Asia-Pacific Defense Outlook 2015

Tension, Collaboration, Convergence

About Deloitte's Asia-Pacific Defense Outlook

This report examines policies, practices, and trends affecting the defense ministries of 25 Asia-Pacific countries and regions. Publicly available information, commercially-sourced data, interviews with officials in government and industry, and analyses by Deloitte's regional network of defense-oriented professionals were applied to develop the insights provided here. This is an independently developed report, and the data and conclusions herein have not been submitted for review or approval by any government organization.Please note that this outlook was written in December 2014 and 25 Countries and Regions includes the followings.

Australia, Bangladesh, Brunei, Cambodia, Canada, China, India, Indonesia, Japan, Laos, Malaysia, Mongolia, Myanmar, New Zealand, North Korea, Pakistan, Philippines, Republic of Korea, Russia, Singapore, Sri Lanka, Taiwan, Thailand, United States of America and Viet Nam.

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Executive Summary

Tension, Collaboration and Convergence: Asia-Pacific Defense in 2015

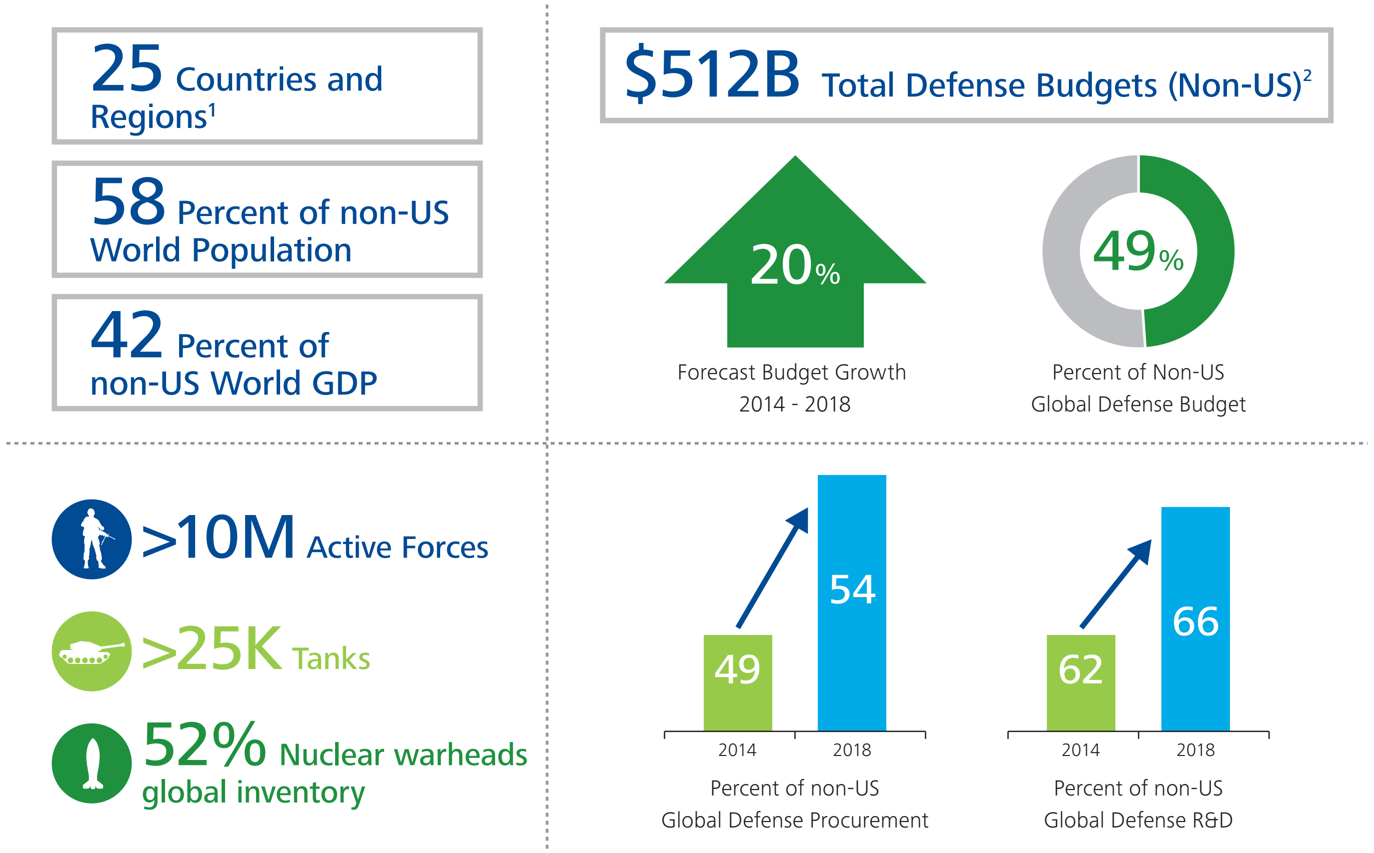
Rapid and uneven economic development across 25 countries and regions of the Asia-Pacific region both enables and demands new approaches to national defense. With more than ten million active military personnel, over 25,000 tanks and more than half of the global inventory of nuclear weapons, Asia-Pacific nations already spend nearly half of the non-US global defense budget, and this share is poised to increase over the next five years.

By 2018, as global defense spending increases by 5.5 percent, defense budgets across the Asia-Pacific (excluding the US) are expected to grow by over 19 percent to about $612B. China's share of regional defense spending is projected to grow from 34 percent to 38 percent, as Japan's share continues to decline. Procurement budgets are expected to increase 28 percent by 2018, when rapidly-developing Asia-Pacific nations will command more than half of non-US global defense procurement and two-thirds of non-US defense research and development, making the region the leading global defense market, and a potent force in defense technology innovation.

As the region continues to develop, nations are undertaking sweeping re-examinations of their defense policies, practices and resources. Regional economic relationships are at the center of these re-examinations, as the US "pivot to the Pacific" is assessed, China's emerging roles as both economic partner and security challenger are debated, and Japan's ongoing re-assessment of defense policy is closely watched.

How might Asia-Pacific defense developments affect the regional and global economic and security environments? Tension, collaboration and convergence are emerging as the defining characteristics of the Asia-Pacific defense landscape at mid-decade.

FIGURE 1: Asia-Pacific Region Defense Profile



1. The country list includes ASEAN Members, the ASEAN Plus 3, the EAST ASIA SUMMIT countries, the ASEAN Regional Forum Members, and North Korea. US is occasionally excluded from comparisons. Partial data available for North Korea, Laos, Myanmar, Taiwan, Mongolia.
2. IHS/Janes Defense Budgets 2014; figure excludes US.

Tension: Regional Re-alignment and Local Flashpoints

The massive and growing impacts of China, India and Russia, shifting defense strategies and priorities in the US and Japan, and rapid military-technical development – including North Korea's emerging nuclear and missile capabilities -- create significant long-run uncertainty for Asia-Pacific defense planners. Economic development has also created new sources of vulnerability, because fragile modern infrastructure – national electricity grids, sea lanes, broadband, mobile telecommunications and financial networks -- requires new forms of protection. Defense ministries in Asia-Pacific have responded unilaterally to new vulnerabilities. The outcome has been increased strategic tension across the region, which often becomes visible at local flashpoints including the South China Sea, information networks and international borders. The long-term trend toward increasing defense procurement and research and development appears likely to heighten security-related uncertainty and tension in the years ahead, especially in the absence of strong regional security institutions.

Collaboration: Seeking Comparative Advantage in Growing Defense Markets

Even as regional tensions mount, Asia-Pacific nations are pursuing two forms of collaboration – bilateral and issue-specific security agreements to manage the context of defense relationships, and technical collaborations to build national defense-industrial capability. Rather than broad alliance-based approaches taken by the Western governments in NATO, Asia-Pacific collaborations exploit specific opportunities, and usually occur in the context of bilateral relationships between economic or defense ministries. The emerging Sino-Russian relationship exemplifies the first form of collaboration, while the Japan-Australia relationship exemplifies the second.

Asia-Pacific nations use defense procurement and research budgets as economic development and fiscal policy tools. A complex network of commercial research, development, manufacturing and operational support activities is forming across the region as defense ministries work toward building strong, durable domestic defense industries.

Convergence: Racing Toward the Global Defense Technology Frontier

Asia-Pacific nations place heavy priority on innovative defense research and development as well as capital spending. Defense research and development budgets are the fastest-growing budget category in Asia-Pacific, projected to rise by 29 percent from 2014 – 2018. China's policy commitment to reach the global defense technology frontier by 2020 has catalyzed a region-wide move toward advanced defense technology, including submarines, naval aviation, precision strike, stealth, network communications and cyber capabilities. The race toward the global technology frontier is seen as both an essential element of defense policy, and a key contributor to economic development. Research partnerships applying increase R&D funding, technology transfer agreements, growing import/export relationships and investment in domestic industrial capacity are underway across Asia-Pacific, and are likely to reshape fundamentally the global defense and economic environments for decades ahead.

