

# Background paper on SIPRI military expenditure data, 2010<sup>1</sup>

## Overview

### Growth in world military expenditure slows, regional picture varies

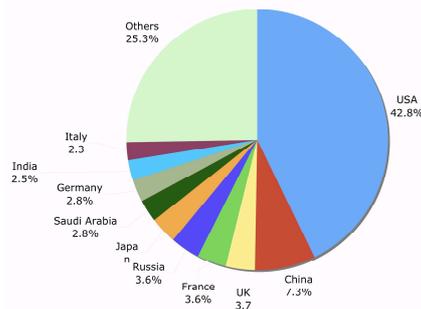
World military expenditure is estimated to have been \$1630 billion in 2010, an increase of 1.3 per cent in real terms. This represents the slowest annual rate of increase since the surge in global military expenditure that began after 2001. Between 2001 and 2009, the annual increase averaged 5.1 per cent in real terms.

The increase in 2010 is almost entirely down to the United States, which accounted for \$19.6 billion of the \$20.6 billion real-terms increase. Excluding the USA, the total in the 'rest of the world' barely changed in 2010, increasing by a statistically insignificant 0.1 per cent.

However, this masks considerable regional variation:

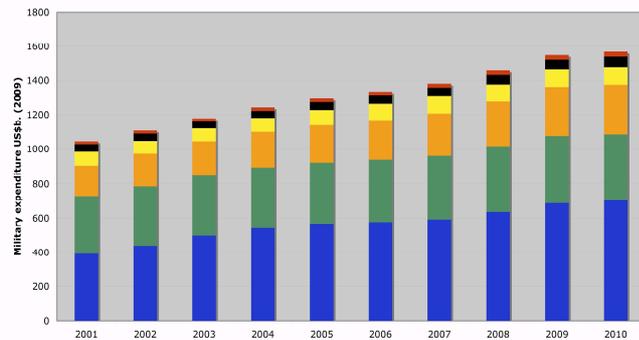
- Rapid increases in South America (5.8 per cent) and Africa (5.2 per cent)
- Modest increases in the Middle East (2.5 per cent) and Asia and Oceania (1.4 per cent)
- A fall in Europe (2.8 per cent).

Top 10 shares of world military expenditure 2010



This chart shows the share of world military expenditure in 2010 for each of the top 10 spenders, along with the share for the rest of the world

Military expenditure by region, 2001-2010, constant (2009) US\$.  
Legend: North America (blue), Europe (green), Asia & Oceania (orange), Middle East (yellow), Latin America (black), Africa (red)



This chart shows the regional shares of military expenditure, and the total level of world military expenditure, from 2001 to 2010, in constant (2009) US dollars

<sup>1</sup> This background paper is based on the data and analysis that will be published in *SIPRI Yearbook 2011* (Oxford University Press, June 2011)



## The impact of the crisis

In many cases, the falls or slower increases represent a delayed reaction to the global financial and economic crisis that broke in 2008. In Europe, governments began to address soaring budget deficits, having previously enacted stimulus packages in 2009. Cuts were particularly substantial in the smaller, more vulnerable economies of Central and Eastern Europe, as well as those with particular budget difficulties such as Greece. Asia presents a somewhat different case: most economies did not experience recession in 2009, but economic growth slowed, while military expenditure continued to increase quite rapidly. Thus, the slower increases in 2010 represent to some extent a 'rebalancing' with economic growth. The Chinese Government explicitly linked its smaller increase to China's weaker economic performance in 2009.

**Table 1 The Top 10 military spenders in 2010**

Spending figures are in US\$, at current prices and exchange rates. Countries are ranked according to military spending at Market Exchange Rates (MER).

Rank	Country	Spending 2010 (\$b.)	Change 2009-2010 (%)	Change 2001-2010 (%)	Share of GDP (%, est.) <sup>a</sup>
1	USA	698	2.8	81.3	4.8
2	China	[119]	3.8	189	[2.1]
3	UK	59.6	-0.8	21.9	2.7
4	France	59.3	-8.4	3.3	2.3
5	Russia	[58.7]	-1.4	82.4	[4.0]
6	Japan	54.5	0.8	-1.7	1.0
7	Saudi Arabia <sup>b</sup>	45.2	4.0	63.0	10.4
8	Germany	[45.2]	-1.3	-2.7	[1.3]
9	India	41.3	-2.8	54.3	2.7
10	Italy	[37.0]	0.3	-5.8	[1.8]
<b>World</b>		<b>1 630</b>	<b>1.3</b>	<b>50.3</b>	<b>2.6</b>

[ ] = estimated figure; GDP = gross domestic product.

