

## 8. Military expenditure

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### I. Introduction

World military expenditure in 2005 is estimated to have reached \$1001 billion at constant (2003) prices and exchange rates, or \$1118 billion in current dollars. This represents 2.5 per cent of world gross domestic product (GDP)<sup>1</sup> and \$173 per capita.<sup>2</sup> The trend in world military expenditure, an increase in real terms of 3.4 per cent since 2004 and 34 per cent since 1996, is mainly determined by the rapidly increasing military spending of the United States, which is by far the biggest spender in the world, accounting for 48 per cent of the world total.

Together, the 15 countries with the highest military spending in 2005 account for 84 per cent of the world total. In spite of pressure on national budgets, it is likely that at least four of the five highest spenders will increase their military expenditure in the coming years. The USA, France and the United Kingdom are all involved in costly overseas military operations that demand resources in both the short and long terms. In addition, France and the UK are in the midst of military reform processes and have also sought new, private, ways of financing or deferring the cost of major procurement deals. China is engaged in a long-running modernization of the People's Liberation Army (PLA) that has caused a rapid increase in military spending since 1998 and that shows little sign of slowing down.

A striking trend during the past few years has been that of countries with rising revenues from natural resources, such as gas, oil and metals, that have formally or informally diverted these funds into military spending, in particular into arms purchases. This is probably why the Middle East, together with North America, was the region with the greatest increase in military expenditure in 2005. Eastern Europe also increased its military spending in 2005 while in Western Europe a general downward trend can be observed.

This chapter analyses military expenditure for 2005 and sets it in the context of the main developments during the past decade.<sup>3</sup> Section II analyses trends

<sup>1</sup> This share of GDP is based on a projected figure for world GDP in 2005 of \$43 886 billion at market exchange rates. International Monetary Fund (IMF), *World Economic Outlook, September 2005: Building Institutions* (IMF: Washington, DC, 2005), URL <<http://www.imf.org/external/pubs/ft/weo/2005/02/>>, Statistical appendix, table 1, 'Summary of world output', p. 205.

<sup>2</sup> This per capita average is based on an estimated total world population of 6465 million in 2005. United Nations Population Fund (UNFPA), *State of the World Population 2005* (UNFPA: New York, N.Y., 2005), URL <<http://www.unfpa.org/swp/>>.

<sup>3</sup> Developments in the uses and availability of military expenditure data over the past 40 years are described in chapter 7 in this volume.

in military expenditure by organization and income group. In section III the spending of the 15 countries with the highest military expenditure is analysed, with a focus on the top five. Section IV looks at recent developments in the different regions of the world and sets their military expenditure in an economic and security context. Section V contains brief conclusions.

Appendix 8A presents SIPRI data on military expenditure for 166 countries for the 10-year period 1996–2005. World and regional totals in constant (2003) US dollars are provided in table 8A.1. Country data are provided in three formats: in local currency at current prices (table 8A.2); in constant (2003) US dollars (table 8A.3); and as a share of GDP (table 8A.4). Appendix 8B presents spending by members of the North Atlantic Treaty Organization (NATO) disaggregated into procurement and personnel expenditure by country for the period 2000–2005. Appendix 8C presents the sources and methods for SIPRI's military expenditure data and appendix 8D provides statistics on governments' reporting of their military expenditure to SIPRI, the United Nations (UN) and other organizations. Appendix 8E discusses problems involved in the conversion of economic data into dollars and the choice between purchasing power parity (PPP) rates and exchange rates for this conversion, a choice that can make up to a tenfold difference in a country's (apparent) spending levels.

## II. Military expenditure by region, organization and income group

SIPRI military expenditure data and estimates of world and regional military expenditure as presented in appendix 8A and table 8.1 reflect information as reported by governments. The estimates of world and regional military expenditure are underestimates. There are four major reasons for this. First and perhaps most significantly, not all entities that spend money for military purposes are included in the SIPRI estimates. SIPRI military expenditure data do not include spending by non-governmental actors, and spending by some governments is also left out owing to lack of data or lack of consistent data.<sup>4</sup> Second, rather than not disclosing their military spending at all, some states conceal parts of it, causing underreporting.<sup>5</sup> Inaccuracies can also be caused by lack of capacity within the government, a weakness that is prevalent in developing countries.<sup>6</sup> Third, some armed forces generate their own quite substantial revenues that are not always accounted for in the budget and some-

<sup>4</sup> Some countries are excluded because of lack of data or of consistent time series data. In Africa, Angola, Benin, Equatorial Guinea and Somalia are excluded; in the Americas, Cuba, Haiti, and Trinidad and Tobago are excluded; in Asia, Myanmar and Viet Nam are excluded; and in the Middle East, Iraq and Qatar are excluded. World totals exclude all these countries.

<sup>5</sup> On transparency in the arms life cycle, including military expenditure, see chapter 6 in this volume.

<sup>6</sup> Omitoogun, W., *Military Expenditure Data in Africa: A Survey of Cameroon, Ethiopia, Ghana, Kenya, Nigeria and Uganda*, SIPRI Research Report no. 17 (Oxford University Press: Oxford, 2003); and Omitoogun, W. and Hutchful, E. (eds), *SIPRI, Budgeting for the Military Sector in Africa: The Processes and Mechanisms of Control* (Oxford University Press: Oxford, 2006).

times lie outside government and parliamentary control. This type of off-budget revenue for the armed forces is often connected to the illegal sale of natural resources, drug trade and trafficking or other types of illegal activity, but it can sometimes also reflect quite legal commercial earnings or farming. Fourth, reported figures, at least for the most recent year, only reflect budgeted expenditure. It is common for actual expenditure to be markedly higher than was originally budgeted, but the opposite occasionally occurs as well. When data on actual expenditure become available, the SIPRI data are updated; consequently, the reader is advised to always consult the latest edition of the SIPRI Yearbook.

World military spending in 2005 amounted to \$1001 billion when converted to US dollars using 2003 prices and exchange rates. This represents a real-terms increase over 2004 of 3.4 per cent and of 34 per cent since 1998, when military expenditure was at its lowest level since the end of the cold war. The region where military expenditure increased most in absolute terms in 2005 was North America because of the continued rapid increases in the USA, officially owing to the 'global war on terrorism' and the conflicts in Afghanistan and Iraq.<sup>7</sup> The USA accounted for about 80 per cent or \$26 billion of the total \$33 billion increase in world military expenditure in 2005. Over the decade 1996–2005, US spending increased by \$160 billion and the world total by \$254 billion. The rise of 165 per cent in Chinese military expenditure over the same period only equated to a rise of \$25.5 billion in constant (2003) US dollars.

The region with the highest relative spending increase in 2005 was the Middle East, mostly influenced by a massive increase in Saudi Arabia's defence budget. Total military spending in the Middle East would be substantially higher if the military expenditure of Iraq and Qatar were not excluded owing to lack of consistent data.

The only region with a decrease in military expenditure in 2005 was Europe, with a 1.7 per cent decrease. This reduction was mainly attributable to Western Europe, where spending declined by \$6 billion, or 2.8 per cent. The level of Central European military expenditure did not change while in Eastern Europe it increased by 8.9 per cent; but, as West European military spending accounts for about 86 per cent of total European spending, the result is still a tangible decrease for the whole region. All five West European countries with military expenditure high enough to rank them among the 15 major spenders in 2005 (see table 8.3 below) decreased their defence budgets in 2005. The biggest decreases were in Italy and the UK. Over the 10-year period 1996–2005, however, military expenditure in Europe increased by 8.2 per cent. The only region where total military expenditure has decreased over the decade is Central America, which shows a decrease of 2.5 per cent. Since Mexico accounts for 87 per cent of Central American military spending, the country's

<sup>7</sup> Steve Kosiak claims that a large part of the increase in US spending is accounted for by procurement of military equipment that has very little to do with the war on terrorism. Kosiak, S., 'FY 2006 defense budget request: DOD budget remains on upward trajectory', Center for Strategic and Budgetary Assessment, Washington, DC, 4 Feb. 2005, URL <<http://www.csbaonline.org/>>.

**Table 8.1.** World and regional military expenditure estimates, 1996–2005

Figures are in US\$ b., at constant (2003) prices and exchange rates. Figures in italics are percentages. Figures do not always add up to totals because of the conventions of rounding.

Region <sup>a</sup>	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	Change 96–05
<b>Africa</b>	<b>8.6</b>	<b>8.7</b>	<b>9.4</b>	<b>10.5</b>	<b>11.1</b>	<b>11.1</b>	<b>12.1</b>	<b>11.9</b>	<b>12.6</b>	<b>12.7</b>	<b>+48</b>
North	3.5	3.7	3.8	3.9	4.3	4.4	4.8	5.0	5.6	5.5	+58
Sub-Saharan	5.1	5.0	5.6	6.6	6.8	6.6	7.3	6.9	(7.0)	(7.2)	+42
<b>Americas</b>	<b>347</b>	<b>349</b>	<b>340</b>	<b>341</b>	<b>353</b>	<b>358</b>	<b>399</b>	<b>447</b>	<b>485</b>	<b>513</b>	<b>+48</b>
Caribbean	..	..	..	..	..	..	..	..	..	..	..
Central	3.3	3.4	3.3	3.5	3.6	3.7	3.5	3.4	3.2	3.2	–2
North	328	327	319	320	332	335	375	425	463	489	+49
South	15.7	18.1	17.5	17.1	17.8	19.9	20.4	18.3	18.9	20.6	+31
<b>Asia, Oceania</b>	<b>116</b>	<b>118</b>	<b>119</b>	<b>122</b>	<b>126</b>	<b>132</b>	<b>138</b>	<b>144</b>	<b>152</b>	<b>157</b>	<b>+36</b>
Central	0.5	0.5	(0.5)	0.5	..	(0.6)	(0.6)	(0.6)	(0.7)	(0.8)	(+77)
East	91.0	91.9	92.4	92.9	95.5	101	107	112	116	120	+32
Oceania	8.6	8.8	9.1	9.6	9.5	9.9	10.3	10.6	11.1	11.5	+32
South	15.5	16.5	17.1	19.2	19.9	20.5	20.6	21.2	23.9	25.0	+61
<b>Europe</b>	<b>236</b>	<b>239</b>	<b>234</b>	<b>238</b>	<b>243</b>	<b>243</b>	<b>249</b>	<b>256</b>	<b>260</b>	<b>256</b>	<b>+8</b>
Central	11.6	11.7	11.7	11.4	11.5	12.1	12.3	12.8	12.7	11.7	+10
Eastern	15.6	17.5	11.5	11.9	15.8	17.3	19.1	20.4	21.4	23.3	+50
Western	209	210	210	214	215	214	218	223	226	220	+5
<b>Middle East</b>	<b>39.0</b>	<b>43.4</b>	<b>46.5</b>	<b>45.8</b>	<b>51.5</b>	<b>55.0</b>	<b>52.6</b>	<b>55.0</b>	<b>58.9</b>	<b>(63.0)</b>	<b>(+61)</b>
<b>World</b>	<b>747</b>	<b>756</b>	<b>748</b>	<b>757</b>	<b>784</b>	<b>800</b>	<b>851</b>	<b>914</b>	<b>969</b>	<b>1 001</b>	<b>+34</b>
Change (%)		1.3	–1.1	1.2	3.6	2.0	6.4	7.5	5.9	3.4	

( ) = Total based on country data accounting for less than 90 per cent of the regional total;

.. = Available data account for less than 60 per cent of the regional total.

<sup>a</sup> For the country coverage of the regions, see appendix 8A, table 8A.1. Some countries are excluded because of lack of data or of consistent time series data. Africa excludes Angola, Benin, Equatorial Guinea and Somalia; Americas excludes Cuba, Haiti and Trinidad and Tobago; Asia excludes Myanmar and Viet Nam; and the Middle East excludes Iraq and Qatar. World totals exclude all these countries.

Source: Appendix 8A, tables 8A.1 and 8A.3.

2.0 per cent decrease over the period makes a deep impression on the overall trend, but most of the other countries in the region have also reduced their spending.

