

I. Global developments in military expenditure

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Global and regional trends in summary

World military expenditure is estimated to have been \$1676 billion in 2015, an increase of 1.0 per cent in real terms compared to 2014.¹ This is the first rise in global military expenditure since 2011, albeit a minor one (see table 13.1 and figure 13.1). Looking at the longer term trend, military spending was 19 per cent higher in real terms in 2015 than in 2006. Total world military expenditure as a share of global gross domestic product (GDP)—the global ‘military burden’—was roughly constant in 2015, at around 2.3 per cent.

Military expenditure continued to decline in most Western countries in 2015, but at a slower rate. The United States’ military spending fell by 2.4 per cent, while that in Western Europe decreased by 1.3 per cent. By contrast, spending elsewhere in Europe rose overall. The growth in military expenditure in Central Europe that began in 2014 accelerated in 2015, with an increase of 13 per cent, led by Poland. The effects of the crisis in Ukraine were clearly visible in Central European countries’ military spending in 2015, leading to many large increases (interestingly, the effects were far less apparent in Western Europe). Eastern European spending also grew by 7.5 per cent (see figure 13.2). Meanwhile, military expenditure rose by 5.4 per cent in Asia and Oceania, with continuing growth by China accompanied by major increases in much of South East Asia.²

In other regions, the sharp fall in the price of oil that began in late 2014 has started to have a significant impact on the military expenditure of several oil revenue-dependent states, many of which increased spending dramatically when prices were high. African spending broke with recent upward trends,

¹ All SIPRI’s military expenditure data is freely available online at: <<http://www.sipri.org/databases/milex>>. The sources and methods used to produce all the data discussed in this chapter are also presented on the SIPRI website. Except where otherwise stated, all figures for increases or decreases in military spending are expressed in constant (2014) US dollars, often described as changes in ‘real terms’ or adjusted for inflation. This is in contrast to changes in ‘nominal’ figures, which are not adjusted for inflation. The world total in current US dollars reported for 2015 is considerably lower than that reported for 2014 in *SIPRI Yearbook 2015* for 3 reasons: first, the higher value of the US dollar against most currencies in 2015 reduces the dollar value of their military spending; second, the series for China has been revised significantly downwards, reducing the totals for both the current and previous years; third, certain countries have been excluded from estimated world and regional totals as it was not considered possible to make reasonable estimates for these countries. The countries excluded from all totals are Cuba, Eritrea, North Korea, Somalia, Sudan, Syria, Turkmenistan and Uzbekistan. Of these, estimates for Eritrea, Sudan, Syria, Turkmenistan and Uzbekistan were previously included in world and regional totals.

² For full details of SIPRI’s regional coverage see <http://www.sipri.org/research/armaments/milex/milex_database/regional_coverage>.

Table 13.1. Military expenditure by region, by international organization and by income group, 2006–15

Figures for 2006–15 are in US\$ billion at constant (2011) prices and exchange rates. Figures for 2015 in the right-most column, marked *, are in current US\$ billion for 2015. Figures may not add up to stated totals due to the conventions of rounding.

	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2015*
World total	1 494	1 551	1 638	1 748	1 778	1 785	1 780	1 754	1 755	1 773	1 676
<i>Geographical regions</i>											
Africa	23.3	24.0	27.9	29.1	(31.3)	(34.7)	35.6	39.0	41.3	(39.1)	(37.0)
North Africa	7.4	7.9	9.4	(10.4)	(11.4)	(14.2)	15.2	(16.7)	18.0	(18.4)	(17.9)
Sub-Saharan Africa	15.9	16.1	18.5	18.7	20.0	20.6	20.4	22.3	23.3	20.7	19.1
Americas	694	714	768	826	847	838	800	747	706	689	678
Central America and the Caribbean	5.8	6.4	6.6	7.3	7.8	8.1	8.9	9.4	10.2	10.6	9.5
North America	637	655	703	759	777	769	725	668	628	613	611
South America	51.4	52.9	58.0	59.2	62.0	60.8	66.1	69.6	68.1	65.4	57.6
Asia and Oceania	274	293	311	349	357	372	387	404	427	450	436
Central and South Asia	47.1	48.5	53.1	60.8	61.7	63.0	63.4	63.7	67.2	67.8	68.0
East Asia	177	189	200	228	235	247	262	275	293	310	302
Oceania	23.4	24.8	25.5	27.4	27.7	27.2	26.3	26.1	28.2	30.4	25.8
South East Asia	26.9	30.7	31.6	33.0	33.2	34.3	35.5	38.9	38.7	42.2	39.7
Europe	376	387	397	404	397	390	394	387	390	397	328
Eastern Europe	53.3	59.0	64.6	66.3	67.4	72.8	83.7	87.6	94.1	101	74.4
Western and Central Europe	323	328	333	338	329	317	310	299	296	296	253
Middle East	126	133	134	140	146	151	165	177	190.2	..	..
<i>Organizations</i>											
African Union	26.2	26.9	30.1	31.0	33.0	36.2	36.7	39.5	42.3	40.7	39.3
Arab League	85.4	95.9	98.9	103	111	121	134	149	163	166	174
CSTO	48.3	53.6	58.9	64.5	67.4	68.9	73.6	84.7	89.0	95.9	88.7
European Union	306	314	314	324	312	303	293	286	283	281	241
NATO	954	975	1 029	1 093	1 101	1 082	1 031	963	921	904	861
NATO Europe	317	320	325	333	324	313	306	296	293	291	250
SCO	141	157	172	199	207	223	247	265	287	308	283

<i>Income group</i>													
Low	4.3	(4.5)	4.9	(4.8)	5.5	6.0	(5.4)	5.7	6.0	(5.9)	(6.0)		
Lower-middle	72.7	77.7	82.8	91.2	94.0	95.6	97.9	101	105	111	106		
Upper-middle	198	215	232	263	274	290	308	327	348	367	350		
High	1 219	1 254	1 318	1 389	1 405	1 394	1 370	1 320	1 295	1 284	1 213		
<i>World military spending per capita (current US\$)</i>	183	201	224	230	240	253	251	248	242	228			
<i>World military burden (i.e. world military spending as a % of world gross domestic product, both measured in current US\$)</i>	2.4	2.3	2.4	2.6	2.5	2.4	2.4	2.3	2.3	2.3	2.3		

() = total based on country data accounting for less than 90% of the regional total; .. = estimate not provided due to unusually high levels of uncertainty and missing data; CSTO = Collective Security Treaty Organization; NATO = North Atlantic Treaty Organization; SCO = Shanghai Cooperation Organisation.

