{1/} "Fund Supported Programs, Fiscal Policy, and the Distribution of Income," Occasional Paper No. 46 (Washington: International Monetary Fund, 1986).

Table 1. Relative Size of Government Arrears in Program Countries

Country	Year	Change in identified arrears as percent of	
		Expenditure	Cash deficit
Latin American Country 1	1983/84	+3.0	+16.0
African Country 1	1982	+0.5	+4.9
	1983	+2.1	+14.1
African Country 2 <u>1/</u>	1982	+2.2	+7.1
	1983	+10.1	+59.2
	1984	-7.0	-39.9
African Country 3 <u>2/</u>	1980/81	+1.9	+5.6
	1981/82	-1.6	-6.2
	1982/83	+2.1	+6.4
	1983/84	-2.1	-8.9
African Country 4 <u>3/</u>	1980	-0.1	-0.2
	1981	-0.1	-0.3
	1982	-0.2	-0.5
	1983	-2.5	-8.2
	1984	-5.1	-23.9
African Country 5	1980	+4.0	+20.3
	1981	-1.2	-6.4
	1982	-10.4	-53.2
	1983	-7.7	-22.1
	1984	-0.9	-3.7
African Country 6 <u>4/</u>	1980	+1.1	+3.6
	1981	-0.5	-1.2
	1982	+6.3	+22.8
	1983	-7.7	-22.1
	1984	-0.9	-3.7
African Country 7	1979/80	+2.6	+9.1
	1980/81	+2.0	+4.6
	1981/82	+12.1	+47.1
	1982/83	-1.4	-3.5
	1983/84	-12.6	-29.0
African Country 8 <u>4/</u>	1979/80	+4.3	+35.0
	1980/81	+8.0	+28.4
	1981/82	-9.8	-28.0
	1982/83	+2.7	+10.2
	1983/84	-9.1	-32.9

Table 1 (concluded). Relative Size of Government Arrears
in Program Countries

Country	Year	Change in identified arrears as percent of	
		Expenditure	Cash deficit
African Country 9	1980/81	+6.0	15.8
	1981/82	18.5	+42.3
	1982/83	-9.2	-15.4
	1983/84	+1.5	+3.5
European Country 5/	1980	+1.4	+6.8
	1981	+5.8	+100.0
	1982	-1.9	-16.6
	1983	+5.2	+53.5
	1984	+1.7	+6.6
African Country 10 6/	1980/81	+3.0	+4.1
	1981/82	+8.5	+26.0
	1982/83	+8.7	+32.1
	1983/84	-0.7	-32.4
African Country 11	1980	+2.8	+9.6
	1981	-1.5	-4.1
	1982	-11.0	-22.7
	1983	+2.6	+11.5
African Country 12	1982	+3.8	+12.5
	1983	+10.0	+109.2
	1984	+7.6	+171.1

Source: Staff estimates.

1/ Coverage relates to the nonfinancial public sector; also includes arrears on external amortization payments.

2/ Identified arrears up to 1984/85 include only arrears on interest. Expenditure up to 1984/85 is a mixture of checks issued and commitments, and deficits prior to this time may be underestimated because data on the accumulation of domestic arrears are unavailable. "Unallocated expenditures (net)" was 5.6 percent of the total cash deficit in 1980/81, 6.2 percent in 1981/82, 13.1 percent in 1982/83, and 16.4 percent in 1983/84. The latter is calculated as a residual, including unrecorded expenditure items, change in paycheck arrears, and check float, along with statistical discrepancies.

3/ Change in deferred payments, including payment of arrears.

4/ Includes arrears of central government and decentralized agencies.

5/ Change in accounts payable.

6/ Domestic arrears only.

changes in arrears, in practice this group of delayed payments cannot be separated in the data. In part, these fluctuations in arrears have frequently been associated with the constraints imposed by the need to meet credit targets, but in part this volatility also likely reflects changes in recording procedures or changes in valuation (particularly if arrears are on external obligations which are sensitive to exchange rate changes). Unfortunately, the variability in the series is also likely to reflect the fact that changes in arrears often function as a "balancing item" in the fiscal accounts. Whatever the reason, the size of the change in arrears, coupled with its volatility, implies considerable adjustment on the part of the private sector in accommodating such changes. It also suggests that for many countries, the elimination of arrears has posed considerable obstacles to fiscal adjustment.

III. Identification Problems

In principle, the concept of arrears appears uncomplicated, equaling the total outstanding obligations due for payment that the government has failed to discharge. Normally, claims that have been referred to adjudication, or are found wanting in documentation, should be excluded. Similarly, so-called arrears arising from pay revisions with retrospective effect are also excluded. The aim is to isolate those payments for which claims have been established but which are kept pending for prolonged periods, usually for lack of necessary funds. The only obvious discretionary issue is the definition of when the time-lag between the creation of a payment obligation and its discharge becomes so abnormal as to imply the existence of an arrear, or in the case of a prolonged delay, a default. In reality, the identification and measurement of arrears based on the notion of a "greater than normal" delay is rarely straightforward. Although legal requirements usually fix the date for payment, there can be considerable administrative lags in the processing and recognition of the legal obligation to pay.

Obviously the emergence of arrears signifies either a government's unwillingness or its inability to discharge its payments obligations during a given period of time. The accumulation of domestic budgetary arrears in some countries may, in part, reflect the monetary arrangements or legal requirements that limit a government's access to central bank credit. For example, in those Francophone countries sharing a common central bank, legal limits are placed on a government's central bank borrowing, with the result that once that limit is reached, arrears become the balancing item between total commitments and other sources of finance. In most other countries, (e.g., with British institutional arrangements), legal limits on the government's ability to borrow from the central bank rarely apply, and because of this, the government typically has no difficulty in staying current in its domestic obligations. Domestic arrears, however, have recently become evident in some of these countries, especially when limits have been placed on government domestic bank financing (or domestic statutory limits placed on spending or credit to the public sector). Such limits

