THE MACROECONOMIC EFFECTS OF COUNTERPART FUNDS

Henry J. Bruton and Catharine B. Hill

This article aims to discuss the macroeconomic effects of counterpart funds. Counterpart funds refer to the local currency of a country that is accumulated by the sale of commodities or foreign exchange received as aid (or soft loans), and over whose use the donor has some control. In another article in this issue of the Bulletin, we discuss more generally the role of counterpart funds in economic development and we elaborate on what we think to be the basic argument justifying their use, and give some examples.

1 INTRODUCTION

The macroeconomic effects of creating and spending counterpart funds have received increasing attention in recent years. Although the macroeconomic effects were recognized as important during the Marshall Plan years, attention has generally been focused on the resource allocation effects of the aid/counterpart fund mechanism. The renewed, more recent interest in their macroeconomic effects has resulted from the realization that major macroeconomic instability in developing countries can defeat otherwise suitable development policies. In this article we discuss the major macroeconomic effects of counterpart funds about which there is generally a consensus in the literature, although still some confusion. These include their effects on the money supply, the balance of payments, government finances, and inflation. We present the consensus position and discuss the relationship between each issue and the development impact of counterpart funds. In our view, some of these issues have received undue attention in the literature. While the macroeconomic effects of aid and counterpart funds may be important in some countries at some times, in most countries they are probably too small to cause much instability or contribute much to stabilization efforts. Although the data are far from complete, we present some evidence on these issues.

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The receipt of foreign aid and the generating and spending of counterpart funds affect several macroeconomic variables of importance, including the money supply, the balance of payments, government budgets, and inflation. Since these are variables governments care about, it is important to understand the effects aid plus counterpart fund mechanisms have on them.

2.1 The Effects on the Money Supply

The impact of generating and spending the counterpart funds on the money supply has been worked out in detail (Lewis 1962:315 Roemer 1989; Clement 1989). In this section, we will discuss the immediate first round effects of counterpart funds on the money supply, or the effects assuming that all else remains constant. Of course, it is likely that all else will not remain constant. In particular, in a country with a fixed or less than a freely floating exchange rate, the change in the money supply depends on both the government and balance of payments deficits. In turn, foreign aid and counterpart funds usually affect both the government budget and the balance of payments. Therefore, the general equilibrium, or final, effects of aid and counterpart funds will almost always be different from the first round effects. These effects will be discussed here, and the effects including any changes in the government budget and balance of payments will be discussed in detail below. Some of the confusion on the monetary effects of counterpart funds in the literature stems from lack of clarity about exactly what is assumed constant and unchanged.

Assume a donor supplies foreign aid in the form of commodities. The recipient government then sells the commodities to the private sector. This transaction transfers domestic currency or commercial bank deposits from the private sector to the government. In the simplest version, when the government sells the commodities to the private sector, private sector commercial bank deposits or currency holdings decline, and government deposits at the Central Bank, in the form of counterpart funds, increase by an equal amount. Reserves of the banking system decline as a result, which reduces in turn the money supply by some multiple, depending on the money multiplier.[1]

The story is slightly altered if the government holds the counterpart funds in the commercial banking system, if the donor owns the counterpart funds, or if the aid is in the form of foreign exchange rather than commodities. These modifications are discussed in Bruton and Hill (1991) and will not be presented here.

[1] The money supply in an economy equals a multiple of the reserves of the banking system. This multiple is referred to as the money multiplier. The terms 'high powered money' and 'reserve money' are used interchangeably.

If the counterpart funds are spent by the government or donor, the effects on the money supply are reversed. The government's deposits at the Central Bank decline, the private sector's holdings of currency or commercial bank deposits increase, and the money supply increases. Therefore, if counterpart funds are generated by selling commodities or foreign exchange to the private sector, and the counterpart funds are spent right away, there will be no effect on the money supply, all else constant.

