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**UNAFFORDABLE AMBITIONS:
SYRIA'S MILITARY BUILD-UP
AND ECONOMIC CRISIS**

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PREFACE

For the past decade, U.S. policy-makers attempting to advance the Arab-Israeli peace process have been baffled and frustrated by Syrian intransigence. Syria rejects the prospect of achieving a compromise political settlement with Israel. Moreover, since the Egypt-Israel peace treaty, Syria has also convincingly demonstrated its capacity to dissuade other Arab parties—the Palestinians, Jordanians and Lebanese—from entering peace negotiations. Backed by a formidable military machine, Syria has employed acts of force, terrorism and assassination to intimidate these parties and undermine U.S. peace initiatives.

With this history in mind, policy-makers trying to construct a viable plan for Arab-Israeli negotiations must inevitably confront the issue of what to do about Syria. The conventional wisdom, based on a decade's experience, pessimistically suggests that little can be done to discourage Syria's rejectionism and weaken its ability to block progress in the peace process.

In this Policy Paper, Patrick Clawson argues that the conventional wisdom may be wrong to the extent that it underestimates Syria's economic vulnerabilities. He asserts

that U.S. policy should aim to exploit these vulnerabilities with the purpose of reducing Syria's capacity to derail peace efforts.

Clawson provides the first comprehensive analysis of the relationship between Syria's defense build-up and its economy. He demonstrates that Syria's military might—the foundation upon which its “spoiler” role is based—is overwhelmingly dependent upon foreign aid rather than domestic resources. Clawson suggests that by pressuring Syria's benefactors in the Soviet Union and the Arab Gulf to reduce their aid, the United States can hinder Damascus' drive to achieve strategic parity with Israel, thereby significantly constraining Syria's ability to successfully obstruct a political settlement.

The Bush administration is entering a new phase of efforts to get peace talks started between Israel and the Palestinians. Cautious optimism is expressed that Israel's proposal for elections in the West Bank and Gaza Strip can serve as a basis for initial discussions. If this optimism materializes, it will not be long before the issue of what to do about Syria rears its head again. In anticipation of that debate, and in the hope of making an important contribution to it, The Washington Institute is pleased to publish this paper.

Barbi Weinberg
President
October 1989

EXECUTIVE SUMMARY

Syria's rejection of U.S.-supported peace initiatives and its persistent support for international terrorism have persuaded many observers that little can be done to influence Hafez al-Assad, Syria's president. In fact, much can be done once his vulnerabilities are understood.

Syria is the most aid-dependent state in the Middle East. From 1977 to 1988, it relied on foreign assistance to pay for more than half of its total imports. In contrast, aid to Israel paid for only one-third of its imports.

Syria's military is dependent not only on Soviet equipment, but also on Soviet and Arab money. Unlike Iraq during the Gulf War with Iran, Syria cannot generate domestically the resources to pay Western, Third World and Eastern suppliers for large quantities of modern arms. Indeed, in the period 1977-1988, Syria's aid receipts exceeded its total military spending.

Syria's economy will not be able to pay for its military unless policies which are threatening to the Assad regime are enacted. An economic policy of *infiraj* (relaxation), instituted after Assad took power in 1970, did generate an economic boom that raised growth rates to 10 percent per year. But growing domestic opposition to Assad in the late 1970s was

supported by the flourishing Syrian business community, and the market-oriented policies came to an end. Due to its increasing suspicions of the orthodox Sunni Muslim middle class, Assad's Alawi-dominated minority government tightened its control of the economy and diverted national resources to inefficient state-owned projects. As a result, growth rates plummeted in the 1980s to 1 percent per annum.

The West has some direct means to pressure Assad, such as banning credit lines and prohibiting involvement by Western companies in Syria's growing oil industry. But the West would have more success telling the Soviets, Saudis and Kuwaitis that they bear some responsibility for the military and terrorist actions of the Syrian government that they bankroll. Western pressure to curtail such aid would have a good chance of success. Moscow and the Arab Gulf states have serious financial problems and have been decreasingly interested in sustaining radical regimes. Indeed, since 1984, the Soviets and Saudis have cut aid significantly, forcing Assad to slice his military budget in half and move two military divisions to reserve status.

Assad is unlikely to change his foreign policy goals as a result of financial pressures, but his ability to carry out a rejectionist line will be weakened. After all, it does not matter if Assad opposes an Arab-Israeli settlement if he lacks the ability to stop one.

INTRODUCTION

In the last decade, Syria has forcefully opposed U.S.-supported peace initiatives for Lebanon and the Arab-Israeli conflict. Syria's inflexibility has persuaded many observers that little can be done to influence its president, Hafez al-Assad. The major thesis of this study is that, contrary to conventional wisdom, Syria is vulnerable to outside pressure, especially if that pressure is applied to achieve specific and limited ends.

Syria's main vulnerability is its economy. That may seem paradoxical, since Assad has ignored economic needs: he has adopted policies that inhibit growth but increase his political control, and he has spent more on the military than Syria can possibly afford. But this does not mean that Assad has squeezed Syrians, irrespective of social cost, in order to generate needed resources. Massive foreign aid has enabled Assad to acquire a world-class military without making Syrians pay for it. Syria's economy and military power are extraordinarily dependent on the Soviet Union and the oil-rich Arab states, principally Saudi Arabia and Kuwait.

Syria's drive during the 1970s to increase its regional influence required a military build-up to sustain its intervention in Lebanon and its push for strategic parity with Israel. In turn, the cost of the military mushroomed. This study documents that Syria could not afford to pay the bills itself, especially since the government was implementing a set of economic policies that sent the economy into a prolonged crisis.

2 UNAFFORDABLE AMBITIONS

One sub-theme of this study is that Syria's confrontationist policy was paid for by its allies who supplied financing sufficient to cover the entire cost of the military. Another sub-theme is that when Soviet and Arab aid fell during the mid-1980s, Assad had to curtail his build-up short of its goals, as the economy he had driven into recession was unable to pay for the kind of military that he wanted. Economic pressure has succeeded where diplomacy failed: Assad has not recently trumpeted rejectionist policies in part because he lacks the means to make good on his ambitions.

The discussion below is structured around four issues. The first is an analysis of Syrian military expenditures from 1976-88 that examines who has paid for the Syrian military build-up and whether or not economic constraints have limited that build-up. The second is a look at Syria's economic decline that examines whether the military was a major burden on the economy and how Syria's radical ideology contributed to the economic crisis. The third issue is a forecast of Syria's economic prospects, examining whether its income from recent increases in domestic oil production can offset a decrease in aid from the Soviets and Arab Gulf states. The final section examines how much influence Syria's allies can have on its behavior and the implications of this analysis for U.S. policy.

This study's basic source of information is, of necessity, the Syrian government, either directly or indirectly through the information it provides to organizations like the International Monetary Fund and the World Bank. The quantity of data available from Syria is large, but its quality is poor—not because of deliberate distortion, but primarily because Syria lacks the resources to prepare data well and because Western economic concepts fit in poorly with the reality of a state-run, tightly controlled economy like Syria's. A technical note at the end of this study presents the basic data, describes the problems with them and explains the methodology for achieving estimates referred to in the text. Finally, it should be stressed that this study is only based on data that was available through June 1989.

I BACKGROUND: THE BUILD-UP

After the 1967 war, Syria substantially increased the size and sophistication of its military, in preparation for launching its 1973 attack against Israel. Following the October 1973 war, Syria used Soviet aid to counter its losses, increased its tank forces and upgraded its equipment. However, it did not continue building at its pre-1973 pace.

In the late 1970s, Syria launched a new major military build-up. From 1976 through 1988, the Syrian military increased sharply its manpower and equipment. As shown in Charts 1a and 1b, nearly all of the increase occurred between 1979 and 1985.¹ The size of the army expanded by 50 percent, from 200,000 soldiers to 300,000. The active reserve force grew even faster, from 100,000 to 270,000 soldiers. As a result, the army at full mobilization nearly doubled in size, from 300,000 to 570,000 men. The main battle tank force increased from 2,300 tanks to 4,050, and the quality of the tanks improved dramatically. Syria acquired an air defense system, based on missiles, that is among the most sophisticated and dense in the world. Its helicopter force increased from 56 to 148 choppers.

¹Data are drawn from the annual *Military Balance* reports from the International Institute of Strategic Studies in London. The U.S. Arms Control and Disarmament Agency annual *World Military Expenditures and Arms Transfers* shows a steeper build-up in military manpower from 1977 through 1986: 67 percent growth from 1976 through 1985, from 240,000 soldiers to 402,000.

4 UNAFFORDABLE AMBITIONS

The fighter aircraft force became more sophisticated but not more numerous: there were about 450 combat aircraft throughout the period. The navy grew from a force of minesweepers and coastal ships to one that included submarines and two frigates.

Chart 1a. TANKS

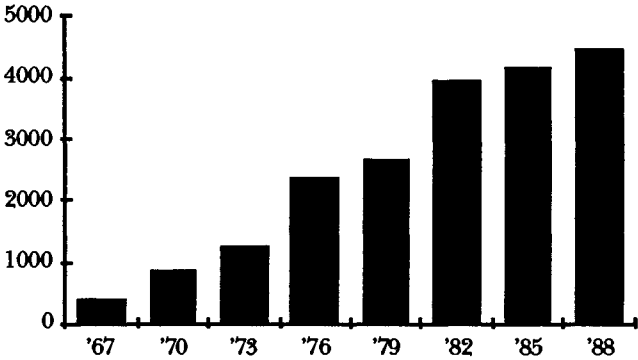
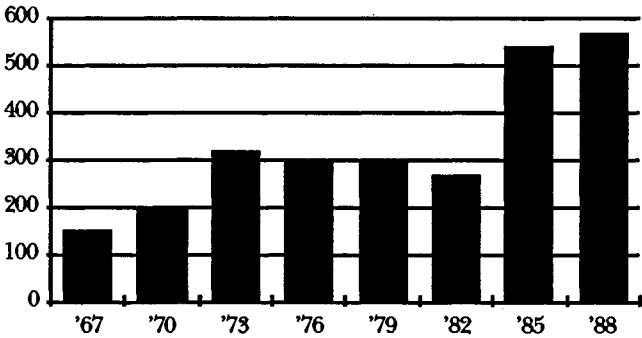


Chart 1b. ARMY WITH RESERVES
in thousands of men



The build-up appears to have stopped or been reversed in the mid-1980s. The number of combat aircraft fell from 1985 through 1988; furthermore, hundreds of tanks were put in storage. Two divisions were moved from full mobilization to reserve status; experienced, higher-paid personnel were

replaced with low-paid conscripts; and the number of reservists (including deferred-release conscripts) on active duty at any given time fell sharply in 1987. Operations and maintenance budgets were cut and training became less intensive.² The military budget barely grew from 1984 through 1988, despite inflation that increased consumer prices three-fold.

In 1988-89, the reduction in force readiness appears to be reversing, as training, operations and maintenance budgets return to more appropriate levels. The Syrian military is again making full use of its equipment. The limited data available suggest, however, that few new weapons systems have been acquired: the armed forces have not yet been able to resume the program of modernization and expansion that was halted in the mid-1980s.

WHY THE BUILD-UP?

There are political, military and economic explanations for the pattern that has emerged during the past 12 years—a pattern of military build-up, followed by pause or retrenchment and then a limited return to high military readiness. Clearly, all three factors helped determine the size and sophistication of Syria's military. The question, however, is which factor was the most important in placing effective limits on Syria.

Politically, Assad has been remarkably constant in his ambition for a major regional role. Syrian governments have long championed the concept of a "Greater Syria" that embraces parts of Turkey and Iraq, as well as all of Lebanon, Jordan and Israel.³ As a member of the Alawite ethnic/religious minority, Assad relies on militant anti-

²See Aharon Levran's sections on Syria in the annual *Middle East Military Balance* by The Tel Aviv University's Jaffee Center for Strategic Studies. In the late 1985 edition, pp.246-247 describe the more intensive training in 1985, while in the 1987/88 edition, pp.197-199 recount the reduction in forces and in force readiness.

³Daniel Pipes, "Palestine for the Syrians?" *Commentary*, December 1986, pp.30-36. Patrick Seale's, *Asad of Syria: The Struggle for Power in the Middle East* (London: I.B. Taurus, 1988), pp.349-350, presents Assad's pan-Syrianism as "a product of strategic need, not of ideological conviction"—a view similar to that of Pipes.

Zionism to establish his legitimacy in the eyes of Syria's Sunni majority.⁴

Political factors alone do not explain the evolution of the Syrian military during the last dozen years. In particular, the theory that politics alone matters—that Syria will make any sacrifice in order to achieve its political goals—does not explain the military retrenchment of 1985-88. There is no evidence that Assad suddenly abandoned his regional ambitions or decided that he could achieve his aims without a powerful military. His statements during this period do not show any new found moderation. Nor did the strategic situation facing Syria suddenly improve.

Militarily, the build-up was motivated by two important developments adverse to Syria's ambitions. First, if one faction in Lebanon's civil war consolidated power, it could end the precarious balance that left the central government weak and the country open to Syrian influence. Syria's intervention in Lebanon tied up 30,000 or more Syrian soldiers, equal to 10 percent of the army at full mobilization, and forced Syria to factor into any plans for war with Israel a new front in central/southern Lebanon. Second, the Egyptian-Israeli rapprochement that began with Sadat's visit to Jerusalem and ended with the Camp David Accords convinced Assad that he had to prepare to face Israel alone, without allies. Syria sought "strategic parity" with Israel, meaning an increase in the size and—more important—sophistication of the Syrian armed forces, so that they could match Israel on their own.

Military factors may explain the build-up, but they cannot account for the retrenchment of the mid-1980s. In theory, the retrenchment could have come from Syria's shift to a defense policy based on reserves available for quick call-up, which would require a much smaller standing army and less operations and maintenance than a permanent standing force of the same size and sophistication. This explanation does not, however, stand up to scrutiny. Israeli military observers saw no evidence that Syria was moving toward a reserve-based army. Aharon Levrant, in the Jaffee Center's *The Middle East Military Balance 1987/88*, states that the force reduction had no military

⁴Daniel Pipes, "Syria's Imperial Dream," *The New Republic*, June 9, 1986, pp.13-16.

rationale and that its “sole cause” was economic.⁵ And more recently, Syria has attempted to revert to its old patterns of military operation, suggesting that there was no basic change in defense doctrine. Finally, mobilizing reserves quickly poses profound technical and political problems for a less-developed autocracy like Syria.