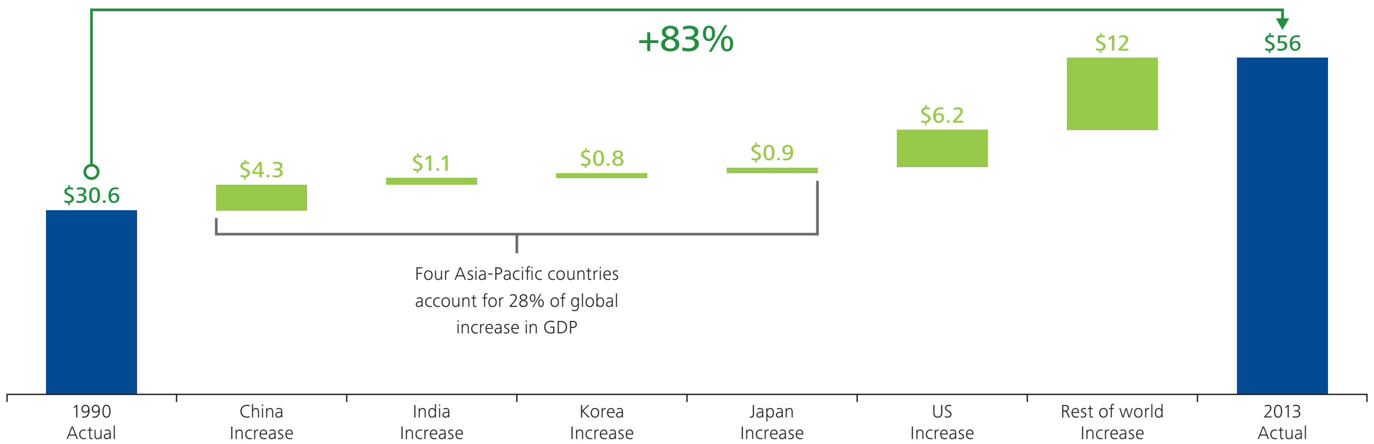
The Economic Context: Development and Defense

Rapid and uneven economic development across 25 countries and regions of the Asia-Pacific region both enables and demands new approaches to national defense. With more than ten million active military personnel, over 25,000 tanks and more than half of the global inventory of nuclear weapons, Asia-Pacific nations already spend nearly half of the non-US global defense budget, and this share is poised to increase over the next five years.

The Asia-Pacific defense landscape has been reshaped, and is now driven by the rapid economic development of China, India and South Korea, and the relative decline in Japan's economic influence across the region. Growth in China, India, Korea and Japan accounted for 28 percent of the total global increase in economic output between 1990 and 2013, and rising incomes in Asia-Pacific increased East Asia's share of world economic output to 25 percent of the world's total, even as the shares of Japan, the United States, and the OECD countries declined.

FIGURE 2: Source of Change in Global GDP

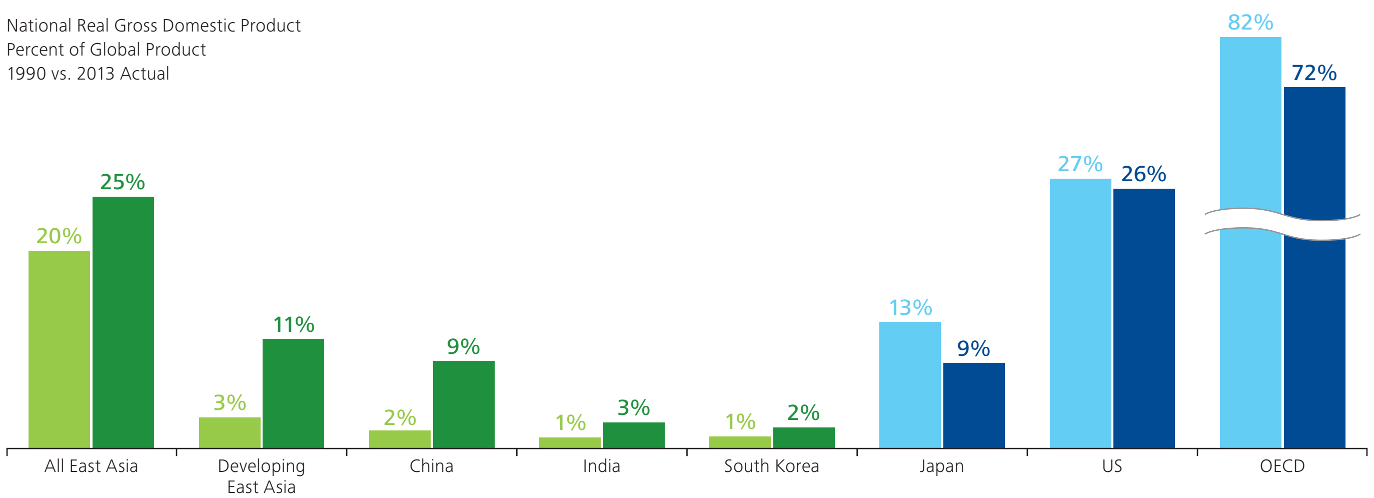
Sources of Change in Annual Real Gross Domestic Product
Constant 2011 USD Trillions and Percent
1990 vs. 2013 Actual



Source: World Development Indicators http://databank.worldbank.org/data/views/variableselection/selectvariables.aspx?source=world-development-indicators ; accessed 28 Oct 14; Deloitte analysis

FIGURE 3 Changing Regional Shares of Global GDP

National Real Gross Domestic Product
Percent of Global Product
1990 vs. 2013 Actual



Source: The World Bank "World Development Indicators" http://databank.worldbank.org/data/views/variableselection/selectvariables.aspx?source=world-development-indicators; accessed 30 Oct 14; Deloitte analysis

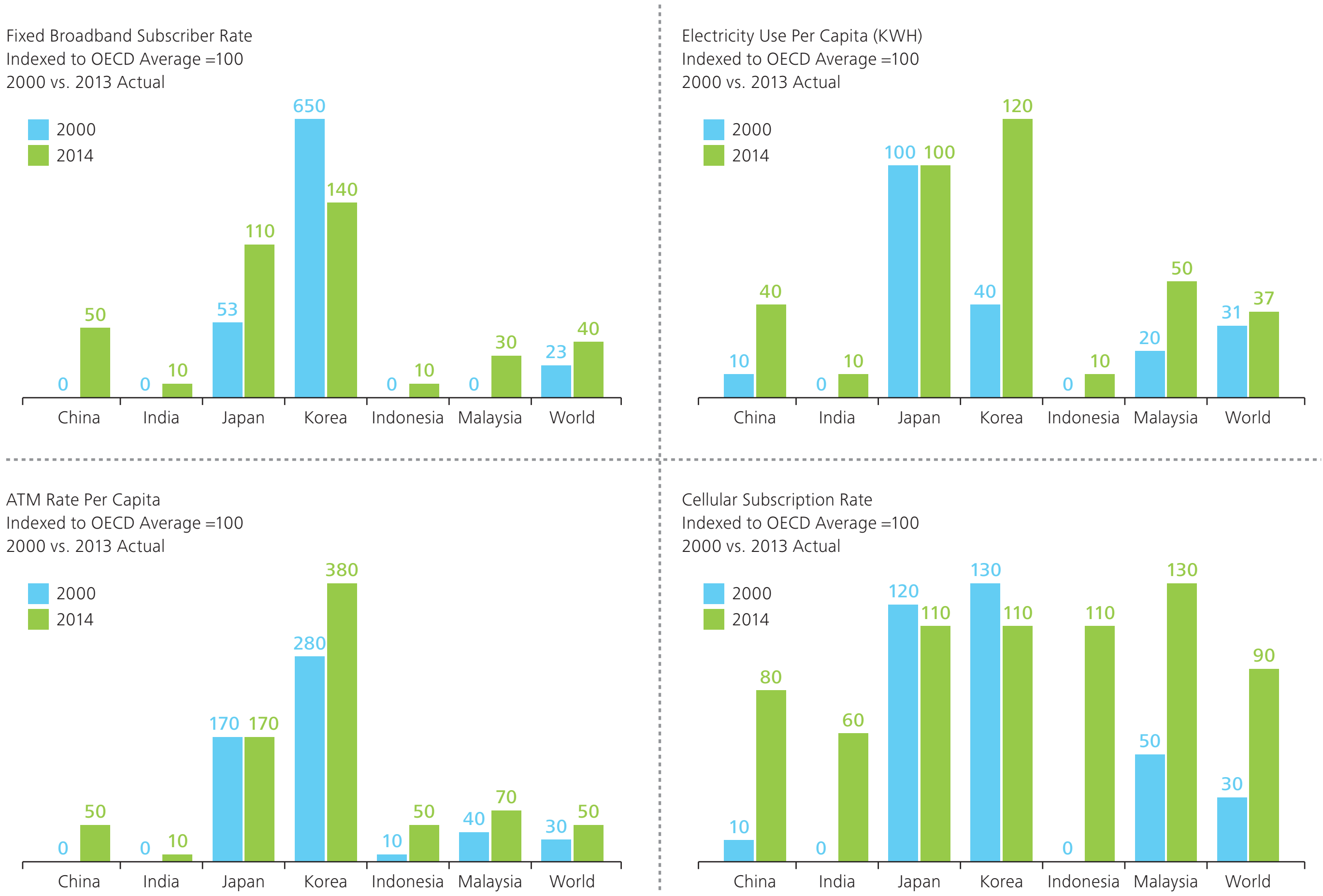
Maintaining economic growth, and developing domestic industrial capability – including defense-related manufacturing – has reshaped defense policy across Asia-Pacific. While rapidly-increasing output improved living standards for over two billion people in Asia-Pacific, the global economic rebalancing of the past 25 years has also created new challenges to defense and security in the region. Newly-vulnerable national infrastructure, a growing threat from terrorism, the emerging cyber threat and an expanding arms trade challenge Asia-Pacific defense planners, and have generated new approaches to defense policy and budgeting.

Newly-Vulnerable Infrastructure

Rapid growth means that there are more physical assets to defend in Asia-Pacific nations today, compared with the earlier stage of development twenty years ago. Key elements of modern infrastructure – once largely limited to advanced Western economies – have emerged in Asia-Pacific, and this valuable and fragile investment must be defended. Four key measures of infrastructure – electric power usage, fixed broadband subscriptions, cellular subscriptions and the presence of automated teller machines (ATM) – show how rapidly the region has developed, and how vulnerable it has become.