Note: The totals for the world, regions, organizations and income groups 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. More detailed information on the sources and methods can be found at http://www.sipri.org/research/armaments/milex/milex_database/copy_of_sources_methods. When no estimates can be made, countries are excluded from the totals. The countries excluded from all totals here are Cuba, Eritrea, North Korea, Somalia, Syria, Turkmenistan and Uzbekistan. Totals for regions and income groups cover the same groups of countries for all years. Totals for organizations cover only the member countries in the year given. The coverage of the geographical regions and subregions is based on the grouping of countries in the SIPRI Military Expenditure Database. Income groups are based on the World Bank World Development Indicators, Jan. 2016 with a gross national income per capita in 2014 of \$1045 or less for low-income countries; \$1046–\$4125 for lower-middle-income countries; \$4126–\$12 745 for upper-middle-income countries; and more than \$12 746 for high-income countries.

Sources: SIPRI Military Expenditure Database, <http://www.sipri.org/databases/milex/>; International Monetary Fund (IMF), *World Economic Outlook: Adjusting to Lower Commodity Prices* (IMF: Washington, DC, Oct. 2015); and United Nations Population Fund (UNFPA), *State of World Population, 2006–15* (UNFPA: New York, 2006–15).

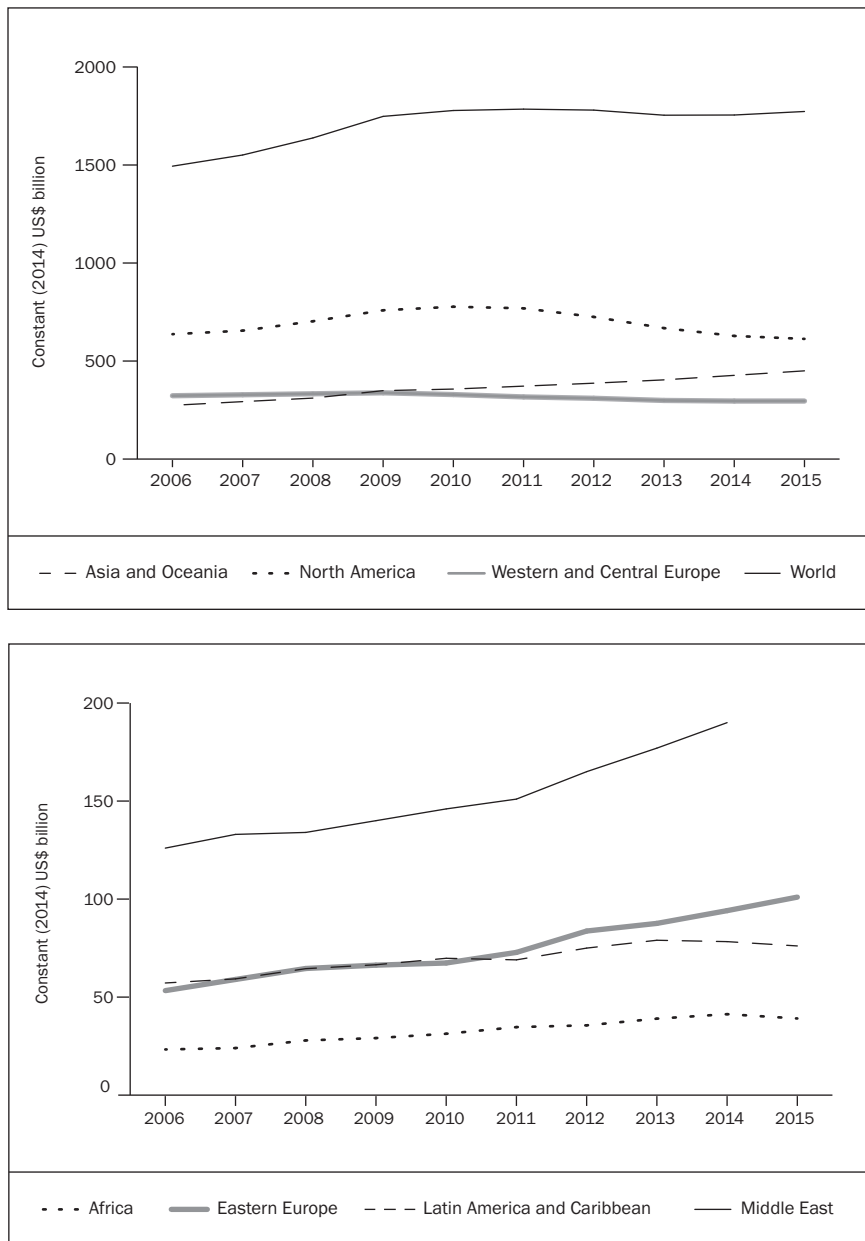


Figure 13.1. World and regional military expenditure, 2006-15

declining by 5.3 per cent, largely due to major cuts by some heavily oil revenue-dependent countries, especially Angola. In Latin America and the Caribbean, a large decrease in spending of 64 per cent by oil revenue-dependent Venezuela was behind the 2.9 per cent overall fall in the regional total. In the

