I. Global developments in military expenditure, 2022

DIEGO LOPES DA SILVA, NAN TIAN, LUCIE BÉRAUD-SUDREAU, LORENZO SCARAZZATO AND XIAO LIANG

Global military expenditure continued to rise in 2022 to reach a total of US$2240 billion.[1] The growth of 3.7 per cent continued an eight-year streak of increases that remained unbroken even amid the Covid-19 pandemic-related economic downturn. Indeed, world military expenditure grew by 19 per cent between 2013 and 2022 (see table 5.1, end of this section). The war in Ukraine was a major driver of global military expenditure in 2022. Most European countries, some of which were already among the world's largest spenders, made increases to military spending in 2022 and announced plans for further rises in 2023 and beyond. Increases in parts of Asia and Oceania also contributed to the global growth in 2022.

World military expenditure rose alongside global gross domestic product (GDP). The world economy continued to recover from the pandemic-related downturn in 2022, with growth in GDP estimated to be 3.4 per cent.[2] As a result, the global military burden—world military expenditure as a share of world GDP—is estimated to have been 2.2 per cent in 2022, the same as in 2021. The growth rate of global military expenditure outpaced population growth once again, resulting in military spending per capita rising for the sixth consecutive year in 2022, to $282. In contrast, average military spending as a share of government expenditure fell by 0.1 percentage points to 6.2 per cent in 2022.

World military expenditure grew in four of the five geographical regions: the Americas, Asia and Oceania, Europe, and the Middle East (see figure 5.1). Of the four, Europe had by far the largest increase, of 13 per cent to reach $480 billion. Estimated military spending in the Middle East in 2022 increased by 3.2 per cent to $184 billion and in Asia and Oceania spending grew by 2.7 per cent to $575 billion. The rate of growth was low in the Americas, at 0.3 per cent, to give a total of $961 billion. In contrast, military expenditure in Africa declined by 5.3 per cent to $39.4 billion.

This section continues by providing an initial assessment of the impact of the war in Ukraine on the military expenditure of Central and West European states. It then describes the global trends in military expenditure

[1] All figures for spending in 2022 are quoted in current 2022 US dollars. Except where otherwise stated, figures for increases or decreases in military spending are expressed in constant 2021 US dollars, often described as changes in 'real terms' or adjusted for inflation. Of the 168 countries for which SIPRI attempted to estimate military expenditure in 2022, relevant data was found for 150. See the notes in table 5.1 for more details on estimates in world and regional totals.

[2] International Monetary Fund (IMF), *World Economic Outlook Update: Inflation Peaking Amid Low Growth* (IMF: Washington, DC, Jan. 2023).

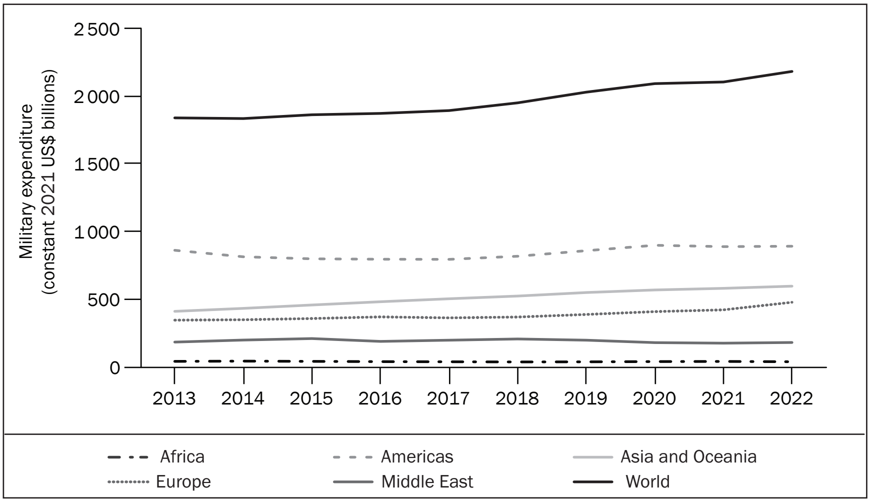

Figure 5.1. Military expenditure by region, 2013–22
Source: SIPRI Military Expenditure Database, Apr. 2023.

over the period 2013–22 before identifying the 15 countries with the highest military spending in 2022. Regional and subregional trends and the spending of individual countries are discussed in section II. It should be borne in mind that military expenditure is an input measure that is not directly related to the output of military activities, such as military capability or military security. Long-term trends in military expenditure and sudden changes in trends may be signs of a change in military output, but such interpretations should be made with caution.[3]

The impact of the war in Ukraine on military expenditure in Central and Western Europe

One immediate consequence of Russia's invasion of Ukraine in February 2022 has been rising military expenditure in Central and Western Europe.[4] Expressing a general sense of urgency, nearby countries were quick to announce major increases in the wake of the invasion, and leaders of the European Union (EU) and the North Atlantic Treaty Organization (NATO) regularly called for increased military spending by their member states.[5]

[3] For sources and methods of the SIPRI Military Expenditure Database see SIPRI Military Expenditure Database, 'Sources and methods'.