In each of these categories, Asia-Pacific countries have raced toward, and in some cases passed, world-average rates of adoption. While these advancements are essential for developed economies, they require governments to plan for their defense, driving defense budgets and technical requirements toward the same levels demanded by Western countries.

FIGURE 4 Asia-Pacific Infrastructure Development



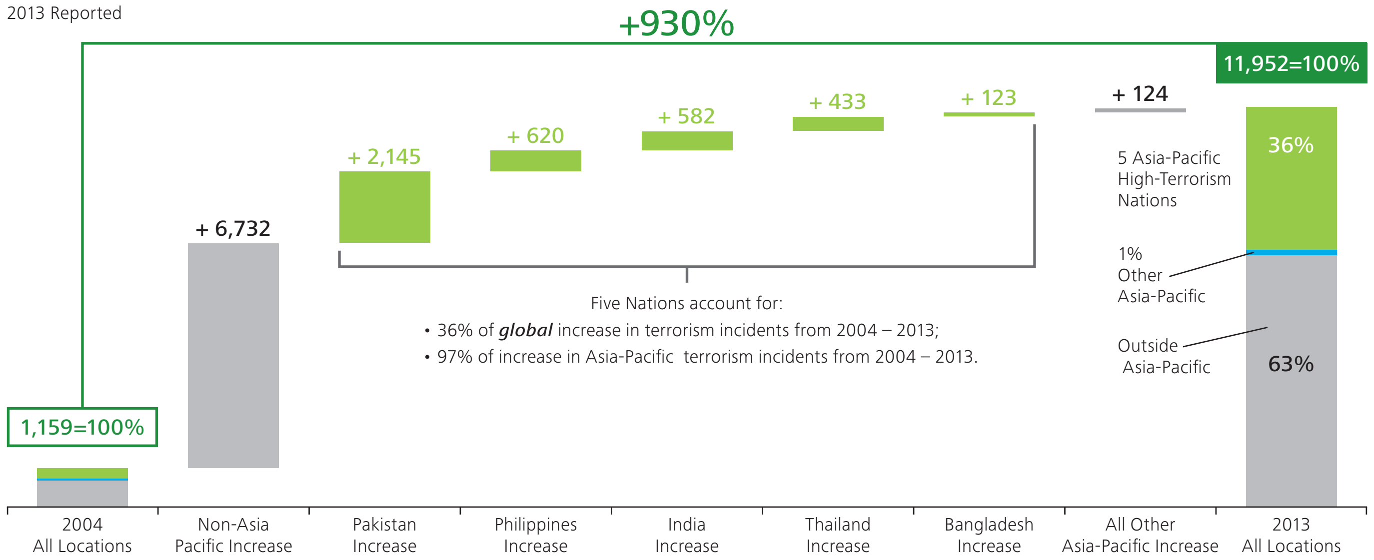
Source: The World Bank "World Development Indicators" http://databank.worldbank.org/data/views/variableselection/selectvariables.aspx?source=world-development-indicators; accessed 30 Oct 14; Deloitte analysis

Increasing Global Terrorism

Between 2004 – 2013, incidents of global terrorism increased nearly ten-fold. While most of the increase occurred outside the Asia-Pacific countries, 2013 was marked by over 4,200 terrorist incidents across Asia-Pacific. Five Asia-Pacific countries – Pakistan, Philippines, India, Thailand and Bangladesh – accounted for 36 percent of the rise in global terrorist incidents between 2004 – 2013, and 97 percent of the increase within Asia-Pacific. While actual incidents of terrorism remain concentrated in a few nations, regional concerns about terrorism are increasing as Islamic State-related attacks and propaganda proliferate. Indonesia's defense leadership called for greater co-operation among ASEAN countries in the fight against ISIS, explaining that Southeast Asians from Indonesia, Malaysia and Singapore had joined ISIS and could threaten regional security in the future[1]. Singapore's defense minister has also called for increased vigilance and defense resources to prevent the possibility of resurgent threats from ISIS, Al Qaeda and related groups[2].

FIGURE 5 Global Terrorism 2004 - 2013

Incidents of Terrorism by Location
2013 Reported



Source: University of Maryland Global Terrorism Database http://www.start.umd.edu/gtd/ ; The World Bank "World Development Indicators" http://databank.worldbank.org/data/views/variableselection/selectvariables.aspx?source=world-development-indicators; accessed 30 Oct 14 Deloitte analysis

Emerging Cyber-Related Security Threats

As Asia-Pacific network infrastructure has developed and economies become more dependent on internet-based communication, cyber attack has emerged as a defense budget consideration. Comprehensive statistics on internet attack traffic are not available, but recently-published estimates indicate that as much as 80 percent of global cyber attacks appear to originate from seven Asia-Pacific countries. As the cyber threat has grown, defense ministries are expanding cyber-related budgets and capabilities.

Japan established a Cyber Defense Unit within the JSDF[3], mirroring widely-publicized efforts in China, Russia, India and other regional defense ministries to manage cyber-related threats.

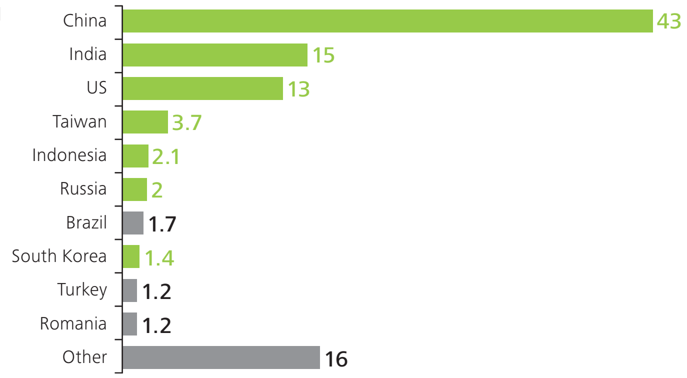
Increasing Arms Imports

The combination of rising incomes, increasing perceptions of security threats, and limited domestic defense industrial capabilities has led to a surge in weapons imports to Asia-Pacific. India, China and Pakistan are now the world's three largest weapons import markets, accounting for 24 percent of global arms imports. Among the higher-income Asia-Pacific nations, where domestic industry can manufacture or co-produce weapons, imports actually fell between 1990 and 2013, but lower-income countries in the region have sharply increased weapons imports, with the largest increases in China and India.

Advanced missile systems and submarine technology have been at the forefront of weapons imports to the region. Submarine procurement is the largest single category of weapons acquisition in the region, and most of the $40B in submarine procurement scheduled for the next 10 years takes the form of imports, rather than domestic production. Advanced missile systems including air and ground-launched cruise missile technology with precision-strike capabilities have been imported by Australia, China, India, South Korea and Pakistan, with the US, Russia and Israel being the most important suppliers[4].

FIGURE 6 Cyber Attacks By Country of Origin

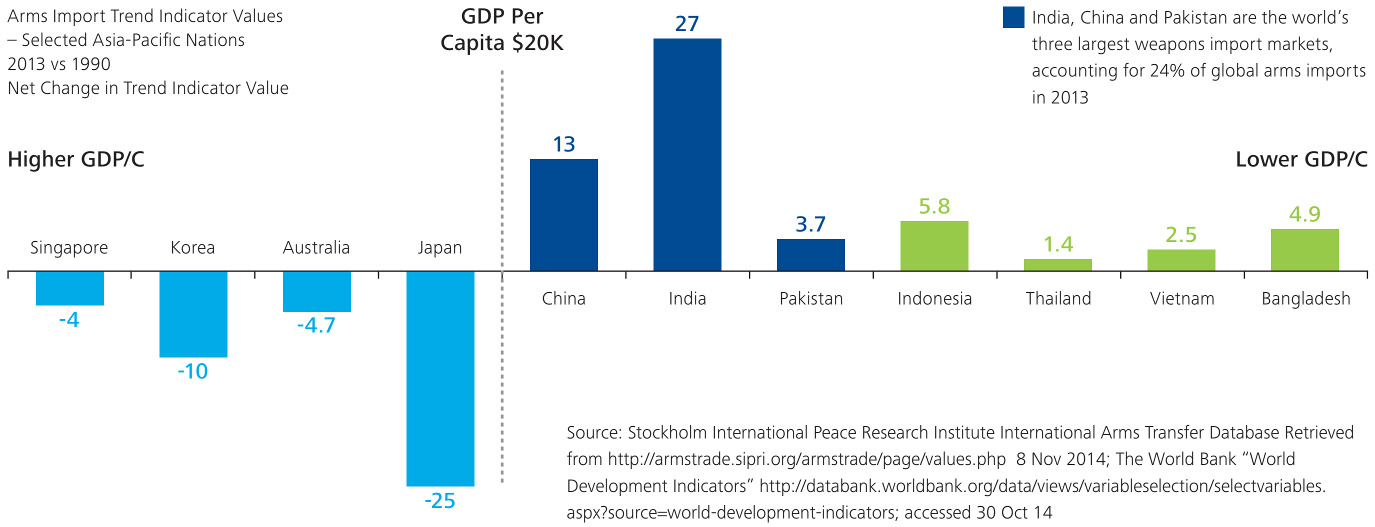
Internet Attack Traffic by Country of Origin
Q2 2014 Reported
Percent of Total



Source: "State of the Internet Q2 2014" Akamai, Inc. p.6 Retrieved from http://www.akamai.com/html/about/press/releases/2014/press-093014.html 7 Nov 2014