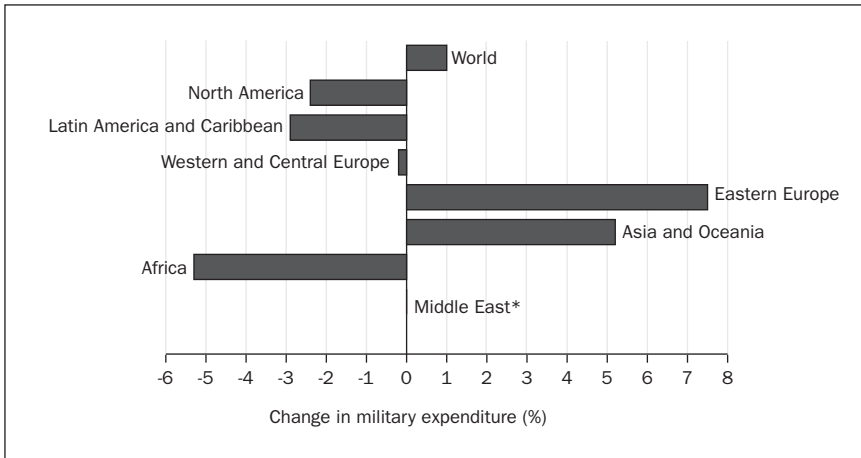


Figure 13.2. Changes in military expenditure, by region, 2014–15

Note: *Military expenditure data for the Middle East in 2015 is highly uncertain. An estimate for the Middle East is included in the estimated world total.

Middle East, spending also either fell or considerably slowed its annual rate of growth in many oil revenue-dependent states, although the ongoing war with the Islamic State (IS) drove a large increase in Iraq.³ Nonetheless, some major oil revenue-dependent states—including Algeria, Russia and Saudi Arabia—continued to make significant increases in military expenditure. Given the continuing falls in oil prices throughout 2015 and early 2016, however, the sustainability of such growth is highly questionable, and Russia and Saudi Arabia are expected to reduce military spending substantially in 2016.

Trends in military expenditure, 2006–15

World military expenditure was 19 per cent higher in 2015 than in 2006. During that period the total, in constant 2014 US dollars, peaked at \$1787 billion in 2011. This total was 20 per cent higher than in 2006 but over 50 per cent higher than in 2001. Since 2011 the annual total has been roughly constant, or very slightly down. The flattening out of the total over the past few years was the result of deficit reduction efforts in the West following the global financial and economic crisis of 2008, combined with the withdrawal of most US troops from Afghanistan and Iraq, which led to significant reductions in spending in North America and Western and Central Europe. These falls were offset however by continued growth in most of the rest of the world.

³ The absence of data for several key countries in the Middle East means that SIPRI does not consider it possible to make a sufficiently reliable estimate of overall regional spending in the Middle East in 2015.

Table 13.2. Key military expenditure statistics by region, 2015

Region/ subregion	Military expenditure, 2015 (US\$ b.)	Change (%) ^a		Major changes, 2015 (%) ^b			
		2014–15	2006–15	Increases		Decreases	
World	1 676	1.0	19				
<i>Africa</i> ^c	(37.0)	-5.3	68	Mali	66	Angola	-42
North Africa	(17.9)	2.1	148	DRC	43	Chad	-35
Sub-Saharan Africa ^c	19.1	-11	30	Kenya	22	South Sudan	-25
				Tanzania	18	Morocco	-7.6
<i>Americas</i> ^d	678	-2.5	-0.8	Uruguay	23	Venezuela	-64
Central America and Caribbean ^d	9.5	3.7	84	Paraguay	21	Bolivia	-18
				Trinidad and Tobago	20	Ecuador	-11
North America	611	-2.4	-3.8			Canada	-3.6
South America	57.6	-4.0	27	Peru	13		
<i>Asia and Oceania</i> ^e	436	5.4	64	Philippines	25	Afghanistan	-19
Central and South Asia ^f	68.0	0.9	44	Indonesia	16	Brunei	
East Asia ^g	302	5.7	75	Australia	7.8	Darussalam	-13
						Sri Lanka	-8.0
Oceania	25.8	7.7	30	Viet Nam	7.6	Papua New Guinea	-5.8
South East Asia	39.7	8.8	57				
<i>Europe</i>	328	1.7	5.4	Lithuania	33	Albania	-13
Eastern Europe	74.4	7.5	90	Poland	22	Italy	-9.9
Western and Central Europe	253	-0.2	-8.5	Cyprus	19	Austria	-9.1
				Slovakia	17	Bulgaria	-4.6
<i>Middle East</i> ^h	..	..	..	Iraq	35	Oman	-10
				Saudi Arabia	5.7	Bahrain	-5.0
				Egypt	5.4	Israel	-3.3

() = uncertain estimate; [] = estimated figure; b. = billion; DRC = Democratic Republic of the Congo.

^a Changes are in real terms.

^b The list shows the countries with the largest increases or decreases for each region as a whole, rather than by subregion. Countries with military expenditure in 2015 of less than \$100 million, or \$50 million in Africa, are excluded.

^c Figures exclude Eritrea, Somalia and Sudan.

^d Figures exclude Cuba.

^e Figures exclude North Korea, Turkmenistan and Uzbekistan.

^f Figures exclude Turkmenistan and Uzbekistan.

^g Figures exclude North Korea.

^h No SIPRI estimate for the Middle East is available for 2015. A rough estimate for the Middle East (excluding Syria) is included in the world total.^c The figures for the UAE are for 2014, as no data is available for 2015. The percentage change is from 2006 to 2014.

The largest increases in expenditure over the period 2006–15 were in North Africa (148 per cent), principally due to Algeria's oil revenue-funded spending, along with regional tensions and conflicts; Eastern Europe (90 per

cent), spurred by Russia's rearmament programme and the crisis in Ukraine; Central America (83 per cent), driven by the war with drug cartels; and East Asia (75 per cent), the result of China's economic growth and regional power aspirations (see table 13.2). Only two sub-regions cut military spending in this period: North America (3.8 per cent) and Western and Central Europe (8.5 per cent).

Regional trends

Europe

European military expenditure increased by 1.7 per cent in 2015 to \$328 billion, 5.4 per cent higher than in 2006. Spending in Western and Central Europe was \$253 billion in 2015, down 0.2 per cent on 2014 and down 8.5 per cent compared with 2006. Expenditure in Eastern Europe was \$74.4 billion, up 7.5 per cent on 2014 and up 90 per cent compared with 2006.

