

TRENDS IN WORLD MILITARY EXPENDITURE, 2022

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World military expenditure rose by 3.7 per cent in real terms in 2022, to reach a record high of \$2240 billion. Global spending grew by 19 per cent over the decade 2013–22 and has risen every year since 2015 (see figure 1).

Russia’s invasion of Ukraine was a major driver of the growth in spending in 2022. Military expenditure in Europe rose by 13 per cent during the year, which was the largest annual increase in total European spending in the post-cold war era. The exceptional growth was largely accounted for by substantial increases in Russian and Ukrainian spending, but many other European countries boosted their military budgets in 2022. Spending increases in parts of Asia and Oceania also contributed to the global growth in 2022.

This SIPRI Fact Sheet examines key regional and national military expenditure data for 2022 and trends over the decade 2013–22. The data, which replaces all military spending data previously published by SIPRI, comes from the updated SIPRI Military Expenditure Database.

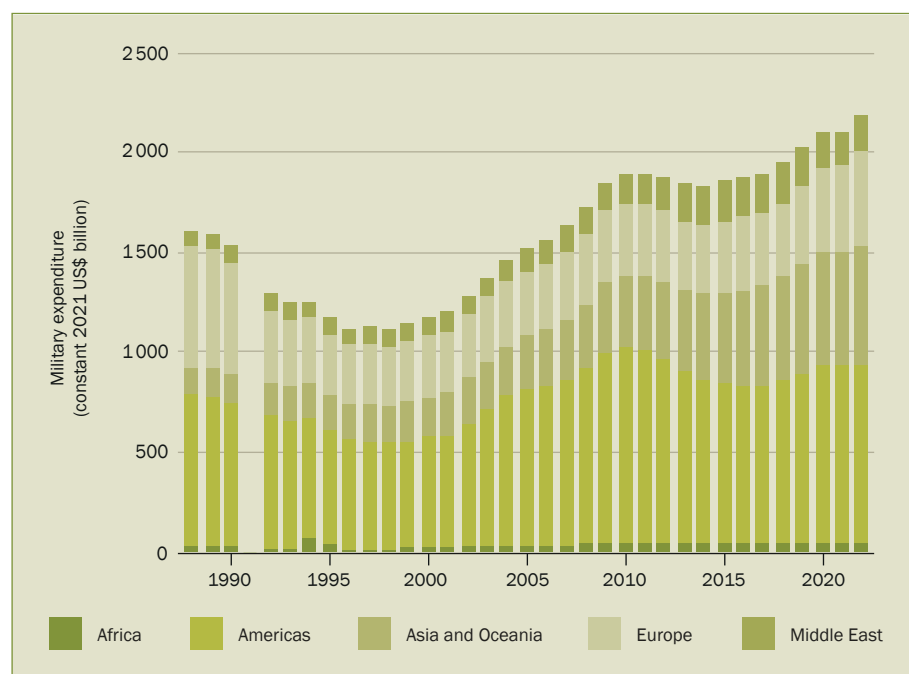


Figure 1. World military expenditure, by region, 1988–2022

Note: The absence of data for the Soviet Union in 1991 means that no total can be calculated for that year.

Source: SIPRI Military Expenditure Database, Apr. 2023.

KEY FACTS

- World military expenditure rose by 3.7 per cent in real terms (i.e. when adjusted for inflation) to \$2240 billion in 2022—the highest level ever recorded in SIPRI data.
- Total world military spending accounted for 2.2 per cent of global gross domestic product (GDP) in 2022.
- The five biggest spenders in 2022 were the United States, China, Russia, India and Saudi Arabia, which together accounted for 63 per cent of world military spending.
- The USA’s military spending increased by 0.7 per cent to \$877 billion in 2022. The total includes military aid to Ukraine, estimated at \$19.9 billion.
- In 2022 China’s military spending rose for the 28th consecutive year, to reach \$292 billion.
- Russia’s military spending is estimated to have grown by 9.2 per cent in 2022, to \$86.4 billion. This was equivalent to 4.1 per cent of Russia’s GDP.
- Ukraine’s military spending rose by 640 per cent to \$44.0 billion or 34 per cent of GDP in 2022. The total does not include military aid supplied to Ukraine.
- Military expenditure grew in four of the five geographical regions in 2022. The largest increase was in Europe (+13 per cent), followed by the Middle East (+3.2 per cent), Asia and Oceania (+2.7 per cent) and the Americas (+0.3 per cent). Spending decreased in Africa (–5.3 per cent).

Table 1. The 40 countries with the highest military expenditure in 2022

Spending figures and GDP are in US dollars, at current prices and exchange rates. Changes are in real terms, based on constant (2021) US dollars. Percentages below 10 are rounded to 1 decimal place; those over 10 are rounded to whole numbers. Figures and percentage shares may not add up to stated totals or subtotals due to the conventions of rounding.