<sup>a</sup> The figures for national military expenditure as a share of GDP are for 2010, and are based on estimates for 2010 GDP from the IMF World Economic Outlook, October 2010.

<sup>b</sup> The figures for Saudi Arabia include expenditure for public order and safety and might be slight overestimates.

## Feature 1. The United States

The rate of increase in US military spending slowed in 2010, to 2.8 per cent in real terms compared to an annual average increase of 7.4 per cent between 2001 and 2009.

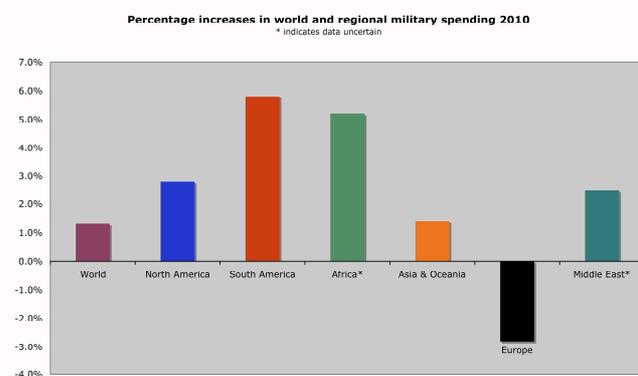
However, the USA continues to be exceptional in terms of its military spending. As



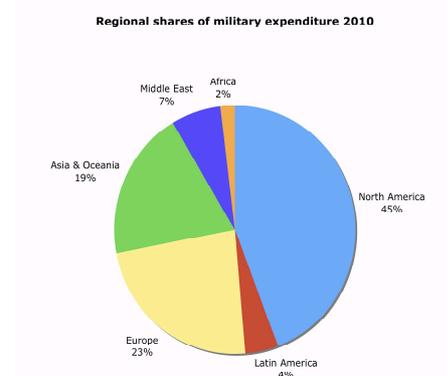
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**Press background material**  
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This chart shows the percentage real terms increase in military expenditure from 2009 to 2010 for the world and for each region



This chart shows the share of world military expenditure in 2010 for each region

well as being overwhelmingly the largest spender in absolute terms, with 43 per cent of the global total, six times its nearest rival China, it has led the way in the global increase since 2001, with an 81 per cent rise in real terms compared to 32.5 per cent in the ‘rest of the world’. Moreover, the share of US GDP devoted to the military—the ‘military burden’—has increased sharply, from 3.1 per cent in 2001 to an estimated 4.8 per cent in 2010, while in the majority of other worldwide the military burden has fallen or remained steady. Of those countries for which SIPRI has reliable data, the USA is likely to have had the highest military burden outside the Middle East in 2010, based on IMF projections for GDP.

Even in the face of efforts to bring down the soaring US budget deficit, military spending continues to receive privileged treatment. President Obama’s FY2012 budget announced a 5-year freeze on non-security-related discretionary expenditure, but military spending, along with other security spending such as intelligence and Homeland Security is exempt. Such cuts as may occur are likely to be due to the end of the US troop presence in Iraq and the gradual drawdown from Afghanistan, rather than to cuts in the ‘base’ defence budget. Taken together, these figures suggest that the USA continues to prioritize maintaining its overwhelming military power as the basis of its security and status. Projections from the White House Office of Management and Budget (based on the US Administration’s Defense Budget Requests for Fiscal Year 2011 and 2012) show another large increase in outlays in 2011, followed by a decrease in 2012—the latter resulting from the withdrawal of US forces from Iraq—but with spending still about 4 per cent higher in real terms in 2012 than in 2010. However, ongoing budget disputes between the administration and the Congress mean that the picture for 2011 and 2012 is highly uncertain.



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## Feature 2. South America

The region with the largest increase in military expenditure in 2010 was South America, with a 5.8 per cent increase in real terms, reaching a total of \$63.3 billion. Between 2001 and 2009, regional military spending increased by an annual average of 3.7 per cent. This accelerating increase in South America is surprising given the lack of real military threats to most states in the region, and the existence of more pressing social needs.