There were signs in 2015 that the austerity-driven decline in military expenditure in Western and Central Europe that has held sway since 2010 may be coming to an end (see box 13.1). While military spending in Western Europe continued to fall, by 1.3 per cent in 2015, for the first time since 2009 the number of countries in the subregion that increased expenditure was higher than the number of those that reduced spending. Meanwhile, military expenditure in Central Europe rose for a second consecutive year, by 13 per cent, with a clear majority of countries increasing spending. Total spending in Central Europe in 2015 was slightly higher than its previous peak in 2007.

In Central Europe, increases in military spending were most apparent in the countries that form the North Atlantic Treaty Organization's (NATO) 'eastern flank', those which feel most threatened by Russian actions in Ukraine. Poland increased spending by 22 per cent to \$10.5 billion in line with its 10-year \$40 billion military modernization plan.⁴ Polish military spending in 2015 amounted to 2.2 per cent of GDP by SIPRI's definition—or 2.0 per cent by NATO's definition. Poland thus met NATO's annual military spending target of 2.0 per cent of GDP. Romania's spending grew by 11 per cent to \$2.5 billion, and it declared its intention, agreed by all parliamentary parties, to reach the NATO target of 2.0 per cent of GDP by 2017 (it was 1.4 per cent in 2015).⁵ Romania's initial defence budget for 2016 shows a further rise of 53 per cent in nominal terms and around the same in real terms.⁶ This is likely to put Romania close to the 2.0 per cent of GDP thresh-

⁴ For further details see Perlo-Freeman, S. and Wezeman, S. T., 'Military spending in Europe in the wake of the Ukraine crisis', *SIPRI Yearbook 2015*.

⁵ Tudor, R., 'Romania to spend 2% of GDP on defence by 2017', *Jane's Defence Weekly*, 21 Jan. 2015.

⁶ Romanian Ministry of Finance, 'Legea bugetului de stat pe anul 2016' [State Budget 2016], 941/19.XII.2015, Dec. 2015.

Box 13.1. The UK's Strategic Defence and Security Review 2015

The United Kingdom signalled the end of cuts to military spending with the publication of the Strategic Defence and Security Review (SDSR) in 2015.^a The review set out a wide range of military and non-military threats to the UK, and a range of policy instruments—military, security, cyber, intelligence and overseas aid-related—to combat them. On the military side, it pledged a real terms increase in the defence budget each year in 2015–20, to maintain military spending at the North Atlantic Treaty Organization (NATO) target of 2 per cent of gross domestic product (GDP), and recommitted to a real increase of 1 per cent in the equipment budget each year. In addition, an annual joint security and defence fund of £1.5 billion (\$2.1 billion) will be created, from which the British Ministry of Defence will be able to draw, as will other security agencies. The size of the regular army will not fall below the 82 000 level noted in the 2010 SDSR, and the size of the deployable expeditionary force, from the army, navy and air force, will be increased from 30 000 to 50 000 by 2025. An extra squadron of 12 F-35s, and 2 extra squadrons of Typhoon combat aircraft are to be ordered, as well as 9 new maritime patrol/anti-submarine warfare aircraft, as part of £178 billion (\$255 billion) to be spent on military equipment acquisitions, maintenance and support over the next 10 years. This includes an estimated £31 billion (\$44 billion) on four new nuclear-powered ballistic missile submarines to replace the current Vanguard submarines carrying the UK's Trident nuclear missiles.^b

The 2015 SDSR also sets out non-military responses to security threats, including spending £2.5 billion (\$3.6 billion) over an unspecified period to recruit 1900 additional intelligence and counterterrorism operatives around the world, and maintaining the official development assistance budget at 0.7 per cent of GDP, of which half is to be spent in fragile and conflict-affected states.

^a British Government, National Security Strategy and Strategic Defence and Security Review 2015: A Secure and Prosperous United Kingdom, CM9161 (The Stationery Office: Norwich, Nov. 2015).

^b See chapter 16, section III, in this volume.

old. Meanwhile, Slovakia's spending grew by 17 per cent, and the Baltic states—Estonia, Latvia and Lithuania—increased military expenditure by 6.6, 14, and 33 per cent respectively. Estonia's and Lithuania's spending levels in 2015 were at similar levels to the peak spending years (2007 and 2008 respectively) recorded before the start of the global economic crisis. However, Latvia's spending in 2015 remained 43 per cent lower than in 2007.

In Eastern Europe, Russia's military expenditure in 2015 was 4.0 trillion roubles (\$66.4 billion), up 7.5 per cent from 2014, and up 91 per cent compared with 2006. The economic crisis linked to falling oil and gas prices and the economic sanctions imposed by the European Union and the USA that hit Russia in 2014 continued in 2015, leading to dramatically reduced government revenues and a major devaluation of the rouble.⁷ The government was forced to use its reserves to fund the budget.⁸ It also cut budgeted government spending early in 2015 by 10 per cent across all departments except

⁷ TASS, 'Russian Finance Ministry to review 2016 budget in Q1 due to lower oil prices', 12 Jan. 2016.

⁸ Guriev, S., 'Russia's military spending is out of control', *Moscow Times*, 19 May 2015.

the military. However, the military budget was later cut too, leaving military expenditure 3 per cent lower in 2015 than originally planned.⁹

Further falls in the price of oil, from the \$50 per barrel level on which the 2016 budget plan was based to \$29 per barrel by the end of 2015, put additional pressure on the 2016 budget.¹⁰ The planned defence budget for 2016 is just under 4.0 billion roubles (\$51.3 billion), slightly less than actual spending in 2015 but a real terms fall of about 9 per cent given the high projected level of inflation in 2016. In particular, the 'state defence order', the budget for procurement of new equipment, is planned to be 9.6 per cent lower in 2016 than the actual level for 2015.¹¹ This may have an impact on Russia's military modernization plan, which aims to replace 70 per cent of the armed forces' equipment with new weaponry by 2020. Some acquisition programmes have been curtailed or delayed due to the economic situation. This includes the flagship fifth generation T-50 combat aircraft; the planned acquisition by 2020 has been reduced from 52 to 12.¹² Russia's intervention in Syria since September 2015 has also added unplanned costs, although these are probably low when compared with the total military budget.¹³

Ukraine's military expenditure in 2015 was 79 billion hryvnias (\$3.6 billion), a rise in real terms of 10 per cent compared with 2014. As fighting with rebel forces in eastern Ukraine continued, the military budget was revised upwards several times in 2015.¹⁴ Ukraine's military expenditure has grown by 61 per cent since 2006, which includes a 34 per cent increase since 2013 alone, due to the conflict.