Rank		Country	Spending (\$ b.), 2022	Change (%)		Spending as a share of GDP (%) ^b		World share (%), 2022
2022	2021 ^a			2021–22	2013–22	2022	2013	
1	1	United States	877	0.7	2.7	3.5	4.0	39
2	2	China	[292]	4.2	63	[1.6]	[1.7]	[13]
3	5	Russia	[86.4]	9.2	15	[4.1]	[3.9]	[3.9]
4	3	India	81.4	6.0	47	2.4	2.5	3.6
5	8	Saudi Arabia	[75.0]	16	-2.7	[7.4]	[9.0]	[3.3]
Subtotal top 5			1 412	..	..	..	..	63
6	4	United Kingdom	68.5	3.7	9.7	2.2	2.3	3.1
7	7	Germany	55.8	2.3	33	1.4	1.2	2.5
8	6	France	53.6	0.6	15	1.9	1.8	2.4
9	10	South Korea	46.4	-2.5	37	2.7	2.1	2.1
10	9	Japan	46.0	5.9	18	1.1	0.9	2.1
Subtotal top 10			1 682	..	..	..	..	75
11	36	Ukraine	44.0	640	1 661	[34]	1.6	2.0
12	11	Italy	33.5	-4.5	24	1.7	1.4	1.5
13	12	Australia	32.3	0.3	47	1.9	1.6	1.4
14	13	Canada	26.9	3.0	49	1.2	1.0	1.2
15	14	Israel	23.4	-4.2	26	4.5	5.5	1.0
Subtotal top 15			1 842	..	..	..	..	82
16	15	Spain	20.3	7.3	28	1.5	1.3	0.9
17	16	Brazil	20.2	-7.9	-14	1.1	1.3	0.9
18	18	Poland	16.6	11	95	2.4	1.8	0.7
19	19	Netherlands	15.6	12	53	1.6	1.2	0.7
20	22	Qatar	15.4	27	..	7.0	..	0.7
21	20	Taiwan	12.5	0.4	14	1.6	1.9	0.6
22	23	Singapore	11.7	2.8	26	2.8	3.0	0.5
23	17	Türkiye	10.6	-26	15	1.2	1.9	0.5
24	21	Pakistan	10.3	-2.0	46	2.6	3.5	0.5
25	24	Colombia	9.9	1.1	20	3.1	3.3	0.4
26	25	Algeria	9.1	-3.7	3.9	4.8	4.8	0.4
27	27	Indonesia	9.0	1.3	8.6	0.7	0.9	0.4
28	28	Mexico	8.5	-9.7	39	0.6	0.5	0.4
29	29	Norway	8.4	6.2	46	1.6	1.4	0.4
30	26	Kuwait	8.2	-11	25	4.5	3.3	0.4
31	30	Greece	8.1	0.6	69	3.7	2.4	0.4
32	31	Sweden	7.7	12	57	1.3	1.1	0.3
33	33	Belgium	6.9	13	34	1.2	1.0	0.3
34	39	Iran	6.8	4.6	27	2.6	2.2	0.3
35	34	Switzerland	6.1	0.4	22	0.8	0.7	0.3
36	37	Oman	5.8	-3.0	-39	5.2	9.7	0.3
37	32	Thailand	5.7	-11	0.0	1.2	1.4	0.3
38	35	Chile	5.6	-6.2	21	1.8	2.0	0.2
39	42	Denmark	5.5	8.8	43	1.4	1.2	0.2
40	41	Romania	5.2	-2.6	124	1.7	1.3	0.2
Subtotal top 40			2 092	..	..	..	..	93
World			2 240	3.7	19	2.2	2.3	100

.. = data not available or not applicable; [] = estimated figure; GDP = gross domestic product.

^a Rankings for 2021 are based on updated military expenditure figures in the current edition of the SIPRI Military Expenditure Database. They may therefore differ from the rankings for 2021 given in *SIPRI Yearbook 2022* and in other SIPRI publications released in 2022.

^b The figures for military expenditure as a share of GDP are based on estimates of 2022 GDP from the International Monetary Fund World Economic Outlook and International Financial Statistics databases.

Sources: SIPRI Military Expenditure Database, Apr. 2023; International Monetary Fund, World Economic Outlook Database, Oct. 2022; and International Monetary Fund, International Financial Statistics Database, Sep. 2022.



THE WORLD'S LARGEST MILITARY SPENDERS IN 2022

The 15 largest spenders in 2022 together accounted for 82 per cent of world military expenditure, or \$1842 billion (see table 1). There were some notable changes in ranking among the top 15 between 2021 and 2022, which were largely attributable to the war in Ukraine that started in February 2022. Russia, for example, increased its spending by an estimated 9.2 per cent to move from fifth to third largest spender in the world in 2022, while Ukraine entered the top 15 for the first time (at rank 11) after a 640 per cent increase in its military expenditure. Other notable changes among the top 15 included Saudi Arabia moving from eighth to fifth largest spender, ahead of the United Kingdom, Germany and France.

The United States (accounting for 39 per cent of world military spending in 2022) and China (13 per cent) remained the two largest spenders, with Russia (3.9 per cent), India (3.6 per cent) and Saudi Arabia (3.3 per cent) completing the top five (see figure 2). Together, these five countries accounted for 63 per cent of total global military spending in 2022.

Six countries in the top 15 increased their military burdens—that is, military expenditure as a share of gross domestic product (GDP)—in 2022: France, Germany, Japan, Russia, Ukraine and the UK. At 34 per cent of GDP in 2022, Ukraine's military burden was by far the largest of any country in the world. The 30 percentage point growth in Ukraine's military burden was the result of a sharp contraction in its economy coupled with a more than sixfold increase in its military spending.

