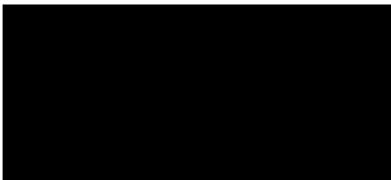


Military Spending in
Eastern Europe

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Introduction*

This study presents a general view of the size, structure, and funding of the defense establishments of the six presently active members of the Warsaw Pact other than the Soviet Union: Bulgaria, Czechoslovakia, East Germany, Hungary, Poland, and Romania. It attempts to give some appreciation of the size and trends of military programs of Eastern Europe.

Because of the different currencies in use and the arbitrarily fixed official exchange rates, no attempt is made to aggregate defense spending by the East European Warsaw Pact countries as a whole. The official budget data provide only an approximate idea of the size and impact of defense activities, but are probably more reliable as indicators of trends over time in defense spending and the relative priority afforded to national security programs in each of the countries.

* The authors acknowledge important contributory re-
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National Budgets

The budgetary system used by each of the six East European Warsaw Pact nations is similar to that of the USSR. Total budgetary expenditures are divided among four categories: Financing the National Economy; Social-Cultural Measures; National Defense; and Administration. Funds in the defense category are believed to include only those direct outlays required to pay military personnel, procure military equipment and supplies, and to maintain equipment and buildings. Other military-related activities, such as border guards and militia, are believed to be financed by budgetary sources other than the defense category. Similarly, the funding of military research and development is believed to be included in the social-cultural account. Investment in military production facilities is believed to be financed outside the defense budget, as in Western nations, and probably is included along with other investment funds, in the national economy account.

A major difficulty, therefore, in assessing the exact magnitude and impact of defense spending in the Warsaw Pact countries is to identify and quantify the defense-related expenditure items that appear in budget categories other than defense. Unfortunately, precise delineation is not possible, because the breakdown of the budgets is not detailed enough to allow the separation of all military spending from civilian outlays.

A rough indication of the impact of defense expenditures in the East European Warsaw Pact countries may be obtained by examining the percentages of the total budgets allocated to the overt defense category. The results obtained are not really comparable to the same figures for the Western nations because of the differences in inclusiveness of the total budgets. In the Communist nations a much broader scope of economic activity is financed through the budget--e.g., most investment in plant, equipment, and inventories.

General Trends in Military Spending

Since 1960 the defense budgets of the East European Warsaw Pact countries have been characterized by a general upward trend with an average yearly increase of around 10 percent. A similar increase is seen in the total state

budgets and, as a result, with the exception of East Germany, military spending has accounted for a relatively constant share of the total budget of each country. East Germany's announced defense budget has been increasing as a percentage of its state budget, mainly because it is believed currently to include expenditures not previously part of the defense category of the budget.

Several factors have contributed to the general increase in military spending. First, procurement costs of the newer equipment--more sophisticated missile systems, supersonic aircraft, electronic equipment, and armored vehicles--has added considerably to defense costs. Secondly, as weapon systems become more complex the attendant operation and maintenance costs tend to increase. This involves not only the cost of spare parts and the frequency of repairs, but also the pay and allowances for the more highly trained military personnel required to maintain modern weapon systems.

In addition to more costly weapon systems, the Soviet Union has also increased pressure on other Warsaw Pact members to contribute more heavily to the Warsaw Pact's operations, both physically and economically.

Despite the rising defense budgets, the overall military manpower strength of the East European countries has remained relatively constant during the 1960s. In most of the countries, army ground strength has declined slightly and in several countries the term of conscription has been reduced. The total number of combat aircraft has also been reduced, but in most cases more effective modern aircraft have replaced older obsolete airplanes. Naval strength has increased with a relatively large number of missile-carrying patrol boats currently being added to the fleets. The present strength of the armed forces is shown in Table 1.

Bulgaria

The defense budget of Bulgaria has fluctuated in absolute terms over the past ten years, but has remained a relatively constant percent of the total budget of the country. The increases in absolute terms during the past two years can be partially attributed to pressures being

Table 1
 Warsaw Pact Armed Forces 1/
 (Excluding the Soviet Union)