It is noteworthy that the members of the Organization of the Petroleum Exporting Countries (OPEC) increased their military spending by 11.2 per cent in 2005, facilitated by extra revenues from high oil prices during the past few years. This trend of resource-facilitated increases can also be seen in Peru and Russia, where a large portion of the increasing national revenue comes from oil and gas, while increasing military expenditure in Chile was almost totally driven by increasing revenues from copper exports. Peru followed in the footsteps of Chile, with a legally mandated allocation of a certain share of revenues from gas production to military spending (see section IV below).

**Table 8.2.** Military expenditure estimates, 1996–2005, by organization and income group

Figures are in US \$b., at constant (2003) prices and exchange rates. Figures in italics are percentages.

Organization/ income group <sup>a</sup>	2000	2001	2002	2003	2004	2005	Change, 1996– 2005 (%)	Military expenditure 2004	
								Per capita (\$)	% GDP
<i>Organization</i>									
ASEAN	11.1	11.7	12.4	13.3	13.3	13.1	+8.2	32.2	1.9
CIS	16.4	17.9	19.7	21.1	22.1	24.1	+50.4	89.5	3.4
European Union	196	196	199	206	219	212	+11.0	478.5	1.9
NATO	539	541	585	642	687	706	+34.5	794.4	2.9
NATO Europe	207	207	211	217	224	217	+10.5	416.6	2.0
OECD	622	625	670	727	768	789	+29.6	659.9	2.5
OPEC	37.1	39.6	36.3	38.0	42.0	46.7	+72.4	81.6	4.0
<i>Income group (by 2003 gross national income per capita)</i>									
Low	24.3	24.6	25.4	25.6	28.3	29.5	+64.2	13.2	2.7
Lower middle	90.5	99.0	105	109	114	122	+59.2	43.4	2.5
Upper middle	42.2	45.2	42.5	43.9	46.7	51.0	+47.7	137.9	2.3
High	627	631	678	736	780	799	+29.3	810.7	2.6

ASEAN = Association of South East Asian Nations; CIS = Commonwealth of Independent States; GDP = Gross domestic product; NATO = North Atlantic Treaty Organization; OECD = Organisation for Economic Co-operation and Development; OPEC = Organization of the Petroleum Exporting Countries; OSCE = Organization for Security and Co-operation in Europe.

<sup>a</sup> For the country coverage of the organizations and income groups see appendix 8A, table 8A.1. Afghanistan, Brunei, Cuba, Haiti, Iraq, North Korea, Romania, Serbia and Montenegro, Somalia, Turkmenistan and Uzbekistan are excluded from the per capita figures because of lack of data on population.

Sources: Appendix 8A, tables 8A.1; **Population:** International Monetary Fund, *International Financial Statistics* database.

Table 8.2 shows that the middle-income countries—further divided into lower-middle and upper-middle incomes—had the highest relative increase in military expenditure in 2005, with increases of 6.7 and 9.1 per cent, respectively. At the same time low- and high-income countries increased spending by 4.1 and 2.5 per cent, respectively. Over the 10-year period 1996–2005, the low-income countries had the highest percentage increase, 64.2 per cent. Even if the 131 low- and middle-income countries are those that are increasing their military expenditure most in relative terms, their total spending accounts for only one-fifth of total world spending while the 35 high-income countries account for four-fifths. At the same time, most of the major armed conflicts are fought in developing countries.<sup>8</sup>

<sup>8</sup> See chapter 2 in this volume.

As reflected in table 8.2, high-income countries have higher military spending per capita than low-income countries. Since richer countries have more spare resources and often have smaller populations than poorer countries, their marginal cost of investing resources in the military decreases. In densely populated countries with small, developing economies, the marginal cost of increasing military expenditure can be very high while per capita spending is still very low. Such a country's economic outlay is quite small when divided by a large population figure. Hence, diverting \$1 from each person to the military sector is quite expensive for the economy at large—both in aggregate and for each individual—because it takes resources that could have been spent on other social and personal priorities. In contrast, the USA has a large population, but its economic output is large enough to sustain a high level of income for the average individual while simultaneously investing large amounts per capita in the military.

### III. The 15 major spenders

World military expenditure is extremely unevenly distributed between countries. Table 8.3 shows the 15 countries that spent most on their military forces in 2005, as measured in 2003 prices and converted to US dollars using 2003 market exchange rates. These 15 countries account for 84 per cent of all world spending and the remaining 151 countries for a mere 16 per cent. The USA, with its 48 per cent of total world military expenditure, stands out even among the major spenders. The next four biggest spenders, the UK, France, Japan and China, each account for 4–5 per cent of the total.

As can be seen from table 8.3, military expenditure per capita varies considerably between the major spenders. While the populous China and India spend only \$31.2 and \$18.5, respectively, per capita, the USA spends \$1604 and Israel spends \$1430. There is a remarkable difference between the pattern of world military spending and that of world population. While the five major spenders account for 65 per cent of world military spending, they account for only 29 per cent of world population.

Table 8.3 also presents an alternative ranking based on military expenditure data converted to dollars using GDP level PPP rates. This ranking is provided as an illustration of a major problem encountered in international comparison of economic data—the choice of conversion method has a major impact on the figures. The table demonstrates the large difference between economic estimates converted using the two methods. Major discrepancies can be seen in the cases of China, India and Russia, countries with large domestic economies or large shadow economies. However, even if the PPP-converted military expenditure figures better reflect the economic burden of the military on society, they do not reflect what could have been bought on the international market with the same national funds. In particular, PPP-converted figures cannot capture the technological level of the equipment that a given state can afford to buy. While military expenditure data converted using market

exchange rates usually underestimate the economic burden that the armed forces constitute to society, when converted using PPP rates the data in many cases overestimate what the armed forces could buy on the world market and, to a greater extent, the level of capabilities that the cash input can produce when translated into capability. Both the theoretical underpinning and practical implications of these differences are discussed in appendix 8E.

### **The United States**

Military expenditure by the USA increased in 2005 by \$25.6 billion to \$478.2 billion, at constant 2003 prices. This 5.7 per cent rise also increased the US share of world military expenditure from 47 to 48 per cent. Since 1998, when the post-cold war downward trend in US military expenditure changed to an upward one, US military spending has increased by 55 per cent or \$169 billion in constant 2003 prices. The major part of this increase has occurred since 2001, largely through supplemental appropriations for the US war on terrorism and other military operations.

Public discussions of US military expenditure are impeded not so much by secrecy as by the number of different estimates that various government agencies and other organizations present to the public. As shown in table 8.4, the headline figure of \$419.3 billion for the financial year (FY) 2006 defence budget is by no means the largest estimate available from official sources. The highest published figures can be almost 50 per cent higher than the lowest. There are two main reasons for this variation. The first relates to the phase of the budgeting process from which the figures originate—the president's budget request to Congress; the authorization or appropriation bills of the House of Representatives and Senate; the authorization or appropriation acts passed by Congress, where substantial changes and reallocations can be introduced; or actual outlays as presented, for instance, in the historical series of the next budget.

The second main cause of variation is the coverage of the figures, which depends in turn on the agenda of the organization that presents or uses them. The first choice is whether to cite only spending by the Department of Defense (DOD) or to include military spending by other agencies. In order to arrive at the budget item 'National Defense', expenditure such as that by the Department of Energy on the military nuclear programme and other miscellaneous spending need to be included. Winslow Wheeler of the Center for Defense Information suggests that total US spending on 'National Security' should include spending on homeland security, veterans' affairs and international security in addition to defence spending. Using this definition, the DOD accounts for only about three-quarters of the FY 2006 national security budget.<sup>9</sup>

<sup>9</sup> Wheeler, W., 'Defense budget tutorial #1: what is the actual size of the 2006 defense budget?', 19 Jan. 2006, Center for Defense Information, URL <<http://www.cdi.org/program/document.cfm?DocumentID=3268>>. Recent work has also been done by the Task Force on a Unified Security Budget for the United States to present a more comprehensive view of US security spending. Corbin, M. and

**Table 8.3.** The 15 countries with the highest military expenditure in 2005 in market exchange rate terms and purchasing power parity terms

Spending figures are in US\$, at constant (2003) prices and exchange rates.

Military expenditure in MER dollar terms						Military expenditure in PPP dollar terms <sup>a</sup>		
Rank	Country	Spending (\$ b.)	Spending per capita (\$)	World share (%)		Rank	Country	Spending (\$ b.)
				Spending	Popul.			
1	USA	478.2	1 604	48	5	1	USA	478.2
2	UK	48.3	809	5	1	2	China	[188.4]
3	France	46.2	763	5	1	3	India	105.8
4	Japan	42.1	329	4	2	4	Russia	[64.4]
5	China	[41.0]	[31.2]	[4]	20	5	France	45.4
<b>Sub-total top 5</b>		<b>655.7</b>		<b>65</b>	<b>29</b>	<b>Sub-total top 5</b>		<b>882.3</b>
6	Germany	33.2	401	3	1	6	UK	42.3
7	Italy	27.2	468	3	1	7	Saudi Arabia <sup>b, c</sup>	35.0
8	Saudi Arabia <sup>b, c</sup>	25.2	1 025	3	0	8	Japan	34.9
9	Russia	[21.0]	[147]	[2]	2	9	Germany	32.7
10	India	20.4	18.5	2	17	10	Italy	30.1
<b>Sub-total top 10</b>		<b>782.7</b>		<b>78</b>	<b>51</b>	<b>Sub-total top 10</b>		<b>1 057.2</b>
11	Korea, South	16.4	344	2	1	11	Brazil	24.3
12	Canada <sup>c</sup>	10.6	327	1	0	12	Iran <sup>b</sup>	23.8
13	Australia <sup>c</sup>	10.5	522	1	0	13	South Korea	23.4
14	Spain	9.9	230	1	1	14	Turkey	17.8
15	Israel <sup>c</sup>	9.6	1 430	1	0	15	Taiwan	13.4
<b>Sub-total top 15</b>		<b>839.8</b>		<b>84</b>	<b>53</b>	<b>Sub-total top 15</b>		<b>1 159.8</b>
<b>World</b>		<b>1 001</b>	<b>155</b>	<b>100</b>	<b>100</b>	<b>World</b>		<b>..</b>

MER = Market exchange rate; PPP = Purchasing power parity; [ ] = Estimated figure.

<sup>a</sup> The figures in PPP dollar terms are converted at PPP rates (for 2003), calculated by the World Bank, based on comparisons of gross national product.<sup>b</sup> Data for Iran and Saudi Arabia include expenditure for public order and safety and might be a slight overestimate.<sup>c</sup> The populations of Australia, Canada, Israel and Saudi Arabia each constitute less than 0.5% of the total world population.

Sources: **Military expenditure:** Appendix 8A; **PPP rates:** World Bank, *World Development Report 2005: A Better Investment Climate for Everyone* (World Bank: Washington, DC, 2004), URL <<http://econ.worldbank.org/wdr/>>, table 1, 'Key indicators of development', pp. 256–57, and table 5, 'Key indicators for other economies', p. 264; **2005 Population:** United Nations Population Fund (UNFPA), *State of the World Population 2005* (UNFPA: New York, N.Y., 2005), URL <<http://unfpa.org/swp/>>.

To some degree, the discussion is also obfuscated by confusion between total spending—which includes both discretionary and mandatory spending—and mandatory spending alone. As mandatory spending is regulated by law and can be changed easily only marginally, some analysts prefer to consider only discretionary spending. It is there that the administration's policies can have their main effect and that budget cuts and increases will be found. Considering also mandatory spending gives a figure that better captures the actual burden on the economy. In the FY 2006 budget, President George W. Bush asked certain congressional committees to find ways to cut mandatory spending. The result is the Spending Reconciliation Bill, which will reduce the budget deficit by \$5 billion if enacted.<sup>10</sup>

In addition, supplemental appropriations and budget amendments can be made that increase, or reduce, the original allocations. The majority of the costs of running military operations in Afghanistan and Iraq are financed through supplemental appropriations requested by the President.<sup>11</sup> In FY 2006 most of the supplemental appropriations and budget amendments were for disaster relief, following hurricanes Katrina and Rita in 2005.<sup>12</sup> While supplementary funding is by definition not included in the original budget proposal, both the Senate and House included in their appropriation bills all supplementary funding related to Afghanistan and Iraq, some \$50 billion, that had been previously suggested by the President.<sup>13</sup> Finally, some estimates refer to total security spending rather than to military spending and hence also include expenditure on homeland security, adding about 20 per cent.<sup>14</sup>

In the interest of comparability, the figures on US military expenditure reported in appendix 8A follow the NATO definition rather than any of the USA's own budgetary definitions. In the language of the US budget, the expression 'Total Outlays on National Defense' probably comes the closest to the definition used in SIPRI military expenditure data.