US military spending rose marginally in 2022, by 0.7 per cent to \$877 billion. This increase would have been larger but for the effects of inflation (see box 1), which was at its highest annual level in the USA since 1981. Between 2021 and 2022, US military expenditure grew by 8.8 per cent in nominal terms, but the 8.1 per cent inflation rate in the same period meant that real-terms expenditure went up by only 0.7 per cent.

As SIPRI includes financial military aid in the spending figures for the donor country, not the beneficiary country, it estimates that US military aid to Ukraine in 2022 accounted for 2.3 per cent (\$19.9 billion) of total US military spending. Supplemental appropriations from the budgets of the Department of Defense and the Department of State were the main funding sources of US military aid to Ukraine in 2022. Although US spending on military aid to Ukraine in 2022 was 34 times higher than in 2021, it was far lower than the amount spent by

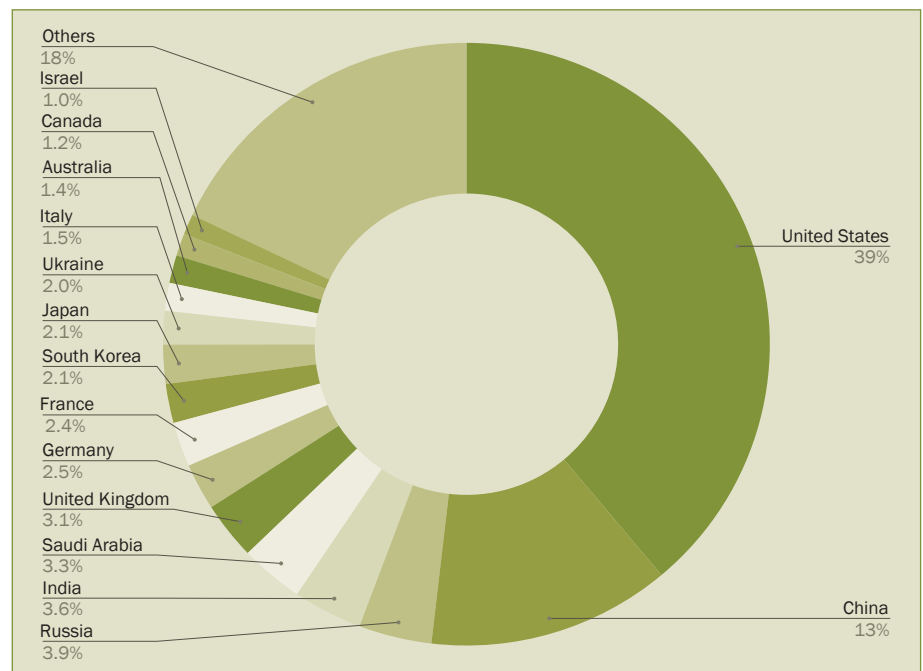


Figure 2. The share of world military expenditure of the 15 countries with the highest spending in 2022

Source: SIPRI Military Expenditure Database, Apr. 2023.

**Box 1. Global inflation and its effects on military spending in 2022**

The cost of living crisis caused by rampant inflation in many national economies dominated world economic news in 2022.

The figures for changes in military expenditure stated in this SIPRI Fact Sheet are adjusted for inflation (i.e. they are given in real terms) and are calculated based on constant 2021 United States dollars (i.e. all figures are converted to 2021 prices and exchange rates). Because of that, they can be rather different from changes that are not adjusted for inflation (i.e. nominal changes).

If the rate of inflation a country experienced between 2021 and 2022 was higher than the rate of increase in nominal military spending in the same period, the adjusted figure would equate to a drop in military expenditure. As an example, Czechia *increased* its military spending in koruna by 9.6 per cent between 2021 and 2022. However, 16 per cent annual inflation meant that Czechia's real-terms military spending *decreased* by 5.8 per cent. At the global level, the real-terms increase in spending of 3.7 per cent was significantly dampened by the effects of inflation. Without adjusting for inflation, spending grew by 6.5 per cent in 2022—the biggest year-on-year nominal increase in global military spending since 2010.

the USA on modernizing and improving its own military capabilities (i.e. arms procurement and military research and development), which totalled \$264 billion in 2022, or 30 per cent of US military expenditure. The bulk of the USA's remaining military spending went towards operation and maintenance (34 per cent) and personnel (19 per cent) costs.

China allocated an estimated \$292 billion to its military in 2022. This was 4.2 per cent more than in 2021 and 63 per cent more than in 2013. China's military expenditure has increased for 28 consecutive years, the longest uninterrupted period of spending growth made by any country in the SIPRI Military Expenditure Database. The growth rate of 4.2 per cent in 2022 was the second lowest rate of annual growth recorded by China since 1995. The lowest rate in the period (2.6 per cent) came in 2021. China's current military spending priorities follow the guiding principles set out in the 14th Five-Year Plan (2021–25). They were reaffirmed by the 20th Communist Party congress in October 2022, which placed a strong focus on boosting China's arms-industrial base and promoting emerging military technologies, including military applications of artificial intelligence.

Russian military spending grew by an estimated 9.2 per cent in 2022, to around \$86.4 billion. This was equivalent to 4.1 per cent of Russia's GDP in 2022, up from 3.7 per cent of GDP in 2021. Figures for Russian military expenditure in 2022 are highly uncertain given the increasing opaqueness of financial authorities since Russia's invasion of Ukraine.