FIGURE 7 Asia-Pacific Arms Import Trends

Arms Import Trend Indicator Values
– Selected Asia-Pacific Nations
2013 vs 1990
Net Change in Trend Indicator Value



Source: Stockholm International Peace Research Institute International Arms Transfer Database Retrieved from http://armstrade.sipri.org/armstrade/page/values.php 8 Nov 2014; The World Bank "World Development Indicators" http://databank.worldbank.org/data/views/variableselection/selectvariables.aspx?source=world-development-indicators; accessed 30 Oct 14

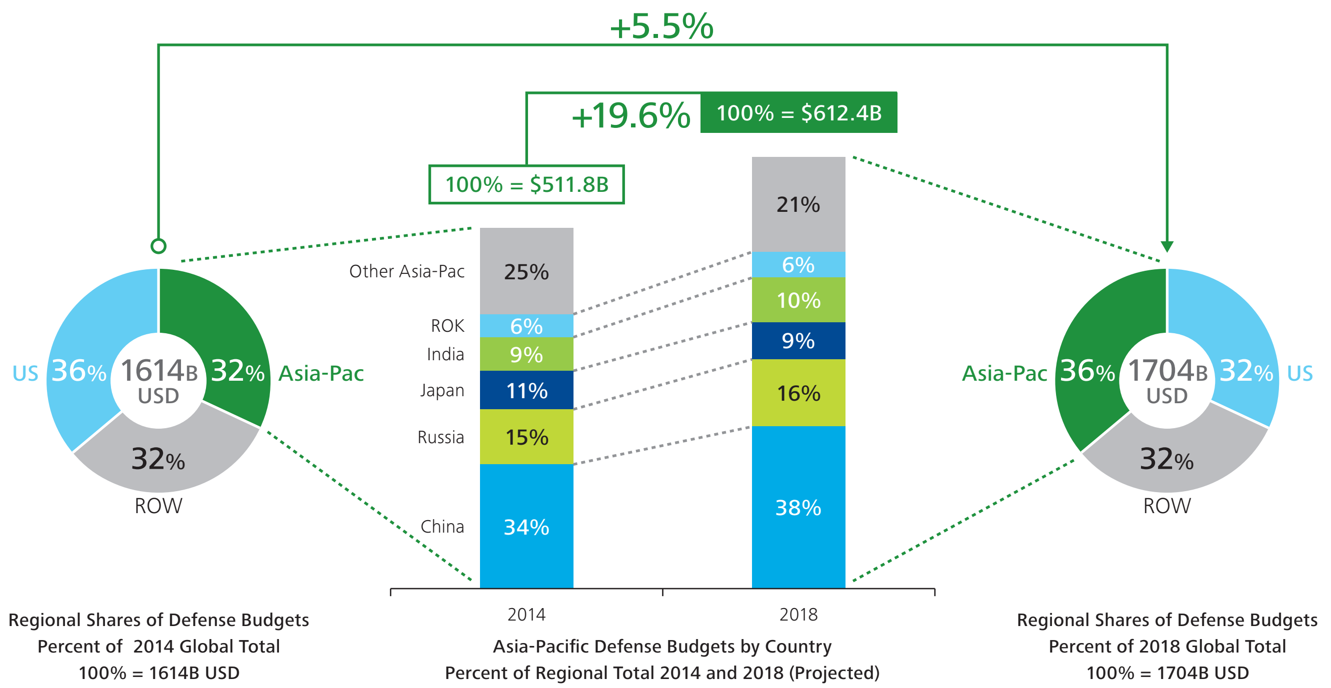
Bigger Defense Budgets, Not Militarization

Rapid economic development and increasing security threats have led to substantial increases in defense spending across Asia-Pacific. By 2018, as global defense spending increases by 5.5 percent, defense budgets across the Asia-Pacific (excluding the US) are expected to grow by over 19 percent to about $612B. China's share of regional defense spending is projected to grow from 34 percent to 38 percent, as Japan's share continues to decline. Russia and India will increase their shares of the regional defense budget. Although the smaller Asia-Pacific countries will continue to increase defense spending, the massive scale of the five largest defense spenders will reduce the share of regional budgets of the smallest 19 nations from 25 percent to 21 percent.

By 2018, rapidly-developing Asia-Pacific nations will command more than half of non-US global defense procurement and two-thirds of non-US defense research and development, making the region a key defense market, and a potent force in defense technology innovation and advancement. Although the US defense budget is expected to decrease, procurement and R&D budgets will be shielded, and procurement will actually increase by nearly 13 percent as the Defense Department continues to acquire major new systems including the F35 fighter – the largest defense acquisition program in US history.

Viewed in historical perspective, the Asia-Pacific share of global defense spending has more than doubled since 1990 (from 10 percent to 26 percent), while Europe's share has dropped from 44 percent to 24 percent. It is tempting to see this shift as a "militarization" of the Asia-Pacific region, but this interpretation misses the key role played by economic development and the vastly increased real output of the Asia-Pacific countries since 1990.

FIGURE 8 Source of Change in Global and Asia-Pacific Defense Budgets 2014 - 2018



Source: Stockholm International Peace Research Institute World Military Expenditures Database http://www.sipri.org/research/armaments/milex/milex_database ; accessed 28 Oct 14; IHS Defense Budgets database; The World Bank "World Development Indicators" http://databank.worldbank.org/data/views/variableselection/selectvariables.aspx?source=world-development-indicators; accessed 30 Oct 14 Deloitte analysis

In fact, as real defense budgets have increased along with national product, Asia-Pacific countries – including China – have generally reduced their reliance on defense as an element of the national economy. The defense shares of real GDP, gross government expenditures and total labor force have generally fallen – as they have in the United States as well.

The rise of Asia-Pacific defense budgets and capabilities can be viewed as a natural component of broader economic development. More-developed economies have more resources to spend on defense, but they devote shrinking portions of their total output, government expenditure and labor force to defense as they continue to develop. Asia-Pacific countries have emerged as full participants in the global economy – including national defense – and this trend does not necessarily portend aggressive or militaristic policies.

FIGURE 9 Declining Defense Share of Regional Economies

Source The World Bank "World Development Indicators" http://databank.worldbank.org/data/views/variableselection/selectvariables.aspx?source=world-development-indicators; accessed 28 Oct 14; IHS Defense Budgets database; Deloitte analysis

Defense Budgets in Asia-Pacific: Growth and Innovation

In 2014, the 24 non-US nations of the Asia-Pacific region accounted for 32 percent of global defense budgets, with China, Russia and Japan spending 60 percent of the regional total. Over the next four years, as the US budget declines, Asia-Pacific defense budgets are projected to grow by nearly 20 percent, far outpacing expected global defense budget growth of 5.5 percent.

Accelerating budget growth in Asia-Pacific is projected to increase the region's share of global defense budgets from 32 percent in 2014 to 36 percent by 2018, eclipsing the US and European shares for the first time.

China, Russia and India generate most of the projected defense budget growth through 2018, when these three countries are projected to account for 64 percent of regional (non-US) defense budgets. Japan's share of regional defense spending continues to decline, as it has since 1990, falling to 9 percent by 2018. India's growing emphasis on acquiring new defense capabilities is projected to increase that country's regional budget share to 10 percent, and Korea's share remains constant at about 6 percent. While many of the other Asia-Pacific countries are projected to make substantial new investments in defense, the scale of the Chinese, Russian and Indian budget increases means that the budget share of the other regional states is projected to decline.

Asia-Pacific defense budgets increasingly emphasize procurement and research and development, as nations develop indigenous defense industrial bases and pursue advanced defense technology. Procurement and R&D are projected to grow by 29 and 28 percent respectively from 2014 – 2018, reflecting plans for major new acquisitions in most countries in the region. Operations and maintenance budgets and personnel accounts are also projected to increase, but at a slower pace than overall budgets. In contrast, as the US adjusts its defense budget following the end of Operation Enduring Freedom, personnel-related and operations and maintenance budgets are projected to decline sharply. US procurement budgets are projected to rise, but US defense-related research and development spending is projected to remain nearly flat through 2018. Recent statements by the US Secretary of Defense indicate that US approaches to research and development are being re-examined, but no new financial commitments have yet been made.

Procurement budgets are expected to increase from $92 billion to $118 billion over the next four years, with accelerating procurement spending by China, Russia and India accounting for 77 percent of the increase. The three top spenders continue to focus heavily on acquiring new defense assets, with Russia's procurement budget projected to increase by 43 percent, China's by 41 percent and India's by 25 percent. Australia, Japan and Korea are each projected to increase procurement spending by over $1B, while the remaining 18 regional defense ministries will increase procurement by a total of about $3B. The smaller Asia-Pacific states are making substantial increases in their procurement budgets. Philippines is projected to increase procurement by 85 percent between 2014 – 2018, and Singapore, Cambodia, Taiwan, Indonesia and Vietnam will each increase their procurement spending by more than 18 percent.

While defense budgets are rising across the region, the Asia-Pacific region includes both advanced industrial economies and developing countries with very different approaches to national defense. National approaches to defense spending reflect economic capabilities and policy choices, as well as military and strategic policies. To better understand these choices and priorities in their regional context, this report examines the Asia-Pacific defense budgets from an economic perspective, segmenting the countries by their levels of per capita GDP (an indicator of overall development and wealth), and the percentage of GDP allocated to defense budgets (an indicator of the level of priority attached to defense). Each Asia-Pacific country is categorized as higher-income or lower-income based on whether its GDP per capita is above or below US$20,000. Each country is then further categorized as a "Spender" or "Economizer" based on whether its level of defense spending is above or below two percent of GDP.