[4] On other aspects of the war in Ukraine see chapter 1, section V, chapter 2, section I, chapter 8, section V, chapter 10, section I, chapter 11 and chapter 12, section III, in this volume.

[5] Stoltenberg, J., NATO secretary general, Statement at the start of the extraordinary NATO Summit, 24 Mar. 2022; and von der Leyen, U., President of the European Commission, 'On the Commission's proposals regarding REPowerEU, defence investment gaps and the relief and reconstruction of Ukraine', Press statement, 18 May 2022.

General Rajmund Andrzejczak, chief of the general staff of Poland's armed forces, epitomized the sense of urgency when he said that, 'If we really want to live in the peacetime, we have to invest much more'.[6]

The announced increases in military spending, albeit oriented towards the same goal, differed in terms of their timelines, status and targets. The timelines of most increases stretched across several years, but some were meant to take place in 2022. Denmark, for example, plans to gradually increase its military spending to 2.0 per cent of GDP by 2033, whereas Sweden aims to reach this target by 2026.[7] In terms of the status, some increases were approved and signed off by governments in 2022, while others were still being discussed or subject to parliamentary approval. The Lithuanian Parliament, for example, was quick to unanimously approve a mid-year proposal to increase 2022 military spending to 2.5 per cent of GDP.[8] As a result, its military spending was 27 per cent higher than in 2021.

Another important distinction between the various pledges are the targets. Following Russia's annexation of Crimea in 2014, NATO set 2.0 per cent of GDP as the guideline for the military spending of its members.[9] Several countries have thus chosen to formulate their expenditure goals in terms of increasing their military burden, and at least 12 Central and West European countries linked their pledged increase in military spending to increased economic output.[10] However, there are variations in the size of the targeted burdens. Austria, a non-NATO member that has been militarily neutral since 1945, plans to increase spending to 1.0 per cent of its GDP.[11] In contrast, Poland, a NATO member, intends to raise its military burden to 4.0 per cent of its GDP in 2023, with the ultimate goal of eventually reaching 5.0 per cent, considerably higher than the NATO guideline.[12]

The military burden rose most sharply in Lithuania, from 2.0 per cent in 2021 to 2.5 per cent in 2022. In contrast, Portugal's military burden fell by 0.2 percentage points to 1.4 per cent. In total, only eight Central and West European countries had a military burden of 2.0 per cent of GDP or more in 2022. Of the Central and West European countries that announced an

[6] Bayer, L., 'Let's not make it official: NATO allies reluctant to increase spending goals', Politico, 19 Jan. 2023.

[7] 'Denmark to boost defence spending and phase out Russian gas', Reuters, 6 Mar. 2022; and 'Sweden's supreme commander says defence spending to reach 2% of GDP by 2026', Reuters, 1 Nov. 2022.

[8] 'Lithuania raises defence spending to 2.52 percent of GDP', LRT, 17 Mar. 2022.

[9] NATO, North Atlantic Council, Wales summit declaration, 5 Sep. 2014, para. 14.

[10] Bergmann, M. et al., 'Transforming European defense', Center for Strategic and International Studies, Aug. 2022; and Tocci, N., 'The paradox of Europe's defense moment', *Texas National Security Review*, vol. 6, no. 1 (winter 2022/23).

[11] Kurmayer, N. J., 'Austria to significantly up military spending', Euractiv, 07 Mar. 2022.

[12] 'Poland to ramp up defense budget to 4% of GDP', Deutsche Welle, 30 Jan. 2023; and Krzysztoszek, A., 'Poland to spend 5% of GDP on defence', Euractiv, 18 July 2022.