Economics is the third major determinant of the size and sophistication of the Syrian military. Quite simply, Syria’s build-up was limited by the dwindling resources available to it. The build-up was so costly that Syria could afford it only to the extent that its allies footed the bill. The Syrian economy, in rapid decline, was unable on its own to sustain the country’s world-class military, nor was the Syrian leadership secure enough to demand that the Syrian population provide resources through further economic sacrifices. When foreign aid flowed freely in the late 1970s, the Syrian military expanded; when foreign aid dried up in the mid-1980s, the Syrian military contracted. The basic explanation for this growth and contraction therefore lies in the changing attitudes and circumstances of Syria’s allies.

THE BUILD-UP AND THE BUDGET

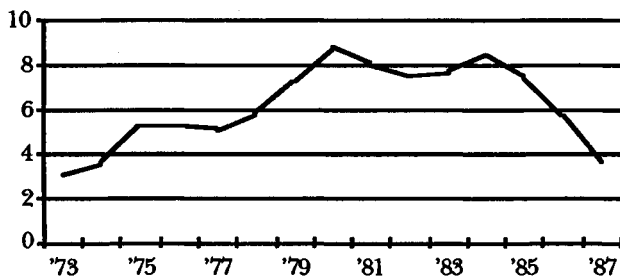
The build-up required a sharp increase in military spending from 1976 through 1983. Part of the increase was shown in the military budget, which is used to pay for local costs—roughly one-fourth for salaries and three-fourths for items such as operations, maintenance, food and housing.⁶ At 1980 prices, the military budget rose from 5.3 billion Syrian pounds to 7.8 billion (See Chart 2). At a realistic exchange rate and at current (not 1980) prices, the Syrian military budget rose from \$900 million in 1976 to \$1.9 billion in 1983.

⁵Levrant, “Syria,” *The Middle East Military Balance 1987/88*, p.198.

⁶The breakdown between salaries and other costs is estimated from the data on the composition of expenditure for 1981 and 1982. For 1981, the government wage bill figure includes the military, while for 1982 only the civil service wage bill is given. The difference provides an estimate of the military wage bill.

Chart 2. SYRIA: MILITARY BUDGET

in billions of Syrian pounds at constant 1980 prices



The rapid increase in military spending was abruptly reversed after 1983. Budget allocations barely grew from 1984 to 1988 while inflation drove up prices three-fold.⁷ At constant 1980 prices, the military budget fell 67 percent from 8.5 billion Syrian pounds to 2.8 billion. This probably translated into a deep cut in soldier's real incomes. In comparison, the average wage of civil servants, adjusted for the increase in consumer prices, fell 50 percent from 1984 to 1988.

Unfortunately, no data are available on actual military spending as distinct from the budget. However, the resources that were available to the military can be calculated indirectly, as explained in the technical note. The resources actually available to the military rose more quickly than the budget from 1981 to 1984 but then fell more quickly from 1984 to 1986 (See Chart 3).⁸ In other words, the budget probably understated significantly the extent of the military build-up in 1981-84. On

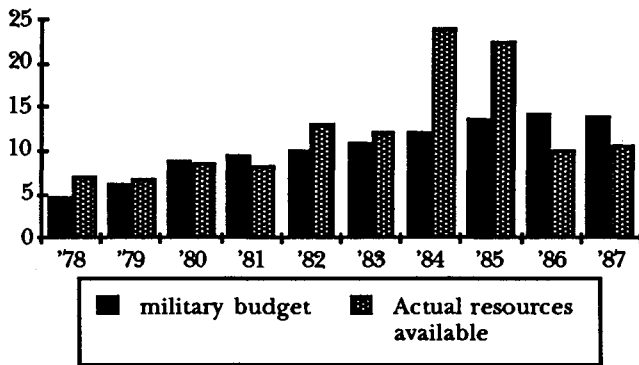
⁷The consumer price index rose, on a base of 1980=100, from 156.9 in 1984 to 500.7 in the first quarter of 1988.

⁸The situation described in Chart 3 is quite common for countries entering a crisis. In the years before a crisis, actual spending exceeds what is allotted in the budget. A crisis then emerges and, despite reductions in budget authorizations, the government cannot raise enough financing to sustain spending at the lower budgetary levels, so spending drops below what was allotted in the budget.

the other hand, the budget concealed the extent of the crisis in 1986-87, a crisis that forced Syria to cut military spending at a very rapid rate.

Chart 3. SYRIA: MILITARY SPENDING

in billions of Syrian pounds



Sources: Syrian Statistical Abstract; Syria's Budget; IMF, International Financial Statistics.

Note: Actual resources available calculated as receipts (grants and foreign loans shown in the balance of payments; domestic loans shown in the monetary survey; and tax revenues forecast in the budget) less budgeted civilian expenditures.

A caveat is in order about the data. The Syrian economy has become increasingly distorted by the economic crisis: more and more goods are being rationed and black markets are becoming rampant. Under these conditions, prices lose much of their meaning—access to goods is determined by political connections, not by price. The military has benefited from a variety of policies that are intended to hold down its costs, especially low prices on petroleum products.⁹

⁹The military probably pays wholesale prices rather than retail prices for most goods. It might therefore be more appropriate to adjust for inflation with the wholesale price index rather than the consumer price index, but the latter is more readily available and in any case the two indices

Nevertheless, the budget squeeze has hurt the military, particularly in military wages.

TOTAL MILITARY SPENDING: BUDGET PLUS ARMS IMPORTS

The budget is only one part of the story, however. Neither the budget nor any other official Syrian data (such as the balance of payments) include arms imports. Syria depends upon arms imports for the bulk of its armaments, including all its most advanced weapons, since Syria's local industry can produce only limited quantities of unsophisticated munitions.

The best source of data on the value of Syria's arms imports is the annual report of the U.S. Arms Control and Disarmament Agency. According to ACDA, Syria's arms imports increased from \$600 million in 1976 to \$3.5 billion in 1983. From 1977 through 1988, Syria imported approximately \$22 billion in arms.¹⁰ By comparison, during the same period, Syria's military budget at a realistic exchange rate was approximately \$17 billion, making the total outlays \$39 billion.

Chart 4, which presents total military spending (budget plus imports) from 1977 through 1988, is shaped like an inverted V. From 1977 through 1983, expenditures tripled from \$1.8 billion to \$5.4 billion. From 1983 through 1987, total military spending fell from \$5.4 billion to \$2.1 billion, a 60 percent drop. Adjusting for inflation would flatten the V-shape without changing the basic trends. Inflation from 1977 through 1983 was approximately 50 percent, indicating that Syria's military spending doubled during the 1976 to 1983 build-up.¹¹ Since 1983, there has basically been no inflation; increased prices in European currencies and the Soviet ruble have been offset by a

differed by less than 5 percent until 1984, and only by 12 percent cumulatively from 1985 through 1987 (227 vs. 254, on a base of 1984=100).

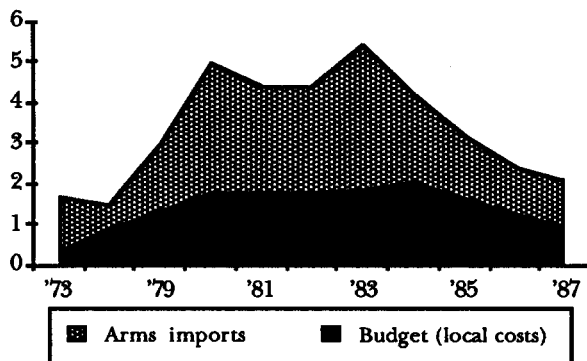
¹⁰This paper is based on ACDA data available through 1987. The amount of arms imports for 1987 and 1988 are very tentatively estimated at \$1 billion each year.

¹¹The IMF's import unit value index increased 54.1 percent from 1976 through 1983. This is a more appropriate measure of world inflation than the change in U.S. prices; the U.S. GNP deflator rose 64.7 percent from 1976 through 1983.

decline in the value of the U.S. dollar. Therefore, the 1983-1987 decline would remain about 60 percent.

**Chart 4. SYRIA: MILITARY
EXPENDITURES 1977-88**

in billions of U.S. dollars



A paradox emerges when the data on spending are matched with the history of Syria's 1982 war against Israel in Lebanon. Syria lost scores of fighters and main battle tanks, plus great quantities of less sophisticated equipment. One would expect therefore that Syria would have spent a large sum to replace its lost equipment. In fact, this did not happen. Arms imports in 1982-83 totalled \$6.1 billion, which after inflation is a smaller amount than the \$5.8 billion in 1980-81. Furthermore, arms imports have fallen sharply since 1984. The domestic budget did rise in 1983-84, presumably to replace war damaged facilities, but it never regained its 1980 peak. Indeed, it is unlikely that the limited increases in 1983-84 were sufficient to repair all of the damage caused by the war. In short, Syria's military build-up was not at all a consequence of the Lebanon war. If anything, the war—which revealed the vast gap between Syrian and Israeli capabilities—was the beginning of the end for the build-up.

II THE BURDEN OF THE BUILD-UP

Syria's military machine was very expensive: \$40 billion was spent from 1977 through 1988. This section examines who paid the bill, in terms of arms imports, the military budget (excluding those imports) and military service. On its own, Syria could not afford a military of the size and sophistication that it acquired during the build-up. The army that has backed Syria's intransigent regional stance was made possible by Syria's allies.

PAYING FOR ARMS IMPORTS

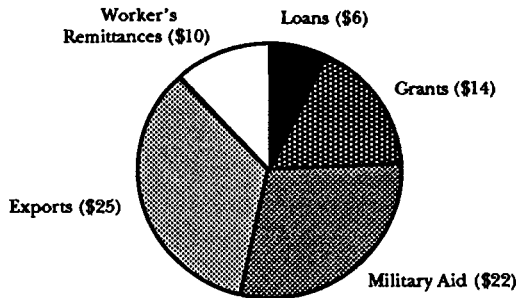
In addition to its \$22 billion arms import bill in 1977-88, Syria imported about \$52 billion in civilian goods and services, including an estimated \$5 billion in smuggled goods. In other words, Syria's total imports for 1977-88 were \$74 billion, of which the military share was 29 percent.

Syria faced two problems in paying for the arms imports. The first was finding the Syrian pounds to pay for them. In theory, Syria could collect the funds by increasing the tax burden, although the regime was reluctant to take this route. But even if the government had done this, it would still have faced the harder second problem: converting those Syrian pounds into foreign exchange.¹

¹Syrian pounds would not have helped the Soviets much, who only needed trivial amounts of pounds to meet the expenses of their embassy

It is hard to imagine how Syria could have acquired the foreign exchange it needed for the arms imports through any mechanism other than aid. Syria's economy is extraordinarily dependent upon various forms of aid for its foreign exchange. Chart 5 shows that Syria relied on its export earnings for only \$25 billion of its \$77 billion in foreign receipts from 1977 through 1988.² To some extent, the \$10 billion sent home by Syrians working abroad can also be considered an export: the export of workers. However, even if those remittances are included, Syria still received only \$35 billion in export earnings during that time. The remaining \$42 billion of foreign receipts—55 percent of the total—came from various forms of aid. Syria relied on aid to a much greater extent than Israel, which financed about two-thirds of its imports with exports during the 1977-1988 period.

**Chart 5. SYRIA: FOREIGN RECEIPTS
1977-88
in billions of U.S. dollars**



and of Soviet visitors to Syria. So-called barter would have made little difference: the basic problem would have been identifying enough Syrian goods that the Soviets wanted, whether they buy in hard currency or in Syrian pounds. Barter is attractive for Syria only if the Soviets agree to pay extra-high prices in Syrian pounds, which is a disguised way of providing Syria a grant.

²The \$77 billion in foreign receipts financed \$74 billion in imports and \$3 billion in capital flight.

It is worth emphasizing that the data presented here on Syria's imports and exports include generous estimates for its unrecorded trade. Stories are legion about the prevalence of smuggled imports, but these must be approached with caution: most casual observers refer to the prevalence of smuggled consumer goods, a category that constitutes only 15 to 25 percent of Syria's reported imports. It is likely that most consumer durables in Syria were smuggled, but that assumption would be consistent with the estimate here that smuggled goods equal about 30 to 35 percent of Syria's legally reported civilian imports.

Two basic factors buttress the conclusion that smuggling has often been exaggerated. First, as explained in the technical note, Syria's record of its trade can be compared with the data issued by its major trading partners, which provide a good check on the reliability of the Syrian data. In fact, Syria's data correspond very well with that of its trading partners. In addition, the data from other countries on exports to Lebanon correspond closely with Lebanon's estimated internal demand: there is no evidence of massive amounts of imports to Lebanon that are re-exported to Syria.

Second, an explanation is needed as to how Syria earned the foreign exchange to pay for the reportedly smuggled goods. There are three possible sources: (a) unrecorded exports, such as relatively small amounts of wheat (in the low tens of millions of dollars) smuggled to Turkey and some hashish; (b) unofficial seizures in Lebanon, which may be the foundation of some generals' fortunes but which have been strictly limited by Lebanon's economic collapse; and (c) workers' remittances via black markets, for which a generous estimate of \$600-700 million per year has been made for this paper. This figure implies that remittances have remained at the \$900 million per year peak that was reached in 1979, despite the fact that the number of Syrians working in the oil-rich states has probably declined.³

Given Syria's limited earnings of foreign exchange, the country was completely dependent on aid to finance its arms

³In the late 1970s, the black market rate was essentially the same as the official rate used for remittances. It is therefore assumed for this paper that remittances came through official channels and that the Syrian government's revised 1979 estimate for remittances of \$900 million is correct.

imports. It is misleading to speak about foreign arms sales to Syria because Syria lacked the foreign exchange to pay for the arms. If the Soviet Union proposed selling Syria all the arms that Damascus could pay for, the effect would be similar to an arms cutoff; Syria would be limited to weapons for which the Arab states provided cash. Moscow could use the handy excuse of its own budget crisis to explain a cutback in arms deliveries to Syria, an explanation that is plausible because it is true.