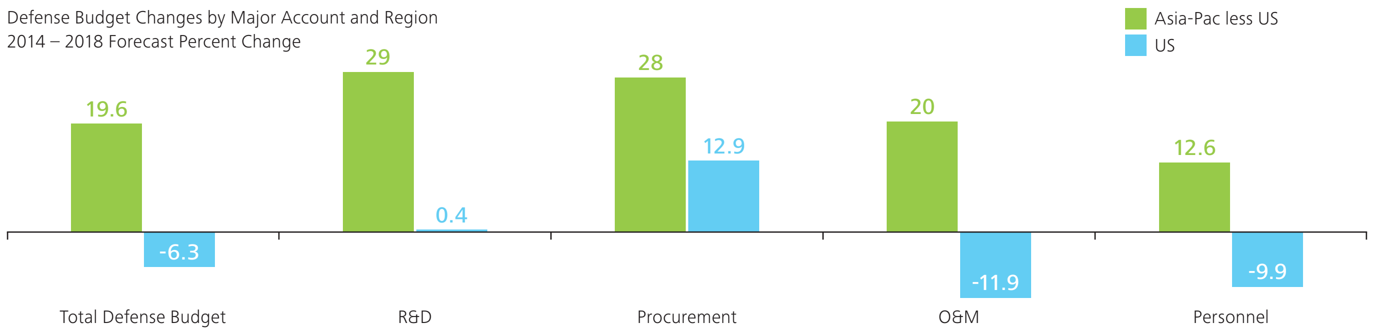
These classifications bring into sharp relief the different economic and strategic approaches to defense taken by the Asia-Pacific nations. Twelve of the 25 nations are Spenders, allocating more than 2 percent of GDP to defense, while 13 are Economizers. Only nine of the regional countries – Brunei, Singapore, the United States, Taiwan, South Korea, Australia, Canada, Japan and New Zealand – are "Higher-Income" countries with GDP above $US 20,000 per capita.

Levels of economic development affect the ability of national economies to support defense spending, and to maintain indigenous defense industries. In Asia-Pacific, the gap between higher and lower-income economies is substantial. The four Higher-Income Economizers (Australia, Canada, Japan and New Zealand) are among the world's most advanced economies, with per capita GDP averaging $US 49,000, while the nine lower-income economizers dispose of GDP per capita less than ten percent of their higher-income counterparts. The Spender countries display a similar range, with GDP per capita in the Higher-Income Spenders (excluding the US) more than six times greater than the Lower-Income Spenders.

Defense policy choices distinguish the defense budgets of the Spenders from those of the Economizers. The Lower-Income and Higher-Income "Spender" nations devote about three percent of GDP to defense, while the "Economizer" nations average 1.2 – 1.5 percent.

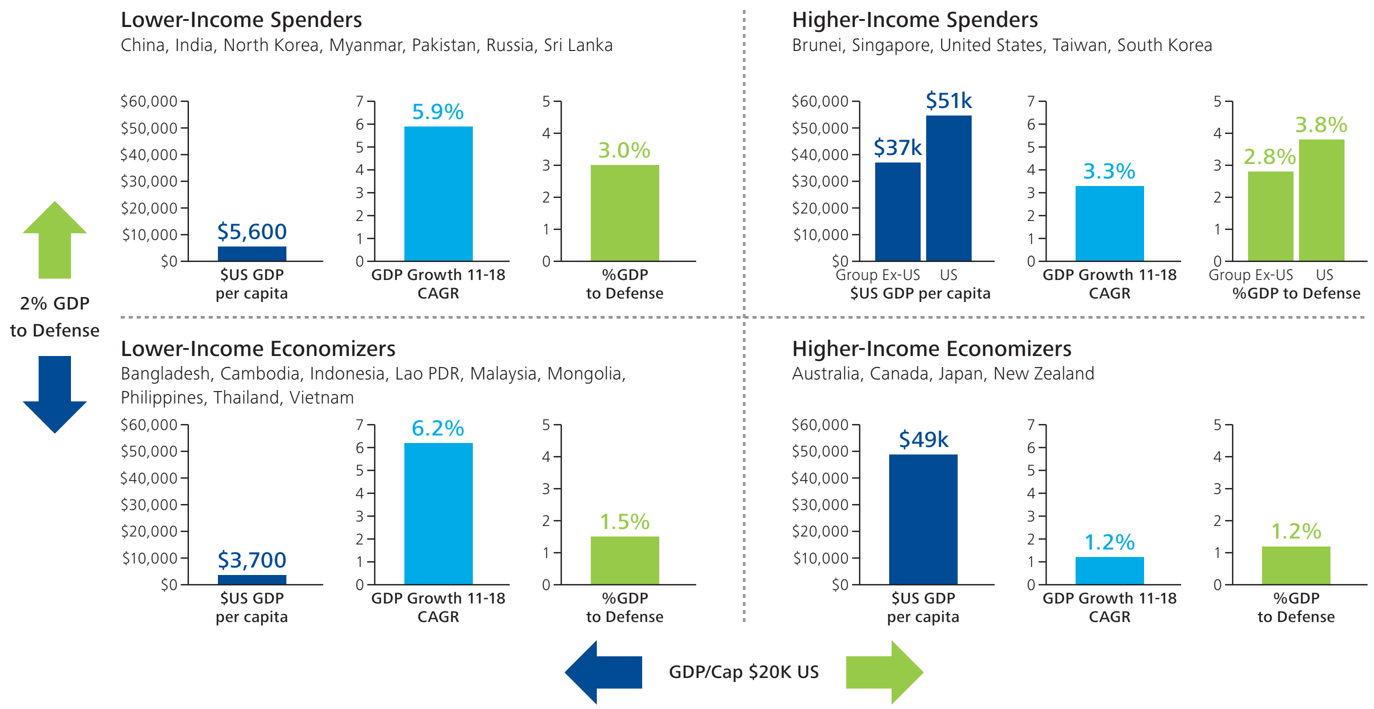
Economic growth can enable or constrain defense investment, and the difference in expected growth rates between higher-income and lower-income Asia-Pacific nations is substantial. Forecast growth rates of real GDP for 2011 – 2018 are substantially higher in the Lower-Income Asia-Pacific nations, suggesting that defense budget growth will be easier to sustain for these governments.

FIGURE 10 Defense Budget Changes by Major Account and Region



Source: IHS Defense Budgets database; Deloitte analysis

FIGURE 11 Four Defense Budget Profiles



Source: The World Bank "World Development Indicators" http://databank.worldbank.org/data/views/variableselection/selectvariables.aspx?source=world-development-indicators; accessed 30 Oct 14 Stockholm International Peace Research Institute World Military Expenditures Database http://www.sipri.org/research/armaments/milex/milex_database ; accessed 28 Oct 14; IHS Defense Budgets database; Deloitte analysis

Higher-Income Spenders: Extending Strategic Advantage With High Technology

The Higher-Income Spenders – South Korea, Singapore, Taiwan, Brunei and the United States – maintain advanced, capital-intensive defense capabilities and spend an average of 2.8 percent of GDP on defense (the US spends 3.8 percent). Over 90 percent of the total defense spending and GDP of this group of countries is generated by the US. The Spenders anticipate modest but positive economic growth through 2018, enabling continued expansion of their defense establishments. Each of the Higher-Income Spenders intends to exploit advanced technology as a source of strategic advantage.

Brunei's defense program recently focused on acquisition of sophisticated command and control capabilities as well as disaster response and border protection[5]. Over the next few years, although procurement and research budgets are expected to decline, Brunei will further enhance its defense with new maritime patrol and transport aircraft, coastal patrol vessels, a ground-based air defense system, and a maritime surveillance system. Brunei's defense leaders intend to continue their emphasis on multilateral defense relationships because of the relatively small size of the force[6].

Singapore devotes over 3 percent of GDP and more than 22 percent of all government expenditures to defense, and plans to continue this relatively high level of commitment into the 2030 timeframe. Precision strike, mobility and extensive networking technology are intended to offset the small size of Singapore's armed forces. Singapore plans major upgrades to existing aircraft and is expected to acquire the F35 advanced fighter[7]. Advanced unmanned systems and infantry fighting vehicles are also elements of Singapore's future defense plans as it seeks to gain technical advantages over potential adversaries.

The **Taiwanese** military is currently transitioning to an all-volunteer force, a process that is expected to be completed by the end of 2016[8]. This process has produced heavy pressure on procurement and research budgets because of demands for increased military pay. However, Taiwan remains focused on increasing the technical capability of its armed forces as well as the defense manufacturing base. To upgrade these capabilities, Taiwan has committed to indigenous submarine production and to local manufacturing of minesweeping ships[9].

South Korea is projected to increase total annual defense budgets by 12 percent over the next five years, paced by double-digit rates of increase in procurement and research and development. The budget increases occur in the context of continued fiscal stimulus, as the government seeks to maintain economic growth[10]. While the defense budget is projected to increase, demographic realities – declining birthrates and fewer conscription-aged citizens—are driving a planned reduction in the size of Korea's armed forces by nearly twenty percent by 2022. The Korean military will reduce active service members from 640,000 to 522,000 with the heaviest cuts from the conscription-dependent army[11].

Increasing budgets and declining active force levels enable Korea to pursue bilateral defense procurement and research and development partnerships. Expanded partnerships in shipbuilding and related technologies are now expanding with both India and Pakistan[12]. As the US continues to press for a greater Korean role in the defense of the peninsula, negotiations to set a firm date on which Korea will assume "wartime operational control" have extended this deadline from 2015 to 2020[13].