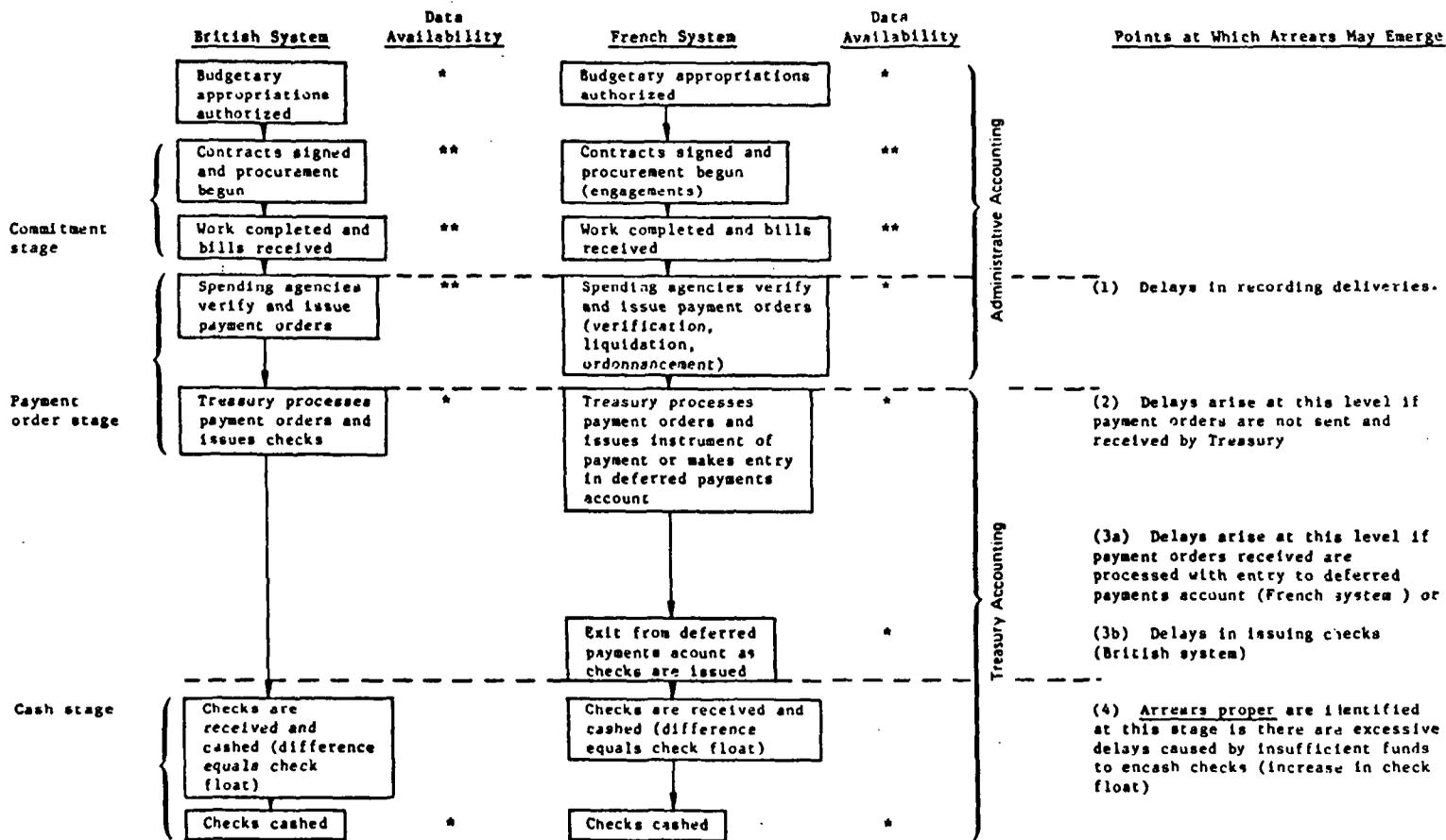
have made it more tempting for the government to resort to the accumulation of arrears in order to circumvent these limits.

Similar differences are evident in the reasons for the incurrence of foreign arrears. In most non-Francophone countries of Africa and Latin America, foreign arrears reflect a shortage of foreign exchange, which constrains the externalization of government payments to meet foreign currency commitments. On the other hand, since within limits many Francophone countries (particularly in Africa) have access to the French Treasury, the problem of externalization of payments tends not to be the binding constraint in meeting their external obligations. Rather, for these countries the problem remains one of obtaining local funds with which to meet these obligations. As a consequence, in causal terms, domestic and foreign arrears in many Francophone countries have arisen from a common source.

Countries may also differ substantially in the means available to identify and quantify arrears. It is not possible in this paper to describe comprehensively the many forms in which arrears may originate or be identified. In a number of cases these differences are grounded in the type of budgetary accounting systems from which a country's accounting practices have evolved. This paper will focus principally on the characteristics of the types of accounting systems typically found in African countries following the French and British budgetary traditions. Of course, many of the difficulties involved in identifying and quantifying arrears in these countries are common to a number of Latin American and Asian countries as well.

In its simplest form, the spending procedures of the British budget and accounting system involve the following steps. After receiving the authorization to spend, Ministries or spending departments may enter into commitments with suppliers for the purchase of goods and services. After verification, the deliveries of these goods and services signify an obligation on the part of the government, which is then liable for payment. Payment orders are usually prepared and issued by the receiving Ministry after certification that delivery has been made. Spending departments are usually required to maintain commitments ledgers and to record payment order releases against authorized appropriations (sometimes called vote books). Although the comparison of actual deliveries with payment orders issued is expected to be carried out by spending departments as part of their day-to-day operations, this is usually not monitored on a government-wide basis. On the basis of these payment orders, checks or warrants are issued by the Treasury or the Ministry payment officers and sent to the suppliers. When these checks are presented at the banks, and the Treasury or Ministry accounts debited, the government can be said to have discharged its payment obligations. Normal delays in the government meeting these obligations obviously arise from inevitable time lags in the government's spending procedures. Typically, delays in final payment are a manifestation of delays at earlier stages in the spending process, that is, in the recording of deliveries, the issuance

Chart 1. Arrears and Time Lags in the Stages of the Expenditure Process



* Data available, usually in consolidated form.
 ** Data available, only on disaggregative basis.



of payment orders, the processing and preparation of payment checks, or the actual issuance and release of checks (see Chart 1). While the concept of arrears in this accounting system, as in the French accounting system, is typically held to signify the existence of delays over and above some normal level at the last stage of the payments process, it is important to stress that delays can also originate at any of the earlier stages.

In an ideal world, with current data available on goods delivered, payment orders issued, checks issued and checks cashed, it would be comparatively easy to identify deviations from normal lags in the system. In some countries following the British budget and accounting system, however, the most current and often the only data available will be checks-issued expenditure data, so that it is possible to identify only the check float (i.e., the recorded difference between total checks issued and total checks cashed). This would still leave unsolved the difficulty of separating the normal level of check float from that component truly signifying a buildup in arrears arising from normal processing delays. In other cases, the only expenditure data available are likely to be either on a commitment (i.e., prior to deliveries) or on a payment order basis (i.e., subsequent to deliveries), giving rise to a discrepancy between the latter totals and the total of checks cashed.

In cases in which only commitment data are available, some of this discrepancy should in principle not be classified as arrears, for example, the amount of commitments for services not yet delivered. Even the emergence of a significant difference between the value of payment orders issued and the amount of checks cashed--the total of unpaid obligations--overstates the magnitude of arrears, consisting of both the normal check float, and those obligations that the government has not yet discharged. The latter may reflect normal lags in the preparation of payment orders and check issuance, but it may also reflect obligations that the government either cannot discharge (i.e., arrears proper) or refuses to discharge (i.e., claims disputed by the government).