Not much is known about the sources and terms of military aid to Syria. Some grants were funnelled to the Soviets from various Arab states in order to pay for Syria's arms; speculative estimates range from \$2 billion to \$7 billion. The remainder—a minimum of \$15 billion and a maximum of \$20 billion—came from Soviet-bloc loans that are unlikely to be repaid soon, if ever. Unconfirmed reports refer to a 1984 Soviet accord to delay repayments until 1990. So far, it appears that Syria has not paid much if any debt service on its arms loans. Even limited debt service payments—for instance at 3 percent interest, or \$450 million—would be beyond Syria's ability to pay. After all, Syria's export earnings are insufficient to pay for its civilian import needs, let alone its debt service. In addition, cash aid from Arab states appears to have declined to roughly \$700 million per year. If the Soviets insisted on debt service payments before they provided any parts or ammunition, Syria would be forced to divert much of its Arab cash aid to pay the bill, leaving little to finance its local military budget.

Syria's relations to its arms suppliers differs fundamentally from that of Iraq or Libya. The latter two states have been able to make substantial cash payments for their arms imports, confining their use of loans (and grants, for Iraq) primarily to civilian imports. The ability to pay cash provides the flexibility to choose suppliers from among many competing international firms. This flexibility is a great advantage in dealing with the USSR, which then is forced to consider the competition and the potential loss of hard currency earnings. Syria does not have such flexibility. It is forced to import from the one supplier who will provide arms to it on generous terms: the Soviet Union. If the Soviet Union refuses Syrian requests for more or better weapons, Syria cannot credibly threaten to diversify its supply sources. It has only enough hard currency to pay suppliers like North Korea or China for limited high-priority purchases, but not enough for the bulk of its needs.

AID AND THE MILITARY WITH AND WITHOUT THE BUILD-UP

Measuring how much aid financed the build-up is conceptually tricky. Syria would have military expenses with or without the build-up, so it must be estimated how much extra money the build-up cost. Similarly, Syria, like most developing countries, would get some aid under almost any circumstances. Relatively little of Syria's aid was explicitly earmarked to finance the build-up. Nevertheless, the aid was fungible, meaning it could replace money that the government would have spent anyway, thereby freeing money for the military. For example, a bank would be much more likely to finance a car purchase than to loan money for gambling at the race track. However, if a person already planned to spend his own savings to buy a car, but also wanted to go to the track, he could secure a car loan and instead use the money for gambling. The bank would then indirectly be financing the gambling.

In the case of Syria, to the extent that aid made possible more military spending than would otherwise have been the case, the aid paid for the military, even though the aid may have been ostensibly earmarked for a charitable purpose like health care.

It is difficult to measure how much aid was tied to the military build-up and how much would have come without it. Details of the procedure used here to determine this figure are given in the technical note to this study. Syria seems to have received \$20 billion toward the build-up from the Soviet Union and the Arab states, of which \$11 billion was in arms aid and \$9 billion in cash or civilian aid. In addition, Syria received a "normal" aid flow of another \$11 billion in both military and civilian aid, for a total of \$42 billion during a 12-year span—\$22 billion in military aid and \$20 billion in civilian aid. The sources of that civilian aid were: \$900 million from international agencies, \$600 million from Western governments, \$2 billion from Iran, roughly \$13 billion from Arab governments and about \$3.5 billion from the Soviet bloc, banks, suppliers and unidentified sources.

From 1977 through 1988, the military budget totalled \$29 billion and, as noted earlier, arms imports that were not

included in the budget added another \$22 billion.⁴ Total military spending was therefore \$51 billion during those twelve years. Part of that spending was the normal trend line of military spending, and part was attributable to the build-up. Extrapolating from the 1973-76 average, Syria would have normally spent about \$22 billion on the military.⁵ The build-up therefore added about \$29 billion to the cost of the armed forces over the period 1977-88.

In sum, from 1977-88, the total cost of the military was \$51 billion and the total amount of aid to Syria was \$42 billion. Taking out the "normal" flows of aid and military spending, the build-up cost \$29 billion and was financed by about \$20 billion in extra aid. In other words, foreign aid paid for two-thirds of the build-up.

Setting aside arms imports and looking just at local cash costs, the military budget was \$29 billion and cash aid was \$20 billion. (It is purely a coincidence that these numbers coincide with those for the build-up). Some of the local cash costs and the civilian aid are a "normal" flow; the part attributable to the build-up was \$18 billion in local costs and \$9 billion in civilian aid. Therefore, about half of the local cash cost of the build-up was paid for by foreign aid.

BURDEN ON THE TAXPAYERS

In the 1977-88 period, Syria's military budget averaged about 14 percent of its Gross Domestic Product, which is not an excessively high burden by international standards. However, the budget excludes arms imports, a common practice in many countries, making ACDA's comparative international data misleading. For Syria, total military outlays including

⁴In order to compare the amount of aid to the size of the military budget, the same exchange rate must be used to measure the aid and the budget. Aid was counted at the exchange rate used for government transactions. This rate was artificially low, meaning that someone was able to benefit from access at low cost to the aid dollars or the goods they financed. The substantial income from this access to aid went to private individuals, not to the government; it therefore did not affect government finances.

⁵The trend line for the military without the build-up would have been about \$11 billion in arms imports and about \$11 billion in the budget, based on the 1973-76 averages of \$650 million per year for each and including a small adjustment for inflation.

arms imports averaged 30 percent of GDP from 1977-88. In comparison, Israel's military outlays averaged 25 percent of GDP during the same period (30 percent in the late 1970s, 20 percent in the mid-1980s).

As shown above, 35 percent of the military budget—equal to 4 percent of GDP—could be thought of as normal military spending. The build-up increased the military budget by about 10 percent of GDP. Additional foreign aid paid for at least half of that increase, leaving the taxpayers to pay for the rest. As a result, the military build-up cost Syria's taxpayers no more than 5 percent of GDP. Under equally plausible projections for military spending and aid in the absence of a build-up, the taxpayer burden might have been as low as 2.5 percent of GDP.⁶ This is not a particularly onerous burden for a policy that the political leadership assigned highest priority.

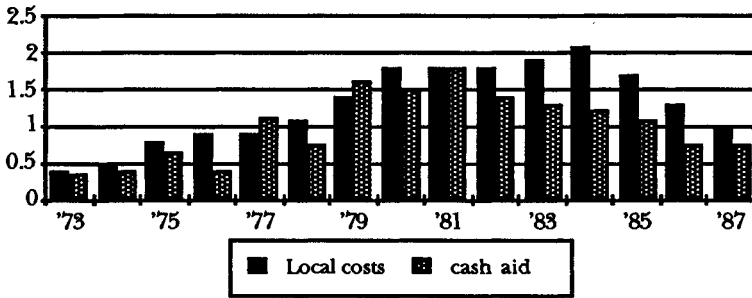
A closer examination of the evidence suggests that the Syrian government was unable or unwilling to force its taxpayers to pay a higher share of the military costs. When Arab governments cut back on their cash grants to Syria after 1981, Damascus' initial response was to maintain military spending, which meant that the burden on the local economy rose steeply. However, the price soon became intolerable. As a result, local military expenditures had to be cut.

Chart 6 shows these developments. The trend from 1973 to 1981 was for the military budget to rise in tandem with cash grants, though the grants tended to come in big sporadic payments, making an exact fit between grants and the military budget impossible. From 1982 to 1984, the grants declined but the budget remained high. After 1985, the military budget declined steeply until a rough equilibrium was restored between the budget and cash aid. In conclusion, Syria's military build-up could continue only as long as Arab governments provided the cash and the Soviets provided the arms; Syria's regime was not prepared to impose the extra burden on the taxpayers.

⁶If the trend line for military spending included a full adjustment for inflation, it would have been \$15 billion. That means the build-up cost only \$14 billion. If the trend line for aid was only \$11 billion, then the extra aid was \$9 billion. The difference between the build-up cost and the extra aid would then be exactly 2.5 percent of GDP.

Chart 6. SYRIA: AID AND MILITARY SPENDING

in billions of U.S. dollars



Syria's taxpayers do not carry a particularly heavy load. Tax revenues in Syria were 13 percent of GDP in 1987, compared to 45 percent in Israel.⁷ To be fair, government revenues from parastatal companies should be included, because in Syria many of these companies pay little tax but remit most of their profits to the treasury. Total government revenue in Syria was 24 percent of GDP in 1987, compared to 55 percent in Israel, 39 percent in Egypt, 31 percent in Jordan, 26 percent in Morocco and a world-wide average of 20 percent for middle-income countries.⁸ The inability or unwillingness of the Syrian government to increase the tax burden says much about the degree of support it commands from the Syrian people: it obviously does not believe they are willing to make major sacrifices to achieve the government's strategic goals.

⁷Data on government revenue for countries other than Syria come from the World Bank, *World Development Report 1989*, pp.186-187.

⁸Tax receipts as a percent of GNP are generally higher for richer countries, so the comparison between Syria (1987 per capita GNP of \$1,640 according to *World Development Report 1989*) and Israel (1987 per capita GNP of \$6,800) is misleading. On the other hand, Syria's per capita income was above that of Jordan (\$1,560), Egypt (\$680) and Morocco (\$610); it was very close to the world average for middle income countries of \$1,810.

THE MANPOWER BURDEN

According to the International Institute of Strategic Studies, Syria in 1988 had 404,000 soldiers on active duty in its armed forces: 300,000 in the army, 60,000 in the air defense force, 40,000 in the air force and 4,000 in the navy. This was an 80 percent increase from the 227,000 in 1976. The build-up occurred in a spurt between 1981 and 1984; the size of the armed forces was roughly constant between 1976 and 1981 and grew by 140,000 during the following three years, reaching 362,000 in 1984. The Jaffee Center at Tel Aviv University estimates that the build-up was larger, with the regular Syrian armed forces reaching 500,000 in 1985. The rapid build-up ended after 1984. The Jaffee Center estimates that the strength of Syria's armed forces declined during the next four years, while the IISS estimates that it rose slowly. They agree that in 1988, Syria had 400,000 men in its regular armed forces.

Taking an average from these two respectable sources, Syria's regular armed forces had about 400,000 personnel in 1984. That is a significant figure for a country of Syria's size. Several indices can be used to measure the burden. In 1984, there were 3.34 million Syrian males over the age of 10. The armed forces therefore represented 12 percent of the male population in that age group. (Syria's military includes some women, but they are a small portion of the total force).⁹ By comparison, in 1986 in the United States, 2.2 percent of the male population over the age of 10 was in the military. Also, the Syrian armed forces in 1984 represented 21 percent of the male labor force of 1.95 million, and 35 percent of the urban male labor force of 1.14 million. Another way of looking at the scale of Syria's military is that it was 90 percent the size of the civil service, which was 442,000 in January 1984.¹⁰

The armed forces need skilled personnel. Consider the question of literacy. In 1984, of Syria's male population over the age of 10, 2.71 million were literate and 1.61 million had at least a primary school education. In other words, 81 percent of

⁹Data on men between the ages of 18 and 45 are a more relevant comparison, but they are not available.

¹⁰This is excluding the 68,000 employees of the Supreme Council for General Construction. The public sector as a whole, including state-owned industry, had 801,000 employees of whom 677,000 were male.

males over the age of 10 were literate, but only 48 percent had a primary education. The armed forces therefore had to make do with a fair number of enlisted soldiers who may have been literate but had no primary education: hardly an ideal labor force to operate modern weaponry.

The military's burden on human capital resources comes primarily from the highly skilled manpower needed to keep modern equipment running. In light of the shortages of trained—or even literate—personnel, the military appears to have primarily trained its own technicians. Because some of those trained by the military returned to the civilian economy, the military may have on balance helped ease the shortage of trained personnel. Patrick Seale claims that the Syrian military teaches 20,000 young men each year how to drive and trains “thousands” of electricians and mechanics.¹¹

The military use of manpower has been a burden to the extent that these soldiers could have been productively employed in the civilian economy, rather than unemployed. The evidence for this is slim; for one thing, data on unemployment are close to useless in a country like Syria that has effectively no system of unemployment compensation. Furthermore, estimating the consequences of demobilization is not a precise science, even for advanced nations with excellent economic and demographic data. All that can be said with certainty is that if the military had been smaller, job seekers would have had more difficulty. Syria lacked the capital, the foreign exchange and the flexible economic system needed to use its existing workers effectively. It is unclear how the labor market would have adjusted to a large influx of workers.

In short, the number of personnel in Syria's armed forces is large relative to the population. At the same time, the military burden on the country's human capital resources may be less than it would seem at first glance for two reasons: The civilian economy might not have been able to absorb more workers, and the military trained a fair proportion of its own technicians who then made their skills available to the civilian economy. Furthermore, soldiers are not much of a budgetary burden, since the vast majority are low-paid conscripts.

An interesting point for understanding the morale of Syrian soldiers is the evolution of the military wage bill.

¹¹Seale, *Asad*, p.452.

Indirect evidence indicates that in the early 1980s, the mean military wage was roughly the same as the mean civil servant wage, though the military wage probably was distributed less equally (high salaries for officers, low salaries for enlisted men). This pattern seems to have been maintained. In that case, military morale must be low, since the real value of the mean wage has dropped by at least a third since the 1984 peak.

III THE ECONOMIC CRISIS

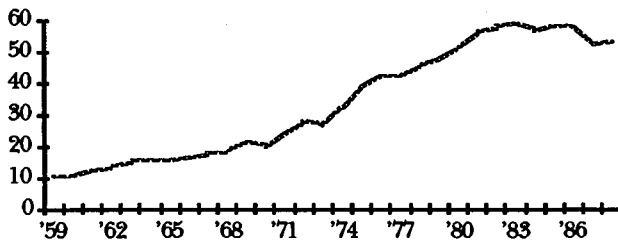
After two decades of good economic performance, Syria experienced an economic crisis in the 1980s (See Chart 7). From 1953 to 1963, Syria's GDP grew in real terms at an average of 4.6 percent per annum. The growth rate fell after the ascendance of the radical Ba'ath Party, averaging 4 percent from 1963 to 1967 and 3.7 percent from 1967 to 1970. Still, this growth rate was sufficient to keep up with population growth. After Assad came to power in 1970-71, he implemented a liberalization policy that raised the average annual real growth rate to 9.6 percent from 1970-73. The liberalization was extended after the 1973 war, when Syria also benefited from the backwash of the Arab oil boom: average annual growth was 12.4 percent from 1973 to 1977.