Armenia and Azerbaijan, locked in conflict over the region of Nagorno-Karabakh, have both increased military spending rapidly since 2006. Azerbaijan's military expenditure was \$3.0 billion in 2015, 165 per cent higher in real terms than in 2006.¹⁵ Armenia's spending was much lower at \$447 million in 2015, an increase of 71 per cent compared with 2006. Azerbaijan acquired large amounts of new weapons between 2006 and 2015.¹⁶ Its expenditure during that period has been supported by economic growth,

⁹ Russian Federal Treasury, [Implementation of the budget: federal budget], 9 Feb. 2016 (in Russian).

¹⁰ TASS (note 7).

¹¹ Russian Ministry of Finance, [2016 Federal Budget, Federal Law no. 359-FZ], 14 Dec. 2015 (in Russian).

¹² Safronov, I., 'Russian Air Force to buy fewer PAK FA fighter aircraft', *Russia & India Report*, 25 Mar. 2015.

¹³ Hobson, P., 'Calculating the cost of Russia's war in Syria', *Moscow Times*, 20 Oct. 2015. See chapter 2 in this volume.

¹⁴ For further details of Ukrainian spending in 2014 see Perlo-Freeman and Wezeman (note 4). See also chapter 4, section III, in this volume.

¹⁵ There are, however, some doubts about the level of Azerbaijan's spending. It may have been overstated by as much as \$1 billion annually for some years in order to intimidate Armenia into concessions over Nagorno-Karabakh. Danielyan, E., 'Azerbaijan plans more modest defense budget in 2016', *Azatutyun*, 28 Dec. 2015.

¹⁶ See chapter 15, section I, in this volume.

largely based on high oil prices, but this spending pattern is likely to change in 2016. Preliminary budget documents for 2016 indicate a much reduced total government budget, which includes significant cuts to the military budget.¹⁷

Asia and Oceania

Military spending in Asia and Oceania amounted to \$436 billion in 2015, an increase of 5.4 per cent over 2014. China had by far the highest military expenditure in the region: an estimated \$215 billion, or 49 per cent of regional spending. This was more than four times that of India, which was the second-largest spender in Asia and Oceania. Five of the top 15 countries with the highest military expenditure in 2015 are in Asia and Oceania: China, India, Japan, South Korea and Australia.

Regional spending rose by 64 per cent between 2006 and 2015, with almost all countries in the region increasing their spending.¹⁸ However, the rate of growth varied widely: Afghanistan, New Zealand and Singapore each grew by around 9 per cent compared with China and Indonesia which grew by 132 and 150 per cent, respectively. Only Fiji recorded a significant decrease between 2006 and 2015 (–23 per cent). Japan's spending fell very slightly over the period (by 0.5 per cent). However, Japan began to boost spending in 2015, a signal that there is a growing perception in Japan of an increasing threat from China and North Korea.¹⁹

In general, Asian states continued to modernize their military capabilities in 2015. The tensions between China and Japan over maritime claims in the East China Sea remained heightened in 2015. There were also rising tensions between China and several countries in South East Asia over claims in the South China Sea. Many countries in Asia are therefore focusing heavily on procurement of air and naval weapons (see section III).²⁰

India's total military spending in 2015 was estimated to be 3.3 trillion rupees (\$51.3 billion), a fall of 1.4 per cent compared with 2014. More than half of the 2015 budget for the armed forces was earmarked for the army. Nevertheless, in relative terms, the budgets for the air force and navy have grown at a higher rate between 2006 and 2015 than the army's budget. India has many large ongoing or planned procurement programmes. However, despite an increase of 13.5 per cent (8 per cent in real terms) in the 2016 budget, some Indian commentators have argued that spending on procure-

¹⁷ Caffrey, C., 'Azerbaijan to cut spending by 40%', *Jane's Defence Weekly*, 3 Feb. 2016, p. 13.

¹⁸ Data is not available for 2006–15 for North Korea, Turkmenistan or Uzbekistan. The data for Tajikistan is incomplete but indicates an increase. The datasets for Laos and Myanmar are incomplete, which makes it impossible to determine clear trends.

¹⁹ Japanese Ministry of Defence (MOD), 'Foreword', *Defense of Japan 2015*, White Paper (Japanese MOD: 2015).

²⁰ See chapter 15, section I, in this volume.

ment is too low to keep these programmes on track.²¹ Pension costs are also a severe burden on the budget. These were 629 billion rupees (\$9.7 billion) in 2015—more than either the air force or navy budgets.²²

Afghanistan reduced spending by 19 per cent to \$217 million in 2015, which might seem surprising at a time when Afghan forces are taking on more responsibility for security as international forces withdraw. However, Afghanistan continues to fund its armed forces mainly from the military aid it receives in kind and funding from foreign donors. This included \$4.1 billion from the USA and \$1.25 billion from other countries in 2015.²³

Latin America and the Caribbean

Military expenditure in Latin America and the Caribbean fell by 2.9 per cent in 2015 to \$67.0 billion, although this is still 33 per cent higher than in 2006. In South America, military spending was down 4.0 per cent compared with 2014, but up 27 per cent compared with 2006. In Central America and the Caribbean total military spending was \$9.5 billion, up 3.7 per cent on 2014 and up by 84 per cent compared with 2006.

The fall in South America was the result of a 64 per cent cut in Venezuela's military budget. If Venezuela is excluded from the calculations, total military expenditure in South America rose slightly in 2015. Venezuela is in the midst of a severe economic crisis, largely caused by the fall in the price of oil but exacerbated by corruption.²⁴ According to projections produced by the International Monetary Fund, Venezuela's real GDP was predicted to fall by 10 per cent in 2015, with inflation reaching 159 per cent.²⁵ The budgeted military expenditure figure should therefore be treated with caution, as actual spending may have been substantially higher than budgeted due to the very high level of inflation.