During 2022, the 'national defence' budget line, which accounts for over three quarters (78 per cent) of SIPRI's estimate of total Russian military spending, was revised substantially upwards. The amount allocated to 'national defence' rose from \$50.1 billion in the initial planned budget published at the end of 2021 to \$67.0 billion in the revised budget from October 2022—an increase of 34 per cent in nominal terms and a clear reflection of the growing costs of the invasion. There were other increases in budget line allocations between the initial and revised figures that were also largely attributable to the war. For example, the allocation to the Russian national guard, Rosgvardia, grew by 23 per cent in nominal terms during 2022, most likely because some of these troops were involved in the invasion alongside the regular armed forces. In addition, according to Russian figures dated 1 September 2022, the amount allocated to 'mobilization and extra forces training' in 2022 (\$245 million) was more than double the actual amount spent in 2021 (\$112 million).



With military expenditure of \$81.4 billion, India was the fourth largest spender in the world in 2022. Its spending was up by 6.0 per cent from 2021 and by 47 per cent from 2013. The increase in India's spending shows the effects of its border tensions with China and Pakistan. Its expenditure on capital outlays, which funds equipment upgrades for the armed forces and to the military infrastructure along its disputed border with China, amounted to 23 per cent of total military spending in 2022. Personnel expenses (e.g. salaries and pensions) remained the largest expenditure category in the Indian military budget, accounting for around half of all military spending.

Saudi Arabia's military expenditure reached an estimated \$75.0 billion in 2022 and was up by 16 per cent from 2021—the first annual increase since 2018. Its military spending in 2022 was 2.7 per cent lower than in 2013. Saudi Arabia has led a coalition of countries in a military intervention in Yemen since 2015 and the conflict continued throughout 2022. At 7.4 per cent of GDP, Saudi Arabia had the second highest military burden in the world in 2022 after Ukraine.

THE IMPACT OF THE WAR IN UKRAINE ON CENTRAL AND WEST EUROPEAN MILITARY EXPENDITURE

The war in Ukraine led to an immediate surge in military expenditure, with many Central and West European countries announcing major increases in spending in the wake of the invasion.¹ The pledges to boost spending varied from country to country and the timelines for implementation often differed. While some pledges were scheduled to come into effect in 2022, most stretched across years. As an example of a short-term commitment, Slovakia amended its planned military expenditure from an initial objective of 1.8 per cent of GDP in 2022 to 2.0 per cent, in line with the target set by the North Atlantic Treaty Organization (NATO); in contrast, Denmark took a longer-term view and announced plans to increase its military spending gradually to 2.0 per cent of GDP by 2033.

Countries' pledges also differed in terms of spending targets. For example, Austria, a non-NATO member, announced plans in 2022 to increase military spending to at least 1.0 per cent of GDP, while Lithuania and Poland, both of which are NATO members, set higher spending targets. Lithuania pledged to increase military spending to 2.5 per cent of GDP in 2022 and Poland intends to reach a target of 4.0 per cent of GDP in 2023.

Of the 36 Central and West European countries for which SIPRI provides military expenditure figures, 23 increased spending in 2022. These increases ranged from 0.4 per cent for Switzerland to 45 per cent for Luxembourg, with several countries close to or bordering Russia and Ukraine recording particularly steep year-on-year growth (see below). The decreases in spending by the 13 other Central and West European countries ranged from 0.4 per cent for Latvia to 11 per cent for Bosnia and Herzegovina. Nonetheless, many of these countries have pledged to boost their military spending substantially over the next 5 to 10 years. Moreover, some made nominal increases in spending during 2022 that equated to decreases in real terms because of high rates of inflation (see box 1). For example, Italy, which

¹ For SIPRI's regional coverage see 'Regional coverage' on the SIPRI website.



Table 2. Military expenditure by region in 2022

Spending figures are in US dollars, at current prices and exchange rates. Changes are in real terms, based on constant (2021) US dollars. Percentages below 10 are rounded to 1 decimal place; those over 10 are rounded to whole numbers. Figures and percentage shares may not add up to stated totals or subtotals due to the conventions of rounding.

Region and subregion	Spending (\$ b.), 2022	Change (%)		World share (%), 2022
		2021–22	2013–22	
World	2 240	3.7	19	100
<i>Africa</i> ^a	39.4	-5.3	-6.4	1.8
North Africa	(19.1)	-3.2	11	(0.9)
Sub-Saharan Africa ^a	20.3	-7.3	-18	0.9
<i>Americas</i> ^b	961	0.3	3.5	43
Central America and the Caribbean ^b	11.2	-6.2	38	0.5
North America	904	0.7	3.7	40
South America	46.1	-6.1	-5.4	2.1
<i>Asia and Oceania</i> ^c	575	2.7	45	26
Central Asia ^d	1.4	-29	-28	0.1
East Asia ^e	397	3.5	50	18
Oceania	35.3	0.5	48	1.6
South Asia	98.3	4.0	46	4.4
South East Asia	43.1	-4.0	13	1.9
<i>Europe</i>	480	13	38	21
Central and Western Europe	345	3.6	30	15
Eastern Europe	135	58	72	6.0
<i>Middle East</i> ^f	(184)	3.2	-1.5	(8.2)

() = uncertain estimate.