Since then, the economy has headed steadily downhill. The slowdown between 1977 and 1980 was rather moderate—growth still averaged 6.8 percent, well above population growth—and for public relations purposes could be attributed to a pause in the oil boom. But after 1980, when the second oil boom brought great opportunities to many Arab countries, Syria's crisis deepened. Growth slipped to an average of 4.7 percent per year between 1980 and 1983. After 1983, the economy slid into an open crisis. The GDP fell an average of 2.9 percent per annum from 1983 to 1987. Given a population

growth rate of 3.5 percent, the result was a cumulative decline of 22 percent in per capita income between 1983 and 1987.¹

Chart 7. SYRIA: GROSS DOMESTIC PRODUCT

in millions of Syrian pounds at constant 1980 prices

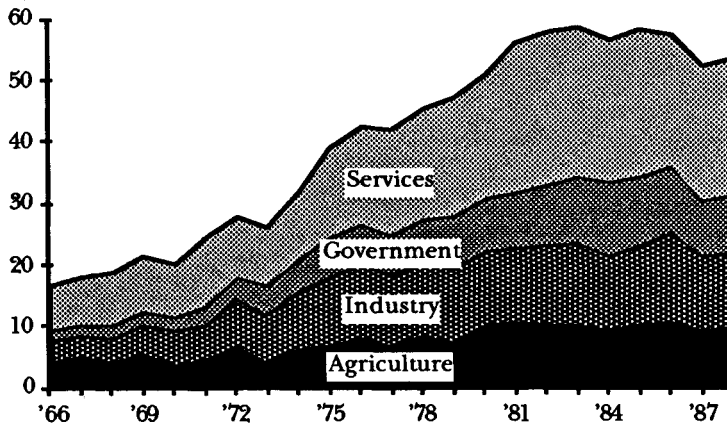


The economic crisis hit every sector of the economy hard except agriculture (See Chart 8). Output in the industrial sector is easy to monitor from the data provided on physical production in the main industries. These data show that output suffered especially in industries that use a high proportion of imported inputs. For instance television production, which had totaled 59,418 sets in 1982, ceased in 1986; refrigerator output fell from 147,734 in 1982 to 31,603 in 1987; tractor production fell from 3,300 in 1982 to 1,198 in 1987.

¹The World Bank's 1988 *Social Indicators* lists Syria's most recent population growth as 3.4 percent per annum.

Chart 8. SYRIA: GROSS DOMESTIC PRODUCT

in millions of Syrian pounds at constant 1980 prices



The economic crisis was felt in various ways in addition to the drop in output. One phenomenon was a scarcity of foreign exchange that led to a drop in the black market exchange rate from 9 Syrian pounds per dollar in late 1984, to 40 or 50 pounds to the dollar in early 1989. This change reflected the tremendous scarcity of imported goods.

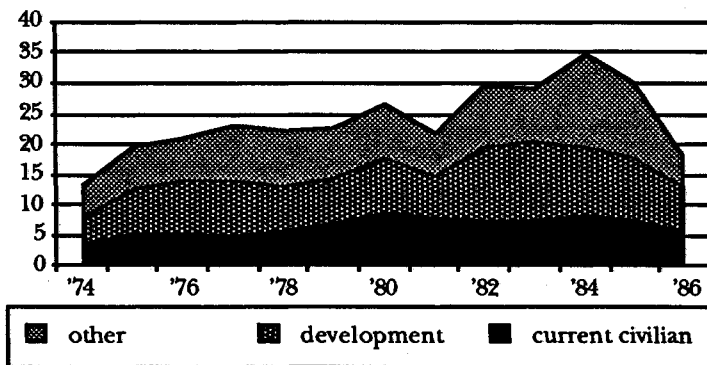
Another manifestation of the economic crisis was the curtailing of all government expenditures. The budget data do not show the full extent of the drop in expenditures. Chart 9 presents the drop in expenditures at constant prices, estimated by the procedure referred to earlier and explained in the technical note.² The chart also presents an approximate breakdown of expenditures. The drop in military spending was the most severe, but other categories also were affected. The reduction in current civilian spending—spending outside

²Unfortunately, only budget data are available for development spending and current civilian spending, so the residual category may include some differences between what was provided in the budget and actual spending, including its main component—military expenditures.

of the military and the investment budget—led to a cut in civil service wages. As noted earlier, the average real wage of civil servants fell roughly 50 percent from 1984 through 1988.

Chart 9. SYRIA: GOVERNMENT EXPENDITURES

in billions of Syrian pounds at constant 1980 prices



Official statistics overstate the extent of Syria's economic crisis, because the official figures miss much of the underground economy that has flourished since the early 1980s. The growth of the underground economy has been fed by two factors. The first has been the government's policy of fixing prices at unrealistic levels. Most important is the artificially high value of the Syrian pound, which has encouraged use of the black market by exporters and by Syrians sending money home from the oil-rich countries. The differential between the black market and the official exchange rate was about 20 percent in 1984 but widened to nearly 500 percent in 1988.³ In addition, the low prices offered

³*Middle East Economic Digest*, November 7, 1984, cites a black market rate of nine Syrian pounds (LS) per dollar while most private transactions were made at the officially-sanctioned rate of LS 7.5 per dollar. Government transactions were made at the rate of LS 3.925 per dollar.

The *Financial Times*, January 4, 1989, cites a black market rate of LS 50 per dollar while the official rate (both for private and government

to farmers (partly to hold down food prices) have led to an avoidance of official channels. For instance, such a large portion of the record 1987-88 wheat harvest was smuggled abroad to take advantage of higher prices, especially in Turkey, that Syria was forced to import 500,000 tons despite a 1.5 million ton rise in output.⁴

The second factor driving the underground economy has been Syria's presence in Lebanon, which has increased smuggling opportunities. Many imports into Lebanon are off-loaded at ports where no duties are paid. There are widespread allegations that military officials acquire these goods—either by paying for them or by taking them as an unofficial tax on the importers—and bring these goods into Syria without paying duties on the *tariq 'askari*, or special military highway.⁵

The size of the underground economy is unknown. One good indicator is the comparison between what Syria reports about its foreign trade and what Syria's trading partners report. An active underground economy would show up in a variety of ways. One indication would be records by foreign countries showing higher exports from Syria than the Syrians report. (Syrians underinvoice their exports because they want to keep dollars rather than being forced to sell them for Syrian pounds at an unattractive rate). Another indication would be reports by these countries showing that Syria imports more goods than Syria records (Syrians smuggle in goods that could not otherwise be bought due to controls on foreign exchange allocations). As mentioned earlier, Syrian records match well with those of their foreign partners (See technical note). These data suggest that smuggling was not widespread and they indicate that the underground economy was limited.

In short, the bleak economic picture painted by the official statistics for the 1980s has been accurate: industrial output has fallen, government spending has dropped and imports are down. The explanations for this crisis can be grouped into

transactions) has been LS 11.125 per dollar since January 1988. Some private transactions, including workers' remittances, have been shifted to the promotional rate of LS 20 per dollar.

⁴*Middle East Economic Digest*, October 7, 1988, p.30.

⁵Yahya Sadowski, "Patronage and the Ba'th: Corruption and Control in Contemporary Syria," *Arab Studies Quarterly*, Vol.9, No.4, 1987, pp.442-461.

three main categories: unfavorable external factors, military spending and inappropriate government economic policy.

There were basically two unfavorable external factors that hurt Syria's economic growth. The first, and least important over the long-run, was the drought that affected agriculture in 1984-85. Agricultural output fell 9 percent in value in 1984 and GDP as a whole fell 3.6 percent that year. However, the recovery from the drought was complete by 1987, so the drought should not have had a lasting impact. Second, and more important, were the poor opportunities for Syrian workers and poor market for Syrian products in the oil-rich states after 1985. This factor is harder to quantify, but probably accounted for a slowdown of up to 1 percent per annum in GDP growth.⁶ That is not negligible, but it is only a small part of the drop in the growth rate from an average of 8.9 percent per annum from 1967 through 1977, to an average of 3.6 percent per annum from 1977 through 1986.

Since external factors played a minor part in the decline, the main explanation must lie with the policies adopted by the authorities. Indeed, in the late 1970s, two important policy shifts took place: the military build-up and a de-emphasis on the private sector.

THE MILITARY AND THE ECONOMY

The effects of the military on the Syrian economy are many and varied. As demonstrated above, the financial burden on Syria's taxpayers for the build-up was relatively limited: 2.5 to 5 percent of GDP. The principal financial burden fell upon Syria's allies, not its citizens. International comparisons suggest that Syria has substantial room to increase its military spending by calling on its citizens to make more of a sacrifice. In the extreme case, if Syrians were prepared to forego the same percentage of their income in taxes that Israelis do, Syria's tax revenue would increase by 25 percent of GDP, which would allow the military budget to increase 2.5 times its current level. When commentators write about Assad's brutality and his iron grip on Syria, they should also

⁶The 1 percent estimate is based on a high estimate of the decline in Syria's exports to Arab countries and the decline in purchases of Syrian goods paid for by remittances of Syrian workers.

contemplate the limits to his rule. Despite a revenue shortage that led Assad to postpone achieving his cherished dream of strategic parity with Israel, Syria taxes its citizens at half the level of Israel and in addition provides generous consumer subsidies.

It is a mistaken belief that Syria could have done wonders with its \$42 billion in aid if that aid had not been given to the military. The sad truth is that the aid would not have been available had Syria not been spending so much on the military. In particular, the Soviet Union has a long history of parsimony with civilian aid but generosity with military aid (Cuba is the main exception). Without its confrontational stance against Israel, Syria would have received much less aid. It is only a slight exaggeration to say that the military build-up was paid for by foreign donors. In that case, the military expansion has benefited Syrian civilians because it creates jobs—directly through the military and indirectly through military purchases and soldier salaries.

Syria's foreign exchange situation was not hurt by the military build-up. A precise econometric estimate cannot be made, because the data are not good enough, but a rough estimate shows the magnitudes involved. Syria's military build-up, which amounted to 10 percent of its GDP, was responsible for no more than 20 percent of its imports of civilian goods and services, plus of course the increase in arms imports (over and above the "normal" arms imports of \$11 billion). From 1977 to 1988, 20 percent of imports of civilian goods and services was \$10 billion, while the additional arms amounted to \$11 billion. Because the build-up was associated with an additional \$20 billion in increased aid flows, it appears that the military build-up did not create a burden on the country's foreign exchange position.

It also seems that the manpower burden was very manageable, especially since the military provided many young Syrians with mechanical skills that were marketable both in Syria and in the oil-rich countries. Indeed, a cynic might argue that a large military keeps young men off the streets. Rather than being idle and potentially troublesome, they learn the harsh discipline of the barracks.

Military purchases of items such as food, clothing and office supplies were generally a positive force in the economy, creating markets that could be supplied with production

capacity that would otherwise have remained idle. Of course, in some cases, such as with the purchase of construction materials, the military's needs may have diverted supplies that could have been sold to the civilian economy. In those cases the military purchases had a negative effect by driving up prices and/or the need for imports. But on the whole, military purchases caused the economy to react in a way that Keynesian economists would predict: the stimulus to demand gave the economy a boost.

The political economy of the military build-up is one way in which the military can be said to have adversely affected the economy. This paper maintains that the basic explanation for Syria's economic crisis is Assad's recentralization of the economy. That recentralization was not directly caused by the military build-up, but there is a definite link. Assad wanted stronger state control over society because he was concerned about the political opposition, and his concern was not unrelated to the military build-up.

Popular opposition to Assad's policies was clearest in the case of Syria's intervention in Lebanon, initially on the side of the Christians. Many saw this as an affront to Muslim solidarity and/or pan-Arabism, to prop up what was seen as an oppressive group that often emphasized its separateness from the Arab and Muslim worlds. One opposition group that flourished in the late 1970s was the Muslim Brotherhood, which launched a campaign of assassination against prominent Alawites, the ethnic/religious group to which Assad and many top officials belong.⁷

Fanned by many issues other than the intervention in Lebanon, discontent with Assad's regime spread outside of the Muslim Brotherhood.⁸ Popular demonstrations broke out in 1979-80 in Aleppo, Hama and Homs, and a terror campaign was waged against government officials. The bloody

⁷Hana Batatu, "Syria's Muslim Brethren," *MERIP Reports*, No.110, November 1982, pp.12-20.

⁸Seale, *Asad*, pp.318-326. Seale emphasizes the economic roots of the opposition, especially its revulsion at the growing wealth of Ba'ath officials who benefited greatly from the 1970-1977 boom (a rising tide created by the new private sector carried these officials higher than could the socialist economy that they tightly controlled). He provides details on the extensive riots of the time and cites 300 people killed by terrorists in Aleppo, Syria's second largest city.

suppression of these demonstrations led to a short period of quiet. Then, in February 1982, came an explosion in Hama: a popular revolt in the center of a major city put down by a vicious army assault against civilians. It is estimated that at least 10,000 people died. Patrick Seale, an observer sympathetic to Assad, describes the early 1980s as the end of the "relatively liberal atmosphere," with any semblance of the rule of law being brutally swept aside.⁹

The one significant way that the military expansion can be held accountable for the poor economic performance of the 1980s was the indirect link between the build-up and the growth of the opposition, which led to a heavy state hand. Nevertheless, the military build-up was not a direct cause of the economic crisis. The link is rather tenuous. The best way to express the origins of Syria's economic crisis is to say that the crisis was the product of a heavy hand on the economy by a regime increasingly unsure of its popular support. This support, in turn, was shaky in part because of foreign policy adventures which required a military build-up. The decision to increase the state's role in the economy was, however, the product of many factors other than the build-up: Ba'athist socialist ideology, the interests of state officials trying to maximize their power and Assad's growing distrust of the private sector.