The monetary effects of counterpart funds are more important, the larger they are relative to the total monetary base or money supply. To get a sense of the importance of counterpart funds generated by USAID in individual recipient countries, we have examined the unexpended balances as of September 1990, and the deposits and disbursements made during the fiscal year, relative to government spending and the money supply for all USAID aid recipients for which there are data.[2] If all the counterpart funds (CF) on deposit in the Central Bank 'unexpended balances' were spent, reserve money would increase by that amount. The money supply would increase by $\Delta M/M = u * (CF/M)$ where u is the money multiplier, assuming u remains constant.[3] Unexpended balances relative to the money supply, CF/M, therefore gives an indication of the potential expansionary effect of counterpart funds on the money supply. The actual contribution of counterpart funds to changes in the money supply (ignoring any effects on the government budget or the balance of payments, which are discussed below) depends on the change in counterpart funds on deposit at the Central Bank. Increases in counterpart funds or deposits act to reduce reserve money, while spending counterpart funds (disbursements) and thus drawing down deposits at the Central Bank increase reserve money. The net effect is given therefore by the change in counterpart funds on deposit at the Central Bank, ΔCF, 'deposits minus disbursements'.

In the countries receiving US aid that results in counterpart funds, for which there are data, counterpart funds were not large enough to have significant effects on the money supply. During the year examined, deposits of counterpart funds reduced reserve money by at most two per cent. Taking into account disbursements, the generating and programming of counterpart funds affected reserve money by one per cent or less. If total unexpended balances were spent, reserve money would increase by at most two per cent. In all of the countries for which there are data for 1990, therefore, counterpart funds generated by US aid were too small relative to the money supply to worry about 'inflationary' effects from this source. Even if the US data are understated substantially, or represent only a fraction of total donor generated counterpart funds, the magnitudes are so small relative to reserve money that the monetary effects of counterpart funds should not be a serious concern in most countries.

Using available IMF data, Bruton and Hill (1991) present the actual contribution of changes in counterpart funds to changes in reserve money and M2. These data also suggest that counterpart funds have not been an important source of reserve money or M2 growth. In fact, counterpart funds have just as often reduced the growth of reserve money and of M2 below what these growth rates would otherwise have been. This does not mean that spending counterpart funds in particular years has not had an important expansionary effect, but it does suggest that much of the discussion of the 'inflationary' effects of spending counterpart funds is perhaps overstated or misleading. In addition, in almost all cases, the effects of counterpart funds are small relative to other sources of reserve money and M2 growth.

There are many countries for which US data are unavailable. In addition, the data from USAID are only for counterpart funds generated by US aid. It is of course possible that counterpart funds are important in countries for which US data are unavailable or which receive large amounts of aid from other countries. This is most likely to be the case in countries where aid is a relatively large share of government resources. The IMF data are not limited to US aid generated counterpart funds, but are only available for a limited number of countries and therefore do not disprove this possibility. The available data, however, suggest that such countries would be exceptions.

2.2 The Effects on the Balance of Payments

The effects of commodity aid and foreign exchange aid on the balance of payments of the recipient country depend on whether the aid is supplied on a grant or loan basis, whether it is supplied as commodity aid or foreign exchange, and whether total imports increase by the amount of aid or remain unchanged (Roemer 1989; Clement 1989; Nathan Associates 1989). For example, if commodity aid is supplied on a grant basis, unilateral transfers increase. If the commodity aid imports substitute for normal imports so that total imports remain unchanged, the current account will improve by the amount of the aid, since the aid enters as a credit item under unilateral transfers in the current account. Using the balance of payments identity

[2] See Bruton and Hill (1991) for a discussion of the existing data on counterpart funds.

[3] $M = u * H$ where M is the money supply, u is the money multiplier, and H is reserve money. If all the counterpart funds on deposit were spent, $\Delta H = CF$. The money multiplier need not stay constant, but as an approximation this assumption probably does not affect the results substantially.

(current account balance + capital account balance ≡ change in international reserves) it is straightforward to see that some other item must change in the balance of payments accounts. Borrowing from abroad that otherwise would have occurred could decrease (reducing the capital account surplus), international reserves could increase, or some combination of these two could offset the improvement in the current account resulting from the foreign aid. Under some circumstances, exports may decline, offsetting some of the effects of the aid on the current account. This might happen, for example, if the real exchange rate appreciated.

