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## Crowded waters

### Naval competition in the Asia–Pacific

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### A naval arms race in Asia?

Over more than a decade, many Asia–Pacific countries have increased their defence expenditure and started to modernise their military capabilities, particularly in the air and naval domains. This led to a debate about whether the region was subject to a destabilising arms race—a progressive and competitive increase in armaments by two or more states resulting from conflicting purposes or mutual fears.<sup>1</sup> A 2008 ASPI study concluded that this explanation was too simplistic and that ‘many different motivations exist concurrently, and the resources that various countries can bring to bear vary markedly, resulting in a many-faceted picture’.<sup>2</sup> To what degree is that assessment still true? After all, the strategic context was different in 2008. In particular, the global financial crisis, which began in that year, had set

back defence reform programs across the region. And China was only at the beginning of its comprehensive efforts to change the regional maritime order in its favour.

Decisions on arms acquisitions in the Asia–Pacific continue to be driven by a multitude of strategic rationales and domestic factors. However, significant changes since 2008 raises the question regarding the primary motivation behind regional naval acquisitions, including supporting air capabilities. Maritime disputes between China and its neighbours have increased tensions and affected countries’ modernisation programs. For instance, maritime tensions have driven the requirement for greater maritime surveillance capabilities, signals intelligence systems, surface combatants with longer endurance, platforms able to launch anti-ship missiles, submarines, and longer range aircraft.



Japanese Soryu class submarines. Japan is in the process of increasing its submarine fleet from 16 to 22 as part of its military modernisation. Photo courtesy Japan Maritime Self-Defense Forces.

As well, the maritime disputes occur in the context of heightened uncertainty about the future distribution of regional power, particularly between the US and China. Consequently, regional naval arms decisions are increasingly driven by action–reaction dynamics<sup>3</sup>—reciprocal dynamics in which developments in offensive and defensive capabilities become an interactive process in which the arms requirements of one party depend upon the known, assumed or anticipated capabilities of the forces of other parties. They're manifested in counter-reaction (where one party responds to another's capabilities) and mirror-reaction (where a party imitates another's capabilities).

In short, these dynamics display some of the important characteristics of an arms race and show that the Asia–Pacific is indeed becoming more contested, and potentially more volatile. It's thus important to examine where such dynamics occur and what motivations dominate decisions to modernise. Arguably, naval and air capabilities define the strategic situation in the region to a large extent, although in some instances land forces remain more significant, such as in Vietnam, the Philippines, Thailand, Myanmar and Cambodia.

Against this background, this paper examines the arms acquisitions of key Asia–Pacific countries. In Northeast Asia, that includes China, Japan, South Korea and Taiwan. In Southeast Asia, the paper looks at Indonesia, Singapore, Vietnam, the Philippines, Malaysia and Thailand. This analysis is used to determine potential implications for Australia's strategic position in the region and for the ADF.

## Regional defence expenditure—the 'how much' and 'what'

Before analysing the naval and air programs of key Asia–Pacific countries in detail, it's important to look at regional trends in defence expenditure, which are a useful macro indicator of whether nations are seriously concerned about their strategic environment.<sup>4</sup> There are important differences between Northeast Asia and Southeast Asia.

### Northeast Asia: more than meets the eye

Unsurprisingly, China accounts for the bulk of regional defence spending in Northeast Asia, accounting for 51% in 2013 (Figure 1).

Beijing bounced back very quickly after the 2008 global financial crisis, and its defence expenditure has risen rapidly compared to the rest of Northeast Asia, where Japan, South Korea and Taiwan have had only minimal increases in recent years (Figure 2). Note that the renminbi was unpegged from the US dollar in 2010–11; because Figure 2 shows defence expenditures in current US\$, Chinese expenditure seems to undergo an abrupt decline in that year. In constant dollars, China has recorded two decades of double-digit increases in annual defence spending.

It's also common to look at the proportion of GDP that countries spend on defence. That doesn't tell us what or how much they're buying, but it's an indicator of the relative priority afforded to defence and thus a proxy for strategic concern. On this measure, it appears that most countries invest only a modest proportion of their GDP in defence, and in some cases there's even been a decline (Figure 3 and Figure 4).

These figures suggest that there's not much to worry about. It's to be expected that China's military expenditure will grow commensurate with its overall economic rise, and as a percentage of GDP Beijing's spending a relatively modest sum on its military. Other regional countries don't come close to China's investments, and their ratio of defence spending to GDP also appears modest.

However, this measure doesn't take into account the real value amount, which is a measure of the amount of defence capability that can be purchased. It also doesn't consider the sophistication or type of the defence equipment acquired by individual countries. For example, spending on internal security forces is less significant for regional security than the acquisition of key capabilities, such as major surface combatants, submarines and modern aircraft.

When the types of purchases are considered, a different picture emerges in Northeast Asia. Arguably, South Korea's defence expenditure was affected most by the global financial crisis, whereas Japan's and Taiwan's had already declined before the event. But what's often overlooked is that after the crisis neither defence spending nor major equipment programs in Northeast Asian countries decreased or plateaued (Figure 5).