Thus, in the British accounting system, it is usually quite difficult to accurately measure arrears from the available statistics, which are often incorrectly referred to as the check float. Since arrears may embody any one of the earlier stages between the commitment of an order and the issuance of a check, some crude rules of thumb are typically employed to identify deviations of the available check float measure from the levels that have normally prevailed in the past. For example, past levels of check float are often related to some other fiscal aggregate, such as total revenues or the sum of total expenditure and check float. Significant deviations are typically imputed as a crude measure of arrears.

The identification of government arrears in countries that have adopted the French budgetary and accounting system encounters different

problems. A common feature of the French system is the need to distinguish between two separate stages of the accounting system: the administrative accounting phase (comptabilité administrative) and the Treasury accounting phase (comptabilité du Trésor). While the former covers the initial stages of expenditure implementation (from the point at which goods and services are ordered until a payment order is issued), the latter encompasses the financial phase (from the arrangement of payment through the discharge of the government's payment obligation). (For a comparison with the British system, see Chart 1.)

In the administrative accounting phase, expenditures are first recorded as commitments (engagements) when a purchase order or contract is signed. Commitments are generally proposed by the spending agency, usually with the approval of the Ministry of Finance. 1/ After the service has been rendered or the goods delivered and the corresponding bill received, the spending agency verifies that the service was actually performed (verification) and establishes the exact amount of the claim (liquidation). Then a payment order is prepared by the spending ministry and sent to the Treasury (ordonnancement). This is the last stage at which expenditures are recorded in the administrative accounting system. Normally, the payment orders are recorded by budgetary items.

The Treasury executes the financial phase of the expenditure process and records this in its accounts. The monthly statement of accounts (balance générale des comptes du Trésor) shows the position of each account and their movements from the beginning of the fiscal year. 2/ After a payment order has been received by the Treasury and acknowledged as valid (visement), and the check is signed and released (mandatement), the expenditure is recorded in the accounts of the Treasury, thus debiting the expenditure account. The counter entry can be made in various accounts, depending upon the manner in which and how quickly the government discharges its payment obligations; frequently, a financial account or a third party account (if the payment is to be credited directly to the payee's account with the Treasury) is credit. In many countries an important means of payment is the cash voucher (bon de caisse), used either for expenditure on personnel or for goods and services. The cash voucher can be cashed at the Treasury or at any

1/ Generally, the Ministry of Finance has a representative in all spending agencies who must approve all proposed commitments in order to ensure that they are in agreement with the budget allocations. In many countries following the British system, a similar check exists with Treasury financial officers assigned to the spending departments. Unfortunately, in many countries the control exerted on the spending department is ineffective.

2/ These movements are used to adjust the ordonnancement data which are typically the raw material for the processing of fiscal aggregates in the GFS statistics.

local branch of the Treasury. The cash vouchers are used not only for general budgetary expenses, but also for extrabudgetary accounts and local governments.

The Treasury may decide to defer payment on payment orders received, which are otherwise perfectly regular and valid. In this case the credit entry is made in the deferred payments (virements différés) account. When payments are actually made, these accounts are debited by the credit of the financial account concerned. A special kind of deferred payments account is the account for expenses to be settled in the following month. 1/

Thus, in the French system, in principle, it is relatively easy to identify government arrears regarding the expenditures that have entered the accounting system of the Treasury. One has only to take the balances of the accounts recording expenditures that are to be paid. These typically include the deferred payments accounts (arrières de paiement) and the account that records the outstanding amount of cash vouchers (bons de caisse). In many countries, experience shows that the deferred payments accounts have been frequently used as balancing items between expenditure commitments and available financial resources.

Arrears reflected in the outstanding amount of cash vouchers differ somewhat from other Treasury arrears. The instrument of payment has been issued, and it is up to the payee to present these vouchers to the cashier in the Treasury. In this way the Treasury has no real control over the amount of outstanding cash vouchers and cannot ensure the outstanding amount of cash vouchers does not exceed the normal float. The situation is, however, different if the Treasury continues issuing cash vouchers but does not accept them if presented to the cashier. Since cash vouchers are not transferable, the holder of the cash voucher has no choice but to wait until the Treasury has sufficient financial resources to discharge its obligation. If the cash voucher were transferable, it could easily become a means of payment and so increase domestic liquidity. Such a situation has in recent years arisen in one African country which in many respects follows procedures similar to the British accounting system, where checks were released in excess of financial resources. Consequently, government checks started to circulate at a discount in the economy as a means of payment.

1/ This account operates as follows. Suppose a payment order pertains to December but payment is made in January. In December the payment order is debited to expenditure and a counter-credit is made to the account for expenses to be settled in the following month. In January the account for expenses to be settled that month is debited and a financial account credited. After the January accounts are closed, both entries in the account for expenses to be settled will be merged and the account balanced. Meanwhile, however, when considering December final accounts, one finds a credit balance to the account for expenses to be settled next month, which is typically treated as an outstanding payment arrear.

As with the British system, the identification of the emergence of arrears in the French system is complicated by delays in processing incoming bills prior to the issue of payments orders (e.g., recorded expenditure commitments awaiting issue of a payment order). At this stage of the expenditure process, arrears are not reflected in Treasury accounts, but only in the administrative accounting system. They can be measured only with information from spending agencies on the amount of unprocessed bills, a comparatively difficult and time-consuming procedure.

In both systems, the determination of the time interval at which a delayed payment constitutes a true arrear is further complicated in practice by other features of government payment procedures. For example, the government may enter into commitments with suppliers for the immediate purchase of goods and services or into contracts providing for future delivery. In the latter case these contracts give rise to government liability for payment at some future time, generally set out in the purchase contract. Indeed, in the case of capital projects there may be a significant lag between the delivery of goods or completion of work and the point at which the government's legal obligation to pay becomes operative. In this way changes in the composition of expenditure can distort the definition of a normal delay in payment. In some countries the difficulty has been compounded by domestic contractors offering the government what amounts to suppliers' credits. Furthermore, if difficulties are encountered in identifying when a delay in payment can be regarded as an arrear, there are also problems in defining the time period in which the government's delay in payment has become so protracted as to constitute a default.

Serious identification problems arise for those expenditures that have been committed outside the regular commitment process and that have not yet been recorded in the accounting system. In some Francophone countries arrears of this nature have been reported as expenditures still to be regularized (depenses en cours de régularisation). They often reflect extrabudgetary expenditures and expenditure overruns, the latter stemming frequently from unrealistic provisions in the budget. Instances of underbudgeting (e.g., electricity, telephone, and water) are sometimes the result of a government's inability to take necessary adjustment measures though constrained by basic accounting principles to make the budget balance by law. Another aspect of identification arises with respect to arrears on debt service. A number of Francophone countries have established amortization funds to manage the servicing of government debt. In this case debt arrears are reflected neither in the Treasury accounts nor in the administrative accounting system, but must be obtained from the accounts of the amortization fund.