Ecuador, where military spending more than quadrupled between 2000 and 2014 as the country began to benefit from surging oil revenues, cut spending by 11 per cent in 2015. Brazil's military expenditure also fell (by 2.2 per cent) as the country experienced economic recession. Several other South American countries, however, increased their military spending significantly in 2015, including Colombia (9.3 per cent), Paraguay (21 per cent),

²¹ Gady, F-S., 'Is India's defense budget adequate?', *The Diplomat*, 3 Mar. 2015; and Behera, L. K., *India's Defence Budget, 2015–16* (Institute for Defence Studies and Analyses: New Delhi, 2015), pp. 5–8.

²² Gady (note 21); Behera (note 21); Choudhury, S., 'India increases military budget by 11% to nearly \$40 billion: South Asian nation looks to expand and modernize armed forces', *Wall Street Journal*, 28 Feb. 2015; and Miglani, S., 'India raises defence budget modestly as it confronts China challenge', Reuters, 28 Feb. 2015.

²³ Katzman, K., *Afghanistan: Post-Taliban Governance, Security and US Policy*, Congressional Research Service (CRS) Report for Congress RL30588 (US Congress, CRS: Washington, DC, 17 Feb. 2016), p. 32.

²⁴ See e.g. Schipani, A., 'Venezuela: "ours is a nation of thugs"', *Financial Times*, 30 Nov. 2015.

²⁵ International Monetary Fund (IMF), *World Economic Outlook Database*, Oct. 2015.

Box 13.2. Honduras: the militarization of internal security

Honduras had the highest rate of increase in military expenditure in Central America between 2006 and 2015. Spending rose by 186 per cent in that time, although there was only a marginal increase of 0.5 per cent between 2014 and 2015. The government has approved a further increase for the main defence budget of 24 per cent in nominal terms (about 17 per cent in real terms) for 2016.

The government drafted in the military to help to fight drug gangs in 2012, with President Juan Hernandez vowing to put a ‘soldier on every corner’.^a In 2013 a new military police force, the Public Order Military Police (Policía Militar del Orden Público, PMOP), was created within the armed forces. The PMOP is financed by the Population Security Tax (Tasa de Seguridad Poblacional), which was instituted in 2012 and also funds equipment and supplies such as uniforms for the police and military.^b As of 30 November 2015, 8.3 billion lempiras (\$356 million) had been raised through the tax and additional external sources of credit, of which 41 per cent had been allocated to the Ministry of Defence, 28 per cent to the Ministry of Security, 17 per cent to the National Directorate of Intelligence and Investigations and 14 per cent to other institutions.^c In addition to the Population Security Tax, the 2015 defence budget allocated 739 million lempiras (\$36 million) for internal security operations.

Some observers credit the involvement of the military in anti-drug activities as a factor behind the fall in the murder rate in Honduras. In 2012 Honduras had the world’s highest annual intentional murder rate—90.4 intentional murders per 100 000 inhabitants, compared with the global average of 5.7 and an average for Latin America and the Caribbean of 24.4. The rate declined to 68 per 100 000 inhabitants in 2014—still the second-highest in the world, narrowly behind El Salvador. However, the militarization of the drug war has also led to an upsurge in allegations of human rights abuses, including cases of murder, torture, illegal detention, rape, kidnapping and extortion.^d

^a Reuters, ‘Military helps cut Honduras murder rate, but abuses spike’, 9 July 2015.

^b Ley de seguridad poblacional [Population security law], Decree no. 105-2011, 24 June 2011.

^c Government of Honduras, ‘Tasa de seguridad poblacional: informe de actividad 2012 a 30 de Noviembre 2015’ [Population security tax: information on activity from 2012 to November 2015]. The sums allocated to defence each year have been included in the SIPRI military expenditure figures. The total for 2015 has been estimated based on the sum allocated for the first 11 months.

^d Reuters (note a).

Peru (13 per cent) and Uruguay (23 per cent). Argentina’s military spending appeared to rise by 7.8 per cent, but this figure should be treated with caution as it is based on highly uncertain inflation data, which has been systematically falsified and underestimated by the Argentinian authorities in recent years.²⁶

In Central America, military spending trends are driven by the desire of governments to counter the extreme levels of violent organized crime that has resulted in the region having some of the highest murder rates in the

²⁶ International Monetary Fund (IMF), Statements by the IMF Executive Board on Argentina, Press Release 13/497, 9 Dec. 2013; Press Release 14/577, 15 Dec. 2014; and Press Release 15/252, 3 June 2015. See also ‘Don’t lie to me, Argentina’, *The Economist*, 25 Feb. 2012.

world (see box 13.2). Military forces have become increasingly involved in combating drug gangs and cartels, as police forces have been unable to deal with the problem.²⁷ However, some critics are opposed to the growing militarization of the war on drugs. Carina Solmirano of the Inter-American Development Bank argues that involving the military in anti-drugs efforts not only risks human rights abuses, but also undermines democracy by (a) giving the military a significant internal role, and (b) reversing progress on citizen security based on prevention strategies, including police and prison reform, youth work, and rehabilitation and reintegration programmes.²⁸

Africa

African military expenditure fell by 5.3 per cent in real terms in 2015 to an estimated \$37.0 billion.²⁹ This ends 11 consecutive years of rising spending up to 2014. Nonetheless, total expenditure in Africa remained 68 per cent higher than in 2006. Military spending in North Africa was \$17.9 billion in 2015, up by 2.1 per cent compared with 2014 and up by 148 per cent compared with 2006, while that in sub-Saharan Africa was \$19.1 billion, down 11 per cent from 2014 but still 30 per cent higher than in 2006.