Pemberton, M., 'Report of the Task Force on a Unified Security Budget for the United States, 2006', Center for Defense Information and Foreign Policy in Focus, Washington, DC, May 2005, URL <<http://www.cdi.org/pdfs/Unified-Security-Budget-2006.pdf>>.

<sup>10</sup> Congressional Budget Office, *The Budget and Economic Outlook: Fiscal Years 2007 to 2016* (US Congress: Washington, DC, Jan. 2006), URL <<http://www.cbo.gov/ftpdocs/cfm?index=7027>>, p. 8.

<sup>11</sup> Sköns, E. et al., 'Military expenditure', *SIPRI Yearbook 2005: Armaments, Disarmament and International Security* (Oxford University Press: Oxford, 2005), pp. 321–24. In Feb. 2006 President Bush requested \$72.4 billion in emergency supplemental appropriations for the global war on terrorism for the remaining part of FY 2006. Of this amount, \$65.3 billion will be allocated to the DOD. Office of Management and Budget, 'FY 2006 emergency supplemental (various agencies): ongoing military, diplomatic, and intelligence operations in the global war on terror; stabilization and counter-insurgency activities in Iraq and Afghanistan; and other humanitarian assistance', Estimate no. 3, Washington, DC, 16 Feb. 2006, URL <<http://www.whitehouse.gov/omb/budget/amendments.htm>>.

<sup>12</sup> Congressional Budget Office (note 10), p. 12.

<sup>13</sup> Dagget, S., 'Defense: FY2006 authorization and appropriations', Library of Congress, Congressional Research Service, Washington, DC, 29 July 2005, URL <<http://fpc.state.gov/fpc/c15293.htm>>, p. 16; and Kosiak, S., 'Comparison of the FY 2006 House and SASC defense authorization bills', Center for Strategic and Budgetary Assessment, Washington, DC, 5 Oct. 2005, URL <<http://www.csbaonline.org/>>; and Kucera, J., 'Congress asks for more oversight of Pentagon', *Jane's Defence Weekly*, 4 Jan. 2006, p. 8.

<sup>14</sup> Wheeler (note 9).

**Table 8.4.** Different presentations of US military expenditure, financial year 2006

Figures are in US\$ b., at current prices.

	Discretionary spending	Total spending <sup>a</sup>
<i>Original budget authority</i>		
DOD <sup>b</sup>	419.3	421.1
National Defense <sup>c</sup>	438.8	441.8
<i>Outlays (estimated in the mid-session review)</i>		
DOD <sup>b</sup>	..	492.3
National Defense <sup>c</sup>	488.8	513.9
<i>Memorandum item</i>		
National Security <sup>d</sup>	..	616.4

<sup>a</sup> Total spending is the sum of discretionary and mandatory spending.<sup>b</sup> DOD spending includes all military spending under the Department of Defense (DOD).<sup>c</sup> National Defense includes, in addition to DOD expenditure, expenditure by the Department of Energy for the US military nuclear programme and other miscellaneous spending.<sup>d</sup> National security includes spending on homeland security, veterans' affairs and international security.

*Sources:* **Original budget authority:** Office of Management and Budget, *Budget of the United States Government, Fiscal Year 2006* (The White House: Washington, DC, 7 Feb. 2005), URL <<http://www.whitehouse.gov/omb/budget/fy2006/budget.html>>; **Outlays:** Office of Management and Budget, 'Fiscal year 2006, Mid-session review, Budget of the U.S. Government', The White House, Washington, DC, 13 July 2005, URL <<http://www.whitehouse.gov/omb/budget/fy2006/>>; and **Memorandum item:** Wheeler, W., 'Defense budget tutorial #1: what is the actual size of the 2006 defense budget?', 19 Jan. 2006, Center for Defense Information, URL <<http://www.cdi.org/program/document.cfm?DocumentID=3268>>, where 'National Security' is termed 'Defense and Security spending'.

### *Financial year 2006 budget and appropriations*

Military expenditure in the USA has increased rapidly following the September 2001 terrorist attacks on New York and Washington, and the subsequent launch of a global war on terrorism. In the budget for FY 2003 it became clear that, instead of focusing resources on the war on terrorism, the administration had decided to embark on all alternatives for future equipment programmes at the same time. In 1999 US military spending had increased slightly, by 0.3 per cent, rising to 3.9 in 2000, breaking with a decade-long near-continuous total fall of 32.1 per cent since the end of the cold war. The 2001 terrorist attacks only exacerbated this new trend, triggering a spending spree that has continued almost unquestioned for three years.

Ahead of the presidential budget request for FY 2006, leaked government documents and leading analysts suggested that the trend would at least subside somewhat and that US security spending would be redirected to address future security threats.<sup>15</sup> When the President eventually submitted the budget to Con-

<sup>15</sup> For a more detailed analysis of the FY 2006 budget see Sköns, E. et al. (note 11), pp. 320–29; and Kosiak, S. M., 'Analysis of the FY 2006 defense budget request', Center for Strategic and Budgetary Assessments, Washington, DC, May 2005, URL <<http://www.csbaonline.org/>>.

gress, most of the expected changes were not to be found, and he merely suggested that spending levels not be increased as much as had earlier been planned.<sup>16</sup>

In the Authorization Bill, Congress reduced spending on the President's initial military budget proposal by \$4.4 billion, or less than 1 per cent. However, Congress also introduced some other important changes to the budget, which give it greater control over US military spending. As has been the rule since the start of the war in Afghanistan, the administration's FY 2006 budget did not include funding for ongoing military operations; as noted above, these are funded through supplemental appropriations. Two arguments have been raised in favour of this practice: first, that the estimate of how much is actually needed can be more precise if made nearer to the time of use, and second, that the funds can be released faster through an ad hoc procedure. Critics claim that the monthly costs of the operations in Afghanistan and Iraq have become so predictable that they now belong in the main defence budget. Taking account of the cap on total spending, both the Senate and the House decided to include at least the known supplemental appropriations in their bills.<sup>17</sup> In an attempt to gain more control over the defence budget, demands for extensive reporting back to Congress were added to the bill, including on any programme with cost overruns in excess of 50 per cent of the planned cost and a requirement that certain programmes be certified as necessary before major tranches of their funding are released.<sup>18</sup>

Owing to the ongoing military operations and the war on terrorism, the US military budget is likely to continue to rise in the foreseeable future. However, the growing budget deficit and ageing population will probably mean that the rate of increase will be lower than in recent years. It is also likely that the tug-of-war between the White House and Congress over control of the way the DOD spends its money will continue.

### *The cost of the global war on terrorism and the conflict in Iraq*

The funding for the global war on terrorism constitutes a major burden on the US economy. According to a January 2006 report by the Congressional Budget Office (CBO), the US Congress and the President have made \$323 billion available in appropriations for DOD activities in support of the war on terrorism, in which the CBO includes the military operations in Afghanistan and Iraq, since 11 September 2001.<sup>19</sup> In 2005 alone, the outlays for operations related to the war on terrorism—operations Iraqi Freedom, Enduring Freedom (in Afghanistan) and Noble Eagle (in the USA)—are estimated to amount to \$90 billion. This, however, is only a portion of the full appropriations for these operations. The report explicitly states that it has excluded financial obligations for classified activities and coalition support; however, extra costs

<sup>16</sup> Corbin and Pemberton (note 9), p.10.

<sup>17</sup> Dagget (note 13), p. 22; and Kosiak (note 13).

<sup>18</sup> Kucera (note 13), p. 8.

<sup>19</sup> Congressional Budget Office (note 10).

imposed on other parts of society should also be included. An example is the budget amendment and subsequent emergency supplemental appropriation for veterans' affairs: these are intended as compensation for the greater number of veterans seeking medical assistance, largely as a result of current military operations.<sup>20</sup> The costs of post-conflict reconstruction have not been included in the CBO's estimates, but a report by the Center for Strategic and Budgetary Assessment states that up to January 2006 Congress had provided about \$32 billion in non-DOD funding for reconstruction in Afghanistan and Iraq.<sup>21</sup>

The conflict in Iraq takes the greatest share of the costs of US military operations. However, how much this conflict is costing the US economy is subject to dispute. According to a March 2005 estimate by the Congressional Research Service, the total cost of the conflict in Iraq up to the end of FY 2005 (on 30 September 2005) could be \$192 billion, and the combined costs for the military operations could amount to \$458 billion in FYs 2005–2014.<sup>22</sup>

In a recent study Linda Bilmes and Joseph Stiglitz suggest that the actual cost of the conflict in Iraq will be a lot higher than earlier estimates.<sup>23</sup> They include not only actual running costs for the operations but also current and future costs for casualties, rehabilitation and pensions for veterans, replacement of used equipment as well as more indirect costs such as the price of recruitment and loss of economic growth. Their 'conservative' estimate of the total cost of the conflict in Iraq is at least \$1 trillion and their 'moderate' estimate is up to \$1.8 trillion. Direct budgetary costs are estimated at \$750–1269 billion. These estimates stand in stark contrast to those of the CBO, which suggest a total cost of approximately \$500 billion.<sup>24</sup>

### France and the United Kingdom

France and the UK together account for about 37 per cent of European military expenditure and each for 5 per cent of world spending. While they both budgeted for increased military spending in 2005, SIPRI standard sources—NATO data for France and data from the Defence Analytical Service Agency (DASA) of the British Ministry of Defence for the UK—suggest that military

<sup>20</sup> Office of Management and Budget, 'FY 2005 supplemental: Department of Veterans Affairs (veterans health administration)', Estimate no. 7, Washington, DC, 30 June 2005, URL <<http://www.whitehouse.gov/omb/budget/05amendments.htm>>.

<sup>21</sup> Kosiak, S., 'The cost of military operations in Iraq and Afghanistan through fiscal year 2006 and beyond', Center for Strategic and Budgetary Assessments, 4 Jan. 2006, URL <<http://www.csbaonline.org/>>.

<sup>22</sup> Belasco, A., 'The cost of operations in Iraq, Afghanistan and enhanced security', Library of Congress, Congressional Research Service, Washington, DC, 14 Mar. 2005, URL <<http://fpc.state.gov/fpc/c14409.htm>>.

<sup>23</sup> Bilmes, L. and Stiglitz, J., 'The economic cost of the Iraq war: an appraisal three years after the beginning of the conflict', Paper presented at the Allied Social Sciences Association Annual Conference, Boston, Mass., Jan. 2006, URL <[http://www2.gsb.columbia.edu/faculty/jstiglitz/Cost\\_of\\_War\\_in\\_Iraq.pdf](http://www2.gsb.columbia.edu/faculty/jstiglitz/Cost_of_War_in_Iraq.pdf)>.

<sup>24</sup> Congressional Budget Office, 'An alternative budget path assuming continued spending for military operations in Iraq and Afghanistan and in support of the global war on terrorism', Washington, DC, Feb. 2005, URL <<http://www.cbo.gov/showdoc.cfm?index=6067>>.

expenditure in 2005 decreased by 2.2 per cent in France and 5.4 per cent in the UK. Since both countries have ongoing major equipment modernization programmes, it is likely that this decrease is temporary and may have been partly the result of a combination of budget technicalities and the non-inclusion of 'un-programmed' spending for military operations for 2005.