To sum up, the identification of arrears is simpler in the French accounting system, reflecting a greater degree of centralization in processing expenditure data. Both accounting systems offer indicators of potential and realized changes in arrears that provide diagnostic data on the emergence of arrears without major operational difficulties,

although these differ significantly in coverage. In the French system, expenditures are centrally recorded as soon as delivery is made and the claim is examined and judged appropriate and legal, even though no check has been issued. Hence the French system, when functioning properly, offers a direct, although perhaps incomplete, indicator of the emergence of arrears relatively early in the expenditure process.

The British accounting system, on the other hand, does not offer this intermediate indicator of changes in arrears. A comparison of actual deliveries with payment orders issued typically is likely to be carried out only in a piecemeal fashion by the spending departments as part of their day-to-day operations. To consolidate such data usually requires a special exercise. 1/ Consequently, to estimate the change in arrears under the British system, typically reliance is placed on data generated at a relatively late stage in the expenditure process, on the change in checks float, which often contains only a small component of arrears. 2/ Though the French system tends to offer a more comprehensive indicator of arrears, this also may only reflect a part of total arrears. In one Francophone country, for example, the recorded stock of arrears at the level of the Treasury dropped by about 50 percent in 1983. A subsequent inventory of payment arrears showed, however, that the total amount of government arrears had not changed. While payment orders issued awaiting settlement had decreased, delays at an earlier stage of the expenditure process had increased.

IV. Taxonomy of Government Arrears

To identify and address the problem of government arrears, it is useful to develop a taxonomy by which to classify arrears. The following criteria are useful: (1) the economic type of payment to which the arrear relates; (2) the payee to whom the payment is due; and (3) the residence of the government's creditor.

1. Economic type of payment

An arrear may develop with respect to a government's expenditure on goods and services, its transfer payments, and its interest and amortization payments. A government expenditure normally comprises two corresponding flows between the government and the rest of the economy: a physical flow of goods and services to the government and a

1/ In at least one Anglophone country, for monitoring purposes, spending departments were required to report commitments and cash expenditures, which, when compiled, provided a better coverage of arrears.

2/ It could also be noted that arrears may also occur where "payments" are recorded in the government accounts, but in fact no cash changes hands. For example, one country following the U.K. type of accounting system has operated with deposit accounts which record payments to be made to public enterprises but are not made due to lack of cash, and are shown as outlays deposited back with the government.

flow of money to the rest of the economy. When the government excessively delays its payment, and thus the flow of money to the rest of the economy, an expenditure arrear is created. In this way, while the government initiates an income-creating flow of goods and services from the rest of the economy to the government, there is no reverse injection of money into the economy. Government transfer and interest payments do not involve a flow of goods and services to the government, but like expenditures on goods and services, add to the income of their recipients. If transfers or interest payments are postponed, the income of the beneficiaries increases only on an accrual basis, not on a cash basis. Amortization payments do not affect the income of the rest of the economy, but result in the substitution of money for a claim on government. If amortization payments are delayed, this liquidation does not occur and instead, a formal claim on government is replaced by a more uncertain one, reflecting the arrear. Thus an expenditure-related arrear, that is, an arrear related to payments for goods and services or an arrear on transfer and interest payments, reflects an income-creating process (at least on an accrual basis) as well as an increase in claims on government in the financial portfolio of the rest of the economy. ^{1/} On the other hand, it can be argued that an arrear in amortization payments involves only a liquidity effect, leading to the substitution of a formal claim on government by a more uncertain one in the portfolio of the rest of the economy.

This difference between amortization and expenditure arrears has led to additional differences in statistical presentation, as discussed in Section V below. It is also useful to distinguish between amortization arrears due to banks and those due to nonbank institutions. Unpaid amortization payments on domestic government debt held by domestic banks are typically counted automatically as part of the banks' claims on the public sector (i.e., automatically refinanced) and therefore usually appear in the monetary data as net claims on the public sector. Including them as arrears in the presentation of the fiscal accounts would result in double counting the same source of domestic financing, and thus arrears to banks should not be shown in the presentation of the fiscal accounts, except as a memorandum item.

As for expenditure-related arrears, arrears on interest payments, particularly on those due to foreign creditors, have recently become

^{1/} It has been argued that in an inflationary environment, the part of interest payments corresponding to the inflation rate will not be seen as income by those who receive the interest payments, but rather will be seen as an implicit repayment of principal. As a consequence, the macroeconomic effects of arrears on the inflationary element in interest payments is likely to be similar to arrears on amortization payments. See H. Bierman, "A Note on the Concept of the Public Sector Deficit in Stabilization Analysis for High-Inflation Countries," International Monetary Fund, DM/85/75 (1985), on the debate whether the inflationary component of interest payments is equivalent to amortization of the public debt.

prominent and, along with arrears on amortization, have given rise to debt rescheduling arrangements by the Paris Club. Such arrangements have helped limit the extent of foreign interest arrears. Arrears on wages are seldom incurred, mainly for political reasons. In one African country, however, the government deliberately accumulated paycheck arrears over a given period; in effect, the government preferred to reduce the wage bill through a progressive stretching-out of the period between wage payments rather than by an explicit reduction in wage rates. Arrears on investment expenditure are typically related to the domestically financed component of expenditure and may reflect an overambitious investment program, poor expenditure control, an unexpected shortfall in foreign financing, or the inability of the central government to reimburse public enterprises for investments undertaken on its behalf.

2. Arrears by payee

The government may create arrears to the private sector or to other units within the public sector. Experience shows that if governments intentionally respond to spending pressures by accumulating arrears, they are likely to begin doing so vis-à-vis other public sector entities, for example, by not paying utility bills. It may be thought that as public enterprises are owned by the government, arrears vis-à-vis public enterprises do not affect the overall financial position of the government. Nevertheless, such a mechanical accounting procedure masks the very real problem of a lack of financial discipline. Similarly, if one takes a broader view encompassing the entire public sector, as is often done in Fund programs, it has also been argued such arrears are in any case consolidated. Again, such a consolidation would merely hide an important policy problem. Moreover, insofar as the public enterprise has minority private shareholders, or is making losses financed outside government, or as a result of government arrears is forced to build up arrears with its suppliers, the impact on the rest of the economy may be significant. Arrears to the private sector have often induced the private sector to hold back tax payments, creating tax arrears. This has sometimes resulted in a logjam of interlocking arrears throughout the economy.

3. Domestic versus external claims

Another important distinction is that between domestic and external arrears. The criterion for this classification is whether the creditor resides within the country or abroad. Often this distinction coincides with whether the claim on the government is denominated in local or foreign currency. As a result, the existence of domestic arrears usually reflects a corresponding shortage of budgetary resources, while external arrears reflect a shortage of foreign exchange, constraining the central bank in the externalization of government payments to meet foreign commitments (see Chart 2). While such imbalances are likely to occur simultaneously, external arrears typically coincide with balance of payments difficulties, while domestic arrears arise from a budgetary

imbalance. 1/ Of course, from the government's viewpoint, regardless of the residence of its creditor, its obligations must be discharged in domestic currency.