### Reasons for the increase

Part of the explanation for this rise is simply **economic**, with the region enjoying strong economic growth in recent years. While in other regions, the effects of the global economic recession caused military spending to fall or at least rise more slowly in 2010 this was not the case in South America. The economies of Latin America and the Caribbean in general were more resilient to the crisis, with a projected growth rate of 6 per cent in 2010.<sup>2</sup>

However, economics alone does not fully explain the rise of military expenditure in South America. Several other factors also lie behind the trend.

**Geopolitics** is likely to be behind the military expenditure increases of South America's largest spender. Indeed, *Brazil*—whose 9.3 per cent increase accounts for \$2.4 billion of the \$3.0 billion real-terms regional increase—is proactively seeking to project its power and influence beyond South America through the modernization of its military sector. With recent arms deals that include combat helicopters, submarines and new combat aircraft, Brazil is seeking to occupy a greater role in international affairs.

**Internal security threats** are driving the trend in some countries. *Colombia*, which has been involved in armed conflict since the 1960s, has increased its military spending by 72 per cent since 2001, including a further 7.2 per cent increase in 2010, to reach a total of \$10.7 billion. Further increases are expected until 2014. *Peru* has also increased its spending as the government seeks to increase military capabilities to fight the resurgent Shining Path insurgency. In 2010 Peru spent \$2.15 billion, a 16 per cent increase in real terms compared to 2009, the largest in South America.

In other countries, increases in military expenditure are largely explained by a rise in **personnel costs** (including salaries, retirements and pensions). Indeed, a notable feature of military expenditure in Latin America is that it tends to be dominated by personnel expenditure, which typically comprise 50–70 per cent of the budget. *Argentina*, for example, increased its military expenditure by 6.6 per cent in 2010, largely due to increases in salaries.

In light of the increasing trend in military spending across Latin America there were renewed calls in 2010 to improve **transparency** in military expenditure and arms acquisitions. The Organization of American States (OAS) and Union of South

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<sup>2</sup> Economic Commission for Latin America and the Caribbean (ECLAC), *Preliminary Overview of the Economics of Latin America and the Caribbean*, Briefing paper 2010, p. 7.



American Nations (UNASUR) made commitments to strengthen existing transparency mechanisms—such as the Inter-American Convention on Transparency in Arms Acquisitions—and for member states to regularly report their military spending and arms acquisitions to the United Nations registers.<sup>3</sup> Some neighbouring countries in South America have also made bilateral agreements to harmonize the reporting of their military expenditure (i.e. Ecuador and Peru, and Peru and Chile) as a way to build confidence and create more transparency.

### **Venezuela: going against the trend**

In *Venezuela*, military spending fell by 27.3 per cent in 2010, against the regional trend, and is now slightly below its 2001 level in real terms. However, arms acquisitions are continuing, largely funded by loans from Venezuela's chief arms supplier, Russia. The cost of these purchases therefore may not appear in published budget figures.

### **Slowdown in arms acquisitions likely**

While in previous years, a wave of arms acquisitions had raised concerns about a potential arms race in South America, the cycle of acquisitions is likely to slow down in the coming years, but not necessarily end.

*Chile*, the largest arms importer in the region, is expected to lessen its rate of acquisitions following the abolition of a special law that gives 10 per cent of the copper revenues to the armed forces specifically for arms purchases. The so-called 'Secret Copper Law' is to be replaced by a new system to fund arms purchases, which is likely to be administered by the Ministry of Finance.

The *Brazilian* Government has also announced that, in light of recent budgetary cuts, the decision to purchase combat aircraft—the 'FX-2 programme'—as well as frigates and offshore patrol vessels (OPVs) would be delayed until further notice.