^a Figures exclude Djibouti, Eritrea and Somalia.

^b Figures exclude Cuba.

^c Figures exclude North Korea, Turkmenistan and Uzbekistan.

^d Figures exclude Turkmenistan and Uzbekistan.

^e Figures exclude North Korea.

^f Figures exclude Syria and Yemen.

Source: SIPRI Military Expenditure Database, Apr. 2023.

plans to boost military spending to 2.0 per cent of GDP by 2028, increased its military spending in nominal terms by 3.9 per cent in 2022, but this equated to a decrease of 4.5 per cent in real terms.

Governments have relied on different methods to fund the announced increases in military expenditure. For instance, Denmark abolished a public holiday to raise tax revenue for its military spending, while Germany and Poland plan to use debt as a financing source.

REGIONAL TRENDS

Countries in the Americas together accounted for the largest regional share of total global military spending in 2022 (43 per cent; see table 2), followed by those in Asia and Oceania (26 per cent), Europe (21 per cent) and the Middle East (8.2 per cent). Countries in Africa accounted for the smallest regional share (1.8 per cent).



Africa

Military spending by African countries totalled \$39.4 billion in 2022. Aggregated spending in the region fell for the first time since 2018 and was 5.3 per cent lower than in 2021 and 6.4 per cent lower than in 2013.

Standing at an estimated \$19.1 billion in 2022, military expenditure by North African countries was 3.2 per cent lower than in 2021 (see figure 3) but still 11 per cent higher than in 2013. Algeria and Morocco together accounted for almost three quarters (74 per cent) of military spending in the subregion. The territorial dispute between the two countries related to Western Sahara, which is often a major influence on their military spending policies, continued in 2022. Despite this, Algeria's military spending fell by 3.7 per cent to \$9.1 billion, while Morocco's remained unchanged, at \$5.0 billion.

The combined military expenditure of countries in sub-Saharan Africa was \$20.3 billion in 2022. This was a decrease of 7.3 per cent from 2021 and of 18 per cent from 2013. The drop in military expenditure in 2022 was primarily due to decreases in spending by the two largest spenders in the subregion, Nigeria and South Africa.

Nigeria's military spending fell by 38 per cent to \$3.1 billion in 2022. Although Nigeria continued to face a wide range of security challenges (e.g. farmer–herder conflict and violent extremism) during 2022, the devastating seasonal floods that hit the country that year led to a substantial shift in the government's budgetary priorities. Whereas 73 per cent of the 2021 supplemental budget was allocated to strengthening military capabilities, the 2022 supplemental budget had no funding for the military and focused instead on rebuilding infrastructure damaged or destroyed by the floods.

South Africa's military spending fell for the second consecutive year to reach \$3.0 billion in 2022. Its spending was 8.4 per cent lower than in 2021 and 21 per cent lower than in 2013. The country's ailing economy has put severe pressure on government finances, which led to cuts to the military budget in 2022.

In 2022 Ethiopia recorded the largest annual percentage increase in military spending of any country in Africa, which coincided with a renewed government offensive against the Tigray People's Liberation Front in the north of the country. Ethiopia's military spending rose by 88 per cent during the year to reach \$1.0 billion.

The Americas

Military spending by countries in the Americas totalled \$961 billion in 2022, of which 91 per cent was accounted for by the USA alone.

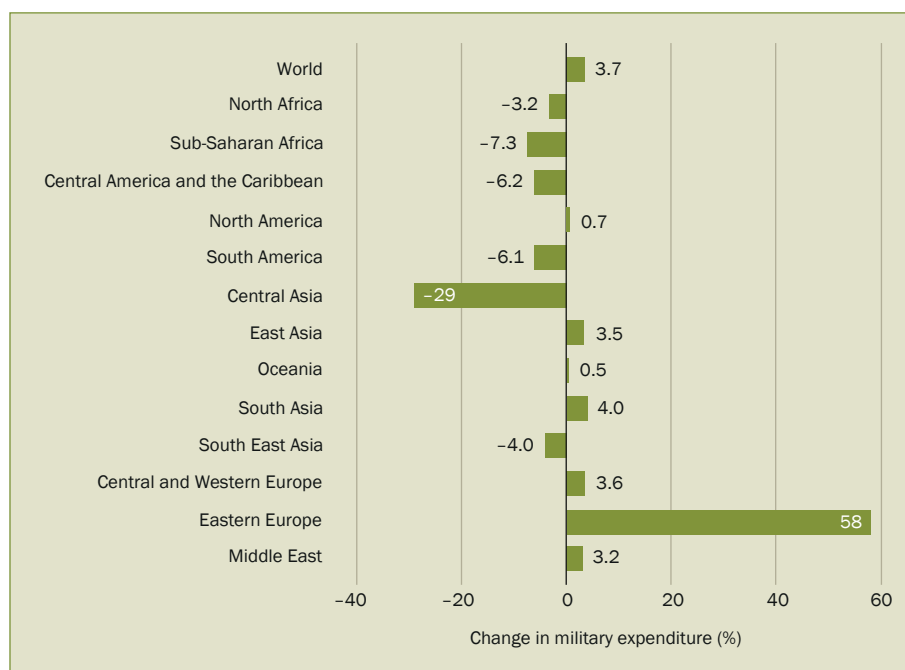


Figure 3. Changes in military expenditure, by subregion, 2021–22

Source: SIPRI Military Expenditure Database, Apr. 2023.