This distinction is lessened if the domestic currency is externally convertible; in such cases, the emergence of domestic and external arrears generally reflects a budgetary problem. Also, in the case of countries belonging to a currency union, such as the East Caribbean Community or the West African Currency Union (CFA franc area) where domestic currencies are convertible and where in the latter case union member countries within statutory limits enjoy access to borrowing from the French Treasury, the distinction between domestic and external arrears is lessened. 2/

In countries where government revenue is sufficient to cover expenditure or where the central bank is authorized to extend credit to the government as needed, but where there is a shortage of foreign exchange, the externalization of payments rather than the domestic counterpart poses a problem. In such countries blocked accounts for the domestic counterpart of external obligations have been found useful. (For a discussion of the use of these accounts, see Section VI.)

V. Presentational Problems

To provide an accurate analysis of the impact of government operations on an economy, it is necessary to evaluate the magnitude, sources, and financing of government deficits. Although there are many ways of measuring the deficit, a recommended treatment in the Fund's Manual on Government Finance Statistics, is to define the deficit as:

$$\text{Fiscal deficit} = (\text{Revenue} + \text{Grants}) - (\text{Expenditure on Goods, Services and Transfers}) + (\text{Lending Minus Repayments})$$

If this measure of the deficit is to be fully compatible with the financing data derived from the monetary survey, it should be measured on a cash rather than an accrual basis. 3/ Arrears should not be

1/ For an analysis of domestic arrears in developing countries, taking into account external constraints, see C. Boissieu, "Constraints externes et arrières de paiement intérieurs dans les pays en développement," Economies et Sociétés, September 1985, pp. 135-45.

2/ For this reason, the Paris Club assesses the debt relief requirements of these countries on the basis of budgetary data, not on the basis of balance of payments data.

3/ The exception is the adjustment of expenditure data from an accrual to a cash basis, typically required in Francophone countries. See A Manual on Government Finance Statistics, International Monetary Fund, 1986, pp. 91-92.

Chart 2. External and Domestic Arrears

	Foreign Exchange Available	Foreign Exchange Not Available
Budgetary Resources Sufficient	No Arrears Problem	Only External Arrears problems Blocked Account an Issue
Budgetary Resources Insufficient	Only Domestic Arrears Problem	External and Domestic Arrears Problem



treated explicitly but should be shown as a memorandum item since by definition they reflect outlays not yet consummated on a cash basis. 1/

While such a definition captures the monetary impact of the budget, it does not--in the presence of an accumulation of arrears--fully capture its income-creating impact. 2/ Expenditure measured in cash terms will exclude any buildup of arrears, even though the latter may have set in motion corresponding income-creating effects. Government purchases of goods or services will most likely have an impact on incomes and on domestic credit, even when payment is not made. That is, arrears are accumulated as the government effectively finances its deficit through an involuntary expansion of suppliers' credits or forced credits from employees, creditors or other agents in the economy. In terms of policy, the credit expansion should be correctly attributed to the originating sector, specifically, the government.

Recognizing the importance of such distortions in formulating policy, two alternative presentations of the fiscal position have been used to overcome the drawbacks of a purely cash-basis presentation in the presence of arrears. First, expenditures have been shown on a commitments basis, with the difference between total cash financing and the resulting deficit shown as a financing item. As indicated in Section III, the difference, in considerable part, reflects a combination of check float and arrears. This has meant that total financing, by including a noncash component, is not immediately reconcilable with monetary statistics. The second approach is to show the overall deficit on a commitments basis, with separate lines for the net change in expenditure arrears, including check float and a corrected overall deficit on a cash basis, that is:

- a. total revenue and grants (cash basis),
- b. total expenditure (commitment basis), 3/
- c. (a - b) overall deficit (commitments basis),
- d. net change in expenditure arrears (including check float),
- e. (c + d) overall deficit (cash basis), and
- f. financing (cash basis).

This approach encounters a number of practical presentational problems:

1/ In BOP statistics, on the other hand, data are generally shown on an commitments basis with arrears shown as a financing item.

2/ Conversely, the cash deficit overstates the income-creating impact of government operations when arrears are reduced.

3/ Preferably on the basis of payment orders issued.

a. Combining estimates with actuals

The accuracy and usefulness of the above presentation depends critically on the ability to identify and quantify the change in arrears and brings to bear some of the issues raised in Section III. In many cases all that is available, particularly in the British system of accounting, is the change in the so-called check float measure. The question then arises whether this change could be considered normal, in which case it should be excluded from the presentation of the fiscal accounts, or whether it indicates a significant change in arrears. ^{1/} This question was addressed in Section III, where rules of thumb, necessarily of an approximate nature, were suggested for judging whether a change in check float should be considered normal. In other cases specific arrears (e.g., on external debt service payments) can be identified, but the total change in arrears may still be difficult to quantify. In these cases an expenditure arrears line is shown as "identified expenditure arrears", and when the arrears on amortization payments can also be identified, these can be shown as a memorandum item with total identified arrears divided into their expenditure and amortization components.

b. Treatment of arrears on amortization.

The suggested fiscal presentation does not explicitly treat government arrears on amortization payments, because all financing items are shown on a cash basis. As a consequence, the accumulation and the reduction of amortization arrears are shown asymmetrically in the suggested fiscal presentation. Since all financing items are on a cash basis, there is no way to represent the accumulation of amortization arrears, except as a memorandum item. When the government discharges its overdue obligations, however, the payment is shown as a financing item.

This can be illustrated by the following example. Let us assume that in period t the government spends 10 units on goods and services but does not pay for them, and a debt amortization payment of 15 also falls due, which the government is unable to honor. In period $t + 1$, the government receives 25 units in revenue and discharges all its overdue obligations. The fiscal presentation should reflect these financial obligations as in Table 2:

^{1/} It is possible that in any given period, an unusual change in the check float measure may reflect a structural change in the true level of the cash float, rather than a significant increase in arrears.

Table 2. Summary of Government Operations

(In domestic currency units)

	Period t	Period t+1
Revenue	0	+25
Expenditure	10	0
Overall balance (commitment basis)	-10	+25
Change in expenditure arrears (- decrease)	+10	-10
Overall balance (cash basis)	0	+15
Financing	0	-15
Repayment of amortization arrears	0	-15
Other	0	0
<u>Memorandum item:</u>		
Change in amortization arrears	+15	-15

This example shows that while an accumulation of expenditure arrears is reflected in the fiscal presentation in the form of a higher overall balance on a commitment basis, the incurring of amortization arrears is not immediately obvious from the fiscal table. Because cash amortization payments equal amortization payments due plus the change in amortization arrears, however, this presentation problem could be mitigated by disaggregating the line for repayments and by showing two sub-lines for repayments due and for change in amortization arrears as in Table 3:

Table 3. Summary of Financing Operations

(In domestic currency units)

	Period t	Period t+1
Financing	0	-15
Repayments (cash)	0	-15
Repayments (due)	(-15)	(0)
Change in amortization arrears (reduction -)	(+15)	(-15)
Other	0	0

c. Changes in commitments during the financial year

Because arrears are defined as the difference between the government's recorded obligations due and its discharge of these obligations in a timely fashion, problems are encountered in presenting the change of arrears when commitments change during the fiscal year. Such changes may arise with regard to external debt service commitments because of exchange rate revaluations and debt rescheduling agreements. In the latter case, it is important to quantify the additional financing to the budget arising from debt rescheduling and present such financing as a memorandum item. The difference between total commitments after debt rescheduling and discharged rescheduled commitments is the change in arrears shown in the relevant lines of the fiscal table.