The total **US** defense budget is projected to decline by six percent over the next five years, although procurement spending will continue to increase, rising 12 percent from 2014 to 2018. The US share of total global defense spending is projected to decline from 36 percent to 32 percent during this period, but US defense spending will still be almost as large as the combined defense budgets of the other 24 Asia-Pacific nations. Aside from the overall level of US defense spending, which will remain high both in absolute terms and as a share of the US economy, the US strategic posture toward Asia-Pacific continues to evolve, creating a source of tension, and possible misinterpretation, among regional governments. US defense leaders emphasize that over half of US forces will remain in the Asia-Pacific region[14], but the evolving relationships with Japan, Philippines and Korea – where the US continues to press for more responsibility to be taken by its counterparts – indicate that the nature of the US commitment to Asia-Pacific security is changing.

The US-Japan defense relationship is viewed as a bellwether of overall US defense posture in Asia Pacific. Following Japan's 2014 decision to re-interpret Article 9 of the national constitution to allow for the country to participate in collective self-defense, the US-Japan joint defense guidelines were opened for revision. The likely outcome is a new agreement reflecting the more global nature of the Japan/US partnership[15] and increasing the relative weight of Japan's participation in the security partnership. Similar negotiations with Korea over the transfer of wartime operational control to Korean authorities reinforce the perception that the US is seeking to limit direct defensive roles in the region, and to focus on technology sales, training and advisory tasks. This fundamental shift, if continued, contrasts sharply with the increasingly visible presence of Chinese, Russian and Indian military capabilities, fueling the perception of uncertainty and risk across the region.

Higher-Income Economizers: High-Cost Force Structure, Flat Budgets

The Higher-Income Economizers – Australia, Canada, Japan and New Zealand – maintain volunteer-based forces applying advanced technology but with high personnel costs. These countries budget nearly $400,000 per active-duty service member – almost twenty times the per capita expense of the region's lower-income nations. The Higher-Income Economizers are projected to grow more slowly than other Asia-Pacific countries over the next five years, and defense budgets will grow more slowly here than in most of the region. These countries intend to rely heavily on bilateral partnerships, and each has committed to increasing the capability of its domestic defense industrial base.

FIGURE 12 Higher-Income Spenders

Brunei, Singapore, United States, Taiwan, South Korea

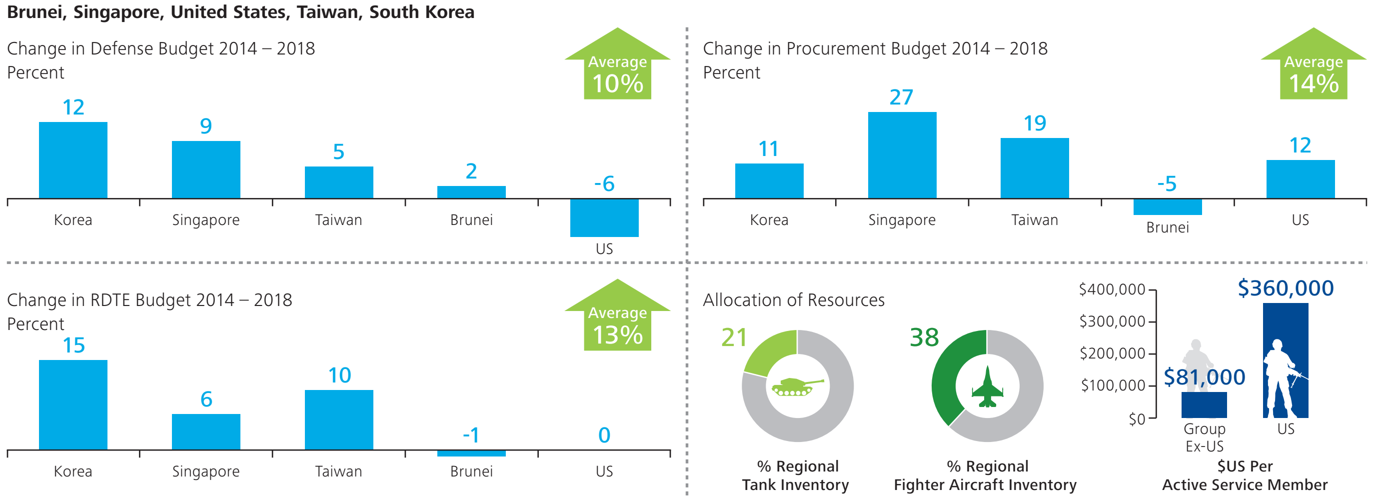


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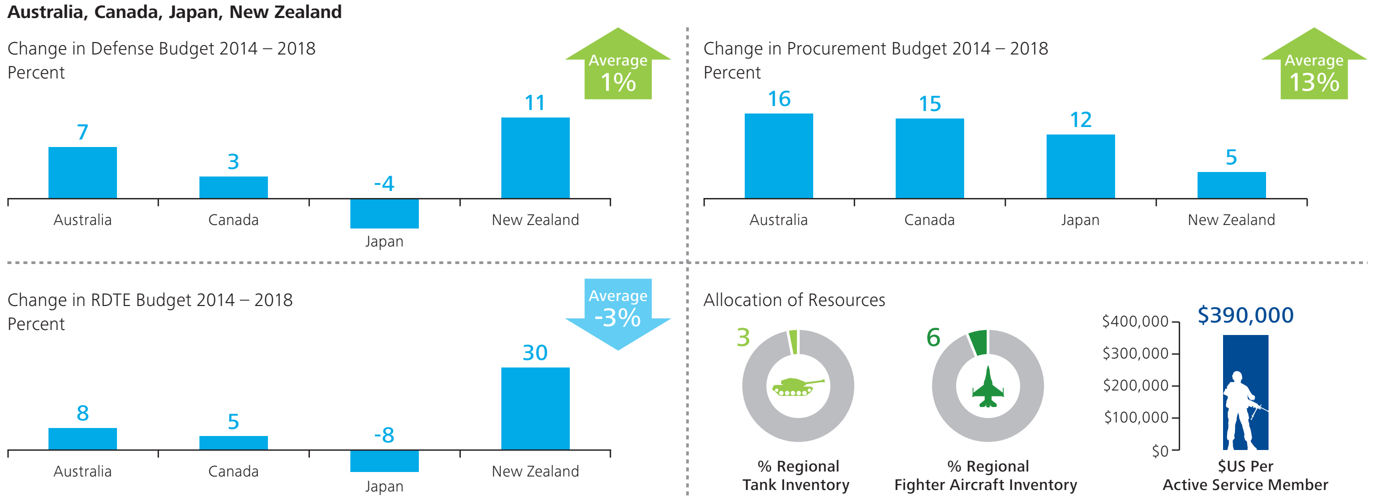
FIGURE 13 Higher-Income Economizers

Australia, Canada, Japan, New Zealand



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Australia's government intends to increase defense spending to 2 percent of GDP by 2024[16], which would lead to a seven percent increase in the budget by 2018. A key element of this spending program will be recapitalization, as procurement and research budgets are projected to increase by 16 and eight percent respectively. Replacement of Australia's six Collins-class submarines with twelve new platforms[17] – possibly a variant of Japan's Soryu submarine – and purchase of 58 or more US F-35 fighters[18] will be the cornerstones of the procurement budget. The F35 purchase would make Australia the most substantial non-US operator of the F35, and would be among the largest acquisition programs in Australia's history.

The potential partnership with Japan on submarine production highlights Australia's emerging strategy of building bilateral defense relationships. Canberra is pursuing new or enhanced bilateral relationships with Indonesia[19], India[20] and New Zealand[21] to further supplement the long-standing bilateral relationship with the United States. These relationships provide for technology transfer and have economic development and employment justifications, as well as security impacts. The emerging relationship between Australia and Japan has been characterized as a "quasi-alliance" by Japanese officials[22].

Canada's budget is projected to increase by three percent by 2018, and procurement budgets will increase by 15 percent as the Canadian government turns attention to economic growth, industrial development and employment. A newly-announced Defense Procurement Strategy is focused on job creation and commits the government to increasing dialog with Canadian defense industry[23]. Canada has also deferred a decision to purchase the US F35 fighter[24] and may instead conduct a modernization of its existing fighter inventory.

Japan's defense budget is limited to one percent of GDP, and slow economic growth has both constrained the resources available for Japan's Self Defense Forces and eroded Japan's once-dominant share of the regional defense budget, which is projected to fall to around nine percent by 2018. From 2014 – 2018, Japan's defense budget is projected to decline slightly, although defense-related procurement spending is projected to increase by 12 percent as Japan acquires new systems including maritime patrol aircraft, destroyers and the F35 fighter[25].

Three fundamental policy shifts now underway in Japan appear likely to reconfigure Japan's defense, and its regional relationships, over the next decade. These shifts are the move toward a policy of collective self-defense, adjustment of existing security partnerships with the United States, Australia and regional partners, and the end of the long-standing ban on Japanese defense exports.

Japan's first "National Security Strategy", published in 2014, commits Japan to a policy of "Proactive Contribution to Peace", centered on the concept of collective self-defense[26]. Widely viewed as a pragmatic response to the regional shift in the relative power of China and the United States, the new strategy identifies North Korea as a "grave and imminent threat" and commits to respond "calmly and resolutely to the rapid expansion and step-up of China's maritime and air activities"[27]. The policy also announces Japan's intention to "recapture and secure without delay" islands that are invaded – a reference to China's increased pressure in the Diaoyu/Senkaku Island disputes.

Reconfiguration of the Japan/US security agreement is underway, as well as enhanced security partnerships with Australia and India. Discussions with India include the possible sale of Japanese aircraft to India's navy, upgraded discussions on broader defense equipment and technology cooperation, and maritime exercises[28].