This suggests that in Northeast Asia military programs aren't influenced solely by economic performance. Rather, because of changing strategic dynamics, significant investments were made in naval and air capabilities—a sign of action–reaction dynamics. More capable navies are being developed, supported by land-based aircraft for maritime surveillance and strike operations. As will be shown, it's clear that China, Japan, South Korea and Taiwan are reacting to each other's capabilities and modernisation efforts—and that US capabilities are a key factor as well (Figure 6).

### Southeast Asia: more modest but increasing

The picture in Southeast Asia is more complex. Arguably, the South China Sea has dominated strategic rationales for increasing capabilities, particularly when it comes to submarines.<sup>5</sup> As well, the value amount of defence expenditure in this region remains modest compared with spending in Northeast Asia.

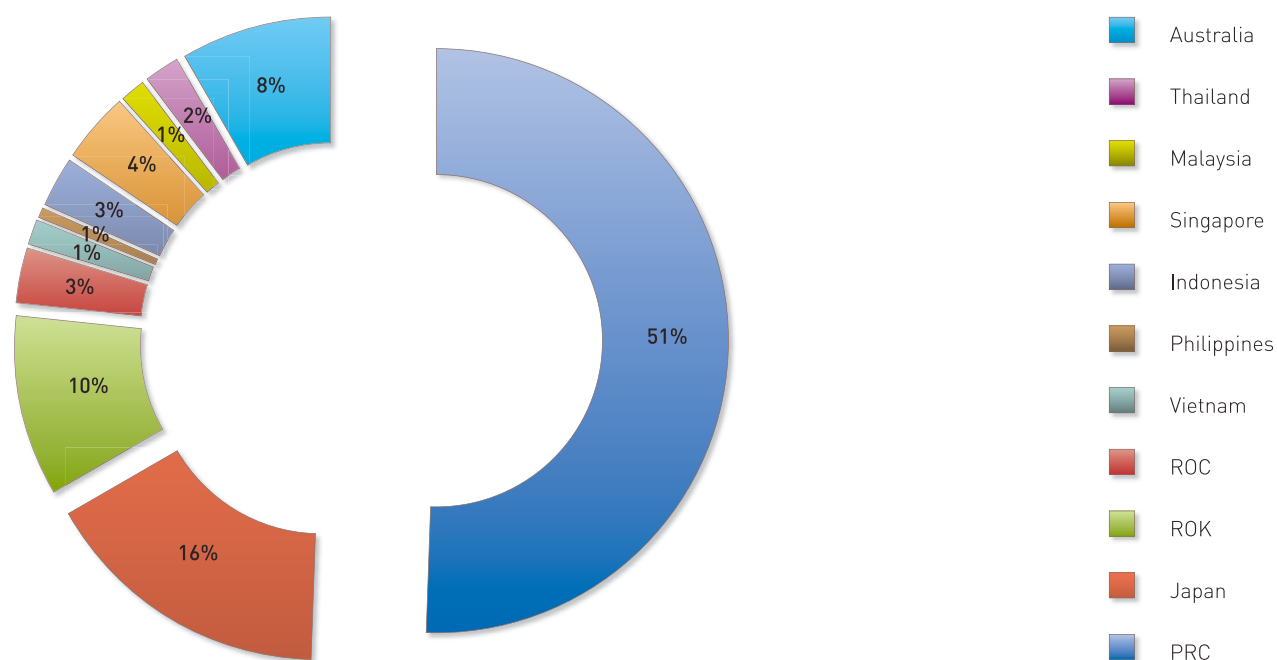
However, it's important to note that after the global financial crisis (which had significant impacts on all Southeast Asian countries, with the exceptions of Singapore and Indonesia),

regional defence expenditure continued to rise. Singapore has retained its top position, spending an average of 5% of its GDP on defence and accounting for approximately 23% of regional defence spending. Malaysia and Thailand also had significant increases in percentage terms, although this was off relatively low bases. Indonesian spending is also increasing again, although again off a low base; the defence budget is still below 1% of GDP, as it is in the Philippines.

A comparison between military expenditure and major equipment programs across Southeast Asia (Figure 7) demonstrates a steady increase in defence spending until 2011. However, from 2012 onwards, the number of platforms decreased while military expenditure continued to climb, indicating substantial efforts to modernise and invest in fewer but more capable platforms.