If the commodity aid involves a loan, then there would be a credit in the capital account rather than in the unilateral transfers component of the current account. If exports and imports remain unchanged, the current account will remain unchanged and only the type of borrowing from abroad or the level of international reserves (or some combination of both) would be affected.

Commodity aid imports are said to be 'additional' if total imports increase. In other words, the commodity imports made available by aid are not replacing imports that would have been purchased in the absence of aid.[4] If the commodity aid imports are additional, and if supplied on a grant basis, the current account would remain unchanged. The higher imports, a debit in the current account, would be offset by increased unilateral transfers, a credit. If supplied on a loan basis, the current account would decline since imports have increased given the additionality assumption. This would be offset by inflows on the capital account — the loan which is a credit in the capital account.

Foreign exchange aid will increase unilateral transfers if supplied on a grant basis or will increase capital inflows if supplied on a loan basis. If imports remain unchanged under both situations, international reserves would increase, assuming exports and borrowing that otherwise would have taken place do not change.

Note that under a fixed exchange rate regime, the monetary base is affected if international reserves change. If the balance of payments is in surplus (the current account plus the capital account, excluding changes in international reserves), then international reserves increase. This increases high powered money and the money supply. Therefore, the aid transfer, if it affects the balance of payments, will affect the money supply.

This effect is independent of the generation of the counterpart funds. It is the result of the aid transfer and would take place even if there were no counterpart funds generated. The counterpart funds generation is always associated with foreign aid, however, and the overall effect of foreign aid and counterpart funds on the money supply should include this channel — the effect of the aid transfer on the money supply.

A difficult question is whether imports will increase or not, and whether exports will decline or not. There is no presumption that exports will change immediately when the aid is supplied. If the price level ultimately changes, however, the competitiveness of exports could change which could affect export receipts. On impact, when the aid is supplied, the effects on the level of imports will depend on whether the initial import level was constrained by foreign exchange availability. If so, a situation not unusual in developing countries, aid will most likely result in additional imports, by relaxing the foreign exchange constraint.

2.3 The Effects on the Government Budget

Commodity aid is a transfer of real resources to the government of the recipient country. There is consensus in the literature that the counterpart funds do not constitute additional (to the aid commodities or foreign exchange) real resources for the country as a whole. (Roemer 1989; Towsley 1976; Clement 1989). The counterpart funds are generated when the government sells the commodity aid goods to the private sector or the foreign exchange to the private sector or the Central Bank. The counterpart funds are the government's claim on resources in the economy that it has gained through the sale of the commodity aid or the foreign exchange given to it by the donor.

Two issues that arise in the literature in relation to this are: 1) whether counterpart funds should be treated as deficit financing or as government revenue, and 2) how commodity aid and counterpart funds affect the overall government budget. On the first issue, Roemer (1989:800) recommends treating counterpart funds as deficit finance. His reason for doing this is that the government cannot count on continued aid flows as a revenue source. The IMF (IMF 1986:103) treats grants as revenue, that is 'above the line'.

If supplied as loans, counterpart funds are treated as a financing item in the budget. The distinction is whether the government incurs a future obligation for

[4] We define 'additionality' to mean that the total value of imports increases by the amount of the aid. One could define 'additionality' on a macroeconomic level to mean that those particular imports supplied would not have been purchased without the aid, leaving unexamined whether they are replacing some other import that is a close substitute. What we care about here is the effect on the total level of imports.

repayment or not. As long as counterpart funds are identified, whether they are located 'above' or 'below the line' seems of little importance unless this affects how the government responds to the counterpart funds. The important issue is the effects of counterpart funds on government spending and taxes.

The effects on the government budget depend on how the government responds to additional resources. The options are to increase government spending, reduce taxes, or reduce any previously required financing of any difference between spending and taxes. Different governments have responded in different ways and should be expected to continue to respond in different ways. It seems likely that the optimal response will differ country by country as well as over time.