	<u>Bulgaria</u>	<u>Czecho- slovakia</u>	<u>East Germany</u>	<u>Hungary</u>	<u>Poland</u>	<u>Romania</u>	<u>Total</u>
Total Active Military Manpower (thousand men)	153	225	126	102	274	173	1,053
Army	125	175	85	95	185	150	815
Navy	6	--	16	--	19	8	49
Air Force	22	50	25	7	70	15	189
Border Troops and Mili- tia (thousand men)	170	40	340	135	45	50	780
Divisions							
Tank	4	5	2	1	5	2	19
Motorized Rifle	8	9	4	5	8	7	41
Major Ships							
Destroyers and De- stroyer Escorts	2	--	4	--	3	--	9
Submarines	2	--	--	--	5	--	7
Osa-Class Missile Patrol Boats	--	--	12	--	12	5	29
Combat Aircraft	250	600	270	140	750	240	2,250

1. The Institute for Strategic Studies, "The Military Balance 1968-1969", London, 1968, pp. 2-4.

exerted by the Soviet Union on the member nations of the Warsaw Pact for more assistance in maintaining the forces under the central control of the Pact.

Table 2

Bulgarian State Budget Defense Expenditures
1960-69

	<u>Expenditures 1/</u> <u>(Million Leva)</u>	<u>Share in Total Budget</u> <u>(Percent)</u>
1960	179	6.0
1961	206	6.2
1962	225	6.0
1963	297	8.2
1964	260	8.9
1965	230	7.2
1966	252	6.8
1967	247	6.1
1968	264	6.0
1969 Plan	302.5	6.0

It cannot be ascertained whether or not the announced defense expenditures truly encompass all the expenditures allocated to this sector of the economy, e.g., total spending for defense-related activities might include some of the budget assigned to science. Also, Bulgaria may receive assistance from the Soviet Union in the form of credit for military equipment.

Despite the fluctuations in the defense budget, Bulgarian armed forces have remained reasonably stable during the past five years, ranging from a low of 150,000 men in 1969 to a high of 156,000 men in 1967. The forces are presently estimated to have about 153,000 men: 125,000 in the Army; 6,000 in the Navy, and 22,000 in the Air Force. These troops are supplemented by a 20,000-man paramilitary force (including some border troops) and a People's Militia of 150,000. 2/

The Bulgarian Army is composed of eight motorized rifle divisions and four tank divisions, supported by SA-2 Guideline surface-to-air missiles (SAMs). The Navy is equipped with two submarines, two destroyer escorts, about

1. Official budget and plan data

2. The Institute for Strategic Studies, op. cit., p. 2.

50 other vessels, and a small Danube flotilla. The Air Force has twelve interceptor squadrons with 250 combat aircraft plus assorted reconnaissance aircraft, transports, and ground support squadrons. 1/

Most of the equipment for these forces probably comes from the Soviet Union and some small arms may be supplied by the other Warsaw Pact nations which are known producers of military equipment, e.g. Czechoslovakia. Other than possibly some small arms, Bulgaria is not known to produce any armaments.

Czechoslovakia

Since 1960 the category for defense and internal security in the announced Czech state budget has been on a general increase with the 1969 planned defense expenditure being almost 70 percent higher than the 1960 figure.

Announced expenditures for the social-cultural category, like defense expenditures, are also at their highest level ever. The 1968 announced figure for this account-- 64.6 billion crowns--is 60 percent higher than the 1960 allocation. 2/ Just how much military funding is included in the social-cultural portion of the budget cannot be determined with any real certainty. It is known that these funds support the Czechoslovakia Academy of Sciences and certain ministerial research organizations. Some military research might well be financed through these agencies.

Table 3

Czechoslovakian State Budget Defense Expenditures 3/ 1960-69

	<u>Expenditures</u> <u>(Billion Crowns)</u>	<u>Share in Total Budget</u> <u>(Percent)</u>
1960	8.8	8.5
1961	9.5	8.5
1962	10.9	8.8
1963	11.3	9.0
1964	10.9	8.4
1965	10.3	8.9
1966	10.8	7.1
1967	12.4	8.7
1968	12.9	8.9
1969 Plan	14.9	9.5

1. The Institute for Strategic Studies, op. cit., p. 2.
 2. Statisticka rocenka CSSR, for appropriate years.

It should also be noted that there are, in addition to government research bureaus, several design and development organizations in Czechoslovakia which are considered to be "commercial" or nongovernmental in nature. Some military research might be conducted by these organizations as well, but, the funding would not appear in the defense budget.

Until August 1968 Czechoslovakia maintained one of the most effective military establishments of all the Warsaw Pact nations, ranking with Poland and East Germany in terms of equipment quality and organization. The Czech Army is estimated to have about 175,000 men in five tank divisions, nine motorized rifle divisions and one airborne brigade. The Soviet SA-2 SAM system has also been supplied to the Czech Army by the Soviet Union. A 40,000-man internal security and border guard force complements the Army.