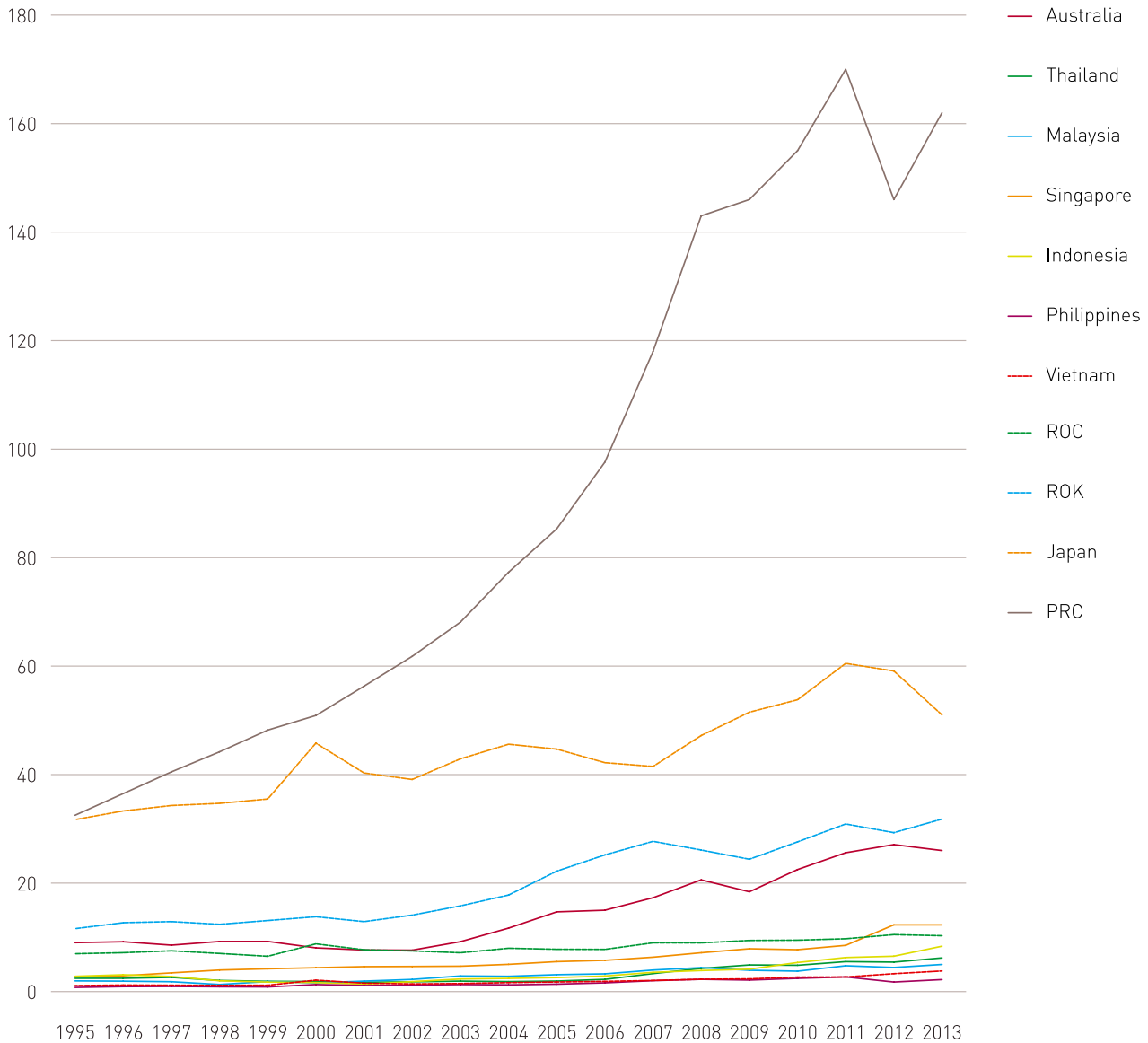
Yet, despite these efforts to create more effective and sustainable forces, Southeast Asian countries (with the exception of Singapore) haven't developed the ability to build, operate and maintain sophisticated capabilities. Acquisition decisions remain haphazard and are taken with little or no consideration for their impact on the country's overall and future force structures.

Figure 1: Asia-Pacific military expenditure, 2013



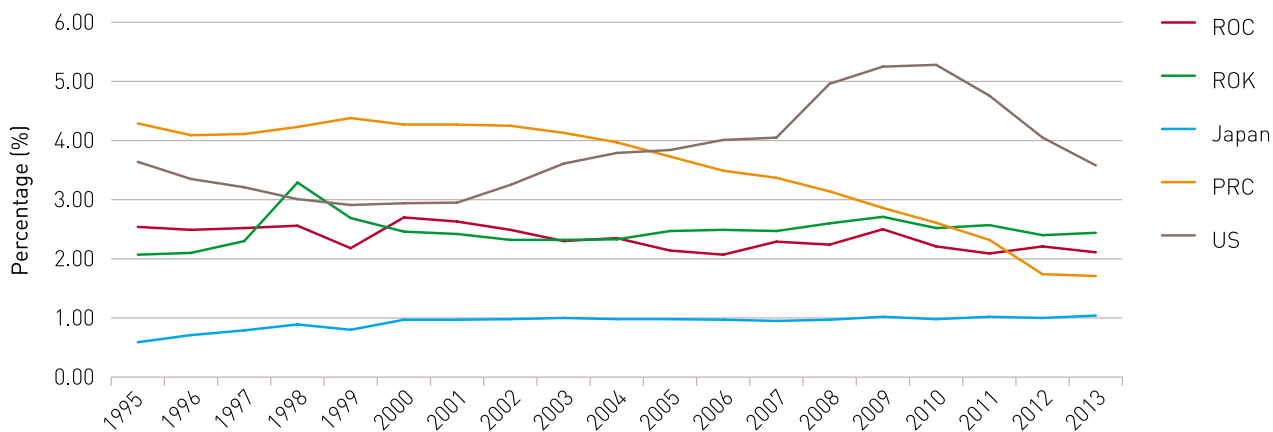
Source: *World Military Expenditures and Arms Transfers (WMEAT)* series of reports, US State Department, 1995–2014.