## **Regional trends**

### **Africa**

- Estimated total military expenditure in Africa in 2010 was \$30.1 billion (\$10.6 billion in North Africa and \$19.5 billion in sub-Saharan Africa).
- Spending increased by 5.2 per cent in real terms over 2009 (5.6 per cent in North Africa and 4.9 per cent in sub-Saharan Africa) and by 64 per cent compared to 2001 (69 per cent in North Africa and 61 per cent in sub-Saharan Africa).
- Four of the continent's five top spenders—Angola, Algeria, Morocco and Nigeria—accounted for the bulk of the increase, while spending in the fifth, South Africa, fell slightly in real terms.
- Angola's 19 per cent real-terms increase, or \$600 million in 2009 prices, was the

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<sup>3</sup> Infodefensa. 'El Secretario General de la OEA pide mayor transparencia en los gastos militares de America Latina' [The OAS Secretary General asks for greater transparency in military expenditure in Latin America], 3 June 2010; and Agence France-Presse. 'Countries of the continent seek transparency of military expenses', 25 Nov. 2010.



major determinant of the trend in Africa. This was partly offset by another large fall in Chad from the oil-fuelled heights of 2008.

- The increases in Angola, Algeria, Nigeria and the decrease in Chad were influenced by trends in oil and gas revenues.

*Note:* Estimates for Africa and its subregions in 2010 are uncertain due to missing data for some countries, most notably Sudan, Libya and Eritrea.

### **Americas**

- Estimated total military expenditure in the Americas in 2010 was \$791 billion (\$721 billion in North America, \$6.5 billion in Central America and the Caribbean, and \$63.3 billion in South America).
- Spending increased by 3.0 per cent in real terms over 2009 (2.8 per cent in North America, 1.9 per cent in Central America and the Caribbean, and 5.8 per cent in South America), and by 76 per cent compared to 2000 (80 per cent in North America, 28 per cent in Central America and the Caribbean, and 42 per cent in South America).
- In North America, the USA spent \$698 billion (an increase of 2.8 per cent) and Canada \$22.8 billion (an increase of 3.3 per cent).
- Military spending increased significantly in 7 of the 10 South American countries for which data is available. The largest percentage increases were in Paraguay (16.4 per cent) and Peru (15.9 per cent).
- The largest percentage decrease was again in Venezuela, where spending fell by 27 per cent. Bolivia and Uruguay were the other countries cutting spending.

### **Asia and Oceania**

- Estimated total military expenditure in Asia and Oceania in 2010 was \$317 billion (\$211 billion in North East Asia, \$52.1 billion in Central and South Asia, \$28.7 billion in South East Asia and \$25.7 billion in Oceania).
- Military spending in the region increased by 1.4 per cent in real terms over 2009 (increases of 2.1 per cent in North East Asia, 4.1 per cent in Oceania and 0.7 per cent in South East Asia, and a 2.2 per cent fall in Central and South Asia).
- Between 2001 and 2010, military spending increased by 64 per cent in Asia and Oceania (70 per cent in North East Asia, 50 per cent in Central and South Asia, 60 per cent in South East Asia, and 47 per cent in Oceania).
- The growth rate in the region as a whole and in the Asian sub-regions in 2010 was much slower than in previous years, and the fall in Central and South Asia was the first in a decade. The largest absolute increases in 2010 were by China (\$4.4 billion in constant 2009 prices) and Indonesia (\$1.3 billion). The largest absolute fall was by India (\$1.0 billion).
- The largest relative increases were by Indonesia (28 per cent), Mongolia (26 per cent), the Philippines (12 per cent) and Bangladesh (11 per cent). The largest falls were Timor-Leste (51 per cent), Sri Lanka (14 per cent) and Thailand (12 per cent).



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## Europe

- Estimated total military expenditure in Europe in 2010 was \$382 billion (\$268 billion in Western Europe, \$65.5 billion in Eastern Europe and \$48.3 billion in Central and South Eastern Europe).
- Military spending in the region fell by 2.8 per cent in real terms from 2009 (2.6 per cent in Western Europe, 1.3 per cent in Eastern Europe, and 5.5 per cent in Central and South Eastern Europe). However, military spending in Europe is still 11.9 per cent higher than in 2001 (88 per cent in Eastern Europe and 5.2 per cent in Western Europe, but 2.0 per cent lower in Central and South Eastern Europe).
- The falls show that the global financial and economic crisis are beginning to have an effect on military spending in Europe.
- While major spenders made relatively modest cuts, many smaller Central and East European countries saw large falls: Bulgaria (28 per cent), Latvia (26 per cent), Georgia (25 per cent), Moldova (24 per cent) and Estonia (23 per cent). Albania, Greece, Hungary, Lithuania and Slovakia all also had falls of over 10 per cent.
- Further cuts are expected in most of Europe in 2011 and subsequent years, although these are likely to remain relatively modest in the major spending countries.