Trends in British military expenditure in recent years have been somewhat difficult to assess because of a conversion from cash accounting to resource-based accounting. The change has meant that comparison over time is obscured, particularly since the transition has been undertaken in two steps, introducing breaks in the series between FYs 2000/2001 and 2001/2002 and between FYs 2002/2003 and 2003/2004. An additional difficulty in making reliable estimates of British military expenditure for the latest years is that figures for spending on un-programmed operations and conflict prevention are not available at the same time as the final figures for the main budget and thus cannot be aggregated. Un-programmed spending includes provisions for activities in Afghanistan, Bosnia and Herzegovina, Iraq and Kosovo as well as conflict prevention and has varied between £500 million and £2000 million (\$816–3265 million) annually in FYs 2001/2002–2003/2004.<sup>25</sup> When the total costs of un-programmed operations for 2005 are eventually included, the overall decrease in spending will probably be somewhat smaller than the above figure of 5.4 per cent. The conflict in Iraq alone cost £3.1 billion (\$4.8 billion) in the three years up to 31 March 2005. In FY 2004/2005, £910 million (\$1402 million) was spent, which is still about £400 million (\$616 million) less than spending on the conflict in FY 2003/2004. In FY 2004/2005 the forces in Afghanistan cost £67 million (\$103 million) and those in the Balkans £87 million (\$134 million).<sup>26</sup> The ongoing military campaigns also account for the rise in capital spending from 20 to 22 per cent of total spending in 2005, as they have caused an increase in the rate of replacement of equipment.

An additional factor in the rising cost of capital spending by the UK is the Future Capabilities Programme, a supplement to the 2003 Defence White Paper on modernizing and equipping the armed forces for future security challenges.<sup>27</sup> The programme is a costly one: in order to afford its frontline high-technology equipment, staff levels have been cut and equipment retired early. Officially, the envisaged cuts and reductions only concern personnel and equipment that are no longer needed to face current and future threats. However, the project has met criticism from those who fear it might create a

<sup>25</sup> British Ministry of Defence, 'The government's expenditure plans 2005–06 to 2006–07', Command Paper 6532, London, 27 Oct. 2005, URL <<http://www.mod.uk/DefenceInternet/AboutDefence/CorporatePublications/BusinessPlans/GovernmentExpenditurePlans/>>, p. 27; and Defence Analytical Service Agency, *UK Defence Statistics 2005* (Ministry of Defence: London, 2005), URL <<http://www.dasa.mod.uk/natstats/ukds/2005/ukds.html>>, tables 1.1 and 1.4, pp. 13, 17.

<sup>26</sup> 'Iraq conflict, aftermath has cost Britain 3.1 billion pounds', *Defense News*, 28 Oct. 2005, URL <<http://www.defensenews.com/story.php?F=1209914>>.

<sup>27</sup> British Ministry of Defence, 'Delivering security in a changing world: Future Capabilities', Command Paper 6269, London, July 2004, URL <<http://www.mod.uk/DefenceInternet/AboutDefence/CorporatePublications/PolicyStrategy/>>.

capability gap in the period before the new equipment has been delivered and put into service. A March 2005 report by the House of Commons Defence Committee emphasized that such a gap would leave the British armed forces at risk.<sup>28</sup> John Reid, the Secretary of State for Defence, rejected these claims in evidence given to the committee.<sup>29</sup>

Since 2002 France has been moving from conscription towards the goal of a fully professional force by 2008 in order to face new threats and to be able to participate fully in and lead European out-of-area military operations. The Law on Military Planning 2003–2008 provides for this transformation with annual increases in military spending and a growing share of spending devoted to procurement.<sup>30</sup> At the same time, France is required by the European Union (EU) Stability and Growth Pact to keep its national budget deficit below 3 per cent of GDP.<sup>31</sup> Several approaches have been proposed to reconcile the increase in military spending with the cap on the deficit. In June 2005 the Minister of Defence, Michèle Alliot-Marie, spoke in favour of using the military economy as a driving force for economic growth, arguing that higher defence budgets in Europe would be the boost that the stagnant European economies needed.<sup>32</sup> President Jacques Chirac also argued that certain types of spending, among them spending on research and development and on defence, should be exempt from the Stability and Growth Pact requirements.<sup>33</sup>

Both France and the UK are looking for ways to bridge the gap between requirements and available resources. Both are exploring alternative methods of paying for procurement programmes traditionally covered by the state that would shift the financial burden of current military purchases into the future.<sup>34</sup> Such methods have had varying degrees of success. France's public–private initiative for financing 17 frigates was cancelled in January 2005 in favour of more traditional financing from the military budget. According to Alliot-Marie, the reason for this was the high cost of using private capital for the

<sup>28</sup> British House of Commons Defence Committee, 'Future Capabilities: fourth report', Reports HC45-I and HC45-II, London, 17 Mar. 2005, URL <<http://www.publications.parliament.uk/pa/cm200405/cmselect/cmdfence/cmdfence.htm>>, p. 72; and Skinner, T., 'UK armed forces at risk of future capability gaps', *Jane's Defence Weekly*, 23 Mar. 2005, p. 4.

<sup>29</sup> British House of Commons Defence Committee, 'Minutes of evidence: oral evidence taken before the Defence Committee on Tuesday 1 November 2005', London, 17 Jan. 2006, URL <<http://www.publications.parliament.uk/pa/cm200506/cmselect/cmdfence/556/5110101.htm>>.

<sup>30</sup> The text of Loi no. 2003-73 du 27 janvier 2003 relative à la programmation militaire pour les années 2003 à 2008 [Law no. 2003-73 of 27 January 2003 on military planning for the years 2003 to 2008] is available at URL <<http://www.legifrance.gouv.fr/WAspad/UnTexteDeJorf?numjo=DEFX0200133L/>>.

<sup>31</sup> The Stability and Growth Pact was adopted in July 1997 to ensure budgetary discipline by the EU member states participating in Economic and Monetary Union. See URL <[http://europa.eu.int/comm/economy\\_finance/about/activities/sgp/sgp\\_en.htm](http://europa.eu.int/comm/economy_finance/about/activities/sgp/sgp_en.htm)>.

<sup>32</sup> 'After French and Dutch "no" to constitutional treaty, Michèle Alliot-Marie hopes to resume initiative and reinforce defence industry in France and Europe', *Atlantic News*, 10 Jun. 2005, p. 3; and Bennhold, K., 'A French call for the EU to raise military outlays', *International Herald Tribune*, 10 June 2005, URL <<http://www.iht.com/articles/2005/06/09/news/defense.php>>.

<sup>33</sup> Agence France Press, 'France's Chirac wants exceptions under Stability Pact for some expenses', 9 Feb. 2005, Translation from French, World News Connection, National Technical Information Service (NTIS), US Department of Commerce.

<sup>34</sup> On the private financing of arms acquisitions see also chapters 7 and 9 in this volume.

purchase.<sup>35</sup> However, France has not abandoned the idea of using private funds for military procurement: a 10- to 15-year deal for helicopter flight training is being investigated as a candidate for private financing. The French Government is also looking increasingly favourably at cooperation with the UK in a privately financed project for tanker aircraft.<sup>36</sup>

The British Government's Private Finance Initiative (PFI) for the financing of military procurement is an attempt to reduce the current cost of equipment that is going to be in service over a very long period of time. The idea is also that the involvement of private financiers will improve the efficiency of the procurement process and the timely delivery of equipment, as they will want to ensure that their investment pays off. Several projects are already running on lease contracts with private owners and financiers of military equipment.<sup>37</sup> Even though the British PFI system is more developed than the French one, it has been heavily criticized for inefficiency and for wasting taxpayers' money. In March 2005, the Ministry of Defence established a PFI unit to oversee the initiative. This is said to have increased efficiency and transparency as well as taxpayers' return on PFI deals. However, at the same time, two major PFI deals were cancelled in 2005, to be replaced by more traditional financing schemes.<sup>38</sup>

### China and Japan

China and Japan rank highest in East Asia for military spending, together accounting for almost 70 per cent of the region's military expenditure. Both in real terms and as a proportion of its GDP, Japan's military spending has been largely stable over the past decade, rising by only 1.9 per cent since 1996. This stability in the level of spending together with its very significant volume—4.9 trillion yen (\$42 billion) in 2005—has acted as ballast against volatile fluctuations elsewhere in East Asia. Nonetheless, the rapid increase in China's military spending is countering this effect, and Japan's share of total East Asian military expenditure has fallen from 45 per cent in 1996 to 35 per cent in 2005.

The slight real-terms decrease in Japan's military expenditure in the past two years (by 0.8 per cent in 2004 and by 0.7 per cent in 2005) is attributable to continued financial difficulties. The trend in military spending—which has consistently been approximately 6 per cent of the national budget since 1999—follows that of the rest of Japan's budget.<sup>39</sup> The Japan Defense Agency (JDA) had called for a 1.5 per cent annual increase in its budget, but this was

<sup>35</sup> Lewis, J. A. C., 'France abandons private funding', *Jane's Defence Weekly*, 9 Feb. 2005, p. 27.

<sup>36</sup> Murphy, J., 'France looks at link-up with UK on tankers', *Jane's Defence Weekly*, 6 July 2005, p. 20.

<sup>37</sup> Skinner (note 28).

<sup>38</sup> Walker, K., 'U.K. scraps Private Finance Initiative for army training', *Defense News*, 20 June 2005, p. 4; Skinner, T., 'UK forces training stays on track', *Jane's Defence Weekly*, 29 June 2005, p. 14.

<sup>39</sup> Matthews, R. and Zhang, N., 'Japan faces security challenges with smaller defence budget', *Asia-Pacific Defence Reporter*, Sep. 2005, p. 41; and Japan Defense Agency (JDA), [Defense of Japan 2005] (JDA: Tokyo, 2005), URL <[http://jda-clearing.jda.go.jp/hakusho\\_data/2005/w2005\\_00.html](http://jda-clearing.jda.go.jp/hakusho_data/2005/w2005_00.html)>, p. 373.

**Table 8.5.** Annual change in Chinese military expenditure, gross domestic product and military expenditure as a share of gross domestic product, 1996–2005

Figures for change in military expenditure and GDP are percentage change over previous year; figures for change in military expenditure as a share of GDP are percentage values for the stated year.

	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005
Change in military expenditure	[10.7]	[1.3]	[14.6]	[12.2]	[9.9]	[18.0]	[17.9]	[10.7]	[10.2]	[8.8]
Change in GDP	9.6	8.8	7.8	7.1	8.0	7.5	8.3	9.5	9.5	9.0
Change in military expenditure as a share of GDP	[1.8]	[1.7]	[1.9]	[2.0]	[2.0]	[2.2]	[2.3]	[2.3]	[2.4]	..

GDP = Gross domestic product; [ ] = Estimated figure.

Source: Appendix 8.A, tables 8A.3 and 8A.4; **GDP**: International Monetary Fund, World Economic Outlook Database, Sep. 2005, URL <<http://www.imf.org/external/pubs/ft/weo/2005/02/data/>>.

turned down by the Ministry of Finance, with the support of the Prime Minister, Junichiro Koizumi, because of financial constraints.<sup>40</sup> Instead, the government intends to reduce the planned 25.01 trillion yen (\$216 billion) 2005–2009 defence build-up programme by 900 billion yen (\$7.8 billion). In addition, the Ministry of Finance has insisted that the mounting costs of military transformation and the ballistic missile defence programme be borne by the JDA's reduced budget through savings from reductions in the number of troops, combat vehicles, warships and aircraft.

In contrast, China has shown a rapid and sustained boost in military spending over the past decade, with real-terms growth in excess of 10 per cent in most years. This constant increase has built up a significant 165 per cent rise in military expenditure since 1996.<sup>41</sup> In all but two years in the period 1996–2005, China's annual increase in military spending has outpaced its already substantial GDP growth (see table 8.5). While the increase in 2005, at 8.8 per cent, was sharp, it was not on the same scale as in the previous seven years and is less than half of the increases in 2001 and 2002. The proportion of GDP spent on the military has risen from 1.8 per cent in 1996 to 2.4 per cent in 2004—a significant increase considering China's high rate of economic growth.