Figure 2: Regional military expenditure, 1995 to 2013 (US\$ billion, current)



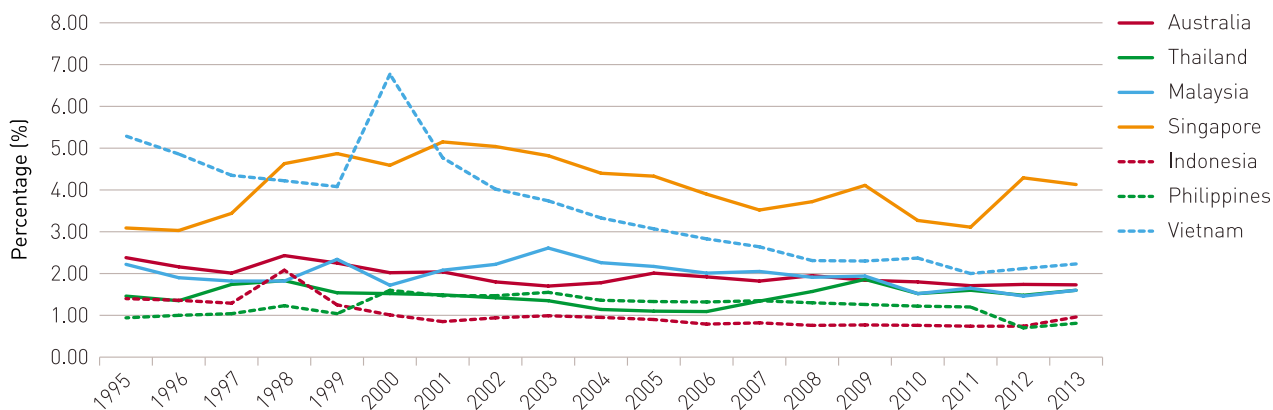
Sources: WMEAT 1995–2014 and IMF World Economic Outlook Database, October 2014.

Figure 3: Northeast Asia, defence spending, 1995 to 2013 (% of GDP)



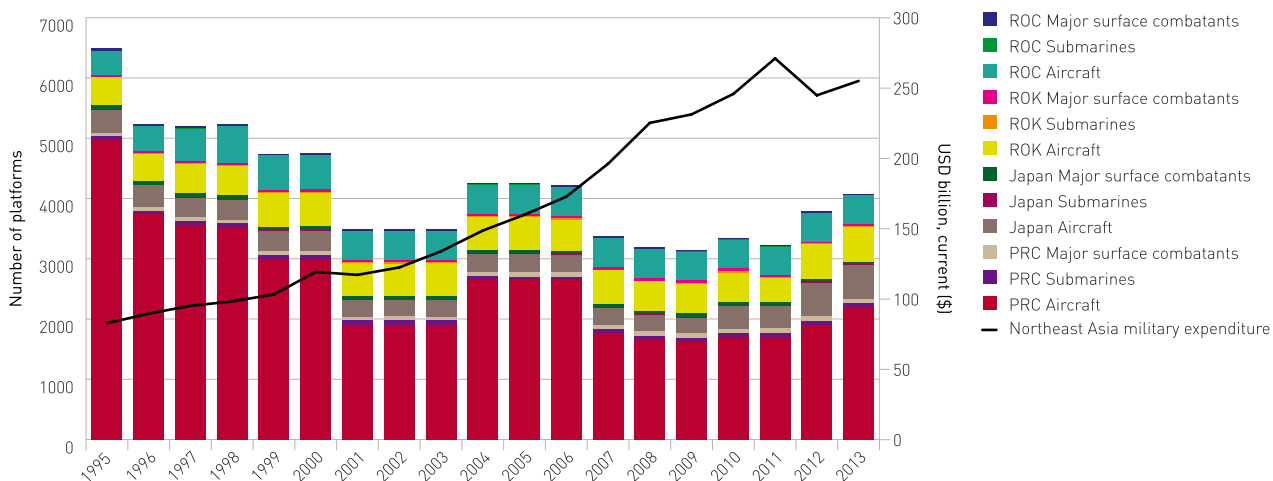
Sources: WMEAT 1995–2014 and IMF World Economic Outlook Database, October 2014.

Figure 4: Southeast Asia, defence spending, 1995 to 2013 (% of GDP)



Sources: WMEAT 1995–2014 and IMF World Economic Outlook Database, October 2014.

Figure 5: Northeast Asia, regional comparison, 1995 to 2013



Source: WMEAT 1995–2014 and IISS Military Balance 2014.