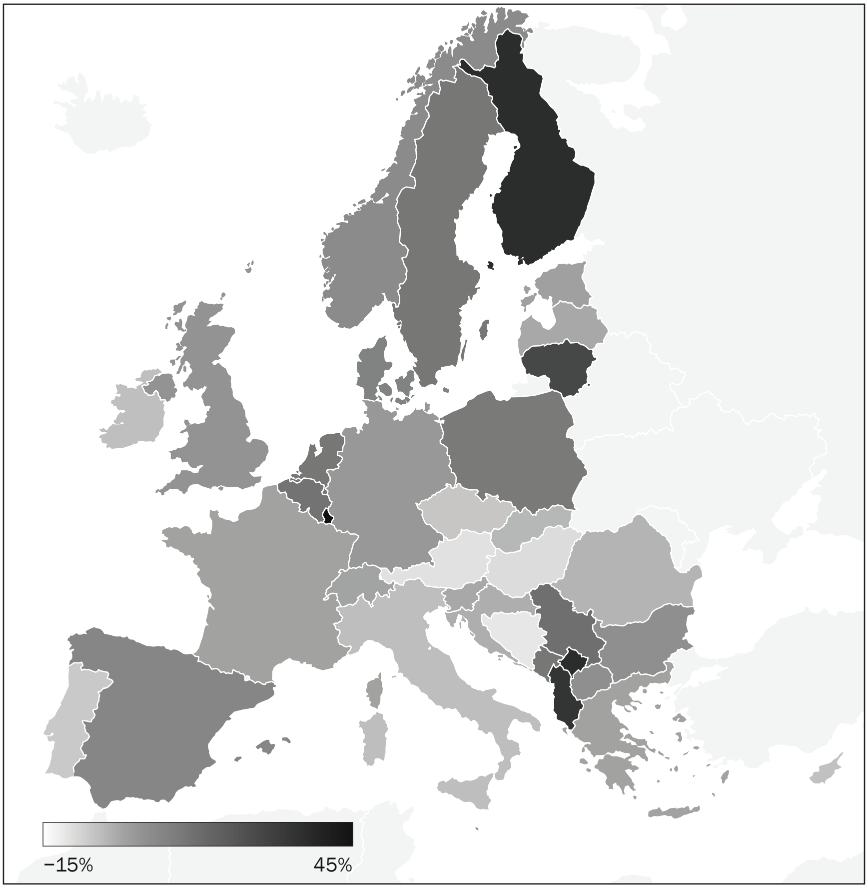

Figure 5.2. Rates of growth in military expenditure in Central and Western Europe, 2022

Source: SIPRI Military Expenditure Database, Apr. 2023.

increase in military spending in 2022, Greece had the highest military burden (3.7 per cent of GDP), while Ireland had the lowest (0.2 per cent).

Despite the numerous announced increases in military spending, the average military burden in Central and Western Europe increased by only 0.1 percentage points, to 1.6 per cent of GDP in 2022. The limited growth was due to simultaneous rises in both military expenditure and GDP. Overall, according to the International Monetary Fund (IMF), economic performance in 2022 was better than expected for numerous economies, including European countries.[13] Thus, even though most Central and West European countries increased military spending by a significant amount, on average the burden of the military on the economy was almost unchanged.

[13] International Monetary Fund (note 2), p. 1.

Geographical proximity to Russia and Ukraine is a factor underlying increases in military spending in 2022 (see figure 5.2). Most of the acutest increases took place in countries bordering or close to Russia and Ukraine (e.g. Finland, with a 36 per cent increase) or where other conflict dynamics were evident (e.g. Kosovo, also 36 per cent).

These substantial increases were counterposed by decreases in several countries, of which Bosnia and Herzegovina had the largest, an 11 per cent drop. Most Central and West European countries with falling military expenditure in 2022 pledged to increase their military spending but with longer time frames or later starting dates. Although Bosnia and Herzegovina made no announcements on increasing military spending, Austria (–9.8 per cent), Croatia (–1.5 per cent) and Slovenia (–0.5 per cent) set 2023 as the first year of increases.[14]

Soaring inflation is another factor explaining the differences in military spending changes (see box 5.1). In 2022 inflation among advanced economies reached its highest rate in 40 years. Countries in the eurozone endured 10 per cent inflation.[15] This led to large differences between changes in military spending in constant prices (i.e. in real terms) and in current prices: the gap between the two figures shows the extent of the impact of inflation (see figure 5.3). The average gap was nearly 11 percentage points, but the gap extended to more than 20 percentage points in extreme cases such as Lithuania and Estonia.

For several countries, military spending shrank or barely rose in real terms despite spending significantly more in nominal terms. For example, Latvia's military spending went up by 16 per cent in current prices, but inflation transformed this to a 0.4 per cent decrease in constant prices; and Estonia's nominal growth of 22 per cent produced real-terms growth of only 0.7 per cent. Some countries that announced increases for 2022 were unable to implement them because of rampant inflation. In Czechia, for example, despite a supplementary budget to increase military spending, inflation reduced a 9.6 per cent increase in current prices to a 5.8 per cent decrease in constant prices.