China's official defence budget is not comprehensively disaggregated.<sup>42</sup> Public data on official provisions and spending do not, for example, include

<sup>40</sup> Matthews and Zhang (note 39).

<sup>41</sup> China revalued the yuan on 21 July 2005, pegging it to a basket of currencies rather than only the US dollar. This increased the yuan's initial rate by 2.1% against the dollar with the effect that Chinese expenditure expressed in US dollars appears slightly increased when compared to the expenditure of previous years. On international comparisons of expenditure see appendix 8E.

<sup>42</sup> On how SIPRI arrives at its estimate of Chinese military expenditure and how off-budget items have been evaluated see Wang, S., 'The military expenditure of China, 1989–98', *SIPRI Yearbook 1999*:

defence investment, weapon and equipment production or funds for weapon purchases abroad. Nor do they reveal expenditure by sub-national governments.<sup>43</sup> Further opacity is added to Chinese military expenditure by activities such as military conversion, export of arms and past commercial activities, which have generated additional off-budget funding for the PLA.<sup>44</sup> Nonetheless, even according to China's own admissions, the rapid increase in military expenditure is unmistakable.

China justifies its rising military expenditure by reference to its 1998–2004 Defence White Papers. According to the policy outlined there, the increase in military spending has the aim of raising the salaries of military personnel in step with the country's overall rise in per capita income and developing their social insurance.<sup>45</sup> The 2004 White Paper includes plans to provide additional funds to support structural and organizational reform, boosting equipment acquisition and investing in gifted personnel.<sup>46</sup> There are reports of hundreds of newly trained soldiers with doctoral or master's degrees, some gained abroad.<sup>47</sup> Keen interest in the 'revolution in military affairs' in general and in information-intensive technology and warfare in particular is evidenced in public documents, where the authorities call for 'informationization' of China's military capability.<sup>48</sup> In order to finance improved high-tech equipment, the PLA freed funds by reducing the army to 2.3 million troops in December 2005 from 2.5 million in 2003.<sup>49</sup>

The political power of the military establishment has always been influential in determining its budgetary allocation. President Hu Jintao needs to retain the loyalty of senior PLA personnel by ensuring that the military also benefits from the country's prosperity.<sup>50</sup> Early accelerations in China's military spending over the past decade are attributable to a major structural overhaul in funding for the military, as the PLA's profitable commercial ventures were scaled back and finally discontinued in 1998. Initially intended to supplement an inadequate defence budget, these enterprises became a source of corruption

*Armaments, Disarmament and International Security* (Oxford University Press: Oxford, 1999), pp. 334–49.

<sup>43</sup> Shambaugh, D., *Modernizing China's Military: Progress, Problems, and Prospects* (University of California Press: Berkeley, Calif., 2002), pp. 215–22; and Tsao, Y. S., 'China's defence budget: arrangement and implication', *Chinese Military Update*, vol. 2, no. 8 (May 2005), p. 5.

<sup>44</sup> Kondapalli, S., 'Transparency with Chinese characteristics: China's 2004 White Paper on defence', *Chinese Military Update*, vol. 2, no. 9 (2005), p. 8.

<sup>45</sup> E.g., Central People's Government of the People's Republic of China, [Chinese national defence], Beijing, July 1998, URL <[http://www.gov.cn/zwgk/2005-05/26/content\\_1107.htm](http://www.gov.cn/zwgk/2005-05/26/content_1107.htm)>, especially the sub-heading [Defence spending] of section 3, [Establishing defence].

<sup>46</sup> Central People's Government of the People's Republic of China, [2004 Chinese national defence], Beijing, Dec. 2004), URL <[http://www.gov.cn/zwgk/2005-05/27/content\\_1540.htm](http://www.gov.cn/zwgk/2005-05/27/content_1540.htm)>, especially section 4, [Defence spending and defence assets].

<sup>47</sup> Tsao (note 43), p. 7.

<sup>48</sup> Central People's Government of the People's Republic of China (note 46), especially section 1, [Security situation]; see also section 2, [National defence policy].

<sup>49</sup> 'China military "lean, responsive" after cutbacks', *International Air Letter*, 10 Jan. 2006, p. 5; Bezlova, A., 'Dragon lady Rice tackles China', *Asia Times Online*, 24 Mar. 2005, URL <<http://www.atimes.com/atimes/China/GC24Ad05.html>>; and Bezlova, A., 'China's army leaner and meaner', *Asia Times Online*, 25 Jan. 2006, URL <<http://www.atimes.com/atimes/China/HA25Ad01.html>>.

<sup>50</sup> Hu, T., 'Country briefing: China', *Jane's Defence Weekly*, 13 Apr. 2005, p. 25.

and a hindrance to military professionalism.<sup>51</sup> The banning of these activities caused a significant loss of earnings for the PLA; in response, the state raised military spending above the losses in order to boost living standards for military personnel.<sup>52</sup>

In addition to structural remodelling, strategic considerations play a key role in the observable trends of China's military spending. Of these, none is more prominent than the status of Taiwan. Over the period covered by the two most recent five-year plans, 1996–2005, the PLA has greatly enhanced its capabilities, especially in the areas of amphibious warfare, ballistic missile forces and information-based operations relevant to contingencies involving Taiwan.<sup>53</sup> In addition, the PLA's practice beach assaults and amphibious landings in mock invasions of Taiwan reinforce the perception that Taiwan is the focus of the mobilization of China's military resources.<sup>54</sup> This trend has been all the more pronounced since President Hu assumed the chairmanship of the Central Military Commission in 2004.<sup>55</sup> The Anti-Secession Law adopted in March 2005 essentially gives legislative backing to China's long-standing threat of military action in the event that Taiwan declares independence but does not present any significant de facto shift in policy.<sup>56</sup>

## IV. Regional survey

### Africa

Military expenditure in Africa rose by less than 1 per cent in 2005. However, over the 10-year period 1996–2005, military spending in the region increased by 48 per cent in real terms (see table 8.1 above). This trend was mainly determined by the spending of the four countries of North Africa—Algeria, Libya, Morocco and Tunisia, which together accounted for almost half of the increase—along with a few countries in Sub-Saharan Africa. In 2005, four countries—Algeria, Morocco, Nigeria and South Africa—accounted for 62 per cent of Africa's military spending. Angola is another big spender: its expenditure has continued to rise in spite of the end of its civil war in 2002.<sup>57</sup> However, inconsistencies in its expenditure figures mean that Angola is not

<sup>51</sup> Cheung, T. M., *China's Entrepreneurial Army* (Oxford University Press: Oxford, 2001), pp. 26–58.

<sup>52</sup> Cheung (note 51), p. 245; and Central People's Government of the People's Republic of China, [2000 Chinese national defence], Beijing, 16 Oct. 2000, URL <[http://www.gov.cn/zwgk/2005-05/26/content\\_1224.htm](http://www.gov.cn/zwgk/2005-05/26/content_1224.htm)>, especially section 3, [Establishing defence].

<sup>53</sup> Hu (note 50), p. 23.

<sup>54</sup> Shambaugh (note 43), p. 4.

<sup>55</sup> FitzGerald, M. C., 'China plans to control space and win the coming information war', *Armed Forces Journal*, Nov. 2005, p. 41.

<sup>56</sup> The text of the Anti-Secession Law, adopted at the 3rd Session of the 10th National People's Congress on 13 Mar. 2005, is available at URL <[http://www.gov.cn/ziliao/flfg/2005-06/21/content\\_8265.htm](http://www.gov.cn/ziliao/flfg/2005-06/21/content_8265.htm)>. An English translation is available on the website of *The People's Daily*, URL <[http://english.people.com.cn/200503/14/eng20050314\\_176746.html](http://english.people.com.cn/200503/14/eng20050314_176746.html)>. See in particular Article 8.

<sup>57</sup> Economist Intelligence Unit (EIU), *Country Report: Angola* (EIU: London, Dec. 2004), p. 18. See also EIU, *Country Profile 2005: Angola* (EIU: London, 2005).

included in the SIPRI world and regional totals and the rate of increase is difficult to determine.<sup>58</sup>

While the rest of the continent accounts for a small proportion of regional spending, military expenditure still constitutes a great burden for many other African countries (see table 8.6). Particularly affected are countries at war, such as Burundi and the Democratic Republic of the Congo (DRC),<sup>59</sup> or those where war has recently ended, such as Eritrea and Ethiopia.<sup>60</sup> Botswana also has a relatively high military burden. This is caused by its military reform and modernization programme, which appears to be coming to an end as evidenced by the decline in spending of 19 per cent in 2005.

In contrast, the region's biggest spender, South Africa, spends a relatively modest share of its GDP on the military—1.4 per cent in 2004. This can be explained by the size of its economy, which is big enough to accommodate its military spending. Algeria and Morocco have relatively high burdens, but the governments of both countries have the resources to finance their respective military budgets. Algeria has received a boost in income from high oil prices. In Nigeria, spending increased by 14 per cent in real terms in 2005 as a result of the government's purchase of 12 combat aircraft from China.<sup>61</sup> The increase was also a result of the additional internal role that the military is increasingly called to play, especially in the Niger Delta area, where the armed forces have the task of protecting oil workers and installations from attacks by local dissident groups.<sup>62</sup> In spite of the increase, Nigerian military spending did not exceed 2 per cent of GDP in 1996–2004 and was usually nearer to 1 per cent.

Military reforms continue to be a major driver of military spending in Africa. Programmes for the professionalization of the armed forces and the modernization of equipment that began a few years ago are continuing but appear to be coming to an end in a number of countries.<sup>63</sup> The military reforms in both Algeria and Morocco are continuing and are responsible for the ongoing rise in Algeria's military expenditure. In contrast, spending in Morocco declined by 4.5 per cent in 2005, probably signalling an end to the rising trend that started in 1999. In Angola, spending is likely to continue to

<sup>58</sup> Both the official figures from the Angolan Government in response to a SIPRI questionnaire and those in the media indicate a rising trend, but these figures are difficult to relate to other economic data on Angola and so they are not used in SIPRI calculations.

<sup>59</sup> The DRC has not been included in table 8.6 because relatively reliable data on the country only started to emerge from about 2004. In 2004 the country's military expenditure was 3.0% of its GDP. On the conflict in the DRC see chapter 2 in this volume; and on peace-building efforts in Burundi, the DRC and elsewhere in Africa see chapter 3 in this volume.

<sup>60</sup> Eritrea has the highest defence burden in the world. See table 8A.4 in appendix 8A.

<sup>61</sup> 'Nigeria spends \$251m for Chinese F-7 fighters after oil deals', *Defense Industry Daily*, 30 Sep. 2005, URL <<http://www.defenseindustrydaily.com/2005/09/nigeria-spends-251m-for-chinese-f7-fighters-after-oil-deals/>>.

<sup>62</sup> 'Navy acquires anti-terrorism boats', *The Guardian* (Lagos), 20 June 2005. See also 'Nigerian rebels vow new oil raids', BBC News Online, 20 Jan. 2005, URL <<http://news.bbc.co.uk/1/4633644.stm>>.

<sup>63</sup> On the changes taking place in the military sector in Africa and, in particular, the ways in which African countries budget for the military see eds Omitoogun and Hutchful (note 6). See also Williams, R., 'National defence reform and the African Union', *SIPRI Yearbook 2004: Armaments, Disarmament and International Security* (Oxford University Press: Oxford, 2004), pp. 231–50.

**Table 8.6.** Countries with the highest defence burdens in Africa, 1996–2004

Figures are military expenditure as a percentage of gross domestic product.