PRIVATE SECTOR: SUPPORTED BY WORDS, UNDERCUT BY DEEDS

When it came to power, the Ba'ath party saw the private sector as its ideological, political and communal (Sunni) enemy. The Ba'ath therefore continued and strengthened the wave of nationalization that was begun by Egyptian President Gamal Abd al-Nasser near the end of the United Arab Republic, when Syria and Egypt were jointly ruled by Nasser. By 1965, the state sector accounted for about 80 percent of employment and industrial value added. In the late 1960s, the Ba'athist governments devoted much effort to developing state farms and state-run agricultural collectives.

In part because the party was small and the regime's social base was restricted, the Ba'athist government was unable to implement its program as rapidly as it hoped. It continued to

⁹Seale, *Asad*, p.338. Seale provides on pp.316-338 an account of the rise of opposition following the intervention in Lebanon.

rely on the private sector as the engine of economic growth. By combining limited toleration for the private sector with strong support for the state sector, the Ba'athists were able to maintain growth, although at a declining rate. GDP had risen at an annual average rate of 4.6 percent between 1953 and 1963. Under the Ba'ath, growth slowed to an average of 4 percent from 1963 to 1967 and 3.7 percent from 1967 to 1970.

When Assad came to power in 1970, he was determined to broaden the Ba'ath's social base. During the first years of his rule, Assad encouraged the private sector, dismantling most state farms, relaxing trade controls and raising prices paid to farmers. After the 1973 war, he extended the policy of *infiraj* (relaxation) that encouraged entrepreneurs. In an action heavy with political symbolism, Assad invited foreign oil companies back in 1975. These internal policies, as much as the reflection of the post-1973 oil boom in the Gulf, explained the pick-up in GDP growth to an average of 9.6 percent between 1970 and 1973 and 12.4 percent between 1973 and 1977.

The opening to the private sector was reversed during the late 1970s. This about-face accelerated after the Ba'ath Party's Seventh Regional Congress of December 1979-January 1980, at which the president's brother, Rifat, demanded absolute loyalty to the party from all. As Patrick Seale wrote of Rifat, "the iron-fist methods he put into practice probably saved the regime, but also changed its character."¹⁰ As opposition activity increased, the government cracked down on the business community, the opposition's principal supporter. While the government has since periodically announced its intention to promote the private sector, it has not done so. Anti-corruption campaigns have been used to harass the business community which must pay off officials to get anything accomplished. The result of the government's discrimination against private business and its heavy network of regulations is that "while honest, thrifty, hardworking merchants and manufacturers were penalized, fortunes were made by profiteers and commission-takers, parasites on government projects in league with the barons of the regime."¹¹

¹⁰Seale, *Asad*, p.327.

¹¹Seale, *Asad*, p.457.

Syria's basic socio-political problem is that the private business community does not support Assad and his policies, because of several factors:

- **Sunni vs. Alawite.** The vibrant Syrian entrepreneurial community is overwhelmingly Sunni, while the government under Assad has had a high proportion of Alawites, a group that has long been on the fringes of the economy and resentful of the Sunni businessmen.

- **Pan-Arabism/Muslim solidarity vs. power politics over Lebanon and Iran.** Many Syrians are attracted to ideologies that emphasize the unity of believers or of Arabs. The Ba'ath party's basic tenet is, after all, Arab unity. Yet Assad has given clear priority to what are called "regional" concerns: Syrian interests as distinct from broader Arab "national" interests. Assad has therefore been prepared to support Lebanese Christians against Sunni Palestinians and their allies, or Shi'ite Persians against Sunni-dominated Iraqis, when it suited his goal of a Greater Syria.

- **Old money vs. new wealth from political contacts.** Those with old money were often based in Aleppo (to this day, nearly as large a city as Damascus) and they disliked the Damascus-controlled government. Those with new wealth were represented by high officials in the ministries and public enterprises who did not develop a dense network of ties to the old money, as was done in Egypt.

The result of the new economic policies is that Syria's economic performance has deteriorated sharply in the 1980s. By 1987-88, the economy had declined by about one-third from the 1981 peak and had returned to the 1973 level, before the oil boom, on a per capita basis. The decline was felt broadly across the economy: in imports, in private consumption, in investment. The economy probably reached its nadir in 1987; it has recovered some since because oil income from the fields near Dayr Az-zor are providing additional resources. As explained below, oil income in 1990 will be about \$700 million more than in 1986.

INEFFICIENT PUBLIC SECTOR

The decision to expand the public sector at the expense of a private sector whose loyalty to the regime was in question, has been an economic disaster. The Syrian public sector has fulfilled every dire prediction voiced by critics of government enterprises.

Assad used the inflow of Arab aid and the economic prosperity of the 1970s to finance a series of large public sector projects. Most have been disasters. A project involving the dam on the Euphrates River took years longer to fill than expected. An associated irrigation scheme that brought water to infertile land using capital intensive techniques raised costs to \$25,000 per hectare. These techniques worked so poorly, especially given the lack of resources for maintenance, that farmers had to recreate their traditional low-technology techniques for distributing water.¹² The government spent \$110 million on a paper mill at Dayr Az-zor that cannot use local straw. It has therefore worked rarely and at high cost.¹³ And finally, after a series of failures, an ammonia-urea plant at Homs had to be converted to use natural gas by building a \$100 million pipeline.

As a result, the efficiency of investment has declined to the point that Syria, between 1982 and 1986, needed \$10 of investment to produce each dollar of additional output. By contrast, in the 1972-76 period it only needed \$3 for each dollar of additional output. Had Syria been able to maintain in the 1980s the level of efficiency achieved earlier, then the available investment funds would have been sufficient for a growth of 10.8 percent per annum instead of the 3.6 percent that was actually achieved. A good indicator of Syria's inefficiency in public investment is that despite the high priority assigned to irrigation works, including vast funds poured into huge projects, Syria's irrigated areas reached the 600,000 hectare

¹²The irrigation scheme is devastatingly described in Jean Hannyoy, "Grand projects hydrauliques en Syrie," *Maghreb Machrek*, No.109, July-September 1985, pp.24-42.

¹³Seale, *Asad*, p.448, based on an interview with Muwaffaq Habbal, production manager of the General Company for the Paper Industry.

level of the late 1950s only in the mid 1980s after dropping as low as 550,000 hectares.¹⁴

The management problems of the public sector come in no small part from the ideological rigidities of the Ba'ath party. In the lower Euphrates Valley irrigation area, the authorities insisted on designing a system suited for giant fields rather than for the small field used by the existing farmers. The farmers became so hostile to the project that sabotage was common. Meanwhile, little was done to halt the salinization that was reducing the usable area by 2 percent per year.¹⁵ In another irrigation project (the al-Ghab, northwest of Hama), the successful farmers were those who by-passed the regime's system of cooperatives and instead re-established what the Ba'athists tried to break up: family ties by which one brother worked the land allotted to four (with labor from children on break from school) while the other brothers worked in the cities to provide capital for farm improvements.¹⁶ The small capitalist development route that these farmers followed has been much more efficient than the large state projects favored by the regime.

The policy of relying on state enterprises makes little economic sense, but it may be politically necessary to create a broad social group that depends upon the state for its well-being. A prime example of the expansion of politically reliable sectors of the economy has been Milihouse, the Military Housing Establishment. Milihouse became a conglomerate with 65,000 employees responsible for much of the public construction and for 60 factories. Such a firm can provide employment for retired military officials (such as its hardworking leader, Col. Bahloul) and reduces the economic weight of the traditional Sunni business community (Bahloul is an Alawite from Assad's region). Such an enterprise pays little in the way of

¹⁴Raymond Hinnebusch, *Peasant and Bureaucracy in Baathist Syria* (Boulder, Co.: Westview, 1989), pp.218-220.

¹⁵Hannoyer, *Maghreb Machrek*, pp.29-31.

¹⁶Francoise Metral, "Etat et paysans dans le Ghab en Syria," *Maghreb Machrek*, No.109, July-September 1985, pp.43-63.

taxes and makes extensive use of the black market in foreign exchange.¹⁷

Syria could return to a path of solid economic growth after a few years of difficult adjustment if the government lightened the state's heavy hand and encouraged the vibrant entrepreneurial community. Such a policy seems unlikely, however, because it would lead to increased income for those who do not like the regime and for those that the regime does not like: the Sunni-dominated business community. It is much more likely that existing policies will continue, with any growth fueled by new oil income.

¹⁷Emmanuel Jarry in *Le Monde*, May 6-7, 1984. For a perspective that praises Bahlul and decries his fall from power in 1987, see Seale, *Asad*, pp.449-450.

IV FUTURE PROSPECTS: WHAT KIND OF MILITARY CAN SYRIA AFFORD?

The past is an imperfect guide to the future. Syria may have relied in the past on its foreign friends to finance its military build-up, but that does not directly say whether or not Syria will soon be able to generate internally the resources needed for military growth.

This section argues that in the medium-term, Syria can expect less aid, a development that can be offset only partially by the availability of additional oil revenue. Its short-term prospects, for 1989-90, are even poorer, because its oil revenue is coming on stream slowly and a bad drought will require about \$300 million in wheat imports that will absorb all of the new oil income.¹

VULNERABILITY OF AID FLOWS

Prospects seem to be for a decline in aid from all major sources. The Soviet attitude toward the Third World seems to be emphasizing ties with countries that have successful and powerful economies, not the ideologically pure, which would work to Syria's disadvantage. At the most extreme, the Soviets could insist on cash payments for deliveries of military

¹The *Financial Times* covered the oil problems on June 6, 1989; the drought on June 1, 1989; and the economic problems in Soviet-Syrian ties on May 31, 1989.

equipment, including spare parts on existing arms. Syria would be particularly vulnerable to such pressure since its equipment is all from the Soviet bloc, few Western industrial countries are prepared to sell Syria arms, newly industrialized countries could not supply equipment in the quantities and of the sophistication Syria needs and those like China and North Korea—which produce Soviet-style equipment—do not make the advanced armaments on which Syria depends. The Soviets would therefore be in a good position to force Syria to pay more in cash, if the Soviets desired. This could take the form of cash for new arms or cash for servicing the debt from previous deliveries. In short, the issue is Soviet aid, not arms sales, because sales require cash that Syria does not have.

The Arab states have lower oil income with which to finance aid to Syria compared to the flush days of the early 1980s. Furthermore, the commitments made to Syria at the Arab summit in Baghdad in 1978 have expired, and no renewal of a formal pan-Arab agreement to fund Syria seems likely. Syria may be perceived as less of a threat to the internal stability of the oil-rich countries because it is constrained by its international isolation and Western criticism of its record on terrorism. Finally, and probably most important, neither of Syria's two principal donors—Kuwait and Saudi Arabia—support Syria's foreign policy aims as strongly as they did in 1978. Syria was then seen as upholding the Arab cause that Egypt was said to have abandoned during Camp David. Now, reliance on diplomacy and negotiations as the means to resolve the Arab-Israeli conflict seems to the oil-rich states to be more promising than it looked in 1978.

Iran no longer needs Syrian help to the extent that it did during the Iran-Iraq war, when Syria agreed to close the Iraqi oil pipeline that crosses Syrian territory and to oppose pan-Arab measures aimed against Iran. The Iranian government did not propose to extend its aid agreement with Syria past March 1989, and the budget approved by the Iranian Majlis (parliament) for the fiscal year beginning March 21, 1989, did not include any grant or discount on oil for Syria. Aid to Syria had been a matter of some controversy in the Majlis, as several deputies complained that the aid had cost more than it had been worth. Prospects for a resumption in Iranian aid therefore seem poor.

PROSPECTS FOR OIL INCOME

Since 1983, Syria has exported more oil than it has imported, thanks to oil fields developed in the early 1980s in northeast Syria that produce about 180,000 barrels of oil per day (bpd) of low-quality crude. The value per ton of Syria's oil exports was lower than the value of its imports, which was a higher quality crude used in its refinery. On a net basis, Syria earned only \$78 million in 1985 and \$85 million in 1986 on its oil trade.²

In 1987, Syria began producing oil from fields discovered three years earlier in the southeast near the Euphrates River city of Dayr Az-zor. These fields produce high-quality crude, low in sulphur and of light density. In 1987, Syria's net oil exports were \$226 million. Output from the new fields was 100,000 bpd in 1988; it is now 200,000 bpd and was expected to have risen to 240,000 bpd by the end of 1989.³ However, development of these fields has encountered a number of problems, while output from the older fields has dropped.

Syria's net earnings from oil depend upon many factors, including the price of oil, the cost of developing the oil fields, the volume of output and domestic consumption. A high estimate for its income would be \$700 million per year in the short term, rising to \$1 billion per year in the mid-1990s. However, this would be true only if no more problems crop up in the fields, if the cost of developing the fields can be kept down, if international prices stay in the range of \$20 per barrel and if domestic consumption grows little. On the other hand, in unfavorable circumstances, net export earnings could remain at \$500 million per year. To some extent, the government could influence the outcome, especially with the

²According to the Statistical Abstract, in 1986 oil exports were LS 2.2 billion (\$540 million at the customs exchange rate of LS 4.05 per dollar) and imports were LS 1.8 billion (\$455 million). In 1985, oil exports were LS 4.8 billion (\$1.175 billion) and imports were LS 4.4 billion (\$1.097 billion).

³The development of the Syrian oil industry is reported on often in *Middle East Economic Digest*. See, for example, May 30, 1987, pp.40-41; February 17, 1989, p.27; and April 21, 1989. Economy Minister Mohammed al-Imadi appears to have understated potential earnings when he told the *Financial Times* on January 4, 1989, that 1989 oil revenue would be \$500 million.

agreement that it must reach with international oil companies on how quickly to repay substantial exploration and development costs, which could be as much as \$8 per barrel.

The new oil income could stabilize the economy at its present depressed state. With the new oil fields, Syria's export earnings could reach \$2.5 billion per year, which would be more or less sufficient to pay for its import of civilian goods and services without aid, assuming that imports could be maintained at the extremely low 1988 level. This suggests that Syria's vulnerability to external pressure will be less in the 1990s than it was in the late 1980s. Of course, Syria would still be dependent upon its allies to finance all arms imports, and it would not be in a position to repay any debt for past arms purchases.