Figure 6: Northeast Asia, action-reaction dynamics in the naval-air theatre

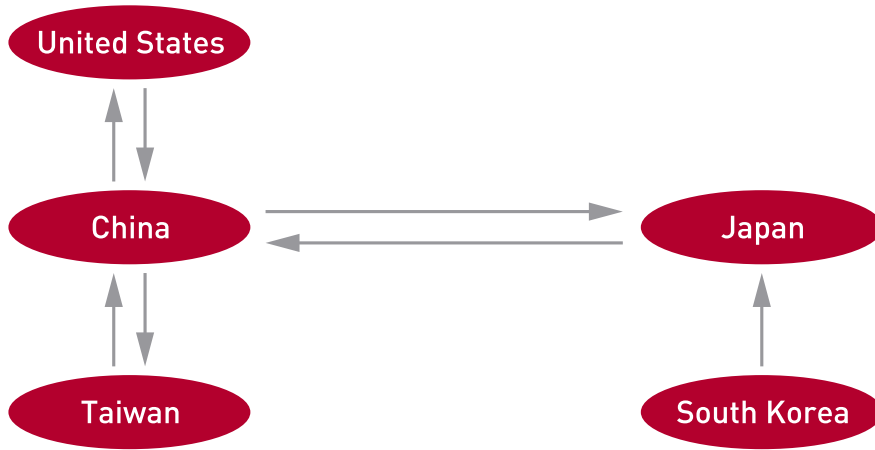
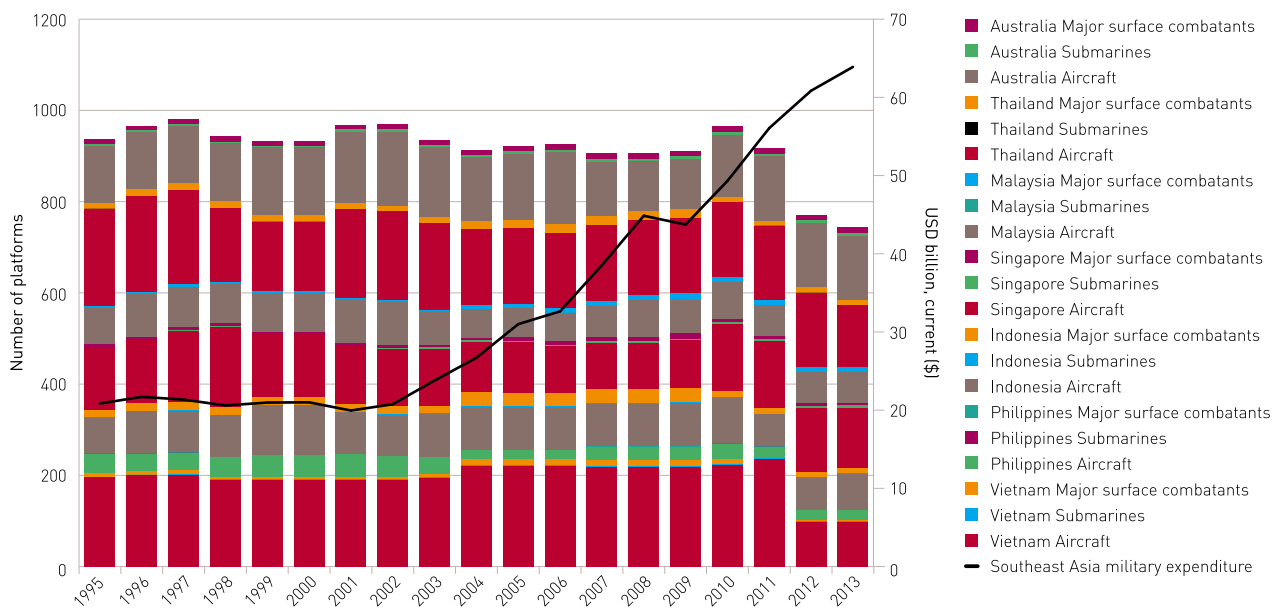


Figure 7: Southeast Asia, regional comparison, 1995 to 2013



Source: WMEAT 1995–2014 and IISS Military Balance 2014.

## Regional defence expenditure—the ‘why’

There are two sets of explanations of what’s driving Asia-Pacific countries to improve their capabilities in the air-maritime domain—strategic and domestic.

Strategic explanations include:

- self-reliance (the ability to operate independently when necessary, and with partners when required)
- the changing balance of power
- territorial disputes
- protecting sea lines of communication
- strategic aspirations
- action–reaction dynamics.

Domestic explanations include:

- economic growth
- requirements for exclusive economic zones (EEZs)
- nationalism
- new technologies
- corruption
- supply-side pressure
- interagency rivalries.

The explanations aren’t mutually exclusive, and often reinforce each other in a country’s desire to modernise its platforms. In Northeast Asia, hedging against potential threats and the need to protect sovereignty claims have resulted in competitive action–reaction dynamics involving both counter-reaction and mirror-reaction.

Although increased economic growth has translated into an increase in naval and air capabilities, it has now gone beyond the level needed to sustain mere modernisation.

While the percentage of GDP spent on defence has plateaued, economic growth means that the real value amount and the technological sophistication of the equipment that these countries (particularly Japan) are investing in are significant.