An example illustrating some of these presentational problems is the case of the fiscal outturn for an African country. During the fiscal year the Government benefited from debt rescheduling that lowered its debt servicing commitments. Despite this, within the fiscal year it also accumulated arrears with respect to both rescheduled foreign interest and amortization payments. The situation is described in Table 4:

Table 4. Summary of Debt Service Payments

	<u>Debt Service Commitments</u>		Debt Relief	Actual Debt Service Payments	Increase in Arrears
	Before rescheduling	After rescheduling			
<u>(In millions of local currency)</u>					
Interest	140	72	68	32	40
Principal	253	127	126	68	59

In this case arrears on interest payments are shown as the difference between the deficits on a commitment and cash basis, and arrears on amortization payments as a memorandum item. In order to obtain consistent comparison over time and to gain a better picture of fiscal adjustment, it is also helpful to show commitments before debt relief and to show explicitly the exceptional financing obtained as a result of debt rescheduling. The suggested fiscal presentation would be as follows:

Table 5. African Country: Provisional Outturn

Millions of local currency	
Total revenue and grants	1,170
Total expenditure and net lending	1,624
Of which: Interest	140
Overall deficit (commitments basis, before debt relief)	-454
Change in arrears on external interest (increase +)	40
Overall deficit (cash basis, before debt relief)	-414
Financing requirement	414
Of which: Debt Relief	194
Interest	(68)
Amortization	(126)
<u>Memorandum item:</u>	
Change in arrears on foreign amortization (increase +)	59

VI. Economic Effects of Government Arrears

The emergence of government arrears is likely to have ramifications on the allocation and distribution of resources within the economy, both through its effects on factor prices and incomes and through its macroeconomic effects. Much depends on two factors affecting the behavior of economic agents in the economy: the first is the extent to which arrears are anticipated; the second is the extent to which creditors are constrained on financial markets and thus limited in their ability to neutralize the impact of arrears. The most obvious allocational effect, in the short run, is that arrears constitute an alternative form of financing additional government expenditure. If forced taxation through the printing of money is not feasible, the government's share in total output is limited by the amount the rest of the economy is prepared to release to the government by paying taxes or by extending credit. The buildup of arrears increases the government's absorption of resources above this level. This initial effect, however, may be offset by the rest of the economy limiting resources transferred to government by holding back on tax payments and other fees and charges. At the same time, it should not be forgotten that there are often other transactions compensating the accumulation of arrears to certain suppliers, for example, the prepayment of goods to other suppliers. This arguably poses similar problems in financial management. There may also be important distributional consequences of a buildup in arrears arising from the government being able to delay payment to one sector much more easily than another.

The development of a chronic pattern of arrears may also influence the costs and prices in the economy. When arrears first emerge as a means of more than temporary government financing of purchases, the effective interest cost of financing arrears is wholly borne by the suppliers of goods and services (be they producers, importers, or wage earners), as the "forced" financing is presumably unanticipated. Over time, and in the face of further likely arrears by the government, those economic agents providing goods and services to the government may begin to adjust their pricing and production behavior to take account of such payment delays. Vendors dealing with the government may begin to charge higher prices to make up for refinancing costs, a risk premium, and bribes to speed up the payment process. Thus the government may have to pay prices above the market price and, with limited budgetary outlays, be forced to reduce the quantities of goods and services purchased.

The additional premium on prices is likely to be determined by the vendors' expectations about the length of the payment delay, the prevailing interest rate, the risk that the government will default, the vendors' risk preference, and the amount of bribe necessary to speed up the payment process. Similarly, there is also a possibility creditors will bid up the interest rate charged on loans to the government if they anticipate that the government will not pay back these loans as scheduled.

The implicit interest costs of arrears are independent of whether or not providers of goods and services bid up prices to account for the delays in payment. The degree to which prices are increased only determines the distribution of the financial burden of the payment delay, for example, as between the government, by paying increased prices (and ultimately the consumers of its services through reduced services or higher taxes or fees), or the vendors through a squeeze in their profit margins. To the extent that arrears are reflected in higher prices on those expenditure items on which arrears are frequently incurred, it is likely that existing fiscal data provide a biased picture of the true weight of interest costs in the budget, not taking account of the implicit interest costs in the category of expenditure on goods and services.

In examining the macroeconomic effects of government arrears, it is necessary to evaluate how government arrears are created and how the payee reacts to payment delays. For example, the change in aggregate demand brought about by the creation of arrears in wage payments to government employees will depend largely upon their perception of the postponement of wage payments and their underlying consumption behavior. ^{1/} If, for example, the spending decisions of government employees are determined by their actual cash income, and if the government stretches out the period between paydays so that the civil servants receive only 11 monthly salaries in a 12-month period, then their private consumption will drop by 1/12. On the other hand, if their underlying consumption behavior is more accurately described by a permanent income model of consumption behavior, and if government employees regard delays in salary payment as only transitory, civil servants may perceive only the interest foregone on the deferred payment as a cut in permanent income. Their consumption outlays would then drop only marginally, and the temporary cash shortage would be made up by dissaving. If the civil servants, however, do not have confidence in being able to recover the loss in cash income incurred by the payment delay, the drop in their permanent income will be considerably more than just the foregone interest, and private consumption will fall accordingly.

A similar analysis can be applied to other government payments to private households. Delays in transfer payments to private households and in interest payments on government bonds held by the private nonbank sector will tend to reduce private consumption. The fall in consumption will be determined by the relevant consumption function and the

^{1/} In cases where the level of government wages is significantly higher than the wage level in the rest of the economy, such a cut may be desirable both on allocational and distributional grounds although it would be preferably to cut wages more openly. Conversely, where government wages are relatively low, wage arrears may impair the government's productivity, have adverse distributional effects, and provide incentives for corruption as well as for the acceptance of outside jobs.

perception of the private household as to whether the payment delay represents a transitory or permanent change in government policies.