The war is likely to have a lasting effect on military spending in Central and Western Europe. The pledges to increase military spending stretch far into the future and foreshadow years of growth. This, of course, is not the first time that Russia's actions have propelled a wave of rising military spending in the subregion: after the annexation of Crimea in 2014, Central and West European military spending increased substantially. Considering

[14] Austrian Federal Ministry of Defence, 'Landesverteidigungs-Finanzierungsgesetz von Nationalrat beschlossen' [National Defence Financing Act passed by the National Council], APA-OTS, 15 Nov. 2022; Croatian News Agency (HINA), 'Croatian Defence Ministry's 2023 budget to increase by €40m', N1, 30 June 2022; and Ralev, R., 'Slovenia to boost defence spending to 2%/GDP by 2030—Minister', SeeNews, 17 Mar. 2022.

[15] International Monetary Fund (IMF), *World Economic Outlook: Countering the Cost-of-Living Crisis* (IMF: Washington, DC, Oct. 2022), p. 1.

Box 5.1. Global inflation and its impact on military spending

Rising prices dominated world economic news in 2022. Although inflation—a measure of the general change in the price level of goods and services in an economy—is an ever-present phenomenon, in 2022 it reached record levels not seen in decades.[a] Inflation in advanced economies reached its highest rate since 1982, while in emerging markets it was at its highest rate since 1999.[b]

The global inflation crisis is the sum of two separate crises

First, the fallout from the Covid-19 pandemic created a supply shortage (caused by supply chain problems and labour shortages) and pent-up consumer demand.[c] Sharp increases in prices reflected this imbalance in supply and demand. How countries responded to the Covid-19 pandemic also affected inflation. In the case of the United States, for example, the government's $2 trillion stimulus package reinforced excessive consumer demand and pushed prices even higher.[d]

Second, Russia's invasion of Ukraine severely disrupted Ukraine's exports of grain.[e] Concurrently, Western sanctions on Russia—the world's largest exporter of wheat, natural gas and oil to global markets—amplified worldwide food and energy prices.[f] This aggravated the already record levels of global inflation.[g]

In the case of military spending, SIPRI collects military data in local currency nominal prices but, for meaningful comparison over time, all country-specific figures are adjusted for inflation using a country-specific consumer price index (CPI) provided by the International Monetary Fund (IMF).[h] High inflation both reduces the military's purchasing power and increases the opportunity cost of holding money. The opportunity cost of holding money refers to the opportunities forgone by holding money and not spending it during high inflation. High inflation will have an impact on the value of a country's currency and this, in turn, will affect the purchasing power of the military on all its spending activities, ranging from operations and maintenance to procurement. In those countries where inflation in 2022 reached record levels, expenditure plans by militaries for late 2022 would have been substantially affected as money held for expected future spending lost a substantial amount of value. In cases where inflation was higher than the nominal increase in military spending, the military would effectively have had less money to spend than in 2021.

[a] International Monetary Fund (IMF), *World Economic Outlook: Countering the Cost-of-Living Crisis* (IMF: Washington, DC, Oct. 2022), chapter 1.

[b] International Monetary Fund (note a).

[c] Lopez, G., 'A global inflation crisis', *New York Times*, 26 July 2022.

[d] Ritz, B., 'What's in the record-breaking $2 trillion stimulus package?', *Forbes*, 25 Mar. 2020; and Tankersley, J. et al., 'A weekslong campaign to sell the stimulus bill to the American public begins tonight', *New York Times*, 12 Mar. 2021.

[e] Council of the European Union, 'Infographic—Ukraine grain exports explained', 17 Jan. 2023.

[f] E.g. International Energy Agency (IEA), *Russian Supplies to Global Energy Markets* (IEA: Paris, 2022).

[g] Lopez (note c); IEA (note f); IEA, 'Energy fact sheet: Why does Russian oil and gas matter?', 21 Mar. 2022; and Rastogi, K. and Ang, C., 'These are the top 10 countries that produce the most wheat', World Economic Forum, 4 Aug. 2022.

[h] IMF, International Financial Statistics Database, Sep. 2022.

that the situation in 2022 is worse than in 2014, the response to the fully fledged invasion in terms of spending has been more robust. As a result, it is reasonable to expect an acceleration of the ongoing upward trend in regional and, consequently, global military spending.