For the People’s Republic of China (PRC), the primary objective of its military modernisation is to enhance its war-fighting capability to deter the US or other powers from intervening in the region (a goal explicitly mentioned in its defence white papers), particularly in the Taiwan Strait. For Japan, modernisation is motivated not only by the rapid modernisation of the People’s Liberation Army (PLA) but also by Japan’s desire to normalise its defence policy. Taiwan’s modernisation is influenced by the need to counter China’s increased power projection. South Korea’s investments in maritime and air capabilities are arguably a reaction to Japan and the contest over the Takeshima/Dokdo Islands. Although some of its investments are directed towards a North Korean contingency, the development of a bluewater navy and long-range maritime surveillance aircraft clearly serve other purposes.

On the other hand, the picture in Southeast Asia is more complex due to a greater influence of domestic explanations on the modernisation process, particularly corruption and interagency rivalries. Arguably, the South China Sea has dominated strategic rationales for increasing capabilities, particularly submarines.<sup>6</sup> Yet, in comparison with Northeast Asia, the defence expenditure of Southeast Asian countries remains modest. Acquisitions remain haphazard and seem not to take future force structure into account.

Despite efforts to create a more effective and sustainable force to guard national waters and EEZs, Southeast Asian countries show no serious willingness to engage in a naval arms race. With the exception of Singapore, their investments in prestigious platforms haven’t translated into the ability to build and maintain a capability. Many regional forces also face a serious risk that investments in very expensive and complex military platforms (such as submarines) lead to imbalances in their force structure.

## Regional trends—‘who’s doing what’

This section examines developments in the main regional countries.

### China

The primary objective of the PRC’s military modernisation is to enhance its war-fighting capability to deter US air and naval forces from intervening in the region, particularly in the Taiwan Strait. The key to China’s modernisation is its ‘counter-intervention’ strategy—or anti-access/area-denial (A2/AD) in Western parlance—with one major emphasis on its naval capabilities. While it’s only in the long term that the PLA and PLA Navy can challenge the US in the wider Western Pacific or beyond, this comprehensive strategy has begun to erode American military preponderance.

Hardly faltering during the global financial crisis, its defence budget has increased by double-digit percentages nearly every year since 1988—an eightfold increase over the past 20 years. In March 2014, Beijing announced a 12.2% increase in its annual military budget to US\$132 billion, continuing that trend.

Nationalist fervour plays a significant part. President Xi Jinping has called for the realisation of the ‘Chinese dream’ and for China’s recognition as a superpower akin to the US. The Chinese Communist Party thus places great emphasis on its goal to build China’s armed forces commensurate with the country’s international standing. The PLA Navy’s modernisation, which began in the 1990s, encompasses a broad array of weapon acquisition programs, including for anti-ship ballistic missiles, submarines and surface ships.<sup>7</sup> China now has the world’s largest fleet of attack submarines (62), while the US Navy’s force fell to 53 in 2009. However, the American fleet is all nuclear, while most of China’s is diesel–electric. The PLA’s aim is also to develop a credible nuclear deterrent based on a triad of land-, air- and sea-based systems.

China also wants to develop and maintain an aircraft carrier capability, and the *Liaoning* successfully executed more than a hundred tests during drills in the South China Sea in 2013. In January 2014, Beijing announced that it will build its second aircraft carrier and plans to build a fleet of four, meaning that the PLA Navy could potentially deploy one carrier at sea at

any given time.<sup>8</sup> The PLA has also invested in asymmetric capabilities, such as DF-21D ‘carrier killer’ anti-ship ballistic missiles, modern fighter aircraft, anti-satellite weapons capabilities, modern command, control, communications, computer, intelligence, surveillance and reconnaissance capabilities, and supersonic cruise missiles.

Yet the question remains as to how much progress China has made in the production of indigenous defence capabilities. One of Beijing’s aims is to have an independent, indigenous world-class defence technology base in order to be independent of foreign, particularly Russian, systems. However, its new surface combatants, for example, feature a series of propulsion, command and control, sensor and weapons components either purchased or reverse-engineered from foreign sources. The PLA’s antisubmarine warfare capabilities, systems integration, propulsion design and high-tech material manufacturing remain weak. Rampant corruption and inefficient resource allocation have also limited the PLA’s ability to innovate.

### Japan

In July 2014, reflecting the belief that Japan’s current defence policy constrains its ability to protect fundamental interests, the cabinet of Prime Minister Shinzo Abe announced a ‘reinterpretation’ of Article 9 the country’s Constitution to allow the Japan Self-Defense Forces (JSDF) to exercise the right of collective self-defence under certain conditions.<sup>9</sup> In April 2015, the US and Japan agreed on revised Guidelines for Japan–US Defense Cooperation, which could lead to an enhanced operational role for the JSDF.<sup>10</sup>

Fear of US abandonment and China’s rapid military modernisation are also key drivers of Japan’s military modernisation. Its *Defense White Paper 2014* identifies China’s increased military reach as a principle factor influencing Japan’s defence planners. Sovereign territorial claims over the Senkaku/Diaoyu Islands, and fears of China’s increased power projection, have led to action–reaction dynamics between the JSDF’s and PLA’s modernisation programs. Japan is also concerned about the protection of its sea lines of communication due to its high dependence on seaborne supplies of natural resources, energy and food.<sup>11</sup>