Countries	1996	1997	1998	1999	2000	2001	2002	2003	2004
Algeria	3.1	3.6	4.0	3.8	3.5	3.5	3.7	3.3	3.4
Angola	[9.0]	[10.3]	[5.2]	[9.9]	[2.2]	[1.4]	[1.6]	[2.2]	[4.2]
Botswana	3.3	3.3	4.0	4.0	3.9	3.7	4.2	4.1	[3.8]
Burundi	5.8	6.4	6.6	6.3	6.0	8.0	7.6	7.3	6.3
Eritrea	22.0	12.8	35.3	37.6	36.4	24.8	24.2	19.6	..
Ethiopia	1.8	3.4	6.7	10.7	9.6	6.2	5.5	4.4	..
Lesotho	3.0	2.8	3.1	3.7	3.6	3.0	2.7	2.6	2.3
Libya	..	4.1	5.3	3.8	3.2	2.9	2.4	2.3	2.0
Morocco	4.0	3.9	3.7	4.0	4.1	4.1	4.3	4.2	4.5
Namibia	1.9	2.3	2.3	3.2	3.4	2.8	2.9	2.9	3.1
Rwanda	5.3	4.1	4.3	4.3	3.4	3.3	2.9	2.4	2.2
Uganda	2.1	1.9	2.3	2.4	2.2	2.1	2.4	2.4	2.3
Zimbabwe	3.1	3.2	2.5	4.5	4.9	2.6	2.3	2.6	..

*Source:* Appendix 8A, table 8A.4.

rise until all the former rebel soldiers have been either demobilized or integrated into the national army and military debts have been repaid. In South Africa, the 1999–2010 Strategic Defence Procurement programme is progressing as planned. Conflict remains another main driver of military spending in Africa, but to a lesser extent. The rising military expenditure in Burundi and the DRC are a result of the conflicts in those countries.

### Latin America and the Caribbean

Military expenditure in Latin America and the Caribbean in 2005 increased by 7.2 per cent in real terms and over the 10-year period 1996–2005 by 25.6 per cent, representing an annual average increase of 2.8 per cent. Total military spending in 2005 in the region was \$24 billion (in constant 2003 dollars), which represents 2.4 per cent of world military expenditure. All three of the region's major spenders—Brazil, Chile and Colombia—are in South America, where they account for three-quarters of the sub-regional total. In Central America, Mexico alone accounts for more than 85 per cent of the sub-region's military expenditure. Among Caribbean countries, the Dominican Republic is a big spender, but data are unavailable for many countries, including Cuba. Generally, military expenditure in Latin America and the Caribbean does not constitute a very large economic burden (see table 8.7). In Chile, military spending was 3.9 per cent of GDP in 2005, the highest military burden in the region. Although Brazil's military expenditure is the highest in the region—it is more than 2.7 times larger than the second biggest spender—the size of its economy means that this represents only 1.5 per cent of its GDP.

Whereas Central American military expenditure fell by 1.3 per cent in 2005, South America's rose by 8.6, an increase largely attributable to four of the

biggest spenders in the sub-region: Brazil, Chile, Colombia and Venezuela.<sup>64</sup> Even though Chile and Venezuela do not have the highest relative increases in Latin America and the Caribbean—Uruguay, Ecuador and Peru had the largest relative increases—their increase in real terms caught the attention of many countries in the region. It is worth bearing in mind that rises in Chile and Venezuela in 2005 were lower than their 2004 increases, which were 26 and 24 per cent, respectively. During 2005, both Chile and Venezuela were engaged in significant efforts to modernize their armed forces. In both cases, concerns have been expressed that their arms acquisitions could lead to a destabilizing arms race or result in illicit flows of weapons to armed groups. However, such fears have to some degree been allayed by formal and informal military transparency measures that have been developed in the region.<sup>65</sup>

As 10 per cent of export revenues from Chile's state copper company goes directly to military procurement, the increase in Chile's military budget was largely funded by rises in copper prices.<sup>66</sup> These funds have been used to finance an ongoing military modernization programme.<sup>67</sup> Chile's acquisitions are, for the most part, replacements for systems that have either been or will soon be decommissioned.<sup>68</sup> The purchases indicate a significant qualitative leap, particularly when compared to the armed forces of other countries in the region.<sup>69</sup> This modernization process is occurring at such a pace that by 2010 Chile could be the first country in Latin America to possess 'NATO-standard' military forces.<sup>70</sup> To a greater degree than elsewhere in the region, Chile's arms procurement process is almost entirely under the armed forces' control and takes place with little or no civilian political involvement.<sup>71</sup> Hence, the Chilean military is able to purchase the most advanced equipment available at times of increased copper revenue.

<sup>64</sup> Argentina has a larger military budget than Venezuela's, but spending in Argentina decreased by 1.6% in real terms in 2005. Venezuela is the 5th-largest spender, after Argentina.

<sup>65</sup> On recent arms purchases by Venezuela and the development of confidence-building measures in the region see Bromley, M. and Perdomo, C., 'CBMs in Latin America and the effect of arms acquisitions by Venezuela', Working Paper no. 41/2005, Real Instituto Elcano, 22 Sep. 2005, URL <<http://www.realinstitutoelcano.org/documentos/216.asp>>. See also Rosas, M., 'Latin America and the Caribbean: security and defence in the post-cold war era', *SIPRI Yearbook 2005* (note 11), pp. 251–82.

<sup>66</sup> According to the Ley Reservada del Cobre [Restricted law on copper], Law no. 13 196 of 29 Oct. 1958 (most recently modified in 1987), 10% of total revenue from copper exports is set aside to finance military acquisitions.

<sup>67</sup> 'Chile's first F-16 rolled out', *Defense News*, 25 Apr. 2005, p. 26; Hewson, R., 'Chile bolsters fighter force', *Jane's Defence Weekly*, 5 May 2004, p. 31; and Higuera, J., 'Chile's rise in copper fortunes allows arms buys', *Jane's Defence Weekly*, 18 May 2005, p. 8.

<sup>68</sup> E.g., Scorpene submarines will replace two Oberon Class submarines commissioned in 1976 and planned helicopter purchases will replace ageing Puma, Lama and MD-530F systems. Higuera (note 67); and Agüera, M., 'Chilean sub order sees 1st delivery', *DefenseNews.com*, 12 June 2005.

<sup>69</sup> Osacar, I., 'Los Leopard II de Chile y el equilibrio regional' [Chile's Leopard II and the regional balance], *Nueva Mayoría*, 17 Jan. 2006, URL <<http://www.nuevamayoria.com/ES/INVESTIGACIONES/defensa/060117.html>>.

<sup>70</sup> Gonzalez Cabrera, P., 'Chilean military plans to be NATO-standard force by 2010', *El Mercurio*, 18 July 2005, Translation from Spanish, Forecast International Inc., Market Alert News Center.

<sup>71</sup> Rojas Aravena, F., 'Chile', ed. R. P. Singh, SIPRI, *Arms Procurement Decision Making*, vol. 2, *Chile, Greece, Malaysia, Poland, South Africa and Taiwan* (Oxford University Press: Oxford, 2000), p. 17.

**Table 8.7.** Military expenditure in Latin America and the Caribbean, 2002–2005

Figures for military expenditure and military expenditure per capita are in US\$, at constant (2003) prices and exchange rates.

	Military expenditure (\$ b.)				Military expenditure as share of GDP (%)			Military expenditure per capita (\$)		
	2002	2003	2004	2005	2002	2003	2004	2002	2003	2004
Caribbean <sup>a</sup>	..	..	..	..	..	..	..	..	..	..
Central America	3.5	3.4	3.2	3.2	0.5	0.5	0.4	25.1	24.1	22.4
South America	20.4	18.3	18.9	20.6	2.1	1.9	1.8	56.8	50.3	51.3
<b>Total</b>	<b>24.2</b>	<b>21.9</b>	<b>22.3</b>	<b>23.9</b>	<b>1.5</b>	<b>1.3</b>	<b>1.2</b>	<b>47.2</b>	<b>42.2</b>	<b>42.3</b>

<sup>a</sup> There are insufficient data for the Caribbean to calculate regional totals.

Sources: Appendix 8A, tables 8A.2 and 8A.4; **Population**: International Monetary Fund, *International Financial Statistics* database.

The large increases in Chilean military expenditure have caused some concern in the region, particularly from neighbouring Peru.<sup>72</sup> This was one of the reasons behind Peru's adoption in December 2004 of a law to create an acquisition, modernization and repair fund for the country's defence equipment.<sup>73</sup> This fund will be financed by 40 per cent of the revenues of the gas production company Camisea, plus any interest accrued.<sup>74</sup> This law is similar to Chile's Copper Law with the significant difference that a committee with representatives of different ministries, including the Ministry of Defence, and the president will administer the fund. Even though this law is less secretive than Chile's Copper Law, it drastically reduces the level of transparency in Peru's military budgetary process. The comptroller-general will supervise the correct use of the fund, while the Peruvian Parliament will have no say in the acquisitions. In addition, the exact amount of money allocated to this fund will be difficult to track, since the fund is to be kept in an account separate from that for defence.

Rising government revenues are also supporting growing military expenditure in Venezuela, in this case resulting from rises in international oil prices. In Latin America, Venezuela had the fourth highest increase in relative terms in 2005—12.4 per cent—and the third largest in constant dollar terms, after Brazil and Chile. In 2005 the Venezuelan Government announced a new strategic plan for the 'integral defence' of the country. The new defence strategy has three features: 'Strengthening the country's military apparatus', 'Strengthening the civic-military union' and 'Increasing the people's participation in

<sup>72</sup> 'Peru: government unhappy over Chilean arms purchases', *Latinnews Daily*, 18 Apr. 2005; and Osacar (note 69).

<sup>73</sup> The text of the Ley que crea el Fondo para las Fuerzas Armadas y la Policía [Law creating funds for the armed forces and national police], Law no. 28 455 of 16 Dec. 2004, is available at URL <[http://www.minem.gob.pe/hidrocarburos/normas\\_inicio.asp](http://www.minem.gob.pe/hidrocarburos/normas_inicio.asp)>.

<sup>74</sup> However, exceptionally, in 2005 only 20% of Camisea's revenues was allocated to the fund.

the defence of the nation'.<sup>75</sup> 'Strengthening the civil–military union' will involve the military taking part in civil technical, academic and social projects, the expansion of the country's military reserves from 50 000 to 100 000, and the creation of 'people's defence units'. To strengthen the military apparatus, Venezuela has signed several arms acquisition deals.<sup>76</sup> However, concern has been raised that some of these acquisitions will have a destabilizing effect on the regional military balance.<sup>77</sup> In addition, fears were expressed that the purchase of AK-103/AK-194 rifles might result in surplus weapons falling into the hands of armed groups in Colombia. The Venezuelan Government maintains that the rifles would support the newly expanded military reserves.<sup>78</sup>

Despite Chile's and Venezuela's large procurement deals, there is little sign of the emergence of competitive arms acquisitions in the region. To a certain extent, this is attributable to the range of formal and informal confidence-building measures developed in Latin America and the Caribbean.<sup>79</sup>

### Asia and Oceania

The military expenditure of Asia and Oceania rose by 3.5 per cent in real terms in 2005, showing a slight sign of levelling off in comparison to its increases of 5.2 per cent in 2004 and 4.1 per cent in 2003. The region's military spending has increased by 35.3 per cent in real terms over the past decade, with a noticeable slowdown during the Asian financial crisis in 1997 and 1998 when spending rose by only 1.8 and 1.2 per cent, respectively (see table 8.1 above). The trends in Asia and Oceania's military expenditure are heavily influenced by the major regional powers, China, Japan and India, as together these three countries spent 66 per cent of the region's military expenditure in 2005. Their total spending has risen by 4.5 per cent since 2004 and by over 50 per cent since 1996.<sup>80</sup>

While East Asia's military expenditure stagnated in the wake of the financial crisis in 1997–98, that of South Asia, buoyed by India's high spending

<sup>75</sup> 'Venezuela: Chávez plans for "integral defence"', *Latin American Security & Strategic Review*, Feb. 2005, URL <<http://www.latinnews.com/lss/LSS5626.asp>>, pp. 6–7.