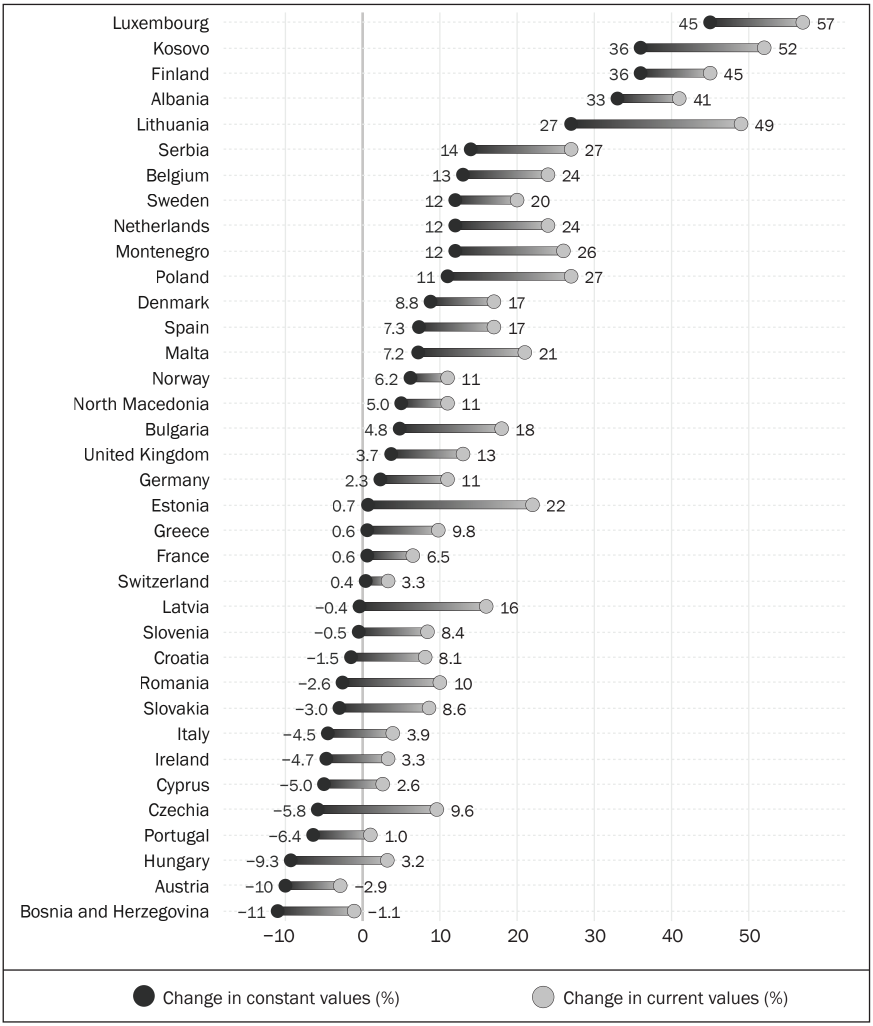

Figure 5.3. Difference between relative changes in military expenditure in current and constant values in Central and Western Europe, 2022

Note: Changes in current values are calculated from spending denominated in national currencies; changes in constant values are calculated in US dollars at 2021 prices based on the national Consumer Price Index (CPI) with 2021 as the base year.

Source: SIPRI Military Expenditure Database, Apr. 2023.

Trends in military expenditure, 2013–22

Global military spending rose in all but two of the years 2013–22, with a cumulative increase of 19 per cent. After the annual growth rate peaked in 2019, reaching 4.0 per cent, it started to fall mainly because of the Covid-19 pandemic. However, despite the massive economic downturn, world military

Table 5.2. Key military expenditure statistics by region, 2022

Expenditure figures are in US$, at current prices and exchange rates. Changes are in real terms, based on constant (2021) US dollars.