Although the Obama administration has underscored the US rebalance to the region, the Defense White Paper recognises that there are concerns about America’s ability



to commit amid fiscal constraints and deepening defence sequestration. This is worrying for the future of the JSDF force structure, particularly in the naval space, as the Japan Maritime Self-Defense Force (JMSDF) serves as an adjunct to the US Navy. A key reason for investing in sophisticated equipment—such as ship-based SM-3 missiles, 42 F-35A Joint Strike Fighters (JSFs) and Aegis combat systems—was to signal to Washington that Tokyo is willing to invest more in compatible and interoperable equipment.

Despite economic stagnation, Tokyo has kept a constant 1% share of its GDP for military expenditure. It has also proved to be the most effective in the region in using expenditure for maintenance, modernisation and procurement. As a result, the JMSDF is qualitatively the most powerful navy in the Asia-Pacific, after the US Navy. It has invested significantly in surface combatants and over the next four years will increase the number of its submarines from 16 to 22, increasing both its denial capability and regional power projection. The JMSDF has also acquired 13 indigenously developed Kawasaki XP-1 maritime patrol aircraft to replace its ageing P-3C fleet. And, starting in the 2015 financial year, Japan will deploy Global Hawk unmanned reconnaissance aircraft, to be based at the US Air Force's Misawa Air Base.<sup>12</sup>

However, Japan's ability to maintain its capabilities is dependent on whether it can maintain its defence budget. If the Japanese economy remains stagnant and the yen's exchange rate against the US dollar worsens, there will be limited funds to sustain its platforms. Moreover, the PLA and PLA Navy already have more vessels and aircraft than the JSDF. Tokyo is aware that it can neither deter nor defeat China without the assistance of the US.

## South Korea

Seoul is more focused on North Korean contingencies and its regional rivalry with Japan than on responding to the 'rise of China'. South Korea views itself as a rising middle power. Its longstanding policy on North Korea, which has continued under President Park Gyeun-hye, remains based on retaining robust deterrence and defence capabilities.

South Korea is also motivated by military prestige and status, as seen in its plans for regional naval power projection capabilities. The name of its Dokdo class of amphibious assault ships reveals its ambitions, as its sovereignty claim to the Takeshima/Dokdo Islands brings it into dispute with

Japan. In the long term, Seoul believes it can compete with Tokyo in the strategic space. That has led to an action-reaction dynamic between them.

Despite being hit hard by the Asian financial crisis in 1997 and the global financial crisis in 2008, by 2012 Seoul had recorded a rise in military expenditure for a 13th consecutive year and brought defence spending up to 14.8% of government expenditure and 2.4% of GDP. South Korea's shipbuilding program is impressive. It has constructed the first of at least three KDX-111 Aegis-equipped destroyers, and its ninth Chang Bogo class submarine was delivered in 2001. It has also announced that it will build nine advanced German-designed Type 209 submarines by 2020 for intelligence and interdiction purposes; it currently operates twelve.<sup>13</sup>

Its highly ambitious fighter program is another modernisation priority. The Republic of Korea Air Force (ROKAF) plans to buy 120 advanced fighters to replace its F-4 and F-5 fleet, having already bought 60 F-15K strike fighters. It will also acquire 40 F-35A JSFs, to be delivered by 2018.<sup>14</sup> The ROKAF has also announced plans to acquire four Global Hawk systems in addition to 20 maritime patrol aircraft.<sup>15</sup>

What makes these acquisitions potentially troubling is that relations between South Korea and Japan are troubled and will probably remain so. Deep historical cleavages are often exploited for domestic political gains. South Korean public opinion about Japan is a key influence on electoral politics and therefore influences foreign policy. In an April 2014 poll, South Koreans considered Japan to be the least favoured country, behind even North Korea; 65% wanted a harder-line government approach to addressing Japan's claims to the Takeshima/Dokdo Islands, 67% opposed an expansion of Japan's security role, and 79% supported increased security cooperation with China should US-Japan security cooperation increase.<sup>16</sup> Japan's nationalist policies could stress an already tense relationship.

The indefinite delay of the transfer of wartime operational command from the US Forces Korea to the ROK Armed Forces demonstrates continuing strong ties between the US and South Korea. However, South Korea remains concerned that a declining US defence budget will result in increasing pressures on Seoul to assume a larger share of common defence costs, decreasingly resilient US extended deterrence, and limitations on US support for South Korea's materiel programs.

## Taiwan

Taiwan's military modernisation is motivated solely by its relationship with the PRC and assessments of its capabilities. Ties or tension across the Taiwan Strait affect international security, as the US continues to underwrite Taiwanese defence. The aim for Taiwan's armed forces is to deliver an asymmetrical response to the PLA. It's currently developing capabilities for air-to-air, naval-to-naval, and ground-to-ground defensive interdiction, as well as acquiring counterforce and countervalue offensive weaponry.