## Middle East

- Estimated total military expenditure in the Middle East in 2010 was \$111 billion, an increase of 2.5 per cent in real terms over 2009.
- Military spending in the Middle East was around 35 per cent higher in real terms in 2010 than in 2001. Most of this increase occurred during the period 2002–2007, since when spending has been essentially flat.
- The largest absolute increase in the region in 2010 was by Saudi Arabia (by \$1.6 billion in constant 2009 prices), while the largest relative increases were by Iraq (12 per cent) and Lebanon (9.7 per cent). The largest fall was by Oman (by 9.8 per cent).
- Military expenditure estimates in the Middle East for 2009–10 are subject to considerable uncertainty due to missing data for some countries.
- The most important country for which data was missing in 2010 was Iran. A media report claimed that the budget for the armed forces increased by 20 per cent to 90 trillion rials (\$9 billion), while that for the Revolutionary Guard Corps was 58 billion rials (\$5.8 billion). However, SIPRI has been unable to verify these figures or compare them with previous data from other sources.
- A further source of uncertainty regarding Middle Eastern military spending is the very low level of transparency. In most cases, even when data is reported, only a single total figure is given. In Egypt, for example, where official figures for military spending have fallen slightly in recent years, the military budget is reported under the category 'Various functional activities'. It is also likely that in many cases official figures exclude off-budget spending, in particular for arms purchases.

**Table 5A.2. Military expenditure by region, 2001–10**

Figures are in US \$b. at constant (2009) prices and exchange rates for 2001–10. The second column to the right shows military expenditure in current US\$ b. for 2010. The right-most column shows the percentage increase in constant-price terms between 2001 and 2010. Figures do not always add up to totals because of the conventions of rounding.

	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2010 (Current US\$)	% change 2001-2010
<b>World total</b>	<b>1 044</b>	<b>1 107</b>	<b>1 177</b>	<b>1 243</b>	<b>1 294</b>	<b>1 334</b>	<b>1 381</b>	<b>1 457</b>	<b>1 549</b>	<b>1 569</b>	<b>1 630</b>	<b>50</b>
USA	379	425	484	528	553	562	576	619	669	687	698	81
Rest of the world	665	682	693	715	741	772	805	838	880	881	932	32
<i>Geographical regions</i>												
Africa	17.4	18.4	18.3	20.5	21.4	22.3	(23.2)	(25.6)	(27.1)	(28.5)	(30.1)	64
North Africa	6.2	6.3	6.5	7.1	7.3	7.4	8.0	9.4	(10.0)	(10.6)	(10.6)	69
Sub-Saharan Africa	11.2	12.1	11.8	13.5	14.0	14.9	(15.2)	(16.2)	(17.1)	(17.9)	(19.5)	61
Americas	436	482	537	583	613	626	644	692	746	768	791	76
Central American and the Caribbean	4.6	4.5	4.3	4.0	4.3	4.6	5.1	5.3	5.8	5.9	6.5	28
North America	392	439	498	542	568	577	593	637	688	707	721	80
South America	38.7	38.3	35.1	37.4	41.1	44.3	46.2	49.4	51.8	54.8	63.3	42
Asia and Oceania	177	186	195	205	216	229	246	260	286	290	317	64
Central and South Asia	29.8	29.9	30.7	34.9	36.7	37.3	38.6	41.8	45.8	44.8	52.1	50
East Asia	117	123	128	134	142	153	165	175	195	199	211	70
Oceania	14.5	15.0	15.3	15.9	16.4	17.3	18.4	19.0	20.4	21.3	25.7	47
South East Asia	16.1	18.1	20.2	19.9	20.6	21.1	24.3	24.5	25.5	25.7	28.7	60
Europe	336	347	351	353	354	361	367	378	387	376	382	12
Eastern Europe	31.4	34.8	37.2	39.0	43.1	48.1	53.1	58.5	59.8	59.1	65.5	88
Western and Central Europe	305	312	314	314	311	313	314	320	327	317	316	4.1
Middle East	78.2	73.7	76.2	80.9	89.5	95.9	101	101	(103)	(106)	(111)	35