Region/subregion	Expenditure, 2022 (US$ b.)	Change (%) 2021–22	2013–22	Major changes, 2022 (%)[a] Increases		Decreases	
World	**2240**	***3.7***	***19***				
Africa[b]	39.4	*–5.3*	*–6.4*	Ethiopia	*88*	Nigeria	*–38*
North Africa	(19.1)	*–3.2*	*11*	Togo	*80*	Zimbabwe	*–33*
Sub-Saharan Africa[b]	20.3	*–7.3*	*–18*	South Sudan	*51*	Mozambique	*–20*
				Guinea	*43*	Mali	*–18*
Americas[c]	961	*0.3*	*3.5*	Guatemala	*19*	Argentina	*–32*
Central America and the Caribbean[c]	11.2	*–6.2*	*38*	Dominican Republic	*16*	Mexico	*–9.7*
						Brazil	*–7.9*
North America	904	*0.7*	*3.7*	El Salvador	*12*	Trinidad and Tobago	*–6.8*
South America	46.1	*–6.1*	*–5.4*	Bolivia	*8.7*		
Asia and Oceania[d]	575	*2.7*	*45*	India	*6.0*	Kazakhstan	*–33*
Central Asia[e]	1.4	*–29*	*–28*	Japan	*5.9*	Sri Lanka	*–31*
East Asia[f]	397	*3.5*	*50*	China	*4.2*	Philippines	*–25*
Oceania	35.3	*0.5*	*48*	Singapore	*2.8*	Thailand	*–11*
South Asia	98.3	*4.0*	*46*				
South East Asia	43.1	*–4.0*	*13*				
Europe	480	*13*	*38*	Ukraine	*640*	Bosnia and Herzegovina	*–11*
Central Europe and Western Europe	345	*3.6*	*30*	Luxembourg	*45*	Austria	*–9.8*
Eastern Europe	135	*58*	*72*	Kosovo	*36*	Hungary	*–9.3*
				Finland	*36*	Portugal	*–6.4*
Middle East[g]	(184)	*3.2*	*–1.5*	Qatar	*27*	Türkiye	*–26*
				Saudi Arabia	*16*	Lebanon	*–14*
				Iran	*4.6*	Kuwait	*–11*

( ) = uncertain estimate.

[a] These lists shows the countries with the largest increases or decreases for each region as a whole, rather than by subregion. Countries with a military expenditure in 2022 of less than $100 million, or $50 million in Africa, are excluded.

[b] Figures exclude Djibouti, Eritrea and Somalia.

[c] Figures exclude Cuba.

[d] Figures exclude North Korea, Turkmenistan and Uzbekistan.

[e] Figures exclude Turkmenistan and Uzbekistan.

[f] Figures exclude North Korea.

[g] Figures exclude Syria and Yemen.

Source: SIPRI Military Expenditure Database, Apr. 2023.

expenditure still managed to grow. The 3.7 per cent increase in 2022 seems to indicate a return to pre-pandemic growth rates. Given the war in Ukraine and the subsequent pledges to increase military spending, the 2022 increase is likely to forbode a significant upward trend.

World military expenditure is highly concentrated. Just two countries—the United States and China—accounted for 52 per cent of world military expenditure in 2022. Thus, any change in their military spending has a significant effect on the global total. In 2022, a 0.7 per cent rise in US military spending was accompanied by a 4.2 per cent increase in China's military spending. The US and Chinese increases and those by Saudi Arabia (16 per cent), Russia (9.2 per cent) and India (6.0 per cent) were the main contributors to the 3.7 per cent rise in world military expenditure in 2022.

Of the 10 years 2013–22, world military expenditure fell in only two: by 1.7 per cent in 2013 and by 0.3 per cent in 2014. Those declines were largely explained by falls in US military expenditure that were only partly mitigated by increases in the military expenditure of China, India, Russia, Saudi Arabia and the United Kingdom. In contrast, in 2015 the increase in total spending of these five states surpassed the drop in US spending; alongside increases in smaller spenders, this led to an increase in world military expenditure of 1.5 per cent. As US military spending began to rise again in 2018, the growth rate of world military expenditure followed suit: 3.0 per cent in 2018, 4.0 per cent in 2019 and 3.1 per cent in 2020. The pandemic-led economic downturn brought the growth rate down to 0.6 per cent in 2021.

Between 2013 and 2022, regional spending decreased only in Africa (−6.4 per cent) and the Middle East (−1.5 per cent; see table 5.2). The decrease in the Middle East can be attributed to falls in Saudi Arabia (−2.7 per cent), Iraq (−37 per cent), Oman (−39 per cent) and Lebanon (−87 per cent). Military spending in the region is highly correlated with oil prices, and the drop in spending since 2015 is probably connected to a depreciation of oil in international markets.[16]

Spending in the other three regions increased: in the Americas by 3.5 per cent, in Asia and Oceania by 45 per cent, and in Europe by 38 per cent. Among the 12 subregions, the largest increase was in Eastern Europe (72 per cent), mostly due to the 58 per cent rise in 2022—growth between 2013 and 2021 was only 9.0 per cent.

Spending fell in just three of the subregions between 2013 and 2022: Central Asia (−28 per cent), sub-Saharan Africa (−18 per cent) and South America (−5.4 per cent). The decline in military spending in sub-Saharan Africa meant that the gap between spending in sub-Saharan Africa and North Africa narrowed from 40 per cent in 2013 to almost disappear in 2020. Subsequently, sub-Saharan African military spending rose in 2021 but fell once again in 2022, whereas North African military spending dropped in both years. The fall in both subregions in 2022 was driven by declines in each subregion's largest spender: Nigeria (−38 per cent) and Algeria (−3.7 per cent).