The Czech Air Force is estimated to consist of 50,000 men and 600 combat aircraft of both early and late model design. About 350 transport, training, and general support aircraft, many of Czech design, and 100 helicopters are also in the Czech Air Force inventory. 1/

The figures cited are for pre-invasion military manpower and equipment. They may have changed since August 1968, but at present, no further information is available on current manpower strength or status of troops.

In terms of capabilities, Czechoslovakia reportedly was one of the first Warsaw Pact countries to incorporate in its military establishment some of the latest Soviet changes in tactical organization which increase mobility and firepower and enhance capabilities for conducting tactical nuclear warfare.

Unlike other more Soviet-dependent Pact countries such as Hungary or Bulgaria, Czechoslovakia has equipped and supported much of its military establishment through domestic production. Of all the Pact countries, Czechoslovakia's armaments industry is perhaps the most developed.

The Czechs have been mass producing their own small arms, artillery, and copies of Soviet tanks for some time. Even in the area of sophisticated military aircraft they have initiated native design and production of jet fighters trainers and utility-type aircraft. The Czechs have also

1. The Institute for Strategic Studies, op. cit., pp. 2-3.

received many of the latest model Soviet produced weapons. The present status of indigenous armaments research and production in the wake of the 1968 invasion is uncertain.

East Germany

The only direct source of financial information on East Germany's military activities is the budget category labeled "defense" which is part of the state budget announced every year. All other indicators of military activity are kept separate from data on other sectors of the economy, and information on military activities is restricted to the highest levels of government. The extent of East Germany's military dependence on the USSR is a politically sensitive issue and one which both the Soviet authorities and the East Germans prefer not to illuminate. East German propaganda during the 1960s frequently highlighted, however, the sharp contrast between the large West German defense budget and the small overt East German budget for defense.

Table 4

East German Defense Budget Expenditures
1960-69

	<u>Expenditures 1/</u> <u>(Billion DME)</u>	<u>Share in Total Budget</u> <u>(Percent)</u>
1960	1.0	5
1961	1.0	5
1962	2.7	5
1963	2.8	5
1964	2.9	5
1965	3.1	5
1966	3.2	5
1967	3.6	5
1968	5.8	8.7
1969. Plan	6.3	8.5

1. Official budget data.

It appears that, before 1962, the announced budget figure was used solely for political purposes and was a completely unreliable indicator of East German military spending. Announced defense spending amounted to just under 1 billion DME every year from 1956 to 1961. In 1962, the announced defense budget almost tripled, reaching a level of 2.7 billion DME. It is believed that at this point the defense category became a more meaningful indicator of defense activity and probably covered actual expenditures for personnel, imports of military equipment, construction, and conducting exercises and maneuvers.

From 1962 to 1967, East Germany's defense budget grew at an average annual rate of six percent. In 1968, the announced defense budget again rose very sharply to 5.8 billion DME, an increase of 61 percent over the 1967 defense budget and an increase from 5 percent to almost 9 percent of the total state budget. East German Finance Minister Boehm stated that the large increase was necessary because of the "increased tension in the international situation" which he claimed was caused by the continued "expansionist policy" of West Germany. He also accused Bonn of enlarging its army and making domestic preparations for war.

While the large increase fitted East Germany's propaganda line, it is doubtful that all of the announced increase reflected real increases in military programs. At least some of the large 1968 increase in the announced defense budget probably resulted from efforts to implement economic reforms designed to increase industrial output by improving accounting procedures and the price structure.

The announced 1969 defense budget of 6.3 billion DME--an increase of about nine percent over 1968--accounted for 8.5 percent of the total state budget. This increase was in line with defense budget increases in the rest of the Warsaw Pact countries.

Present East German forces total some 126,000 men. The army has some 85,000 men with six combat divisions and some air defense missile systems. The Navy has 16,000 men with numerous surface craft including four destroyer escorts, 12 Osa-class missile patrol boats, Hound helicopters, and other small coastal craft. The Air Force has a total strength of 25,000 men with 270 combat aircraft with 18 fighter-interceptor squadrons and some 60 light transports

and Hare and Hound helicopters. There are about 20,000 security troops and 70,000 border guards separate from the regular Army. 1/

The East German armed forces are almost completely dependent on arms shipments from the USSR and there has been very little indigenous weapons production. The Soviets have provided East Germany with many new items of equipment sooner than any other Bloc country and the structure of the Army is patterned after that of the Soviets with high mobility, firepower and flexibility for tactical nuclear warfare. Army ground strength remains low, primarily because of a severe shortage of manpower available for military service. East Germany is the only European Communist country without universal conscription. Accordingly, the Army's small size has been made the subject of propaganda pronouncements intended to reflect unfavorably on the West German armed forces.