At the same time, any increase in government spending—civilian or military—would increase demand for imports, because those who received government funds would want to use some of that money to buy imported goods. Syria would therefore have to rely on aid in order to finance any economic growth or any increase in military spending. Consider two scenarios. In the first, cash and civilian aid flows are in line with pre-1976 amounts, or about \$500 million per year from Arab, Soviet and Western sources. This level of aid would probably permit Syria moderate economic growth or a restored military, at its current size but with a higher degree of readiness and training. Syria faces the risk, however, that the Soviets will insist on cash payments for arms and/or to service the debt for past arms deliveries. In that case, despite the aid, Syria would be able neither to grow economically nor to restore the military to full readiness. The second scenario features a resumption of the \$2 billion per year in cash and civilian aid that Syria received between 1983 and 1985. Only such aid levels would allow Damascus to seriously pursue strategic parity with Israel, and then only if Assad was willing to have limited economic growth at best. In short, the key constraint on Syria's ability to maintain its military strength will be the level of its foreign aid.

POLITICAL LIMITS TO BELT-TIGHTENING

One means of generating more resources for the military would be to re-slice the national income pie. As discussed earlier, the share of national income going to the military is not particularly high in Syria, since foreign aid pays for most of the military budget. The question of how much "butter" can be converted into "guns" is overwhelmingly political, not economic. To answer it requires a different kind of analysis than the one presented here.

In the past, Assad has been unwilling to trade butter for guns. He has, indeed, made every effort to keep civilian consumption high, despite the decline in Syria's national income. As income growth slipped, the government implemented a series of policies, including tax and price regulation, which permitted continued growth in consumption. From 1977 through 1981, consumption rose 60 percent while GDP rose only 33 percent (both at constant 1980 prices). As a result, consumption rose from 82 percent of national output to 98 percent, which is clearly insufficient to finance investment. This growth of consumption at a much more rapid pace than income forced Syria to look for more foreign financing. The failure to secure sufficient financing, which was made necessary by the high level of consumption, is what caused the acute shortage of foreign exchange in the mid-1980s.

Since 1981, this inappropriately high level of consumption has been moderately curtailed. In 1987, consumption was down to 87 percent of national output, but it retains a distinctly larger slice of the national pie than it had before the crisis. Furthermore, the remaining 13 percent of national income does not provide enough resources for the investment needed to keep up with population growth. Syria's inefficient use of investment funds, discussed earlier, means that the 13 percent would only be enough to produce 1.3 percent GDP growth (at \$10 in capital for each extra dollar in output), while the population is growing at about 3.5 percent. Syria can no longer count on foreign economic aid to provide the resources for its investment needs, so it faces a period of continually declining GDP per capita. The decline can be reversed only by mobilizing more domestic resources for investment (i.e., a drop

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in consumption) and/or by using the investment funds more efficiently.

V IMPLICATIONS FOR OUTSIDE INFLUENCE ON SYRIA

Syria could not afford to maintain its oversized military machine with its own resources. It depends not only on Soviet equipment, but on Soviet and Arab aid. Syria could not, on its own, generate the resources to pay for its military without adopting a liberalization policy that would threaten Assad's grip by strengthening a business community that does not support him. Unlike Iraq during its war with Iran, Syria does not have the means to pay a diversity of Western, Third World and Eastern suppliers for enough arms to seriously threaten a neighbor like Israel.

In this circumstance, anything done by the Soviets and the oil-rich Arab states to reduce financial flows to Syria would hurt. Syria's allies retain much leverage over its behavior, and those allies must accept a large amount of responsibility for Damascus' actions.

This is not to suggest that Assad will change his foreign policy goals as a result of financial pressures. Persuading Assad to abandon his aspirations for regional hegemony has been fruitless: his aims have remained constant for more than two decades. Instead of working to change Assad's goals, the approach suggested here is to limit his ability to carry out his rejectionist line. After all, it does not really matter whether or not Assad is reconciled to an Arab-Israeli settlement; what counts is the extent to which he can act to stop one.

Syria's military not only threatens Israel directly, but it also provides the cover behind which Assad can carry out terrorist attacks. The reaction to Syrian involvement in terrorism has been muted by the realization of how difficult it would be to retaliate against a nation with such a powerful military. Libya must fear aerial bombings when it sponsors terrorists or provides them with training grounds. Bombing terrorist bases in the Bekaa Valley in Syrian-occupied Lebanon, much less Damascus, would require a major commitment of forces and would almost certainly produce considerable casualties among the attackers. Outrage over the attempted bombing of an El Al 747 flight from London or the downing of Pan American flight No. 103 over Scotland was not enough to overcome concern about Syria's ability to resist retaliation. If Assad's friends had not provided him with a world-class military, he would have been forced to keep a much tighter grip on terrorist groups operating out of Syria.

Assad's muted reaction to Yasser Arafat's Geneva statements that led to the U.S.-PLO dialogue is a good example of Assad's inability to play the prominent rejectionist role to which he aspires. The confident Assad of past years would have moved quickly to subvert the opening. If he thought the dialogue was doomed to fail on its own, he would have quickly moved to claim credit for its failure. Syria's more muted presence on the Middle East stage stems in large part from economics: Assad has found that he cannot afford his ambitions.

Those who have the most power over Assad are his allies, the Soviets and the oil-rich Arab states. The West may not be able to exercise much pressure directly—only limited results can be expected from such steps as discouraging credit lines from banks and suppliers or denying privileges to Syrian exports. The West's best opportunity to influence Assad is to make it clear to the Soviets, Saudis and Kuwaitis that they must accept responsibility for the actions of the Syrian government that they are bankrolling.

If Assad maintains or increases his intransigent opposition to a peace accord, or if Assad tolerates or sponsors terrorism, the West could mount a campaign to curtail Soviet and Arab aid. Such efforts would have a good chance of success, because they would reinforce the natural inclination of the donors: the Soviets are no longer as interested in sustaining radical

regimes with chronically ill economies, while the Arab states over the long-run have fewer resources to devote to aid. The more that Assad is cut off from his foreign benefactors, the less able he will be to obstruct U.S. policy and threaten U.S. interests.

TECHNICAL NOTE

SOURCES OF DATA

The basic sources of information about the Syrian economy are the annual Syrian Statistical Abstract, the annual Rapport Economique Syrien, the Quarterly Bulletin of the Central Bank of Syria and the annual Syrian Budget. All are available from the Office Arabe de Presse et de Documentation, 67, Place Chahbandar, B.P. 3550, Damascus.

The Syrian government also provides data to the International Monetary Fund, which are published in its monthly *International Financial Statistics* and its annual *Direction of Trade Statistics, Balance of Payments Statistics* and *Government Finance Statistics*. The World Bank includes data about Syria in its annual *World Development Report, Social Indicators of Development, World Debt Tables* and *World Tables*. Data about aid to Syria can be found in the Organization for Economic Cooperation and Development annual *Geographical Distribution of Financial Flows to Developing Countries*.

Besides the Syrian government and international organizations, the best sources of data about Syria are in the weekly magazine *Middle East Economic Digest*. The best data on arms flows are from the U.S. Government's Arms Control and Disarmament Agency, which publishes an annual *World Military Expenditures and Arms Transfers*.

The exchange rate used in this Policy Paper was an average of the official rates and the black market rate as reported by

Pick's Currency Review, Middle East Economic Digest, July 15, 1988 and *Financial Times*, January 4, 1989.

QUALITY OF DATA

All economic and social data are imperfect. As the U.S. Census Bureau has been saying repeatedly, no amount of money or manpower can entirely eliminate measurement errors. Conceptual difficulties abound. Despite many learned tomes by brilliant statisticians, no fully satisfactory answer has been found to the "index number problem," that bedevils any effort to make comparisons over long periods of time or between disparate societies.

The standard against which we measure Syrian statistics should therefore not be perfection, but what can reasonably be expected. On the whole, the quality of Syrian data is at about the norm for middle income countries. The quantity of data is very large; the Statistical Abstract is comprehensive. The timeliness is not bad, as can be seen by comparing the pages for Syria with those for other Third World nations in the basic monthly reference source for economic data, the IMF's *International Financial Statistics*. The data in this Policy Paper follow the guidelines suggested by international organizations so that they can be readily compared to other countries' numbers. The same statistical series have been produced for decades so that analyses of changes over time is easy.

Nevertheless, Syrian data have some major shortcomings. Two are particularly important for this study:

Fiscal data. The only fiscal data available are on the budget, not the actual revenues and expenditures. The budget excludes arms imports and the aid that finances them. The budget clearly overstates receipts (e.g., from aid) and understates expenditures. The deficit is therefore larger than stated.

Price data. Where prices are controlled, governments are naturally reluctant to admit that actual prices deviate from their supposed level. The Syrian data on prices—especially the prices used to estimate real GNP—are suspicious. For one thing, the historical series appears to change often. By understating inflation, the government can overstate increases in real output.

The most systematic work to date on the Syrian economy is by Eliyahu Kanovsky.¹ He argues that Syrian official data are subject to “revisions of such magnitude that they cast doubt on the validity of the numbers” and that “serious inconsistencies and important gaps” exist. The argument is overstated. On several of his examples the Syrian data do not look bad compared to the data produced by the American government about the U.S. economy:

- Criticism: The GDP deflator moves differently than the wholesale price index although the two measure nearly the same thing. Evaluation: Between 1965 and 1980, the difference between the two indices is exactly the same in Syria as in the U.S.: 3.5 percentage points (on a base of 1980=100). The difference between 1980 and 1985 is 20.6 percentage points in Syria and 14.7 percentage points in the United States.²

- Criticism: The index of agricultural output moves differently than the value added in agriculture. Evaluation: The difference is less than in the United States. The index of farm output increased by 9 percent from 1980 through 1986, while the value added on farms at constant prices increased 39 percent.³ In Syria over the same period, the index of agricultural output rose 10 percent and the value added in agriculture at constant prices rose 29 percent. The reader is left to determine which country has the more serious problem of consistency. There are excellent technical reasons for some of the differences. For instance, output is composed of both value added and goods used in production.

¹See, for instance, Eliyahu Kanovsky, “What’s Behind Syria’s Current Economic Problems?,” pp.280-347, *Middle East Contemporary Survey 1983-84*, The Moshe Dayan Center for Middle Eastern and African Studies, The Shiloah Institute, Tel Aviv University, 1986.

²After 1986, the Syrian price indices move in different directions due to the collapse of oil prices. In addition, after 1986—with increased output—oil had a much heavier weight in output than it did in wholesale trade.

³*Statistical Abstract of the U.S. 1988*, pp.624 and 409. Between 1970 and 1980, the U.S. agricultural production index increased at 72 percent of the rate that the value added in agriculture (at constant prices) increased (*Statistical Abstract of the U.S. 1982-83*, pp.420 and 675). In Syria during the same period, the value added increased at 66 percent of the rate of the agricultural production index.

- **Criticism:** The balance of payments data were so extensively revised in 1984 that the underlying data are called into question. **Evaluation:** The changes reduced the errors and omissions. In the peak year of 1980, errors and omissions were cut from 23 percent of imports to 15 percent. This may sound problematic, but the U.S. balance of payments in 1979 showed errors and omissions equal to 12 percent of imports. Furthermore, the Syrian revision seems very plausible: the figure for workers' remittances, which are notoriously difficult to measure, was increased closer to what outside observers had been estimating.

On other points, Kanovsky's objections can partially be explained by normal statistical problems. He objects that the GNP accounts at constant prices have changed with the shift in base year. The change is due almost entirely to shifts in price indices; the GNP accounts at current prices do not move much. Part of the problem is the poor price data, noted above. In addition, the change in price indices is inevitable when the base year is changed. As an example of the impact of a shifting base year consider Saudi Arabia. Saudi oil output dropped from 12 million bpd in 1981, to 4 million in 1987. If the oil is valued at 1981 prices (\$25 value added), the result was a \$73 billion drop in GNP. But if the oil is valued at the 1987 price (\$15 value added), the drop in GNP is \$44 billion. Depending upon which base year is chosen, the growth rates for the overall GDP (non-oil and oil) changes by 13 percentage points.

It should be emphasized that there is little if any evidence that the Syrian data are manipulated for political purposes. It would be extremely difficult to produce a consistent set of lies when churning out the mass of data available from Syrian official sources. The usual method used by a government that wishes to mislead is that of the Soviet Union: do not produce systematic data and issue only selective statements. The Syrians have not taken this route. They provide a large volume of data.

ACTUAL GOVERNMENT EXPENDITURES

Syria does not provide data on actual government expenditures, only on the budget. The data provided by the IMF, in *International Financial Statistics* and in the *Government Finance Statistics Yearbook* are all on the budget, not on actual

expenditures. Nevertheless, a good estimate can be made of the actual expenditures. The procedure is to add up all the resources available to the government, on the grounds that expenditures must be financed in one way or another.

The main sources of government resources are:

- Grants and foreign loans, which are shown in the balance of payments.
- Domestic loans, nearly all of which come from banks. These are shown in the monetary accounts. Syria also issues some bonds and data about them is available in the Statistical Abstract. These finance public enterprises, not the government.
- Revenue from taxes and profits of public enterprises. Unfortunately, there is no data available on the actual revenue collected. Therefore, estimates in the budget must be relied upon for this crucial item.

It seems that most civilian ministries are limited to spending what is in the budget. If what was budgeted for the civilian sectors is subtracted from total resources, the remainder can be thought of as the residual. The great bulk of this residual is the military. Some of it, however, is probably presidential expenses. Since cabinet ministers and other political figures often complain about tax avoidance, it can be reasonably assumed that the budget figures are not realized. This means that part of what is called discrepancy is explained by a shortfall in tax receipts.

AID FLOWS WITH AND WITHOUT THE BUILD-UP

It is difficult to measure how much aid was tied to the military build-up and how much would have come without that build-up. A crude indicator is to compare the trend in aid before the military expansion and to project that trend forward as a base-line for comparison against actual aid levels. The difference between the trend line and the actual level of aid can then be assumed as aid that was tied to the military build-up, at least indirectly.

The trend line of aid can be projected from the data for 1973-76. During that period, Arab governments provided an average of \$430 million per year in grants and Arab institutions provided an average of \$16 million per year in

loans.⁴ Because this period was marked by large amounts of Arab aid, stemming from newly acquired oil income, this aid level is as high as would have prevailed between 1977 and 1988 in the absence of any special factors. Western governments provided an average of \$22 million per year in 1973-76 and an average of \$53 million per annum between 1977 and 1987. Without the tension associated with having a more active military, Syria might have received \$60 million per year from the West. International institutions provided \$19 million per year in 1973-77 and an average of \$74 million per annum between 1977 and 1987.