[16] Tian, N., 'Oil price shocks and military expenditure', *SIPRI Yearbook 2017*, pp. 343–49.

Table 5.3. The 15 countries with the highest military expenditure in 2022

Expenditure figures and GDP are in US$, at current prices and exchange rates. Changes are in real terms, based on constant (2021) US dollars.

Rank[a]			Military expenditure,	Change (%)		Military expenditure as a share of GDP (%)[b]		Share of world military expenditure,
2022	2021	Country	2022 ($ b.)	2021–22	2013–22	2022	2013	2022 (%)
1	1	USA	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	UK	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*
World			**2 240**	***3.7***	***19***	***2.2***	***2.3***	***100***

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

[a] Rankings for 2021 are based on updated military expenditure figures for 2021 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 in 2022.

[b] These figures are based on GDP estimates from International Monetary Fund, World Economic Outlook Database, Oct. 2022; and International Monetary Fund, International Financial Statistics Database, Sep. 2022.

Source: SIPRI Military Expenditure Database, Apr. 2023.

The global military burden—that is, global military spending as a share of global GDP—fell slightly over the decade, from 2.3 per cent in 2013 to 2.2 per cent in 2022. This indicates that world GDP and world military expenditure rose more or less in line with each other. In the first two years of the pandemic (2019–20), as the global economy shrank, the global military burden rose by 0.2 percentage points to reach 2.4 per cent—the highest point since 2015. As the world economy returned to growth—with estimated growth of 3.4 per cent in 2022—and with several countries showing a surprisingly strong recovery from the pandemic-related downturn, the military burden fell back to 2.2 per cent from 2021.[17]

[17] International Monetary Fund (note 15), chapter 1.

Middle Eastern countries had the highest average military burden in 2022, at 3.9 per cent of GDP. Europe had the second largest average at 2.5 per cent, a growth of 0.8 percentage points compared to 2021. This rise was largely due to a dramatic growth in Ukraine's military burden—by 30 percentage points in a single year. The average military burdens for countries in Africa (1.7 per cent), the Americas (1.2 per cent), and Asia and Oceania (1.5 per cent) were considerably lower. Between 2013 and 2022, the average military burden only rose in Europe (by 1.0 percentage point). In the Americas, the average military burden fell by 0.3 percentage points from 2013, whereas in Africa and Asia and Oceania the fall was 0.2 percentage points. The largest drop (0.6 percentage points) took place in the Middle East.

The largest military spenders in 2022

The top 15 largest military spenders in the world spent an accumulated $1842 billion in 2022, accounting for 82 per cent of the world total. The war in Ukraine led to two substantial changes in the top 15: Russia became the third largest military spender, and Ukraine ranked 11th after a 640 per cent increase in its military spending (see table 5.3).[18] This is the first time that Ukraine has ranked among the top 15 spenders.

Almost all countries in the top 15 increased their military spending compared to 2013, except for Saudi Arabia, where military spending in 2022 was 2.7 per cent below the level of 2013. By far the largest increase took place in Ukraine (1661 per cent), while the smallest was in the USA (2.7 per cent). Other notable increases took place in China (63 per cent), Canada (49 per cent), and Australia and India (47 per cent each). Excluding Ukraine, the average growth rate over the decade was 27 per cent.

The military burdens of six countries in the top 15 dropped between 2013 and 2022. Among the countries that increased their military burdens, Ukraine stands out once again. The increase of 32 percentage points is the result of a massive economic contraction coupled with a more than sevenfold rise in military spending in 2022. Despite sanctions and a 9.2 per cent growth in military spending, Russia's military burden increased only moderately over the decade, by 0.2 percentage points.

Following Ukraine, the second largest military burden among the top 15 was Saudi Arabia's, at 7.4 per cent of GDP. In total, 8 of the 15 had military burdens above or equal to the world military burden (2.2 per cent). The lowest military burden among top 15 countries was Japan's, at 1.1 per cent of GDP.

[18] The United Arab Emirates (UAE) would probably rank as one of the 15 largest spenders, most likely within the ranks 11–15, but a lack of data since 2014 means that no reasonable estimate of its military spending can be made and thus it has been omitted from the top 15 ranking.