In its normal purchases of goods and services from vendors, the government sets into motion an income-creating process that increases aggregate demand. The effects of the government's incurring arrears in payments will depend upon the way vendors initially finance the production of the goods and services to be supplied to the government. If this financing takes the form of borrowing from the banking system, the impact will be no different than if the government had made the payment on time with proceeds borrowed from the commercial banks, except the vendors will bear any interest costs. 1/ Thus the overall effect on aggregate demand will be very similar to that arising from bank-financed government expenditures. Alternatively, vendors might perceive the incurrence of government arrears as only a temporary phenomenon and thus reduce their cash balances below the level warranted by the prevailing interest rates and their volume of transactions. In this case, the increase in government expenditure would be financed by a higher velocity and aggregate demand might increase. A similar strong effect on demand may be expected if vendors satisfy their financing needs by external short-term indebtedness. While some countries' arrears have been passed on to other domestic suppliers of their raw materials, in other countries, companies have adjusted to the government's inability to meet its obligations by creating arrears to the foreign parent company. In the latter case, the government has indirectly financed its expenditure by what amounts to an inflow of foreign short-term capital, with no concurrent deterioration in the overall cash balance of payments. 2/

Finally, it has been observed that companies frequently adjust to the emergence of government arrears by incurring arrears on their tax liabilities. Insofar as the vendors not paid by the government in turn retain funds equivalent to the taxes owed to the government, the government in practice is financing its expenditure by foregoing tax revenue, such that the macroeconomic effects are similar to any other tax-financed expenditure, though the timing may be different.

Two additional aspects are worth mentioning. First, if the creation of arrears takes place at a very late stage of the expenditure process, by increasing the stock of outstanding checks beyond the normal check float and beyond the government's short-term capacity to honor them, then significant monetary effects can be expected. Because government checks are normally highly liquid, an increase in broad money creation takes place, and if the demand for money does not grow at the same pace, eventually this will create pressure on prices and on the

1/ This depends, of course, on the commercial banks not being able to use government obligations to satisfy reserve requirements.

2/ Of course, this assumes there are no secondary repercussions when the capital inflow may be matched by an increase in the current account deficit, leaving the overall balance of payments unchanged.

balance of payments. 1/ Second, the accumulation of government arrears may have a serious impact on the confidence of private enterprises and households in the soundness of government financial operations. Private consumers and investors might anticipate increases in the nominal tax rate, inflation, or more generally, a deterioration in the financial situation of the country over the medium term. As a consequence, the expectation will be that permanent incomes and profits drop, reducing current consumption and investment expenditure.

The macroeconomic effects of arrears on amortization payments are likely to be less than those arising from expenditure arrears, since the former do not set in motion an income-generating flow of goods and services from the rest of the economy to the government or engender any expectation of accrued income. To assess the effects of amortization arrears is difficult, since much depends on the response of creditors, which in turn hinges on whether such arrears were anticipated. In the extreme case of the creditor not anticipating the arrear, it could be argued that if the government fails to make a domestic amortization payment on time, the only immediate effect will be a substitution of a formal claim on government by another one. The total amount of claims of the private sector on government remains unchanged.

The above argument assumes that government will continue to pay interest on the loan, and that the portfolio owner believes that the government will finally repay the loan. Typically, creditors might try to raise the interest rate somewhat in order to compensate for the higher risk now associated with this part of their portfolio. If on the other hand, the government stops paying interest and so increases the perceived probability of default, a domestic amortization arrear may lead to decreasing private sector wealth (assuming that the so-called Ricardian equivalence does not hold and that, therefore, government loans are regarded as net wealth by the private sector). 2/ Of course, when wealth is an argument in the consumption function, the creation of domestic arrears on amortization payments will tend to reduce consumption and imports.

Balance of payments consequences can be expected from the creation of amortization arrears to external creditors, but this reaction is likely to differ among countries, depending on their track record on arrears. In the period when the amortization payment falls due, the capital account goes into deficit, but this capital outflow is financed

1/ This is dependent on the private sector assumption that the government will ultimately discharge its outstanding obligations.

2/ Under Ricardian conditions, the future taxes implied by government debts are fully perceived by the private sector and completely offset the private sector's claims on the government (see Schiller, C., "Government Expenditure and Portfolio Crowding Out," International Monetary Fund, internal Working Paper FAD/85/4, 1985).

by the creation of arrears, which are shown as exceptional financing. In the medium term, however, the government's credit rating could be damaged, and the inflow of official capital could very likely dry up.

Do government arrears have an impact on the rate of inflation? At first glance, it appears rather unlikely because typically no money creation takes place at the time government begins to incur arrears. Nevertheless, there may exist indirect links between the buildup of arrears and the rate of inflation. First, as described above, suppliers are likely to react to the incurrence of government arrears by bidding up the prices at which they are prepared to sell goods and services to the government. In more general terms, in an environment characterized by financial instability, as reflected by the government's inability to make payments on time, economic agents will include high-risk premiums in the calculation of the price at which they are prepared to render goods or services. Second, if the provider of goods and services is able within the overall credit ceiling to bridge the delay in payments by borrowing from the banks, this may add pressure to the credit market, and as in the case of additional government borrowing, push up interest rates. If this effect induces the central bank to relax monetary policy or attracts capital inflow, the outcome would also be pressure on prices. Third, if arrears are accumulated against public enterprises, as is often the case, and are of sufficient magnitude, the financial position of the public enterprise sector may worsen. If this results in higher credit from the central bank, arrears will end up creating inflationary and balance of payments pressures.

VII. Arrears and Fiscal Adjustment Programs

To address the problem of arrears in the context of a program of fiscal adjustment, a number of alternatives are available, depending on the circumstances giving rise to arrears. Operationally, it has been useful to distinguish between external and domestic payments arrears. This distinction arises in part because while the government discharges its debt service obligations in domestic currency, the final payment of external obligations has to be undertaken by the central bank as part of its management of foreign exchange. This feature, related to constraints on discharging obligations, necessitates different treatment in adjustment programs. Thus, while a government can in principle usually discharge its obligations in domestic currency, even though this means borrowing from the central bank, foreign exchange may not be available to discharge the central bank's corresponding external obligations. As suggested in Section III, an exception to this general rule arises in some Francophone countries that operate a common central bank and have financing constraints placed upon them (see Chart 2). In these countries domestic arrears have been a recurring problem.

Domestic arrears

In those countries facing the problem of arrears, experience suggests a number of operational difficulties must be overcome if

outstanding arrears are to be eliminated and further accumulation of arrears is to be prevented. Programming arrears reduction generally requires the existence of certain preconditions: (1) a clear definition of what constitutes an arrear, including institutional coverage and the stage of the payment process, (2) a complete inventory of arrears based on this definition, and (3) a timely method of monitoring changes in this inventory. In practice, it is difficult to meet all three preconditions.

In identifying domestic arrears, difficulties usually arise in dealing with overdue obligations that have arisen from dubious authorizations and are yet to be regularized, or in isolating that part of the check float that can truly be considered as constituting arrears. Compiling a comprehensive inventory of arrears has in practice proved difficult and time consuming, especially when they have arisen from ministries undertaking unauthorized expenditures.

Another factor that many countries must face is the problem of interlocking arrears. In these cases, while the government has undischarged payment obligations to a domestic supplier or enterprise, that enterprise in turn has unfulfilled tax liabilities to the government. The size of these mutual commitments is often in dispute, resulting in a bargaining situation with each side trying to gain advantage by writing off the larger outstanding obligation. Obviously, from a financial programming viewpoint, the magnitude of arrears reduction is affected by whether the government's undischarged commitments are treated gross or net of tax obligations due to it. One of the by-products of the establishment of an inventory of government expenditure arrears is that recording and quantifying the network of counterclaims aid in their resolution.