The flow from these institutions might have been much higher had Syria not stopped servicing its debt regularly in 1986, when for the first time its debt service due to multilateral institutions became sizeable. In the best of cases, without the economic crisis that led Syria to stop servicing its debt regularly, Syria might have been able to average \$90 million per year from international institutions. Aid from the Soviet bloc might have been approximately \$50 million per year. Syria essentially borrowed nothing from commercial banks in the 1973-76 period, but the more active market in international loans during the late 1970s would have probably led Syria to borrow more even in the absence of the stepped-up military spending. In short, the trend line for grants and loans would have been at most \$750 million per year (450 Arab, 50 Soviet bloc, 90 international, 60 West and 100 from banks), or \$9 billion over the 12 years between 1977 and 1988.

The actual inflow of grants and loans between 1977 and 1988 was much higher. The West and international institutions provided less than they might have in the absence of the military build-up; their aid totalled about \$600 million and \$900 million, respectively. Another \$4.5 billion came from

⁴Data on aid flows by donor is cited from various issues of the Organization for Economic Cooperation and Development, *Geographical Distribution of Financial Flow to Developing Countries*. The Syrian data provide only the global total, not the distribution by donor. For 1973-76, the global total shown in the Syrian data averages \$516 million per year compared to \$493 million per year in the OECD data. The OECD data generally overstate Western aid for various technical reasons, but they exclude Soviet bloc aid. It would seem reasonable to conclude that Soviet bloc economic aid was under \$50 million per year.

other lenders: banks, suppliers and the Soviet bloc.⁵ Finally, \$13 billion in grants came from Arab, Iranian and Soviet bloc sources. No comprehensive breakdown of these grants is available.

Some funds came from the Iranians—both direct grants and indirect grants through a below market price on oil. This money was primarily tied to Syria's anti-Iraq stance, not to Syria's military build-up. The Syrian budget identifies this aid in separate line items; the total amount shown for 1983-88 was \$2.2 billion.⁶

In fulfillment of the pledges of \$1.8 billion per year made at the 1978 Baghdad conference and the subsequent pledge to pay \$180 million per annum for Syria's intervention in Lebanon, Arab governments substantially increased their aid flows to Syria. Syria complained about non-payment, but Saudi Arabia, Kuwait and the United Arab Emirates reported to the Organization for Economic Cooperation and Development (O.E.C.D.) that their payments averaged \$1 billion between 1979 and 1987, or about two-thirds of what was due. These reports are consistent with the Syrian data, which show grant inflows from all sources that averaged \$1.25 billion between 1979 and 1986. This includes about \$40 million per year from the West and U.N. agencies, some small amounts from the Soviet bloc, the Iranian direct grant (which would have averaged \$90 million if spread over the 1979-86 period) and a bit from Libya.

⁵This includes some funds from unidentified sources, possibly underrecorded aid.

⁶As explained in the *Economist Intelligence Unit* 1988/89 country profile of Syria, line 8206 in the Syrian budget is the Iranian oil gift and line 8210 is the proceeds from the discount on the remaining Iranian oil. The 1982 budget was prepared before the arrangement with Iran began, so no data is available for that year. The budgeted aid amounts total \$198 million in 1983, \$523 million in 1984, \$631 million in 1985, \$521 million in 1986, \$132 million in 1987 and \$149 million in 1988. During debate in the Iranian Majlis (parliament), deputies have complained that Syria is up to \$2 billion behind in paying for the discounted oil. This would suggest that Iranian aid paid for \$4 billion out of what the Syrian Statistical Abstract lists as \$4.7 billion in Syria's oil imports in 1983-87. To be on the low side of estimates about Syria's aid inflows, it is assumed for this paper that Syria eventually paid Iran for the discounted oil.

In sum, had the earlier trend continued, Syria might have received at most \$9 billion in grants and loans between 1977 and 1988. Adding to this the \$2 billion it received from Iran for taking an anti-Iraq stance, Syria's civilian aid flow in the period might have been at most \$11 billion without the military build-up. The actual civilian aid flow was \$20 billion. This suggests that at least \$9 billion in civilian aid was compensation for the military build-up.

The military aid flow, as noted in the text, financed all of the arms imports, which totalled about \$22 billion from 1977 to 1988. Approximately \$11 billion would have been spent irrespective of the build-up, while about \$11 billion went for arms needed in the build-up.

SYRIAN TRADE FLOWS

Data are available through 1986 to compare Syria's reports of its trade with other nations to those countries reports of trade with Syria. Consider 16 large trading partners: Belgium, Cyprus, France, West Germany, Greece, Hungary, Italy, Japan, Jordan, the Netherlands, Spain, Turkey, the Soviet Union, United Kingdom and the United States.⁷ For 1986, Syria showed exports of \$982 million to this group (74 percent of its total exports); the partners showed \$875 million. Syria showed imports from those countries of \$1.666 billion (63 percent of its total imports); they showed \$1.636 billion. The differences are indeed slight.

No trade data are available from the Lebanese government. Syria reported importing only \$15 million in goods from Lebanon in 1986—a low figure for goods made in Lebanon and a ridiculously low figure for goods transiting through Lebanon from other nations. This raises the possibility that smuggling into Syria is hidden in the Lebanese trade data. An examination of the trade data provided by Lebanon's trading partners shows, however, that this is unlikely. From the data provided by other nations on their trade with Lebanon, the IMF estimates that Lebanon's 1986 imports were \$2.1 billion. This level of imports seems low compared to Lebanon's needs (it is about 30 percent of the 1981 level in real terms) and its income

⁷Data for the U.S.S.R. are available in *Vneshnyaya Torgovlya 1988*. Data for the other countries are available in the International Monetary Fund, *Direction of Trade Statistics Yearbook 1988*.

(Lebanon would seem to have had at least \$2 billion to pay for imports from its exports, earnings by its citizens on their substantial holdings abroad and money sent into the country). In other words, the data on trade with Lebanon do not show any unexplained surplus of imports into Lebanon that would have been available for smuggling to Syria.

Despite this, it is assumed here that about \$700 million of imports were smuggled into Syria in 1986. Trade data do not support the assumption of such large amounts of smuggling, but the strong anecdotal evidence cannot be ignored. However, this level of smuggling is the upper limit of what could be accomplished without its showing up in other countries' data on exports to the region.

STATISTICAL APPENDIX

TABLE 1. GROWTH RATE OF GDP

TABLE 2. GROSS DOMESTIC PRODUCT

TABLE 3. INDICATORS OF MILITARY EXPENDITURES

TABLE 4. GOVERNMENT BUDGET

TABLE 5. ESTIMATED GOVERNMENT REVENUE

TABLE 6. BALANCE OF PAYMENTS

TABLE 7. AID BY DONOR

Table 1. SYRIA: Growth Rate of Real GDP (annual average, in percent)

| Growth Rate | <u>1953-63</u> | <u>1967-70</u> | <u>1970-73</u> | <u>1973-77</u> | <u>1977-80</u> | <u>1980-83</u> | <u>1983-87</u> |
|------------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|
| Agriculture | 2.7 | (8.5) | 3.2 | 13.5 | 13.9 | 0.3 | (2.7) |
| Industry | 6.0 | 15.8 | 12.3 | 10.4 | 1.4 | 3.5 | (2.4) |
| Government | 16.4 | 8.0 | 25.2 | 8.7 | 8.6 | 8.4 | (3.7) |
| Services | 4.2 | 3.3 | 5.2 | 15.1 | 6.4 | 5.9 | (2.9) |
| Total | 4.6 | 3.7 | 9.6 | 12.4 | 6.8 | 4.7 | (2.9) |
| Memorandum Item: | | | | | | | |
| Growth Rate of | | | | | | | |
| Personal | ... | ... | 14.8 | 20.5 | 9.3 | 6.2 | (3.0) |
| consumption | | | | | | | |

Source: *Syrian Statistical Abstract*, 1988; for 1953 data, 1979

Table 2. SYRIA: GDP at 1980 market prices (in millions of Syrian pounds)

| | <u>1973</u> | <u>1976</u> | <u>1979</u> | <u>1980</u> | <u>1981</u> | <u>1982</u> | <u>1983</u> | <u>1984</u> | <u>1985</u> | <u>1986</u> | <u>1987</u> |
|---------------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|
| SECTOR: | | | | | | | | | | | |
| AGRCLTR | 4,224 | 8,084 | 7,389 | 10,369 | 10,765 | 10,513 | 10,458 | 9,563 | 10,169 | 10,762 | 9,365 |
| INDUSTRY | 7,728 | 12,249 | 12,070 | 11,947 | 11,858 | 12,578 | 13,265 | 12,150 | 13,175 | 14,773 | 12,060 |
| Manufac & Mining | 6,489 | 9,510 | 8,280 | 8,373 | 8,115 | 8,438 | 9,197 | 7,622 | 8,114 | 9,760 | 8,395 |
| Cnstrction | 1,239 | 2,739 | 3,790 | 3,574 | 3,743 | 4,140 | 4,068 | 4,528 | 5,061 | 5,013 | 3,665 |
| GOVNMT | 4,739 | 6,362 | 8,681 | 8,480 | 9,276 | 10,089 | 10,807 | 11,806 | 11,050 | 10,514 | 9,313 |
| SERVICES | 9,680 | 16,000 | 19,168 | 20,474 | 24,244 | 24,617 | 24,325 | 23,194 | 24,031 | 21,668 | 21,636 |
| Trnsport | 2,127 | 2,831 | 3,388 | 3,555 | 4,202 | 4,225 | 4,468 | 4,698 | 5,009 | 5,044 | 4,841 |
| Trade | 5,618 | 9,972 | 11,624 | 12,693 | 15,445 | 15,512 | 15,205 | 14,259 | 14,874 | 12,298 | 12,622 |
| Finance | 1,517 | 2,495 | 3,143 | 3,266 | 3,574 | 3,652 | 3,370 | 3,029 | 2,897 | 3,182 | 3,316 |
| Other | 418 | 702 | 1,013 | 960 | 1,023 | 1,228 | 1,282 | 1,208 | 1,251 | 1,144 | 857 |
| TOTAL | 26,371 | 42,695 | 47,308 | 51,270 | 56,143 | 57,797 | 58,855 | 56,713 | 58,425 | 57,717 | 52,374 |

USES:

| | | | | | | | | | | | |
|-----------------|---------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|
| CONSUMP | 18,304 | 34,669 | 42,705 | 45,977 | 55,283 | 52,381 | 54,727 | 51,918 | 52,951 | 49,756 | 45,426 |
| Public | 5,925 | 8,400 | 11,771 | 11,870 | 12,445 | 13,154 | 13,856 | 15,035 | 13,913 | 12,509 | 10,582 |
| Private | 12,379 | 26,269 | 30,934 | 34,107 | 42,838 | 39,227 | 40,871 | 36,883 | 39,038 | 37,247 | 34,844 |
| INVTMNT | 4,341 | 11,398 | 11,740 | 14,116 | 14,421 | 14,896 | 15,457 | 15,742 | 16,769 | 15,851 | 11,917 |
| Public | 2,561 | 8,298 | 8,452 | 9,017 | 8,976 | 9,268 | 10,450 | 10,438 | 11,382 | 5,535 | 5,143 |
| Private | 1,780 | 3,100 | 3,288 | 5,099 | 5,445 | 5,628 | 5,007 | 5,304 | 5,387 | 10,316 | 6,774 |
| RESOURCE | | | | | | | | | | | |
| BALANCE | 3,726 | (3,372) | (7,137) | (8,823) | (13,561) | (9,480) | (11,329) | (10,947) | (11,295) | (7,890) | (4,969) |
| Imports | (6,776) | (14,322) | (17,563) | (18,168) | (23,319) | (19,711) | (21,965) | (21,027) | (20,397) | (17,982) | (15,299) |
| Exports | 10,502 | 10,950 | 10,426 | 9,345 | 9,758 | 10,231 | 10,636 | 10,080 | 9,102 | 10,092 | 10,330 |

Table 3. SYRIA: Indicators of Military Expenditures

| | <u>1973</u> | <u>1976</u> | <u>1979</u> | <u>1980</u> | <u>1981</u> | <u>1982</u> | <u>1983</u> | <u>1984</u> | <u>1985</u> | <u>1986</u> | <u>1987</u> | <u>1977-87</u> |
|-------------------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|----------------|
| In billns U.S.\$ | | | | | | | | | | | | |
| ARMS | | | | | | | | | | | | |
| IMPRTS | 1.3 | 0.6 | 1.6 | 3.2 | 2.6 | 2.6 | 3.5 | 2.1 | 1.5 | 1.1 | 1.1 | 21.3 |
| BUDGT | 0.4 | 0.9 | 1.4 | 1.8 | 1.8 | 1.8 | 1.9 | 2.1 | 1.7 | 1.3 | 1.0 | 16.7 |
| TOTAL | 1.7 | 1.5 | 3.0 | 5.0 | 4.4 | 4.4 | 5.4 | 4.2 | 3.2 | 2.4 | 2.1 | 38.1 |
| MEMORANDM ITEMS: | | | | | | | | | | | | |
| Budget | | | | | | | | | | | | |
| (billns LS) | 1.5 | 3.6 | 6.2 | 8.8 | 9.6 | 10.3 | 11.1 | 13.3 | 13.7 | 14.4 | 14.1 | 110.3 |
| CPI | 47.7 | 68.3 | 84.1 | 100.0 | 118.4 | 135.3 | 143.6 | 156.9 | 183.9 | 250.3 | 399.2 | |
| Budget | | | | | | | | | | | | |
| (1980 LS) | 3.1 | 5.3 | 7.4 | 8.8 | 8.1 | 7.6 | 7.8 | 8.5 | 7.5 | 5.8 | 3.5 | 76.0 |
| GDP | | | | | | | | | | | | |
| Billns \$ | 2.4 | 5.9 | 8.7 | 10.3 | 12.0 | 12.0 | 12.3 | 11.7 | 10.5 | 9.1 | 8.7 | 109.5 |
| Billns LS | 9.9 | 24.7 | 39.0 | 51.3 | 65.8 | 68.8 | 73.3 | 75.3 | 83.2 | 100.3 | 126.3 | 742.7 |

| MLTRY EXPD | %GDP | | | | | | | | | | | |
|----------------|-------|-------|-------|-------|-------|-------|-------|-------|-------|--------|--------|------|
| Total | 69.9 | 25.3 | 34.2 | 48.2 | 36.1 | 36.5 | 43.7 | 35.7 | 30.9 | 26.6 | 23.8 | 33.9 |
| Locl curr. | 15.1 | 14.7 | 15.9 | 17.2 | 14.5 | 14.9 | 15.2 | 17.6 | 16.5 | 14.4 | 11.2 | 14.9 |
| EXCNG RATE: | | | | | | | | | | | | |
| (LS/\$) | 4.162 | 4.176 | 4.463 | 4.963 | 5.463 | 5.713 | 5.963 | 6.463 | 7.963 | 10.963 | 14.463 | |
| In blns of \$: | | | | | | | | | | | | |
| AID | 1.66 | 1.03 | 3.23 | 4.72 | 4.42 | 4.00 | 4.80 | 3.33 | 2.59 | 1.87 | 1.85 | 34.8 |
| Cash Grant | 0.36 | 0.40 | 1.63 | 1.52 | 1.82 | 1.40 | 0.33 | 1.23 | 1.09 | 0.76 | 0.75 | 13.4 |
| Militry | 1.30 | 0.63 | 1.60 | 3.20 | 2.60 | 2.60 | 3.50 | 2.10 | 1.50 | 1.11 | 1.10 | 21.3 |

Sources: Arms imports: ACDA, *World Military Expenditures and Arms Transfers*; 1987, author's estimate.