Note that the effects of generating and spending counterpart funds on the money supply do depend on the effects on the government budget. For example, assume that total government expenditures do not change as a result of the commodity aid and the counterpart funds generated, and that the government is running a deficit and financing it by borrowing from the Central Bank. The government receives commodity or foreign exchange aid which it sells to the private sector. The government uses the counterpart funds to pay for some of the planned government spending, which remains unchanged. The creating and spending of the counterpart funds have had no net effect on the money supply. But now, the deficit that must be financed goes down. Part of government spending has been paid for with the counterpart funds. The final change in the high powered money would be equal to the new gap between spending and receipts. The selling by the government of the commodity aid and the spending of the counterpart funds generated have no effects on the money supply, as discussed above. But in this example, of course, the gap between taxes and expenditures is smaller than it would have been otherwise, and therefore the government needs to borrow less from the Central Bank. The increase in the money supply is smaller than it would be otherwise.

Another way of reaching the same outcome would be for the government to generate the counterpart funds and not 'spend them'. The counterpart funds would accumulate in the Central Bank. This would reduce high powered money. But if the government does not spend these counterpart funds, then it must still finance its total deficit by borrowing from the Central Bank. The government would finance the gap between spending and revenue by borrowing from the Central Bank the full amount, but high powered money would be smaller than otherwise because the sale of the commodity aid decreases high powered money by increasing government deposits at the Central Bank. In both examples, the final effects on the money supply are identical and government spending and taxes remain unchanged. But in the first example, the counterpart funds are 'spent' while in the second they are 'not spent'. This demonstrates that 'spending counterpart funds' has little meaning independently of the overall macroeconomic policies of the recipient government, particularly its monetary and fiscal policies. Looking at the effects of the aid transfer on the government's expenditures and taxes (or the deficit excluding the aid transfer) is therefore important when analyzing the monetary effects of counterpart funds.

Thus the final effect of aid and counterpart funds on the money supply depends on what happens to the government deficit, defined to exclude the aid transfer, and on the effects on the balance of payments. The money supply could increase, decrease, or remain unchanged. We will return to this issue below when we talk about whether counterpart funds are 'inflationary' or 'deflationary'. Note that much of the confusion in the literature about the effects of counterpart funds on the money supply results from not clearly working out or not including at all the effects on the government deficit and the balance of payments.

To return to the effects of counterpart funds on the government budget, Roemer (1989:800) argues that counterpart funds should only be spent on expenditures in the existing budget. In this case, total government spending remains unchanged and, additional resources made available to the country by the aid (not by the creation of the counterpart funds) go to the private sector or foreign creditors. They would go to the private sector, either through a smaller inflation tax or less lending by the private sector to the government. Reducing taxes would have an identical result, through a slightly different channel. The additional resources made available to the country by the aid would go to foreigners if used to reduce borrowing from foreigners or to pay back debt. Unless one is willing to assume that the government's claim on resources is either always exactly correct or too large, this will not always be the best response. The aid, not the counterpart funds, is an additional resource, and if the government's claim on resources remains unchanged, some other sector's claim must rise, assuming output does not fall by an equal amount for some reason. This may or may not be desirable.

Clement (1989) has in mind primarily countries that have balance of payments and inflation problems. Assuming that the growth rate of the money supply needs to be reduced and that the government deficit to be financed by new money should be reduced, the optimal response to the aid on the part of the government is to leave expenditures and taxes unchanged. The aid therefore reduces the amount of central bank credit from the Central Bank to the government that otherwise would have been necessary. Note that the counterpart funds themselves can only be used once to reduce reserve money. The government can either generate the counterpart funds and not spend them, which reduces the money supply, or use them to finance previously planned government expenditures, which reduces any government deficit that needs to be financed by central bank credit.

An issue that is not well discussed in the literature is what has actually happened in various countries. Do commodity aid and foreign exchange aid which generate counterpart funds tend to increase government spending, reduce tax efforts, reduce government borrowing from abroad or the private sector, or reduce borrowing from the Central Bank? Individual case studies in the literature discuss whether or not the counterpart funds are spent, but again, without information on the effects of the aid transfer on government spending and taxes, this gives little information on the effects of the counterpart funds on the final claim on resources within the economy.