The spending trend in sub-Saharan Africa in 2015 was dominated by a 42 per cent decrease in Angola, which nonetheless remained the highest spender in sub-Saharan Africa and the second-highest in Africa, with a total annual spend of \$3.6 billion. Angola's spending rose by 270 per cent between 2002 and 2014, funded by booming oil revenues. Income from oil sales accounts for around 70 per cent of government revenue and the fall in the price of oil that began in late 2014 has forced the government to make substantial cutbacks. Indeed, mid-2015 budget cuts resulting from the continuing fall in the price of oil might reduce the final total even further.³⁰ While some analysts have suggested that defence and security spending may have been less affected by those cuts than other areas, some planned arms acquisitions have been postponed.³¹

Chad's military expenditure rose sharply and then fell steeply between 2006 and 2015. Spending grew tenfold between 2005 and 2009. The country was embroiled in civil war during that period, while at the same time its

²⁷ See e.g. Perlo-Freeman, S., Wezeman, P. D. and Wezeman, S. T., 'Global developments in military expenditure', *SIPRI Yearbook 2015*, pp. 339–52.

²⁸ Solmirano, C., 'Los riesgos de militarizar la respuesta a la inseguridad en América Latina' [The risks of militarizing the response to insecurity in Latin America], Inter-American Development Bank blog, 17 Feb. 2016.

²⁹ This total excludes Eritrea, Somalia and Sudan, for which it was considered impossible to make a reliable series of estimates for inclusion in the regional total.

³⁰ Maussion, E., 'Africa's second biggest oil producer has resorted to painful austerity measures', Agence France-Press, 25 Jan. 2015; and Sanchez, D., 'How bad is the oil slump in Angola? IMF is going there to find out', *AFK Insider*, 14 Aug. 2015.

³¹ Sanchez (note 30); and McClelland, C., 'Angola at peace is sub-Saharan Africa's top defense spender', *Bloomberg*, 12 June 2015.

Box 13.3. Saudi Arabia's military spending: an absence of transparency

Saudi Arabia is by far the largest military spender in the Middle East, and became the third-highest spender in the world in 2015. Its military expenditure almost doubled during the period 2006–15 from \$43.3 billion to \$87.2 billion (2014 prices). However its military expenditure figures are uncertain. The government only publishes the initial budget for 'defence and security'. However, over the period 2010–14 total actual annual government spending has on average been 31 per cent higher than budgeted for.^a No breakdown of actual expenditure has been made public, but in 2015 it was reported that 17 per cent of the overspend came from an increase of 20 billion riyals (\$5.3 billion) in military and security spending due to the Saudi military intervention in Yemen.^b In addition, an unspecified increase in military expenditure resulted from additional salaries for military personnel.

In December 2015 Saudi Arabia announced a 2016 budget of 213.4 billion riyals (\$57 billion) for defence and security, a 29 per cent decrease on estimated actual military spending in 2015.^c This reduction is part of overall cuts in government spending in response to the sharp decrease in oil prices in 2015. However, a budget support provision of 183 billion riyals (\$49 billion) was established to provide flexibility for funding unidentified projects and emerging expenditure needs. It is possible that part of these funds could be used for military expenditure.

^a Saudi Ministry of Finance, Statements about the national budget for 2011–15 are available at: <<https://www.mof.gov.sa/english/downloadscenter/pages/budget.aspx>>.

^b Saudi Ministry of Finance, 'Recent economic developments and highlights of fiscal years 1436/1437 (2015) & 1437/1438 (2016)', Press release, 28 Dec. 2015; and 'Saudi security spending rises \$5.3 billion in 2015: minister', Reuters, 28 Dec. 2015.

^c The SIPRI figure for Saudi Arabia in 2015 includes the extra spending in Yemen, but does not attempt to estimate other elements of military spending in the overspend, such as military salaries.

government's revenues increased thanks to growing oil exports. However, Chad's military expenditure decreased by 66 per cent between 2013 and 2015 due to the combination of falling oil prices and the end of the civil war. This substantial reduction in spending comes despite Chad's involvement in military action against Boko Haram in Nigeria and rebel groups in Mali in 2013–15.

Regional conflicts have had an impact on military expenditure in sub-Saharan Africa. Mali increased its spending by 66 per cent in 2015, faced with continuing violence from armed groups linked to IS. The Democratic Republic of the Congo's military expenditure also rose (by 43 per cent) in 2015. It has more than doubled its spending between 2006 and 2015, as conflict and instability persisted in the east of the country. Kenya, which has been heavily involved in the conflict in Somalia, increased its military expenditure by 50 per cent between 2006 and 2015, including a 22 per cent rise in 2015.

Nigerian military expenditure decreased by 2.5 per cent between 2014 and 2015, despite its ongoing military operations against Boko Haram. However, in late 2015 investigations into allegations of large-scale embezzlement of military procurement funds raised questions about the accuracy of published military expenditure figures in Nigeria. An interim report by the

committee investigating the fraud claims that it has identified extra-budgetary ‘interventions’ of at least 644 billion naira (\$3.4–5.1 billion) over the period 2007–15 and a further \$2.2 billion in funding in foreign currency.³² Average annual military spending was \$2.4 billion during these years. If the reported figures are proved correct, actual total Nigerian military spending would have been around 28 per cent higher than reported in the public accounts. Although the main sources of the extra-budgetary funding remain largely unclear, a source was revealed in one case. Former Nigerian Minister of Finance Ngozi Okonjo-Iweala stated that in January 2015 the Ministry of Finance had transferred \$322 million to the Nigerian National Security Adviser for military procurement. The funding came from money that had been embezzled and transferred to foreign bank accounts by President Sani Abacha during his presidency between 1993 and 1998, and had been returned to Nigeria in January 2015.³³

The Middle East

SIPRI is not publishing an estimate for the Middle East for 2015 as data for 2015 is unavailable for several countries—namely Kuwait, Qatar, Syria, the United Arab Emirates (UAE) and Yemen. Regional totals compiled by SIPRI often include estimates when data for certain countries is missing. However, this approach would have produced highly uncertain data for the Middle East in 2015 given the large number of countries for which information is unavailable, the size of their respective share of total regional spending and the volatile regional situation. For those countries for which data is available, military expenditure increased by 4.1 per cent in 2015 (for details of Saudi Arabia’s military expenditure see box 13.3).