Budget: Syria, *Syria's Budget*, GDP: Syria, *Syrian Statistical Abstract*. Cash grants, prices: IMF, *International Financial Statistics, Balance of Payments Statistics*; 1987, author's estimate. Exchange rate: Author's estimate.

Table 4. SYRIA: Government Budget (millions of pounds)

| | <u>1973</u> | <u>1976</u> | <u>1979</u> | <u>1980</u> | <u>1981</u> | <u>1982</u> | <u>1983</u> | <u>1984</u> | <u>1985</u> | <u>1986</u> | <u>1987</u> |
|--------------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|
| REVENUE | 2,759 | 9,713 | 15,572 | 19,711 | 21,202 | 30,135 | 33,594 | 43,329 | 40,759 | 41,838 | 39,324 |
| Tax | 1,126 | 2,811 | 4,197 | 5,403 | 5,839 | 7,947 | 9,251 | 10,892 | 10,407 | 12,040 | 14,159 |
| NonTax | 1,633 | 6,237 | 4,991 | 8,341 | 9,004 | 13,938 | 16,433 | 20,865 | 18,568 | 18,846 | 16,964 |
| Aid | | 665 | 6,384 | 5,967 | 6,359 | 8,250 | 7,910 | 11,572 | 11,784 | 10,952 | 8201 |
| EXPEN | 3,340 | 12,055 | 15,282 | 24,702 | 25,360 | 33,890 | 37,253 | 41,289 | 42,984 | 43,841 | 41,703 |
| Military | 1,486 | 3,641 | 6,208 | 8,844 | 9,568 | 10,279 | 11,138 | 13,295 | 13,747 | 14,440 | 14,112 |
| Educ | 359 | 1,497 | 874 | 1,359 | 1,806 | 2,317 | | 2,737 | 2,880 | 3,474 | 2,978 |
| Transp & Commun | 153 | 710 | 909 | 1,196 | 1,197 | 922 | 1,194 | 1,568 | 1,685 | 1,448 | 918 |
| Other | 1,342 | 6,207 | 7,291 | 13,303 | 12,789 | 20,373 | 24,921 | 23,689 | 24,672 | 24,479 | 23,695 |
| CRRNT EXPEN | 2,240 | 6,046 | 9,210 | 15,546 | 17,174 | 16,750 | 18,672 | 23,439 | 23,549 | 24,508 | 24,195 |
| Wages | 1,248 | 2,123 | 2,769 | 4,383 | 6,331 | 3,796 | 4,154 | 4,358 | 4,746 | 5,821 | 6,045 |
| Military | ... | ... | ... | ... | ... | 10,279 | 11,138 | 13,295 | 13,747 | 14,440 | 14,112 |
| Other | 992 | 3,923 | 6,441 | 11,163 | 10,843 | 2,676 | 3,380 | 5,786 | 5,056 | 4,247 | 4,038 |
| DEVLPMT EXPEN | 1,100 | 6,009 | 6,072 | 9,156 | 8,186 | 16,595 | 18,581 | 17,850 | 19,436 | 19,333 | 17,508 |
| Gov | | | | | | | | 8,661 | 9,385 | 10,691 | 9,123 |
| Pblc Entpris | | | | | | | | 9,189 | 10,051 | 8,642 | 8,385 |
| DEFICIT | (581) | (2,342) | 290 | (4,991) | (4,158) | (3,755) | (3,659) | 2,040 | (2,225) | (2,003) | (2,379) |
| MEMRANDM ITEMS: | | | | | | | | | | | |
| CPI | 48 | 68 | 84 | 100 | 118 | 135 | 144 | 157 | 184 | 250 | 399 |
| GDP | 9,861 | 24,725 | 38,974 | 51,270 | 65,777 | 68,788 | 73,291 | 75,342 | 83,225 | 100,300 | 126,325 |

Sources: Government of Syria, *Syria's Budget*, *Syrian Statistical Abstract*, IMF, *Government Finance Statistics*

Table 5. Syria: Estimated Government Actual Revenue and Expenditures (millions of Syrian pounds)

| | <u>1976</u> | <u>1979</u> | <u>1980</u> | <u>1981</u> | <u>1982</u> | <u>1983</u> | <u>1984</u> | <u>1985</u> | <u>1986</u> | <u>1977-86</u> |
|----------------------------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|----------------|
| Revenue forecast | 9,048 | 9,188 | 13,744 | 14,843 | 21,885 | 25,684 | 31,757 | 28,975 | 30,886 | 194,599 |
| Actl cash grants | 1,549 | 6,386 | 5,966 | 7,140 | 5,487 | 5,110 | 4,824 | 4,270 | 2,979 | 49,718 |
| Actl foreign loans | 281 | 294 | (98) | 188 | (703) | 742 | 1,138 | (420) | 777 | 4,223 |
| Actl domstc borrowng | 2,349 | 62 | 4,993 | 1,806 | 9,735 | 6,973 | 14,313 | 18,918 | 4,858 | 66,177 |
| Total Resources | 13,227 | 15,930 | 24,605 | 23,977 | 36,404 | 38,509 | 52,032 | 51,744 | 39,500 | 314,717 |
| Civil spending (budget) | 2,405 | 3,002 | 6,702 | 7,606 | 6,472 | 7,534 | 10,144 | 9,802 | 10,068 | 66,615 |
| Develop spending (budget) | 6,009 | 6,072 | 9,156 | 8,186 | 16,595 | 18,581 | 17,850 | 19,436 | 19,333 | 127,936 |
| Residual for mltry, (unbudgeted) | 4,813 | 6,856 | 8,747 | 8,185 | 13,338 | 12,394 | 24,038 | 22,506 | 10,099 | 120,167 |

Sources: *Syria's budget* for revenue, civilian current and development spending. *Syrian Statistical Abstract* and IMF, *International Financial Statistics* for domestic borrowing (from monetary data), foreign grants and loans (from balance of payments).

Table 6. SYRIA: Balance of Payments (in millions of US dollars)

| (Officially recorded) | <u>1973</u> | <u>1976</u> | <u>1979</u> | <u>1980</u> | <u>1981</u> | <u>1982</u> | <u>1983</u> | <u>1984</u> | <u>1985</u> | <u>1986</u> | Est <u>1987</u> |
|--------------------------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|--------------------|
| RCPTS | 744 | 2,397 | 4,575 | 5,526 | 5,782 | 4,587 | 5,040 | 4,745 | 4,560 | 3,140 | 3,015 |
| Exports of goods | 356 | 1,066 | 1,648 | 2,112 | 2,230 | 2,002 | 1,918 | 1,834 | 1,667 | 1,037 | 940 |
| Exports of services | 275 | 314 | 470 | 456 | 591 | 509 | 575 | 542 | 615 | 575 | 500 |
| Worker remits | 37 | 53 | 901 | 774 | 582 | 411 | 387 | 321 | 314 | 251 | 200 |
| Grants | 364 | 402 | 1,627 | 1,520 | 1,819 | 1,398 | 1,302 | 1,229 | 1,088 | 759 | 750 |
| Lg-term loans, net | 25 | 73 | 75 | (25) | 48 | (179) | 189 | 290 | (107) | 198 | 200 |
| Short-term, reserves | (313) | 489 | (146) | 689 | 512 | 446 | 669 | 529 | 983 | 320 | 425 |
| EXPEN | 744 | 2,396 | 4,575 | 5,526 | 5,781 | 4,587 | 5,040 | 4,745 | 4,559 | 3,140 | 2,630 |
| Imports of goods | 569 | 2,102 | 3,055 | 4,010 | 4,843 | 3,636 | 4,024 | 3,687 | 3,543 | 2,363 | 2,020 |
| Imports of services | 125 | 505 | 632 | 601 | 653 | 934 | 1,001 | 1,033 | 1,000 | 789 | 610 |
| Capital flight & errs | 50 | (211) | 888 | 915 | 285 | 17 | 15 | 25 | 16 | (12) | ... |
| ESTIMATED OTHER ELMNTS: | | | | | | | | | | | |
| RCPTS | 1,300 | 625 | 1,600 | 3,350 | 2,950 | 3,100 | 4,050 | 2,750 | 2,150 | 1,815 | 1,800 |
| Additnl Aid | 1,300 | 625 | 1,600 | 3,200 | 2,600 | 2,600 | 3,500 | 2,100 | 1,500 | 1,115 | 1,100 |

| | | | | | | | | | | | |
|---------------------------------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| Worker remits via bck market | | | 150 | 350 | 500 | 550 | 650 | 650 | 700 | 700 | |
| EXPEN | 1,300 | 625 | 1,600 | 3,350 | 2,950 | 3,100 | 4,050 | 2,750 | 2,150 | 1,815 | 1,800 |
| Arms imports | 1,300 | 625 | 1,600 | 3,200 | 2,600 | 2,600 | 3,500 | 2,100 | 1,500 | 1,115 | 1,100 |
| Smugld imprts | | | 150 | 350 | 500 | 550 | 650 | 650 | 700 | 700 | |
| TOTL RCPT= TOTAL EXPN: | 2,044 | 3,021 | 6,175 | 8,876 | 8,731 | 7,687 | 9,090 | 7,495 | 6,709 | 4,955 | 4,430 |

Sources: IMF, *International Financial Statistics, Balance of Payments Statistics*. Arms imports from ACDA, *World Military Expenditures and Arms Transfers, 1987, 1988*, author's estimates.

Table 7. SYRIA: Aid by Donor (in millions of U.S. dollars)

| | <u>1973</u> | <u>1976</u> | <u>1979</u> | <u>1980</u> | <u>1981</u> | <u>1982</u> | <u>1983</u> | <u>1984</u> | <u>1985</u> | <u>1986</u> | <u>1987</u> |
|-----------------------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|
| WEST | 2 | 38 | 88 | 61 | 53 | 66 | 70 | 14 | 13 | 20 | 123 |
| Grants | 2 | 4 | 14 | 21 | 18 | 17 | 17 | 12 | 15 | 17 | 20 |
| Loans | (0) | 35 | 75 | 40 | 35 | 49 | 53 | 2 | (2) | 3 | 103 |
| New funds | 0 | 35 | 79 | 46 | 39 | 55 | 58 | 5 | 1 | 7 | 111 |
| Rpymts | 0 | 0 | 5 | 6 | 4 | 5 | 5 | 3 | 3 | 4 | 9 |
| INTRNL ORG | 8 | 27 | 93 | 83 | 97 | 28 | 50 | 64 | 91 | 71 | 89 |
| Grants | 7 | 11 | 26 | 20 | 28 | 13 | 26 | 20 | 28 | 39 | 19 |
| Loans | 1 | 16 | 67 | 63 | 69 | 15 | 24 | 44 | 63 | 32 | 70 |
| New funds | 1 | 16 | 69 | 66 | 76 | 29 | 49 | 69 | 86 | 68 | 77 |
| Rpymts | 0 | 0 | 2 | 3 | 7 | 14 | 25 | 25 | 23 | 35 | 7 |
| ARAB & OPEC | 281 | 449 | 1,633 | 1,655 | 1,394 | 936 | 890 | 801 | 560 | 632 | 594 |
| Grants | 281 | 305 | 1,611 | 1,636 | 1,353 | 940 | 883 | 824 | 588 | 629 | 568 |
| Loans | 0 | 144 | 21 | 19 | 41 | (4) | 7 | (23) | (28) | 3 | 26 |
| New funds | 0 | 144 | 25 | 24 | 66 | 22 | 39 | 10 | 7 | 34 | 40 |
| Rpymts | 0 | 0 | 4 | 5 | 25 | 26 | 32 | 33 | 35 | 32 | 14 |
| TOTAL | 290 | 514 | 1,814 | 1,799 | 1,543 | 1,030 | 1,010 | 879 | 664 | 723 | 806 |
| Grants | 290 | 319 | 1,651 | 1,677 | 1,399 | 970 | 926 | 857 | 631 | 685 | 607 |
| Net Loans | 0 | 194 | 163 | 122 | 144 | 60 | 84 | 23 | 33 | 37 | 199 |
| MEMORANDUM ITEM: | | | | | | | | | | | |
| IRANIAN OIL AID | | | | | | | | | | | |
| (as shown in Syrian budget) | | | | | | | | | | | |
| Grants | | | | | | | 177 | 177 | 177 | 178 | 132 |
| Sales Discount | | | | | | | 21 | 346 | 454 | 343 | 0 |

Sources: various issues of OECD, *Geographic Distribution of Financial Flows to Developing Countries* (for Iranian oil); Syria, *Syria's Budget*.

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