Table 5.1. Military expenditure by region, 2013–22

Figures for 2013–22 are in US$ b. at constant (2021) prices and exchange rates. Figures for 2022 in the right-most column, marked *, are in current US$ b. Figures do not always add up to totals because of the conventions of rounding.

	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2022*
World total	**1 839**	**1 834**	**1 864**	**1 872**	**1 893**	**1 950**	**2 028**	**2 092**	**2 104**	**2 182**	**2 240**
Geographical region											
Africa	40.5	42.4	(40.5)	38.6	37.6	36.3	37.2	39.0	40.0	37.9	39.4
North Africa	16.8	17.9	(18.2)	(18.2)	(17.6)	(17.2)	(18.3)	(19.5)	(19.2)	(18.6)	(19.1)
Sub-Saharan Africa	23.6	24.5	22.3	20.4	20.0	19.1	19.0	19.5	20.8	19.3	20.3
Americas	861	813	798	795	794	817	858	898	888	891	961
Central America and the Caribbean	7.4	7.7	7.4	8.2	7.7	8.4	9.2	11.3	10.9	10.3	11.2
North America	808	759	745	743	740	761	803	840	832	838	904
South America	45.5	46.0	45.5	43.5	45.9	46.9	46.1	45.9	45.9	43.1	46.1
Asia and Oceania	410	432	459	481	503	523	549	568	580	596	575
Central Asia	1.8	1.8	1.7	1.6	1.6	1.7	2.1	1.8	1.8	1.3	1.4
East Asia	277	293	312	325	339	357	375	390	401	415	397
Oceania	24.3	26.3	28.8	31.5	31.6	31.1	32.5	34.0	35.8	36.0	35.3
South Asia	68.1	71.8	73.5	79.9	85.5	89.5	95.0	95.3	95.6	99.4	98.3
South East Asia	39.4	39.1	42.9	43.5	45.0	43.5	44.2	46.6	46.5	44.4	43.1
Europe	345	348	357	369	362	368	387	408	421	477	480
Central and Western Europe	275	273	276	284	292	299	315	333	344	356	345
Eastern Europe	70.0	75.4	81.6	84.9	70.3	69.0	72.8	75.2	76.3	120	135
Middle East	183	198	(209)	(188)	(197)	(206)	(197)	(179)	(175)	(180)	(184)

World military spending per capita (current US$)										
	246	241	239	237	244	248	258	264	267	282
Military burden (i.e. military spending as a % of gross domestic product, both measured in current US$)[a]										
World	***2.3***	***2.2***	***2.4***	***2.3***	***2.3***	***2.2***	***2.3***	***2.4***	***2.2***	***2.2***
Africa	*1.9*	*2.1*	*1.8*	*1.8*	*1.7*	*1.6*	*1.6*	*1.7*	*1.7*	*1.7*
Americas	*1.5*	*1.4*	*1.4*	*1.3*	*1.4*	*1.4*	*1.3*	*1.4*	*1.3*	*1.2*
Asia and Oceania	*1.7*	*1.8*	*1.8*	*1.7*	*1.7*	*1.7*	*1.6*	*1.7*	*1.7*	*1.5*
Europe	*1.5*	*1.5*	*1.5*	*1.5*	*1.5*	*1.5*	*1.6*	*1.8*	*1.7*	*2.5*
Middle East	*4.5*	*4.6*	*5.3*	*5.1*	*4.9*	*4.6*	*4.4*	*4.5*	*4.3*	*3.9*

( ) = total based on country data accounting for less than 90% of the regional total.

Notes: The totals for the world and regions are estimates, based on data from the SIPRI Military Expenditure Database. When military expenditure data for a country is missing for a few years, estimates are made, most often on the assumption that the rate of change in that country's military expenditure is the same as that for the region to which it belongs. When no estimates can be made, countries are excluded from the totals. The countries excluded from all totals here are Cuba, Djibouti, Eritrea, North Korea, Somalia, Syria, Turkmenistan, Uzbekistan and Yemen. Totals for regions cover the same groups of countries for all years. The SIPRI military expenditure figures are presented on a calendar-year basis, calculated on the assumption of an even rate of expenditure throughout the financial year. Further detail on sources and methods can be found on the SIPRI website.

[a] World military burden is total world military expenditure as a share of world gross domestic product (GDP). The military burden of each region is the average national military burden for countries in the region for which data is available.

Sources: SIPRI Military Expenditure Database, Apr. 2023; International Monetary Fund, World Economic Outlook Database, Oct. 2022; International Monetary Fund, International Financial Statistics Database, Sep. 2022; and United Nations Department of Economic and Social Affairs, Population Division, 'World population prospects 2022', 2022.