The effects of counterpart funds on the government budget are important because the size of the budget is a government objective. The generating and programming of counterpart funds can either complicate or facilitate government budget policy, and therefore understanding their budgetary effects are important. On the basis of the data that we have been able to accumulate, the role that counterpart funds can play in budgetary decisions is quite small, except in a few countries, usually the smaller, poorer countries. Since counterpart funds are available to the government to finance expenditures, with donor approval, the size of the counterpart funds relative to government spending is of interest. The USAID data for 1989/90 suggest that counterpart funds in almost all countries are small relative to government expenditures. Unexpended balances relative to government spending vary from less than one per cent in over half the countries for which there are data to at most 3¼ per cent in Egypt. Disbursements relative to government spending are also small, ranging from less than one per cent in three quarters of the countries to at most five per cent in Egypt. Even if the USAID data on counterpart funds are substantially understated, or represent only a fraction of total donor generated counterpart funds, in almost all these countries counterpart funds could not have had a large effect on the government budget.

2.4 The Effects on Inflation

Closely related to the monetary effects of aid and counterpart funds is the issue of whether counterpart funds are 'inflationary or deflationary', about which there is much discussion. There is no one answer to this question. It depends on the effects of both the aid and counterpart funds on the available supply of goods as well as on the money supply. The generation of counterpart funds is associated with commodity aid or foreign exchange transfers. Both commodity aid and foreign exchange transfers can either increase resources available to the economy or improve the balance of payments.[5] Aggregate supply increases if the aid is used to increase imports above previous levels. In this case, the aid itself, separate from the generation of counterpart funds, should contribute to lower prices or a slower rise in prices. Neither transaction, commodity aid or foreign exchange aid, must necessarily increase supply, since the transfer could be used to increase net foreign assets or reduce net foreign debt. In this case, the transfer is not used to purchase additional imports, leaving supply unchanged (Lewis 1962:318-319).

If the aid does not lead to an increase of supply through higher imports, the aid will move the balance of payments toward surplus. Under a fixed exchange rate system, this will increase international reserves and the monetary base. It is important to remember, however, that these are all effects of the aid, independent of the generation of the counterpart funds.

The aid and counterpart funds will also affect the government budget, which again can affect central bank credit to the government, which in turn will affect the money supply. Therefore, the final effect of the aid and counterpart funds on the money supply depends on what happens to the balance of payments as well as to the government budget in response to the aid, as was discussed in detail above. The aid plus counterpart funds will be most 'deflationary' when imports increase, increasing supply and avoiding an increase in the monetary base from increased international reserves, and when government spending and taxes remain unchanged, leading to a smaller increase in Central Bank credit to the government than otherwise. Whether this is the appropriate policy or not, depends on the state of the economy. If inflation is a problem, then increasing available supply and avoiding an increase in the money supply as a result of aid and counterpart funds would be desirable. But in other countries, at other times, inflation may not be a problem and it may be more beneficial to use the aid and counterpart funds to increase government spending than to reduce the growth rate of high powered money.

In most countries, the size of counterpart funds outstanding is too small to spend much time worrying about their monetary and inflationary effects. In some other countries, during different time periods, concerns about these effects are legitimate.

[5] By the balance of payments, we mean the balance of payments excluding changes in international reserves.

3 CONCLUSIONS

In some countries, macroeconomic stabilization may be a necessary, if insufficient, condition for further economic development. In some of these countries, aid plus counterpart funds may be significant enough to either contribute to continued macroeconomic instability or to any stabilization efforts adopted. The macroeconomic effects of counterpart funds deserve attention in these situations. Countries where this is likely to be the case are economies where aid and counterpart funds are large relative to the money supply, imports, and (or) government spending. In this case, the counterpart funds may be used to contribute to development by contributing to stabilization. But it is not the case that this will always be the best use of aid and counterpart funds. Instead, the government's use of the counterpart funds to undertake some activity or policy that would not otherwise have been possible, regardless of or despite the macroeconomic effects, may be the most productive use of the counterpart funds in terms of contributing to development. We elaborate on this rationale of the creation and use of counterpart funds, and provide a few examples, in our article in the following section.

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