Japan's total ban on export of defense-related systems was eased in 2014[29] and first steps have been taken to enter the global market for defense systems, including prospective deals with Australia, India and Qatar[30]. If the revised policy is effectively applied by Japanese companies, then Japan may be able to extend its security-related and economic influences in the region while also driving down the domestic costs of developing and procuring advanced defense technologies. The new policy may also create friction in relationships with the established arms-exporting countries, including the US.

New Zealand is projected to increase its defense budget by 11 percent from 2014 to 2018 as it modernizes equipment and focuses on growing domestic employment in defense-related industries[31].

As the budget grows, New Zealand has also resumed military-to-military contacts with the United States[32] and is exploring potential defense collaboration with India[33]. New Zealand 's emphasis on maintaining domestic defense production shaped recent discussions with Australia, in which the two countries agreed to align their acquisition practices by promoting interoperability, rather than joint procurement projects[34].

Lower-Income Spenders: Growing Defense Budgets Emphasize Procurement and R&D

The Lower-Income Spenders – China, India, Russia, North Korea, Pakistan, Myanmar, and Sri Lanka – are projected to continue rapid growth in their defense budgets, averaging 28 percent increases over the 2014 – 2018 period. China, India and Russia are projected to account for two-thirds of the total non-US Asia-Pacific defense budget by 2018, outspending Korea and Japan by more than 4 times. The Lower-Income Spenders account for two-thirds of the tanks and more than half the fighter aircraft in Asia-Pacific, and their spending per active-duty service member is about one-tenth that of the higher-income countries. While economic growth is projected to slow over the next years, the Lower-Income Spenders are expected to grow at nearly six percent annually through 2018, far outstripping the growth rate of the higher-income countries. Procurement and R&D spending are projected to increase at high rates in most of these nations, as they continue to push toward the defense technology frontier.

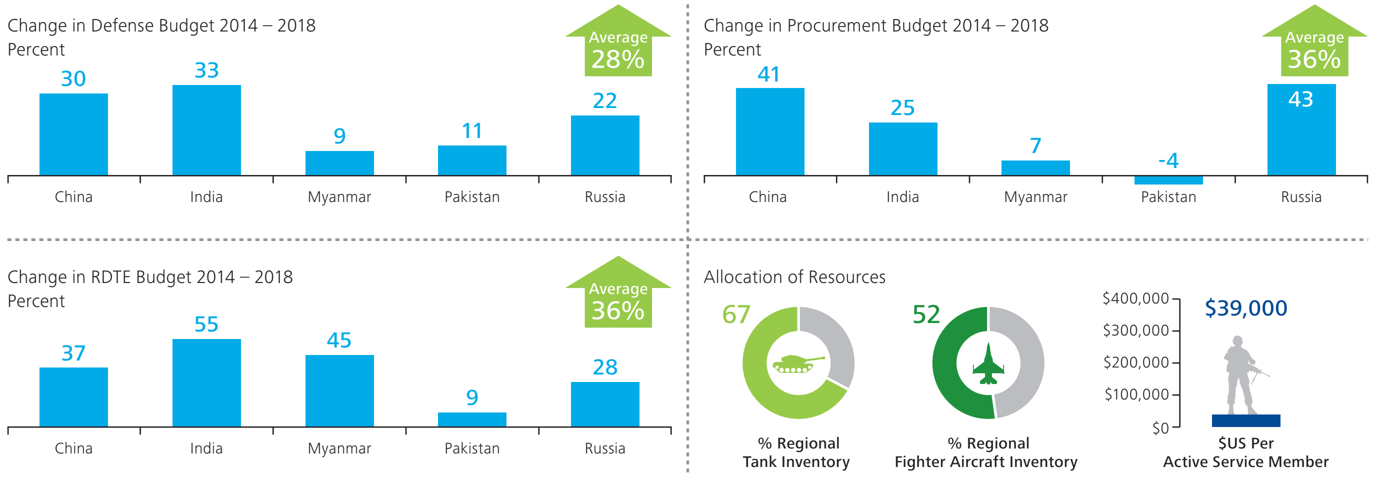
China has decisively emerged as the dominant non-US military power in Asia-Pacific, and is projected further to grow its defense budget by over 30 percent by 2018, when China's defense budget will comprise 38 percent of the total defense spending of the 24 non-US Asia-Pacific countries. China's defense procurement and R&D budgets are projected to increase by 41 percent and 37 percent respectively over the next four years.

China's defense strategy "The Unified Employment of China's Armed Forces" can be viewed as a central element of the country's economic development program[35]. China's government emphasizes the need for "informationization" of the armed forces by developing advanced network, command and control and joint communication technologies. By emphasizing dual-use technologies and by increasing the role of private Chinese companies in defense R&D[36], China seeks to drive both improved security and higher-value Chinese defense industrial activity.

As defense production supports domestic economic development, China's defense strategy supports and enables its relationships with regional neighbors through a two-track approach of cooperation and confrontation. While Japan remains China's most important trading partner and is China's second-largest source of foreign direct investment, confrontation over the new Japanese defense strategy and continued tension over the Diaoyu/Senjkaku islands, including the establishment of "air defense identification zones", also characterizes the bilateral relationship. This pattern also emerges in China's relationships with India, Vietnam, Malaysia and Philippines, where negotiated strategic partnerships are accompanied by maritime confrontation[37]. Expanded cooperation with Indonesia has recently emerged as a Chinese priority, focusing on development of the "Maritime Silk Road"[38].

FIGURE 14 Lower-Income Spenders

China, India, North Korea, Myanmar, Pakistan, Russia, Sri Lanka*



* Figures exclude DPRK and Sri Lanka because of incomplete data

Source: The World Bank "World Development Indicators" http://databank.worldbank.org/data/views/variableselection/selectvariables.aspx?source=world-development-indicators; accessed 30 Oct 14 Stockholm International Peace Research Institute World Military Expenditures Database http://www.sipri.org/research/armaments/milex/milex_database ; accessed 28 Oct 14; IHS Defense Budgets database; Deloitte analysis

As China's defense budgets and capabilities mature, there is evidence that its internal defense resource management practices are also being upgraded. The government recently announced a broad collaboration among military departments to improve fiscal controls, enhance forecasting and boost transparency[39]-- measures aligned with broader anti-corruption efforts.

India's defense budget is expected to increase by one-third from 2014 -2018, paced by a 55 percent increase in research and development, and by a 25 percent increase in defense procurement as India uses defense spending to develop its domestic industrial base and create high-value jobs. India's government-dominated defense industrial base has been open to private-sector participation only since 2001, and is heavily dependent on imports, limiting the contribution of defense spending to economic development[40]. Emerging government policy addresses this limitation in three ways – increasing the allowance for foreign direct investment (FDI) to 49 percent ownership of a defense company, enhancing the security partnership with the US, and evaluating potential defense exports. The FDI amendment is intended to boost domestic development and manufacturing by encouraging non-Indian enterprises to invest in Indian defense companies[41].

The expanded India/US defense relationship includes broad agreements for co-production of US defense systems in India, and follows India's announcement that the US had replaced Russia as the largest foreign supplier of defense equipment. Deepening defense ties between Delhi and Washington also allow India to conduct civil nuclear commerce without being a signatory to the Non-Proliferation Treaty[42].

To further increase the economic and development value of defense production, India is considering new policies to promote defense exports, including improved offsets and lines of credit through the Indian Export-Import Bank[43].

Russia's geography and demography demand a defense policy focused on both Europe and Asia. As Russia continues to recapitalize its defense forces in the wake of the long post-1990 decline, its defense budget is expected to increase 22 percent by 2018 -- paced by a 43 percent projected rise in procurement and 28 percent increase in research and development. In 2014, Russian forces acquired 40 new intercontinental ballistic missiles, at least 210 aircraft, more than 200 armored vehicles, and two new ballistic missile submarines[44]. Long-term restructuring of Russia's forces is likely to continue, as the Ministry of Defense establishes a new branch of service focused on cyber operations and continues to professionalize the force, which now includes more volunteer/contract service members than conscripts[45].

Russian defense policy in Asia-Pacific appears increasingly based on strategic partnership with China. The Sino-Russian oil and gas deal in spring 2014[46] was followed by an announcement that Russia and China will hold at least two joint naval exercises in 2015, and claims by the Russian defense minister that the two countries intend to create a "collective regional security system" in Asia-Pacific to counterbalance US influence[47].

Pakistan faces strategic uncertainty because of the potential withdrawal of US combat forces from Afghanistan by 2016, and is projected to increase its defense budget 11 percent by 2018, although the government does not provide a public breakdown of defense expenses. Pakistan's bilateral security relationship with China is likely to strengthen as the US role evolves. The Chinese-built Pakistani port at Gwadar is one element of this strengthening relationship, which includes potential acquisition by Pakistan of Chinese fighter aircraft and attack submarines, as well as co-production with China of guided-missile ships and Qing-class submarines which could provide Pakistan with a sea-launched nuclear missile capability[48].

North Korea does not publish its defense budgets, estimated by outside analysts to total over 20 percent of the country's GDP[49]. Continued emphasis by Pyongyang on deploying nuclear weapons and delivery systems is likely to make North Korea's defense posture a long-term source of uncertainty and tension in the region. Recent development by North Korea of a miniaturized nuclear weapon suitable for delivery by missile (reported by US officials[50]) contributes to increased perception of threat by North Korea's regional neighbors including South Korea, Japan, Russia and China.