<sup>76</sup> The acquisitions include Super Tucano light attack aircraft, Russian helicopters, transport and surveillance C-295 aircraft, patrol boats and corvettes, and a number of AK-103/AK-194 assault rifles. Forero, J., 'Arms buying by Venezuela worries U.S.', *New York Times*, 15 Feb. 2005, p. 14; ITAR-TASS, 'Russia to supply military helicopters to Venezuela', 11 June 2005, Translation from Russian, BBC Monitoring International Reports; Agüera, M., 'Spain draws fire for sale of material to Venezuela', *Defence News*, 25 Apr. 2005, p. 13; and Gentile, C., 'Venezuela formalizes Russian arms deal', ISN Security Watch, 20 May 2005, URL <<http://www.isn.ethz.ch/news/sw/details.cfm?id=11325>>.

<sup>77</sup> Webb-Vidal, A., 'Chávez goes shopping for guns and MIGs as Colombia looks on nervously', *Financial Times*, 30 Nov. 2004.

<sup>78</sup> McDermott, J., 'Venezuela eyes Russian arms', *Jane's Defence Weekly*, 8 Dec. 2004, p. 6; and 'Venezuela: Chávez plans for "integral defence"' (note 75). See also Bromley and Perdomo (note 65).

<sup>79</sup> E.g., the 1999 Inter-American Convention on Transparency in Conventional Weapons Acquisitions and the 1997 Inter-American Convention against the Illicit Manufacturing of and Trafficking in Firearms, Ammunition, Explosives, and Other Related Materials. On these conventions see annex A in this volume. On regional reporting systems see appendix 8D.

<sup>80</sup> Caution should be taken when considering India's military expenditure, as lack of transparency in its nuclear programme means that its defence spending figures are underreported.

figures, did not. India's spending has increased by 82.8 per cent since 1996, with a peak increase of 16.2 per cent in 2004. At a total of 1025 billion rupees (\$20.4 billion) in 2005, India's military spending is 81.7 per cent of South Asia's total. The rise in India's military expenditure is, to some extent, a reflection of the country's economic prosperity.<sup>81</sup> It also reflects drives to strengthen the military as an element in shaping foreign policy and to establish India as a regional power by modernizing its arsenal.<sup>82</sup> However, the 2005 increase in the defence budget was curbed owing to pressure from India's communist parties to invest in development projects instead and, according to senior Ministry of Defence officials, in reaction to peace initiatives with both China and Pakistan.<sup>83</sup>

Although still very modest in comparison, neighbouring Nepal's military spending over the past decade has shown the most dramatic rise in South Asia: it has more than tripled in real terms since 1996. One reason is the expansion of the army since 2001 in response to its failure to make inroads against Maoist rebel groups.<sup>84</sup> The Royal Nepalese Army almost doubled in size in 2001–2005.<sup>85</sup> The 6.7 per cent rise in military spending in 2005 is attributable to Kathmandu's efforts to further bolster its offensive against the rebels.<sup>86</sup>

The largest part of Asia and Oceania's military expenditure was accounted for by the sub-region East Asia, with 69.4 per cent of the regional total. This is largely because of the spending of China and Japan (see section III above). South Korea, Asia's fourth biggest spender, increased its military expenditure by 7.2 per cent in 2005, as the country is expediting its military build-up plans in response to US force reductions on the Korean peninsula. The USA is planning to reduce its presence in South Korea from 37 500 troops in early 2004 to 25 000 by 2008.<sup>87</sup> In the face of this redeployment, President Roh Moo-hyun has expressed his ambition for a greater self-defence capability and has pushed for an increase in the military budget.<sup>88</sup>

After Taiwan's military spending peaked in 1997 at \$9.0 billion, when the acquisition of major weapons platforms was completed, there was an overall

<sup>81</sup> 'India', *Asian Defence Yearbook 2005* (Syed Hussain Publications: Kuala Lumpur, 2005), p. 40.

<sup>82</sup> 'India's military spending up 7.8%', *Asian Defence Journal*, Mar. 2005, p. 66; Raghuvanshi, V., 'Indian budget includes shipyard upgrade funds', *Defense News*, 21 Mar. 2005, p. 24; and Schaffer, T. C. and Mitra, P., 'India as a global power?', Deutsche Bank Research, Frankfurt am Main, 16 Dec. 2005, URL <<http://www.dbresearch.com/servlet/reweb2.ReWEB?rwkey=u1067110>>, p. 16.

<sup>83</sup> Bedi, R., 'Indian budget shows "modest" rise', *Jane's Defence Weekly*, 9 Mar. 2005, p. 15.

<sup>84</sup> Mehta, A. K. and Kanwal, G., 'Nepalese military gears up to counter escalating insurgency', *Jane's Intelligence Review*, vol. 17, no. 9 (Sep. 2005), pp. 31–33.

<sup>85</sup> Davis, A., 'Nepal buys ammunition from China, Pakistan', *Jane's Defence Weekly*, 5 Oct. 2005, p. 12.

<sup>86</sup> Sharma, S., 'Big rise in Nepal defence budget', BBC News Online, 14 Jan. 2005, URL <<http://news.bbc.co.uk/2/4174269.stm>>.

<sup>87</sup> 'Seoul to raise defence budget', *Asian Defence Journal*, June 2005, p. 60.

<sup>88</sup> Baker, R. W. and Morrison, C. E. (eds), 'Republic of Korea', *Asia Pacific Security Outlook 2005* (Japan Center for International Exchange: Tokyo, 2005), p. 104–11, and National Institute for Defense Studies, 'The Korean Peninsula: changing security environments', *East Asian Strategic Review 2005* (Japan Times: Tokyo, 2005), pp. 79–82.

downward trend until 2003, when spending began to rise again.<sup>89</sup> Military expenditure peaked again in 2004, when it was a significant 9.9 per cent above its 2002 low, but fell in 2005 by 2.3 per cent. The economic slump over the past decade has influenced Taiwan's military budget, which has had to compete with other economic and social priorities.<sup>90</sup> The Taiwanese Government has been pushing for the purchase of a \$16 billion package of advanced weapons from the USA through a special budget (rather than through the ordinary military budget), but the Procedure Committee of the opposition-dominated Taiwanese Parliament has repeatedly turned down the proposal.<sup>91</sup> The arms package has been a contentious issue in both Taiwan and mainland China since US President Bush agreed to it in 2001, but it returned to prominence when China's adoption of the Anti-Secession Law in March 2005 rekindled the debate in Taiwan on the need for greater defence capabilities. However, the opposition parties, courted by the mainland, have warned against joining an arms race with China which some have characterized as being lost in advance.<sup>92</sup>

Both East and South Asia were severely affected by the Indian Ocean tsunami in December 2004, in which some 230 000 people died.<sup>93</sup> In addition to the human and material loss, the tsunami destroyed army camps in Sri Lanka and caused great damage to the Royal Thai Navy and a key Indian Air Force base in the Nicobar Islands.<sup>94</sup> Nonetheless, this natural catastrophe has not yet had any obvious or significant effect on military spending in Asia, whether in the reallocation of funds for relief work or in creating major defence programmes aimed at countering the consequences of such disasters.

Trends in the military spending of Oceania are determined by Australia, since it accounts for 92.0 per cent of the sub-region's military expenditure. In its 2000 Defence White Paper, the Australian Government committed itself to a 3 per cent real-terms annual increase in military spending for 10 years in order to keep up with personnel and operating costs, invest in new capabilities and increase readiness.<sup>95</sup> While substantial, this planned rise was overtaken by Australia's reactions to the new terrorism-centred security agenda after 2001 and the decision to support the US-led operations in Afghanistan and Iraq. Actual military spending rose by over 5 per cent in 2002 and 2004, and by nearly 4 per cent in 2001 and 2003, before settling back to a 3.1 per cent rise in 2005. Some of the funds have gone towards large increases in the intelli-

<sup>89</sup> Australian Defence Intelligence Organisation, *Defence Economic Trends in the Asia-Pacific 2000* (Defence Publishing Services: Canberra, 2000), p. 36.

<sup>90</sup> Chase, M. S., 'Defense reform in Taiwan: problems and prospects', *Asian Survey*, vol. 45, no. 3 (May/June 2005), p. 372.

<sup>91</sup> 'Taiwan and America: still waiting', *The Economist*, 6 Oct. 2005.

<sup>92</sup> E.g., 'Ma fears "confrontation" with China', *China Post*, 22 Mar. 2006, URL <[http://www.china.post.com.tw/i\\_latestdetail.asp?id=36632](http://www.china.post.com.tw/i_latestdetail.asp?id=36632)>.

<sup>93</sup> 'Asia's tsunami: relief but little rebuilding', *The Economist*, 20 Dec. 2005, URL <[http://www.economist.com/displaystory.cfm?story\\_id=5327849](http://www.economist.com/displaystory.cfm?story_id=5327849)>.

<sup>94</sup> Karniol, R., 'Indian Ocean militaries survey tsunami damage', *Jane's Defence Weekly*, 12 Jan. 2005, p. 4.

<sup>95</sup> Australian Department of Defence, *Defence 2000: Our Future Defence Force* (Commonwealth of Australia: Canberra, 2000), URL <<http://www.defence.gov.au/whitepaper/>>, pp. 119–21.

gence budget.<sup>96</sup> The Australian Defence Force's sustained deployment has depreciated its hardware and driven up replacement and maintenance costs, while the price of 'state of the art' military equipment has kept rising. Added to this, personnel and operating costs have continued to rise at rates that exceed inflation.<sup>97</sup>

## Europe

Military expenditure in Europe decreased by 1.7 per cent in 2005, returning to 2003 levels (see table 8.1 above). This is the result of two contrasting developments: first, a steady increase in Russian military expenditure, and second, a major reduction in that of the other major European powers. With the exception of Russia, all those European states which figure among the world's 15 biggest spenders—France, Germany, Italy, Spain and the UK—reduced their spending in 2005, by a total of \$7854 million. Repeating the pattern witnessed in 2004, military expenditure decreased in the sub-regions Central and Western Europe and increased in Eastern Europe. An interesting contrast can be seen between the old and new NATO members. Of the 17 pre-2004 European NATO members, seven increased their spending, nine decreased theirs and one, Iceland, has no military forces of its own. Of the seven states that joined NATO in 2004, six increased their military spending.

In several speeches and interviews in 2005, the NATO Secretary General, Jaap de Hoop Scheffer, cautioned the European allies against continuing the general downward trend in their defence budgets, encouraging them to spend more on converting old-fashioned territorial defence capabilities to more mobile and easily deployable forces. In a statement to NATO defence ministers in September 2005 he also suggested that the member states should increase the number of jointly funded operational activities in order to better share the cost burden and not dissuade any member from contributing troops on the basis of economic cost.<sup>98</sup>

In contrast to France (see section III above), both Germany and Italy have accepted the consequences of their large budget deficits and stagnant economies and have adhered to the rules of the EU Stability and Growth Pact. Hence, to the dismay of de Hoop Scheffer among others, they reduced their military expenditure in 2005. Italy's 10.4 per cent real-terms reduction in 2005 took its military expenditure below 2 per cent of GDP. With over 10 000 Ital-

<sup>96</sup> Thomson, M., *Pay Your Money & Take Your Pick: Defence Spending Choices for Australia* (Australian Strategic Policy Institute: Canberra, Dec. 2003), URL <<http://www.aspi.org.au/22845paymoney/>>, p. 8; and Thomson, M., *Your Defence Dollar: The 2004–05 Defence Budget* (Australian Strategic Policy Institute: Canberra, July 2004), URL <[http://www.aspi.org.au/17867defence\\_dollar/](http://www.aspi.org.au/17867defence_dollar/)>, p. 7.

<sup>97</sup> Australian Department of Defence, *Australia's National Security: A Defence Update 2005* (Commonwealth of Australia: Canberra, 2005), URL <<http://www.defence.gov.au/update2005/>>, p. 25.