Of all the non-Soviet Pact members, East Germany has the largest number of Soviet troops permanently stationed in the country, and probably contributes to the support of these troops. East Germany exports some military-related items such as optics and other precision engineering equipment to the USSR. It is not known to what extent these sales offset East German purchases of military hardware from the USSR, or if purchases are included with the defense budget.

Hungary

Although Hungary's announced defense budget has been growing at a faster rate than most of the East European Communist countries, its share of the total budget has also been declining. It has absorbed about 5 percent of the state budget since 1967, a decline from almost 6 percent in 1965 and 1966, and about 7 percent in 1963 and 1964. During the period 1967-69, Hungary's defense budget has been growing at an average annual rate of almost 15 percent per year. 2/

1. The Institute for Strategic Studies, op. cit., p. 3.
2. United States Arms Control and Disarmament Agency, "Financial and Fiscal Systems of Hungary", Washington, 1968, p. 285.

Table 5

Hungarian State Budget Defense Expenditures 1/
1960-69

	<u>Expenditures</u> <u>(Million Forints)</u>	<u>Share in Total Budget</u> <u>(Percent)</u>
1960	3,100	n.a.
1961	3,376	4.4
1962	4,913	5.9
1963	6,500	7.3
1964	6,163	6.6
1965	5,757	5.9
1966	5,219	5.5
1967	5,444	5.2
1968	6,439	5.0
1969 Plan	7,956	5.1

During the early 1960s, Hungary's defense budget more than doubled. After 1963, when the defense budget received its largest share of the state budget, some 7 percent, Hungary's defense spending generally declined until the recent increase in spending beginning in 1967.

The defense budget for 1969, almost 8 billion forints, is the highest level of defense spending thus far for Hungary. This is an increase of 24 percent over the 1968 budget. Hungarian press statements indicate that part of the large increase will be used to increase the pay of conscripts two and one-half times. New equipment will also be purchased for the army and regular army pay will be increased. 2/

The Hungarian armed forces have not fluctuated greatly over the decade of the 1960s. Total regular forces presently have about 100,000 men with 95,000 in the Army and the remainder in the Navy and Air force. Hungary also maintains about 35,000 border and security troops and has an organized workers militia of 100,000 men. 3/

1. United States Arms Control and Disarmament Agency, "Financial and Fiscal Systems of Hungary", Washington, 1968, p. 285.

2. "Nepszabadag", December 11, 1968.

3. The Institute for Strategic Studies, op. cit., p. 3.

Hungary's Army is composed of six divisions and has some SA-2 missiles deployed for air defense. The Air Force has 140 combat aircraft and 20 small transports and helicopters. There is a Danube flotilla with some 15 patrol craft. 1/

Hungary's indigenous production of military material is limited to small arms; the bulk of the Hungarian military equipment comes from the Soviet Union. It is not known whether the Soviet equipment is purchased or granted on a military aid basis, but it is likely that some portion of the equipment is paid for by the Hungarians. If it is purchased, payment is probably financed by the overt defense budget.

The Hungarian state budget probably includes expenditures for the support of Soviet troops stationed in Hungary. The last definitive information on this point was in 1949 regarding the 1946-47 state budget. At that time the outlays for support of Soviet troops was reported to be about 10 percent of the total budget. 2/ The size of Hungary's overt defense budget suggests that it is adequate to provide substantial support of Soviet troops in addition to the direct expenditures for Hungary's own armed forces.

Poland

The Polish defense budget has increased steadily since 1961. The planned defense expenditures for 1969 exceeds that of the previous year by 14 percent, with payments for imported military equipment believed to be chiefly responsible for the increase. Changes in wages and internal prices may have also had an effect.

1. The Institute for Strategic Studies, op. cit., p. 3.
2. "Gazdasagstatisztikai Tajekoztato", October 1947, p. 594 and January 1948, p. 56.