Myanmar's relatively small defense budget is projected to increase by nine percent during 2014 – 2018, with defense research and development projected to rise by 45 percent. Border skirmishes with Bangladesh and continued threats by ethnic rebels complicate Myanmar's security situation, and have led the country to seek improved bilateral security relationships with Japan, Australia and Indonesia. The Japan/Myanmar relationship is focused on Japanese humanitarian assistance and disaster relief by Japan's Self Defense Forces[51]. Australia has re-established direct military-to-military contacts[52], and Indonesia supports defense trade with Myanmar through the Indonesia Eximbank[53].

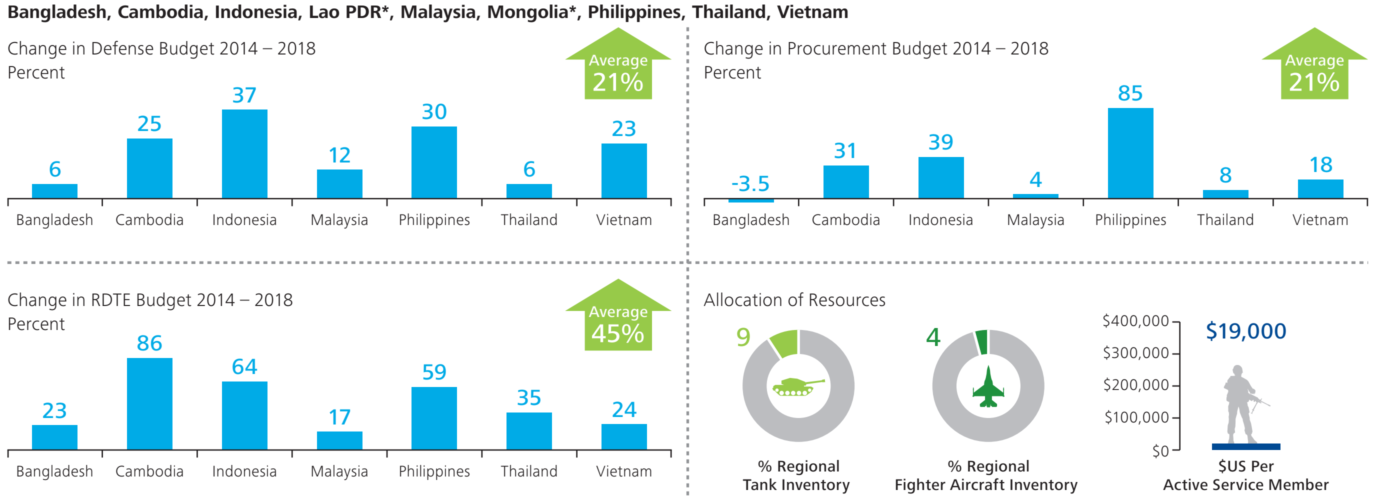
Lower-Income Economizers: Boosting Innovation and Research, and Exploring New Partnerships

The nine Lower-Income Economizers – Bangladesh, Cambodia, Indonesia, Lao PDR, Malaysia, Mongolia, Philippines, Thailand and Vietnam – account for only three percent of total Asia-Pacific defense budgets in 2014. Their projected 2018 combined budgets will total less than 15 percent of China's projected defense spending, and will be roughly equal to Australia's defense budget. Although the total defense budgets are small, the Lower-Income Economizers are projected to make substantial individual increases in their defense budgets over the next 5 years, with total budgets projected to rise by more than 20 percent, paced by rapid increases in Cambodia, Indonesia, Philippines and Vietnam. Personnel budgets are the largest single component of the Economizer defense budgets. However, the fastest-growing defense budget accounts are research and development, as the Economizers allocate new funds for development of domestic defense industry and for international partnerships related to defense production.

The Lower-Income Economizers appear focused on building multiple bilateral relationships to develop domestic defense industrial capabilities and to counterbalance the growing Chinese military presence in Southeast Asia. Indonesia exemplifies this common approach, formalizing or exploring new defense-industrial agreements during 2014[54] with Australia, Canada, Netherlands, Pakistan, Saudi Arabia, Myanmar, Russia and the United States. Vietnam also enhanced its challenging bilateral relationship with China, establishing a China/Vietnam crisis management hotline in 2014, while also cultivating an improved link with Japan. The Vietnam/Japan defense relationship centers on delivery of Japanese coastal patrol vessels for Vietnam's navy, following Chinese establishment of oil drilling near the coast of Vietnam.

FIGURE 15 Lower-Income Economizers

Bangladesh, Cambodia, Indonesia, Lao PDR*, Malaysia, Mongolia*, Philippines, Thailand, Vietnam



* Figures exclude Lao PDR and Mongolia because of incomplete data

Source: The World Bank "World Development Indicators" http://databank.worldbank.org/data/views/variableselection/selectvariables.aspx?source=world-development-indicators; accessed 30 Oct 14 Stockholm International Peace Research Institute World Military Expenditures Database http://www.sipri.org/research/armaments/milex/milex_database ; accessed 28 Oct 14; IHS Defense Budgets database; Deloitte analysis

Asia-Pacific Outlook: Tension, Collaboration, Convergence

Tension: Uncertainty and Regional Flashpoints

The massive and growing impacts of China, India and Russia, shifting defense strategies and priorities in the US and Japan, and rapid military-technical development – including North Korea's emerging nuclear and missile capabilities -- create significant long-run uncertainty for Asia-Pacific defense planners. Economic development has also created new sources of vulnerability, because fragile modern infrastructure – national electricity grids, sea lanes, broadband, mobile telecommunications and financial networks -- requires new forms of protection. Defense ministries in Asia-Pacific have responded unilaterally to their new vulnerabilities. The outcome has been increased strategic tension across the region, which often becomes visible at local flashpoints including the South China Sea, information networks and international borders. The long-term trend toward increasing defense procurement and research and development appears likely to heighten security-related uncertainty and tension in the years ahead, especially in the absence of strong regional security institutions.

Unlike the Atlantic community, which has relied on the strong institutional framework of NATO to coordinate defense policies, manage crises, and set common standards and practices for defense equipment and procedures, the Asia-Pacific region lacks broad-based security-management institutions. The Association of Southeast Asian Nations (ASEAN) was not established as a defense community, and its limited ability to coordinate regional defense activities was evident in its inability to respond to recent incidents in the South China Sea, the Malaysian Airlines 370 disappearance or Typhoon Haiyan. Japan, China, India, Russia, Pakistan, the US and other key regional players are not full members of ASEAN, further limiting its potential. However, the recently-revitalized ASEAN Defense Minister's Meeting (ADMM) has begun to work regional security issues, including potential actions to reduce tensions in the South China Sea, establish direct communications links among defense ministries and other cooperative measures[55]. Competing regional security concepts, including Chinese proposals for regional partnerships and ongoing US efforts to promote bilateral relationships, indicates that broad-based security institutions appear unlikely to emerge in the short term.

Collaboration: Bilateral, Issue-Specific, Development-Oriented

Even as regional tensions mount, Asia-Pacific nations are pursuing two forms of collaboration – bilateral and issue-specific security agreements to manage the context of defense relationships, and technical collaborations to build national defense-industrial capability. The emerging Sino-Russian relationship exemplifies the first form of collaboration, while the Japan-Australia relationship exemplifies the second.

The key bilateral collaboration in Asia-Pacific remains the US/Japan alliance, which is evolving as Japan re-examines its defense policy and the US retrenches following extended operations in Iraq and Afghanistan. Although the core of the relationship appears sound, policy changes now underway will require years to mature, creating additional uncertainty and security risk across the region.

The emerging Sino-Russian relationship may alter fundamentally the defense landscape in Asia-Pacific, although the scope and depth of this relationship is likely to develop over a long period.

New collaborations are emerging in response to shifts in US policy and the increasing weight of Chinese defense resources. Australia's active military diplomacy exemplifies this approach, as Canberra develops new or enhanced relationships with Japan, Indonesia, Myanmar, India, New Zealand and other defense ministries. Canberra's efforts are mirrored by other regional powers, such as Bangladesh, which is developing a partnership with Russia focused on submarine technology, and Indonesia, whose bilateral defense relationships now reach to China, Canada, Russia, and Myanmar as well as Australia.

Asia-Pacific nations use defense procurement and production as economic development and fiscal policy tools. A complex network of commercial research, development, manufacturing and operational support activities is forming across the region as defense ministries work toward building strong, durable domestic defense industries.

Convergence: Pressing Toward the Technology Frontier

Advanced defense technology has been available in Asia-Pacific for decades, as the region includes five declared nuclear powers and North Korea. Asia-Pacific nations place heavy priority on innovative defense research and development. Defense research and development is the fastest-growing budget category in Asia-Pacific, projected to rise by 29 percent from 2014 – 2018. China's policy commitment to reach the global defense technology frontier by 2020 -- demonstrated by emergence of the J31 stealth aircraft[56] (which may be offered for export), naval aviation, cyber capabilities and a military space program -- has catalyzed a region-wide move toward advanced defense technology, including naval aviation, precision strike, stealth, network communications and cyber capabilities. The race toward the global technology frontier is seen as both an essential element of defense policy, and a key contributor to economic development. Research partnerships applying increase R&D funding, technology transfer agreements, growing import/export relationships and investment in domestic industrial capacity are underway across Asia-Pacific, and are likely to reshape fundamentally the defense and economic environments for decades ahead.

Japan's entry into the global market for defense systems, as well as technology-transfer agreements linking Russia, China, Japan and the US to less-developed but cash-rich regional powers, appears likely to increase the spread of advanced military technology across the region. As economic development continues, nations are likely to find it increasingly difficult to maintain a decisive technological edge over the regional and global rivals.

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