The data problems in some countries have been found so severe that even when an arrears problem is recognized, it has not been possible to prevent the incurrence of new payment arrears or the reduction of outstanding arrears. As a result, it is not recommended that countries tackle the problem of arrears before this basic data problem is overcome, preferably through the introduction of an effective within-year expenditure or arrears monitoring system. Unfortunately, such a system is likely to take time to institute and may involve unacceptable reporting lags. Such a system would of necessity have to come to terms with the particular budgetary procedures of the country. To get a realistic picture of the movement in government arrears, generally it has been found necessary to trace the changing stock of commitments, payment orders, checks issued and checks cashed, and to have a reporting system at the different stages of the expenditure process.

Once these preconditions are met, programming a reduction in arrears also requires a clear decision on the method to reduce them. For example, the government may decide to reduce arrears by issuing government paper rather than by discharging its commitments in cash. In such cases it seems necessary to ensure that the maturity of the bonds,

the level of their interest rates, and the degree of their negotiability would not differ from that of other financial instruments. At the same time the authorities should recognize that the conversion of arrears into government debt would be equivalent to any other rescheduling of debt in terms of its potential expansionary impact and would necessitate an equivalent reduction in any target for credit to government.

Whatever the approach adopted with respect to arrears, experience suggests that it is important to take account of the particular circumstances of the country that have led to the emergence of arrears. Two principal causes can be distinguished, structural and systemic. In the first case, arrears may arise from a structural imbalance in the budget owing to over-optimistic revenue estimates, unrealistic financing projections, or underbudgeting of expenditures. *In such cases it is difficult to believe any expenditure control mechanism would be adequate to solve the problem.* Arrears can be regarded not as a problem in their own right but a symptom of a more fundamental problem. The source of arrears, however, may be systemic, arising from a breakdown of orderly payment procedures. Two particular institutional scenarios seem to be worth distinguishing. In the first, the Treasury is not in full control of the spending process, so that powerful spending departments are able to make unauthorized commitments. In the second case, the Treasury does exert control over the spending process but does not honor its commitments. In the former case the solution to the arrears problem may be difficult although not impossible to resolve, being symptomatic of a more general problem of expenditure control.

In cases where the Treasury's accounting system is sound, arrears reflect the lack of political will to restrain public spending. In the latter case, this political commitment is unlikely to be forthcoming until it is realized that arrears signify not only the breakdown in financial accountability, but also give rise to important gaps in information essential to plan future policies and to evaluate present policies.

Recognizing these disadvantages the authorities should, in undertaking fiscal adjustment, be encouraged to take steps to eliminate arrears, preferably combined with an appropriate monitoring system for broad aggregates of government expenditures. Ideally, to be effective, this monitoring system should be placed on continuous review basis, with arrears prevention as its primary concern. Wherever possible, the monitoring system should be as comprehensive as possible, including commitments as well as data on payments. In this way it may be possible to detect deviations from programmed fiscal adjustment at an early stage, allowing more timely corrective action.

External arrears

On the whole, external arrears, especially those with respect to debt servicing, can be more easily identified, inventoried, and monitored. To limit the problem of external arrears an approach found useful involves separating the domestic counterpart of foreign obligations from their actual externalization in order to prevent the accumulation of arrears on the domestic counterpart of external payments. When foreign exchange is in short supply, a special blocked account for the domestic counterpart of scheduled official external payments may prove beneficial in some countries. To avoid arrears the government should then prepare a schedule of transfers from the budget to these accounts. The magnitude of such transfers should be calculated so as to ensure that adequate provision is made from domestic budgetary resources for the domestic counterpart of such obligations, regardless of the availability of foreign exchange to complete the externalization of these payments.

VIII. Concluding Remarks

The importance of arrears in any macroeconomic analysis of the impact of government should be evident from the discussion in this paper. To sum up, at first glance it would appear that any delay in payment, as a form of compulsory financing of its expenditures, has benefits for the government. It is as if suppliers had bought government bonds at zero interest rate for the period until payment is made. The persistent use of such compulsory financing should be recognized, however, as involving distinct drawbacks for the government. Apart from the more general drawbacks arising from the repercussions on private sector expectations and confidence in the financial soundness of government, there are also likely to be adverse effects on the government's cash position as some suppliers respond to government payment arrears by reciprocal arrears on their tax liabilities. Other suppliers may react by bidding up the prices at which they will provide it with goods and services. As a consequence, the price government has to pay is inflated by the supplier's risk premium and implicit interest rate. This will increase the size of the government's cash deficit and perhaps the general price level may well be raised.

The efficiency impact on the rest of the economy is likely to be exacerbated if suppliers have to incur increased credit to bridge the delay in payments. In this case it could be argued that the effect on the rest of the economy may differ little whether the government has or has not actually paid a supplier, since the latter in all probability had to obtain credit and has definitely used resources to provide goods and services to the government, whether or not the government has discharged its formal obligations to him. From the perspective of macroeconomic policy, however, it is important to attribute correctly both the expansion in aggregate demand and credit to the initiating sector. In the case of the government accumulating payment arrears, the

government rather than the supplier should be recognized as initiating the expansion in aggregate demand. Similarly, from the financial programming viewpoint, the buildup of arrears, by disguising the level of the government's use of resources, lowers the recorded cash deficit and hence also the recorded credit to government.

By concentrating on the net effect of cash flows in the presence of a government accumulating arrears, the recorded deficit can remain constant while in fact the level of government spending is increasing. This distortion has been recognized in formulating fiscal adjustment programs, when it is important to capture not only the monetary effects of budgetary changes, but also their income-creating or Keynesian impact. ^{1/} The latter, which focuses on the impact of fiscal policy on the gap between domestic income and expenditures, would place emphasis on an accrual rather than a cash definition of the deficit and would concentrate on the change in government commitments, regardless of whether they were discharged in cash.

Even when the economic implications of government arrears are recognized as sufficiently important to necessitate firm policy action, this paper has identified two types of problems that need to be overcome. The first arises from practical accounting problems often encountered in developing countries, that lead to severe data constraints. The second arises from the considerable political and administrative effort likely to be required in implementing a policy of arrears reduction. In light of these operational difficulties, this paper recommends countries combine the programming of arrears reduction with an appropriate monitoring system for broad aggregates of government expenditures, with arrears prevention as its primary concern. In this context, the problem of the domestic counterpart of external arrears can be tackled by programming and monitoring transfers to special blocked accounts at the central bank. To be effective all such methods must be based on a firm commitment to view arrears avoidance as an integral part of fiscal adjustment.

^{1/} See V. Tanzi and M. Blejer, "Fiscal Deficits and Balance of Payments Disequilibrium in IMF Adjustment Programs", International Monetary Fund, DM/83/44, 6/14/83.