Spending in the region was 0.3 per cent higher than in 2021 and 3.5 per cent higher than in 2013.

North American military spending amounted to \$904 billion in 2022—an increase of 0.7 per cent compared with 2021. Canada spent \$26.9 billion on its military in 2022, which was 3.0 per cent higher than the previous year.

Military spending by countries in Central America and the Caribbean stood at \$11.2 billion in 2022. Total subregional spending fell by 6.2 per cent but was still 38 per cent higher than in 2013. Spending by Mexico, the largest spender in the subregion, dropped by 9.7 per cent in 2022, to \$8.5 billion.

Total military spending by South American countries fell by 6.1 per cent in 2022, to \$46.1 billion. Spending declined by 5.4 per cent over the decade 2013–22. The decrease in 2022 was mainly due to falling Brazilian military expenditure. Brazil, the largest spender in the subregion, allocated \$20.2 billion to its military in 2022, which was 7.9 per cent less than in 2021 and 14 per cent less than in 2013. Brazilian President Jair Bolsonaro forged close ties with the armed forces during his time in office (2019–22), but this did not lead to increased funding for the military; instead, military spending decreased every year during the Bolsonaro administration, falling by 16 per cent overall between 2019 and 2022.

Asia and Oceania

The combined military expenditure of countries in Asia and Oceania was \$575 billion. This was 2.7 per cent more than in 2021 and 45 per cent more than in 2013, continuing an uninterrupted upward trend dating back to at least 1989. The growth in spending in 2022 can be mostly attributed to increases in expenditure by China, India and Japan, which together accounted for almost three quarters (73 per cent) of regional spending.

Total East Asian military expenditure rose by 3.5 per cent to \$397 billion in 2022. The three largest spenders in East Asia were China, which accounted for 74 per cent of the subregional total, South Korea (12 per cent) and Japan (12 per cent).

South Korea's military expenditure fell by 2.5 per cent to \$46.4 billion in 2022, ending a 22-year streak of real-terms increase. The decrease was largely a result of inflation—in nominal terms, South Korea's military budget increased by 2.9 per cent compared with 2021.

Japan allocated \$46.0 billion to its military in 2022, up by 5.9 per cent from 2021 and by 18 per cent from 2013. Japan is in the middle of a significant shift in policy, which had previously capped military spending at 1.0 per cent of GDP. Japan's 2022 National Security Strategy aims to increase spending on security—which includes funding for the military—to up to 2.0 per cent of GDP by 2027. The planned increase is largely in response to Japan's perception of growing threats from China, North Korea and Russia. At 1.1 per cent of GDP in 2022, Japan's military burden surpassed 1.0 per cent for the third consecutive year and was at its highest level since 1960.

Europe

Total military spending in Europe rose by 13 per cent in 2022, to reach \$480 billion. Russia's invasion of Ukraine in February 2022 was a major



contributing factor to this substantial year-on-year increase. European military expenditure went up by 38 per cent over the decade 2013–22.

Military spending by countries in Central and Western Europe totalled \$345 billion in 2022, which was the highest level since the end of the cold war. Spending in the subregion was up by 3.6 per cent from 2021 and by 30 per cent from 2013. On average, countries in Central Europe recorded a higher rate of increase in 2022 (+4.4 per cent) than those in Western Europe (+3.4 per cent).

The UK's military expenditure rose for the sixth consecutive year to reach \$68.5 billion in 2022. Its spending was 3.7 per cent higher than in 2021 and 9.7 per cent higher than in 2013. The increase in 2022 was partly due to its donations of financial military aid to Ukraine, which totalled \$2.5 billion in 2022, making the UK the second largest donor to Ukraine after the USA. The UK's military aid to Ukraine accounted for 3.6 per cent of its total military expenditure in 2022.

Germany's military spending reached \$55.8 billion in 2022, which was 2.3 per cent more than in 2021 and 33 per cent more than in 2013. Following Russia's invasion of Ukraine, Germany established an extra-budgetary fund of \$105 billion (€100 billion), which will be used from 2023 to improve the military capabilities of the German armed forces. This is expected to lead to a substantial increase in German military expenditure in the coming years. SIPRI's estimate includes German financial military aid to Ukraine. This totalled around \$2.0 billion in 2022, making Germany the second largest European donor of military aid to Ukraine after the UK.

Polish military expenditure grew by 11 per cent to a record \$16.6 billion in 2022. Spending went up by 95 per cent over the decade 2013–22. Poland's military burden was 2.4 per cent, the country's highest since 1993 and the third highest among Central and West European countries, after Greece (3.7 per cent of GDP) and Lithuania (2.5 per cent of GDP). In March 2022 the Polish government passed the Homeland Defence Act to reorganize the national defence policy and raise military spending to 3.0 per cent of GDP in 2023. This target was later revised to 4.0 per cent of GDP.