Iran is one of the states in the Middle East for which data is available for 2006–15.³⁴ Iran’s official military spending decreased by 30 per cent between 2006 and 2015. The fall occurred mainly in 2012–13, after the European Union imposed a series of economic and financial sanctions against Iran in January 2012. In 2015 these sanctions, and similar sanctions earlier imposed by the USA in relation to Iran’s nuclear programme, were lifted leading to expectations that this would give the Iranian economy a significant boost, potentially also triggering a rise in military expenditure.³⁵ Iran’s Sixth Development Plan, announced in June 2015, stated that 5 per cent of the public budget should be allocated to defence.³⁶ In the government budget for

³² Office of the President of Nigeria, ‘President Buhari receives interim report of investigative committee on arms procurement, orders arrest of indicted persons’, 17 Nov. 2015.

³³ Hamisu, M., ‘Okonjo-Iweala: I paid Dasuki \$322m from Abacha fund’, *Daily Trust*, 11 Dec. 2015.

³⁴ Data for Iran is available for all years currently covered by SIPRI’s Military Expenditure Database (1988–2015).

³⁵ See chapter 3 in this volume.

³⁶ Qaidaari, A., ‘More planes, more missiles, more warships: Iran increases its military budget by a third’, *Al-Monitor*, 13 July 2015.

Table 13.3. The 15 countries with the highest military expenditure in 2015

Spending figures are in US\$, at current prices and exchange rates. Countries are ranked according to military spending calculated using market exchange rates. Figures may not add up to stated totals due to the conventions of rounding.

Rank		Country	Spending, 2015 (\$ b., MER)	Change, 2006–15 (%)	Share of GDP (%) ^b		World share, 2015 (%)	Spending, 2015 (\$ b., PPP) ^c
2015	2014 ^a				2015	2006		
1	1	USA	596	-3.9	3.3	3.8	36	596
2	2	China	[215]	132	[1.9]	[2.0]	[13]	[377]
3	4	Saudi Arabia	87.2	97	13.7	7.8	5.2	232
4	3	Russia	66.4	91	[5.4]	[3.5]	[4.0]	188
5	6	UK	55.5	-7.2	2.0	2.2	3.3	52.0
Subtotal top 5			1 020	..	..	..	61	..
6	7	India	51.3	43	2.3	2.5	3.1	187
7	5	France	50.9	-5.9	2.1	2.3	3.0	55.7
8	9	Japan	40.9	-0.5	1.0	1.0	2.4	48.0
9	8	Germany	39.4	2.8	1.2	1.3	2.4	45.0
10	10	South Korea	36.4	37	2.6	2.5	2.2	48.8
Subtotal top 10			1 239	..	..	..	74	..
11	11	Brazil	24.6	38	1.4	1.5	1.5	44.9
12	12	Italy	23.8	-30	1.3	1.7	1.4	28.6
13	13	Australia	23.6	32	1.9	1.8	1.4	21.8
14	14	UAE ^d	[22.8]	136	[5.7]	[3.2]	[1.4]	[43.1]
15	15	Israel	16.1	2.6	5.4	7.5	1.0	15.3
Subtotal top 15			1 350	..	..	..	81	..
World			1 676	19	2.3	2.3	100	..

[] = estimated figure; .. = data not available or applicable; b. = billion; GDP = gross domestic product; MER = market exchange rates; PPP = purchasing power parity; UAE = United Arab Emirates.

^a Rankings for 2014 are based on updated military expenditure figures for 2014 in the current edition of the SIPRI Military Expenditure Database. They may therefore differ from the rankings for 2014 given in *SIPRI Yearbook 2015* and in other SIPRI publications in 2015.

^b The figures for military expenditure as a share of gross domestic product (GDP) are based on estimates of 2015 GDP from the International Monetary Fund (IMF) World Economic Outlook Database, Oct. 2015.

^c The figures for military expenditure at purchasing power parity (PPP) exchange rates are estimates based on the projected implied PPP conversion rates for each country from the IMF World Economic Outlook Database, Oct. 2015.

^d The figures for the UAE are for 2014, as no data is available for 2015. The percentage change is from 2006 to 2014.

Source: SIPRI Military Expenditure Database, and International Monetary Fund, World Economic Outlook Database, Oct. 2015, <<https://www.imf.org/external/pubs/ft/weo/2015/02/weodata/index.aspx>>.

2016 4 per cent of the public budget was allocated to defence, against 3.7 per cent in the original budget for 2015.³⁷

The largest military spenders in 2015

The list of the 15 largest military spenders worldwide in 2015 contains the same countries as in 2014, but with a number of changes in order (see table 13.3).³⁸ Many of these changes relate to exchange rate movements. Thus, the heavy fall in the value of the Russian rouble—from 38.4 roubles to the US dollar in 2014 to 60.9 in 2015—has seen Russia fall to fourth position despite a substantial real-terms increase in military spending, while Saudi Arabia, which has a fixed exchange rate, rose to third. Similarly, a heavy fall in the value of the euro is partly behind the United Kingdom moving above France into fifth place, and Japan above Germany to eighth. The rise of Saudi Arabia to being the world's third-largest military spender, above three permanent members of the United Nations Security Council, is nonetheless remarkable. Saudi Arabia was only the ninth largest spender as recently as 2008. The rapid growth in Saudi Arabia's military spending is reflected in its recent willingness to use military force directly in both Yemen and Syria.³⁹

As in previous years, the top 15 list shows a number of different groupings of countries in terms of trends in military spending since 2006. China, Russia, Saudi Arabia and the UAE feature in the grouping that has made very large increases in 2006–15. Emerging powers, such as Brazil, India and South Korea, fall within the grouping that has made more modest increases, along with Australia. Other Western-oriented countries are part of the grouping that has remained static or in which there has been a reduction in spending to varying degrees in 2006–15. These countries include the USA, France, Germany, Israel, Italy, Japan and the UK.

³⁷ Management and Planning Organization of Iran (MPO), [Country Budget for the Year 1395 (2016–17)] (MPO: 2015) (in Farsi).

³⁸ In *SIPRI Yearbook 2015* Turkey was shown as being 15th in 2014. However, based on new data, Israel was 15th in both 2014 and 2015.

³⁹ See chapter 4, section II, and chapter 15, section II, in this volume.