<sup>98</sup> See, e.g., 'A transforming alliance', Speech by NATO Secretary General Jaap de Hoop Scheffer at the NATO Parliamentary Assembly Spring Session Ljubljana, Slovenia, 31 May 2005, URL <<http://www.nato.int/docu/speech/2005/s050531b.htm>>; Baughman, A., 'Interview: Gisbert (Jaap) de Hoop Scheffer, NATO Secretary General', *Jane's Defence Weekly*, 30 Mar. 2005, p. 34; and 'Joint press point by NATO Secretary General, Jaap de Hoop Scheffer and the German Defence Minister, Peter Struck', Berlin, 13 Sep. 2005, URL <<http://www.nato.int/docu/speech/2005/s050913e.htm>>.

ian personnel stationed abroad, there is little room for cutting operational expenditure. Consequently, the procurement budget has suffered the greatest cuts and the focus of the procurement programme has been reoriented towards army needs, as required for the troops deployed in Afghanistan and Iraq.<sup>99</sup> Germany, having gone through major economic restructuring in order to tackle its huge budget deficit, has shown a trend of declining military expenditure for the past six years. In 2005 German military spending decreased by 2.3 per cent, contributing to the 10.6 per cent overall fall since 1996. At the same time, the German armed forces have been undergoing reforms as well as having been deployed to Afghanistan, their first combat mission on foreign soil since World War II.

Russia, by far the biggest spender in Eastern Europe, increased its military spending by 8.8 per cent in real terms in 2005, continuing a trend that began in 1998. At the presentation of the 2005 budget, the Minister of Defence, Sergei Ivanov, said that for the first time since 1991 the Russian budget fully reflected the needs of the military.<sup>100</sup> Since its post-cold war low in 1998, Russian military expenditure has more than doubled. However, this massive increase follows a decade-long decrease, and spending levels in 2005 were still much lower than at the end of the cold war.<sup>101</sup> The main driving force behind Russia's rapidly rising military expenditure has been the military reform programme aimed at boosting Russia's ability to combat terrorism, restore global power projection and consolidate influence in 'the near abroad' (i.e., the former Soviet states).<sup>102</sup> The procurement budget shows a growing focus on counterinsurgency and nuclear deterrence as well as an increased and transformed presence in Central Asia and the Caucasus.<sup>103</sup> Russia's rising oil and gas revenues have made this possible but these revenues must continue if future increases in military spending and continued military reform are to be realized.

The three Caucasian states, Armenia, Azerbaijan and Georgia, all increased their military expenditure massively in 2005. Georgia, with its 143 per cent increase, had the world's highest rate of increase in military expenditure in 2005. Azerbaijan and Armenia were also among the countries whose spending increased most in relative terms, at 51.1 and 22.5 per cent, respectively. Azerbaijan's military build-up is as much driven by the fact that it can afford it, owing to high oil and gas revenues, as by the search for greater leverage in

<sup>99</sup> Valpolini, P., 'Italian budget set for major cut', *Jane's Defence Weekly*, 26 Jan. 2005, p. 12; and Kington, T., 'Italy trims budget: frigate funds found; aircraft, vehicles delayed', *DefenseNews.com*, 17 Oct. 2005.

<sup>100</sup> Trifonov, D., 'Briefing: Russian defence reform', *Jane's Defence Weekly*, 8 June 2005, pp. 27–33.

<sup>101</sup> Cooper, J., 'Military expenditure in the 2005 and 2006 federal budgets of the Russian Federation', Research note, SIPRI, Stockholm, Jan. 2006, URL <[http://www.sipri.org/contents/milap/cooper\\_russia\\_20060130](http://www.sipri.org/contents/milap/cooper_russia_20060130)>.

<sup>102</sup> Trifonov (note 100).

<sup>103</sup> Trifonov (note 100); ITAR-TASS, 'Defense ministry building infrastructure for 2 mountain', 15 July 2005, World News Connection, NTIS, US Department of Commerce; and Mukhin, V., 'Collective Security Treaty Organization arithmetic: military spending far exceeds the political dividends', *Nezavisimaya Gazeta*, 12 Apr. 2005, Translation from Russian, World News Connection, NTIS, US Department of Commerce.

negotiations with Armenia over disputed territories. Armenia's rising military expenditure can be seen as a direct reaction to the Azerbaijani increase. Georgia is building a new, smaller and more mobile force with help from Turkey and the USA at the same time as it is establishing a new reserve force. The official explanation for the huge increase in Georgian military expenditure is the country's wish to join NATO and the consequent need to bring its armed forces up to NATO standards. Others argue that the ultimate objective is to regain control over the renegade regions of Abkhazia and South Ossetia over which tension with Russia grew dramatically in late 2005.<sup>104</sup>

### The Middle East

Military expenditure in the Middle East increased by 7 per cent in real terms in 2005. This represents a continuation of the trend of the past 10 years, during which the only decline was in 2002 (see table 8.1 above). In the 10-year period 1996–2005, military spending in the region increased by 61 per cent in real terms. For a region that is rich in oil, the increase in 2005 was modest given the unusually high and sustained oil prices throughout the year.

With relatively static—and in many cases decreasing—levels of military expenditure in almost all Middle Eastern countries, the region's increase is almost wholly attributable to Saudi Arabia, the Middle East's biggest spender—in 2005 its military expenditure increased by \$4.6 billion (or 21 per cent) in constant dollar terms while the region's total spending increased by \$4.1 billion. While Saudi Arabia's increase in 2005 is very high, it is below the country's record 36 per cent increase of 1997 and was restrained by the need to focus on mounting internal social problems and huge debts.<sup>105</sup> Unemployment has increased among Saudi Arabia's growing youth population and debts, resulting from previous budget deficits, stood at 100 per cent of GDP by 2000.<sup>106</sup> The windfall from oil has therefore been primarily directed at paying off debts, improving social welfare, including raising civil servants' salaries across the board for the first time in 20 years, and creating employment opportunities for the estimated 20 per cent of its population that is unemployed.<sup>107</sup> Nevertheless, the increased focus of the Saudi Government on internal security in the aftermath of terrorist attacks, and the plan to build an industry that would produce spare parts for the Saudi military and other security forces,<sup>108</sup> ensured that the defence and security sector still received a big, if not the lion's, share of the budget. Kuwait faced fewer internal problems than Saudi Arabia and, in spite of the oil windfall, its military expend-

<sup>104</sup> Fuller, L. and Giragosian, R., 'Why should Georgia need a larger army?', *RFE/RL Caucasus Report*, 24 July 2005, URL <<http://www.rferl.org/reports/caucasus-report/archive2005.asp>>.

<sup>105</sup> 'Saudi Arabia expects budget surplus to double in 2005', *Gulfnews.com*, 13 Dec. 2005, URL <<http://archive.gulfnews.com/articles/05/12/13/10004468.html>>.

<sup>106</sup> 'Oil producers' surpluses: recycling the petrodollars', *The Economist*, 10 Nov. 2005, URL <[http://www.economist.com/displayStory.cfm?story\\_id=5136281](http://www.economist.com/displayStory.cfm?story_id=5136281)>.

<sup>107</sup> 'Oil producers' surpluses' (note 106).

<sup>108</sup> Middle East Newslite, 'Saudi Arabia seeks to develop arms industry', *Independent Media Review Analysis*, 4 Jan. 2006, URL <<http://www.imra.org.il/story.php3?id=28055>>.

iture increased modestly, by only 0.5 per cent in 2005. This followed a 13 per cent rise in 2004.

Military expenditure in Iran increased by 3.9 per cent in 2005.<sup>109</sup> This was a modest rise in comparison to the rises of 17.3 and 14.9 per cent in 2003 and 2004, respectively. The increase in 2005 was against the background of mounting international pressure on the country over its nuclear programme.<sup>110</sup> While there is little information linking the rise in spending to either the tension or the nuclear programme itself, there are indications that the trend will continue following the assurance given by President Mahmoud Ahmadinejad to Iran's parliamentary Committee on Security and Defence that he would increase spending on defence.<sup>111</sup>

In contrast to the increased spending in the oil-producing states, the official military expenditure of Israel declined by 5 per cent in 2005, after a 3 per cent increase in 2004. However, the decline in the Israeli military expenditure figure has been queried by the State Comptroller, who criticized the government for submitting defence budgets with reduced spending to the Israeli Parliament while implementing an entirely different budget with increased expenditure.<sup>112</sup> In 2004, for instance, there was a divergence of 10.3 per cent between official expenditure figures and the amount actually spent.<sup>113</sup> The same may be the case for 2005, when expenditure was reported to exceed the approved sum because of the costs of disengagement from occupied territories and the upgrading of the barrier along the border with the Gaza Strip.<sup>114</sup> Indications are that these two programmes will lead to increased military expenditure in 2006. This is in contrast to the general reduction in spending which is envisaged for the rest of the budget unless the USA provides financial support for the disengagement plan which is now estimated at 8 billion shekels (\$1.7 billion).<sup>115</sup> Israel receives military assistance from the USA amounting to about \$2.2 billion annually and this constitutes part of the country's total military expenditure. Egypt receives about \$1.8 billion annually in military assistance from the USA. Owing to lack of transparency in Egyptian military expenditure, the extent to which this is included in the country's officially reported military expenditure is unknown.

<sup>109</sup> SIPRI's military expenditure data for Iran include spending on public order and safety (internal security).

<sup>110</sup> Kendall, B., 'Diplomatic furore at Iran remarks', BBC News Online, 27 Oct. 2005, URL <<http://news.bbc.co.uk/1/4383856.stm>>. See also Kile, S. N. (ed.), *Europe and Iran: Perspectives on Non-proliferation*, SIPRI Research Report no. 21 (Oxford University Press: Oxford, 2005).

<sup>111</sup> 'Iran MP says 2006–7 budget does not fully meet defence sector needs', *Aftab-e Yazd*, 29 Jan. 2005, Translation from Farsi, World News Connection, NTIS, US Department of Commerce.

<sup>112</sup> O'Sullivan, A., 'State Comptroller reveals shadow defense funding', *Jerusalem Post*, 1 Sep. 2005, p. 1.

<sup>113</sup> O'Sullivan (note 112).

<sup>114</sup> Klein, Z., 'Defense spending rose to 25% of all gov't spending in July', *Rishon Leziyyon Globes* (online), 4 Aug. 2005.

<sup>115</sup> Klein, Z., 'Budget cut will total NIS 3.6', *Rishon Leziyyon Globes* (online), 2 Aug. 2005.

## V. Conclusions

World military expenditure increased again in 2005, continuing an unbroken upward trend since 1999. The USA is responsible for a sizeable proportion of this increasing trend, with the result that US expenditure in 2005 accounts for almost half the world total and is 10 times higher than that of the UK, the second biggest spender. The process of concentration in military expenditure also continued in 2005, with an increasing proportion of world military spending attributable to the 15 biggest spenders. Most of these are industrialized countries, but China and India are also among the top spenders following a continued increase in expenditure in line with their growing economic power.

A salient factor that has facilitated the upward trend in military expenditure is the high and rising world market prices of minerals and fossil fuels. This is especially the case for Algeria, Azerbaijan, Russia and Saudi Arabia, where increased proceeds from oil and gas exploitation have boosted government revenues and freed up funds for military spending. The boost in the military expenditure of Peru and Chile is directly resource driven, as their military spending is linked by law to profits from the exploitation of key natural resources.

Just as world military expenditure is not evenly distributed, different countries and regions also contributed differently to the increase in world total military expenditure in 2005. In the Middle East, the increase in Saudi Arabia single-handedly raised overall spending in a region that would otherwise have shown a fall in military expenditure. Although Europe is a major spender on the world stage, rather than contributing to the global increase in military expenditure, the region actually reduced military spending in 2005. Tentative moves by France and the UK to solicit private funding for military procurement are having the effect of deferring spending.

Looking ahead, increasing trends in world military expenditure show little sign of abating in the near future. The observable increase in global spending depends to a large extent on the USA's costly military operations in Afghanistan and Iraq that are still far from conclusion. Added to that, the continued rapid economic growth of China and India that has sustained their rising military spending and their drive toward military modernization over the past decade is likely to continue unimpeded at least in the short term. For France and the UK, the dip in military spending in 2005 has been an aberration in their current trends, as they are engaged in an ongoing modernization programme based on future increases in military expenditure. In these circumstances, there is a strong likelihood that the current upward trend in world military spending will be sustained in 2006.