Finnish military spending rose by 36 per cent in 2022, to reach \$4.8 billion or 1.7 per cent of GDP. This was Finland's highest year-on-year increase in military spending since 1962. The sharp growth was mainly attributable to arms procurement (e.g. F-35 combat aircraft), which made up roughly one third of total Finnish military expenditure in 2022. In May 2022 Finland and Sweden started the process to become NATO members, formally ending a policy of military non-alignment. Finland (by 2023) and Sweden (by 2026) have pledged to meet NATO's military spending target of 2.0 per cent of GDP.

Military spending in Eastern Europe increased by 58 per cent in 2022, to \$135 billion. This upsurge was almost entirely due to the effects of Russia's invasion of Ukraine, which drove military spending upward in both countries. Russia accounted for 64 per cent of the subregional total and Ukraine for 33 per cent.

In 2022 Ukraine's military spending reached \$44.0 billion after an increase of 640 per cent—the largest annual increase in a country's military expenditure ever recorded in SIPRI data (i.e. since 1949). Its spending over the decade 2013–22 went up by 1661 per cent. In 2021 Ukraine's military expenditure was less than one tenth of Russia's, but in 2022 this gap narrowed and

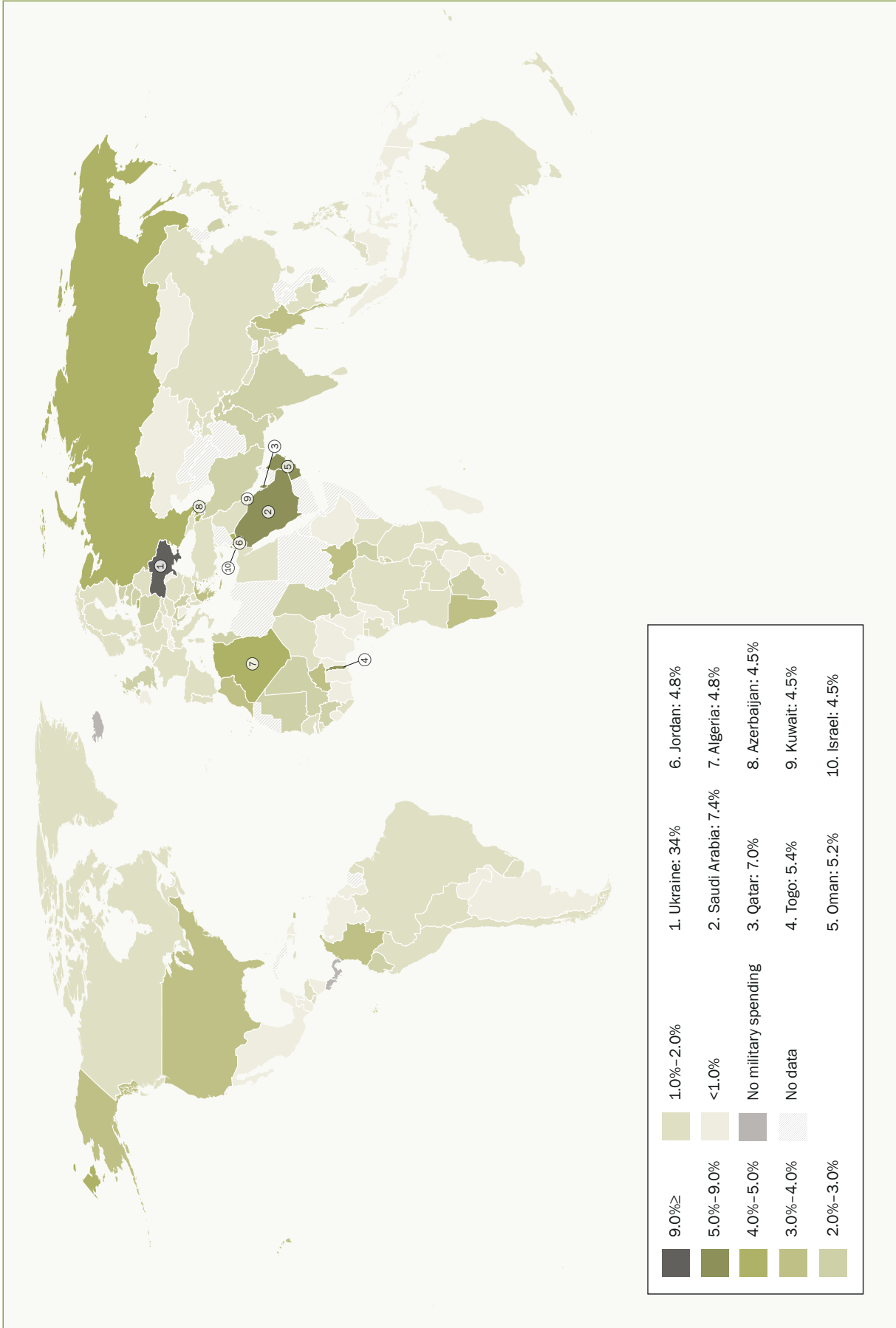


Figure 4. Military spending as a share of gross domestic product, by country, 2022

Notes: The 10 countries with the highest military spending as a share of gross domestic product are listed. The boundaries used in this map do not imply any endorsement or acceptance by SIPRI.

Source: SIPRI Military Expenditure Database, Apr. 2023.