Table 6

Polish State Budget Defense Expenditures 1/
1961-69

	<u>Expenditures</u> <u>(Billion Zlotys)</u>	<u>Share in Total Budget</u> <u>(Percent)</u>
1961	17.0	7.3
1962	18.4	7.4
1963	20.7	8.2
1964	21.9	8.0
1965	23.2	8.0
1966	25.2	7.9
1967	26.1	8.1
1968	29.1	9.5
1969 Plan	33.3	9.7

Military related spending not included in the announced defense budget may be sizable since the internal security forces are not included in the official figure, and Poland is the only East European country other than Czechoslovakia with a sizable defense industry. Investment expenditures for expanding the defense industry are probably included in the national economy budget.

The Polish armed forces are reportedly the largest and best organized, trained, and equipped of all the non-Soviet Warsaw Pact forces. Their organization has been patterned closely after the Soviet military and has followed all the current moves toward even more modern concepts. Continued imports of modern Soviet equipment along with weapons from local production has steadily improved firepower and mobility.

The Polish ground forces, with 185,000 men divided into five tank and eight motorized rifle divisions, constitute the basic and by far the largest component of the armed forces. The Polish naval forces are the largest of the non-Soviet Warsaw Pact countries and include three destroyers, at least five submarines, and a small, well equipped naval air arm. The air defense command has 45 interceptor squadrons plus SA-2 SAMs. 2/

1. Sources of the data are as follows: 1961-67-"Concise Statistical Yearbook of Poland", Central Statistical Office, Warsaw, 1968; 1968-69-Polish Government Budget.

2. The Institute for Strategic Studies, op. cit., p. 4.

Although Polish forces make extensive use of weapons and vehicles of Soviet design, Poland's armaments industry is second only to that of Czechoslovakia among Warsaw Pact countries. Poland produces tanks, artillery, small arms, antitank weapons, ammunition and explosives, chemical warfare equipment, aircraft, electronic and communications equipment, and trucks of both Polish and Soviet designs.

Romania

Despite fluctuations in a total state budget that ranged from a 21 percent increase in 1962 to a 2 percent increase in 1965, Romania's announced defense budget grew, with the exception of 1964, constantly throughout the 1960s. It almost doubled in the ten year period. The defense budget, however, received a decreasing portion of the total budget during the period, falling from about 6 percent to about 4 percent, as the total state budget rose from 55.42 billion to 152.62 billion lei, an increase of about 175 percent. 1/

Table 7

Romanian State Budget Defense Expenditures 2/
1960-69

	<u>Expenditures</u> <u>(Billion lei)</u>	<u>Share in Total Budget</u> <u>(Percent)</u>
1960	3.39	6.1
1961	3.50	5.4
1962	3.99	5.1
1963	4.12	5.1
1964	4.11	4.5
1965	4.54	4.9
1966	4.79	4.5
1967	4.96	4.0
1968	5.19	3.7
1969 Plan	6.41	4.2

1. Central Statistical Yearbook, People's Republic of Romania, 1967.
2. Central Statistical Yearbook, People's Republic of Romania; and Report of speech to Central Committee Plenum and Grand National Assembly in connection with presentation of 1969 plan and budget in December, 1968.

In addition to the announced defense budget, some military spending may be financed from the unexplained residual of expenditures and from the budget for "Social-Cultural Measures", which includes science. The addition of the proper proportion of these expenditures to the announced defense figure would give a more accurate indication of the absolute amount being spent yearly by Romania to maintain and increase its military posture.

Romania's military force of 173,000 men is the fourth largest of the Warsaw Pact countries, surpassed by the USSR, Czechoslovakia, and Poland. This represents a decline, almost entirely in the Army forces, from an estimated 222,000 men in 1964. There has also been a reduction from a two year term of service in the Army to a one year term, although the two year term has been maintained for the Navy and the Air force.

Total Army strength is approximately 150,000 with two tank and seven motorized rifle divisions supported by SA-2 missiles. Naval strength is about 8,000 with about 60 ships including five Osa-class missile patrol boats. Air Force strength is about 15,000 with 18 squadrons of fighters comprising 240 aircraft--the bulk of the combat aircraft. 1/

Romania is actively pursuing a policy of decreasing her dependence on the Soviet Union for military equipment. At present Romania only produces small arms but plans have been announced to produce a greater share of her own armament and arms purchases are no longer to be limited to the Soviet Union and other Warsaw Pact countries. In a speech of July 1967, Minister of the Armed Forces Ion Ionita stated that, according to Party Directive, "Apart from the perfecting of armaments which Romania is now producing, the country should go over to the development of new types of military technology." Romania's objective appears to be to become as independent as she can without forcing the Soviet's hand and putting herself in the position of another Czechoslovakia.

1. The Institute for Strategic Studies, op. cit., p. 4.