Box 2. Financial military aid to Ukraine in 2022

Russia's invasion of Ukraine in February 2022 led to a steep increase in financial military aid to Ukraine during the year.^a The United States, for example, allocated \$19.9 billion worth of military aid to Ukraine, which was the largest donation of military aid by any country to a single beneficiary in any year since the end of the cold war. The second and third largest donors were the United Kingdom (\$2.5 billion) and Germany (\$2.0 billion).

These three countries accounted for most of the financial military aid Ukraine received in 2022, but over 20 other countries also contributed. However, very few of these countries have released disaggregated data on their financial military aid to Ukraine in 2022. It is not currently possible, therefore, to provide an accurate assessment of the total amount of financial military aid Ukraine received during the year. Nevertheless, based on the available figures for the three biggest donors and reasonable estimates for other assistance funds, it is likely that financial military aid to Ukraine totalled at least \$30 billion in 2022.

While SIPRI includes financial military aid in the spending estimates of the donor country and not the beneficiary country, the funding given to Ukraine in 2022 clearly substantially contributed to its military effort. Adding the estimated \$30 billion in financial military aid to Ukraine's military spending would put Ukraine just below the level of the world's fifth largest spender, Saudi Arabia.

^a SIPRI's estimate of military aid to Ukraine includes financial contributions, training and operational costs, replacement costs of the military equipment stocks donated to Ukraine and payments to procure additional military equipment for the Ukrainian armed forces. However, it does not include the estimated value of military equipment stocks donated to Ukraine.

it spent around half as much as Russia. Ukraine's military burden rose from 3.2 per cent of GDP in 2021 to 34 per cent of GDP in 2022 (see figure 4).

In 2022 Ukraine received military assistance in the form of financial support and donations of equipment from several countries; however, these are not included in SIPRI's estimate of Ukraine's military spending (see box 2).

The Middle East

Total military expenditure by countries in the Middle East was an estimated \$184 billion in 2022, which was up by 3.2 per cent from 2021, but down by 1.5 per cent from 2013. The increase in 2022 was mainly due to the 16 per cent growth in the spending of Saudi Arabia—the largest military spender in the region and the fifth largest in the world.

In 2022 Israel's military spending fell for the first time since 2009. Its total of \$23.4 billion was 4.2 per cent lower than in 2021 but still 26 per cent higher than in 2013. Actual spending in 2022 did not align with the approved budget or Israel's 2030 National Security Strategy, which both projected annual increases. Israel has been making cuts to public expenditure since mid 2021 to reduce its budget deficit—by December 2022, the deficit had become a 0.5 per cent of GDP surplus. The drop in military spending came despite intensified military strikes by Israel on Syria and heightened tensions between Israel and Palestine that regularly erupted into violent clashes.

In 2022 Türkiye's military spending fell for the third straight year, to \$10.6 billion—a decrease of 26 per cent compared with 2021. Although Türkiye's spending increased by 28 per cent in nominal terms, soaring inflation resulted in the biggest annual real-terms decrease in Turkish military expenditure ever recorded in SIPRI data.

MILITARY SPENDING AS A SHARE OF GDP

A country's military expenditure as a share of GDP—also known as the military burden—is the simplest measure of the relative economic cost of the military on the country. Although world military spending went up in 2022,

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global GDP also grew, meaning that the global military burden remained at 2.2 per cent.

On average, states in the Middle East had the highest military burden in 2022, at 3.9 per cent of GDP. Europe had the next highest burden (2.5 per cent of GDP), followed by Africa (1.7 per cent), Asia and Oceania (1.5 per cent) and the Americas (1.2 per cent).

In 2022 the average military burden increased substantially for states in Europe (+0.8 percentage points). Apart from Ukraine's 30 percentage point increase in military burden, other countries in the region with notable increases included Lithuania (+0.6 percentage points), Finland (+0.5), Albania (+0.4), Russia (+0.3), Kosovo (+0.3) and Serbia (+0.3). Average military burden was unchanged for states in Africa, while it fell in the Middle East (-0.4 percentage points), Asia and Oceania (-0.2) and the Americas (-0.1).

The SIPRI Military Expenditure Database, sources and methods

The SIPRI Military Expenditure Database provides military expenditure data by country for the years 1949–2022 in local current prices, constant United States dollars, current US dollars, as a share of gross domestic product (GDP), per capita and as a share of general government expenditure. The SIPRI Military Expenditure Database was updated on 24 April 2023 and this version replaces all previous versions of the database. The database and further details on the definitions, sources and methods used are available at <https://www.sipri.org/databases/milex>.

All figures for spending in 2022 are given in 2022 current US dollars. Figures for relative increases or decreases in military spending—often described as changes in 'real terms' or adjusted for inflation—are expressed in constant (2021) US dollars.

Definitions

Where possible, SIPRI military expenditure data includes all current and capital expenditure on: (a) the armed forces, including peacekeeping forces; (b) defence ministries and other government agencies engaged in defence projects; (c) paramilitary forces, when judged to be trained and equipped for military operations; and (d) military space activities. This data should include expenditure on personnel—which encompasses salaries of military and civil personnel and pensions and social services of military personnel—as well as expenditure on operations and maintenance, procurement, military research and development and military aid (in the military expenditure of the donor country).

Civil defence and current expenditures on previous military activities, such as veterans' benefits, demobilization, conversion, weapon destruction and military involvement in non-military activities (e.g. policing) are excluded.

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