Taiwan's political transition from the Democratic Progressive Party to the Kuomintang has meant that Taiwan has engaged China while simultaneously hedging through strengthening national military power and attempting to reinforce its quasi-alliance with Washington. Despite two terms of China-friendly President Ma Ying-Jeou, Taiwan-PRC relations are affected by Taiwan's changing demographics and electoral system. Economic stagnation and public discontent over worsening social disparities have strengthened the belief that forging closer economic and political relations with China is unlikely to be beneficial for Taiwan.

Recognising this situation, since the 1990s China has quantitatively and qualitatively changed the cross-strait military balance in its favour, in case its preferential economic agreements fail to promote (re)unification. Openly critical of China's strategy, Taiwan's *2013 Quadrennial Defense Review* stated that greater economic interaction had not led to mutual trust.<sup>17</sup>

Taiwan's *2013 National Defense Report* highlighted the impact of the PLA's growing strength on the US's ability to assist Taiwan should Beijing decide to mount an offensive. The report stated that by 2020 the PLA could be in a position to invade and occupy Taiwan.<sup>18</sup> In contrast to China's robust military expenditure, Taiwan's defence budget fell to an all-time low of approximately 2% of GDP in 2014—well below Taipei's bipartisan goal of 3%. Taiwan's defence expenditure is also strained by its dual imperatives of military reform and major procurement programs. It has lost the quantitative and qualitative edge against China, and it also faces the problem of ageing aircraft and ships.

Taiwan's declining demographics have added to the huge costs associated with setting up an all-volunteer defence force by 2017. Moreover, the US is reluctant to supply it with

equipment such as JSFs and the Aegis combat system, mainly due to the fear of espionage. There's also a lack of institutional capability to make strategy, as there's no clear direction from policymakers or the Ministry of National Defense.

Despite its problems, Taipei is investing in its own A2/AD capability to counter Chinese efforts to force (re)unification. It has made significant investments in modernising its surface fleet and in developing supersonic cruise missiles, some of which can reach the Chinese mainland. Yet the replacement of its two 1960s submarines with six diesel-electric boats remains on Taiwan's wish list. For maritime patrolling, the armed forces have also acquired 12 P-3C Orions, which can carry anti-ship missiles. Taiwan continues to show interest in modernising its ageing F-16A/B fighter jets with F-16C/Ds and has openly stated its goal of acquiring F-35B JSFs, despite Washington's unwillingness to supply them.<sup>19</sup>

## Vietnam

Vietnam is modernising its naval and air capabilities with the objective of deterring the Chinese in the South China Sea. Due to the competing territorial claims over the Spratly Islands, Hanoi has developed a strategy to maintain a continuous naval and air presence to deter China from aggressive actions and intimidation. Vietnam's rapid economic growth in the past decade has translated into increased defence spending. By Southeast Asian standards, its military modernisation is impressive; no other country in the region has brought as much capability on line as quickly as Vietnam.

In December 2013, Vietnam reported the delivery of the first of six Russian Kilo-class conventional submarines to Cam Ranh Bay; the rest are to be delivered by 2016. In August 2013, it purchased an additional 12 Sukhoi combat aircraft from Russia to add to 54 that are already equipped for anti-ship and other maritime operations. Vietnam also acquired two Gepard-class frigates to bring its total to six from its current total of four—of which two are optimised for surface attack and the other two for anti-submarine warfare. It also aims to replace its 11 ageing Soviet-era corvettes and five frigates with ships purchased from India and the Netherlands. In July 2014, the Japanese Government announced that it would provide Vietnam with six naval ships for patrolling the South China Sea. To add extra impetus to its maritime

modernisation, Vietnam will also acquire Russian Kh-35 anti-ship missiles.

However, it will take years for Vietnam to complete its current round of modernisation and develop new doctrines and tactics to use the new technology. It will also have to maintain the platforms. The submarines have proven to be costly purchases, as the ongoing cost of maintaining such a capability wasn't calculated properly. And Vietnam lacks modern command and control systems for its acquisitions. Although it's attempting to develop an effective deterrent capability, there's a high likelihood that it will end up with an unbalanced force structure.

Interservice rivalries have also emerged because of efforts to re-equip the navy and air force at the expense of the Vietnam People's Army, which remains a core element of the political system led by the Communist Party of Vietnam. The army retains a strong role as a state institution for internal security and for managing the long land border with China.<sup>20</sup>

China has the quantitative and qualitative edge, and Vietnamese leaders remain concerned about how little they can deter Chinese expansion in the South China Sea. Vietnam's modernisation is also heavily reliant on foreign, particularly Russian, military technology. While the Vietnamese air force is upgrading its fighters, it lacks the capacity to do aerial refuelling, severely limiting its ability to spread its reach to the Spratly Islands and back. Currently, Vietnam's most robust deterrent remains its missile force, which includes 40 Yakhont shore-to-ship cruise missiles.

## The Philippines

The Philippines faces a host of internal security challenges that require attention from the Philippine Army and Marine Corps. However, China's growing power and assertiveness in the South China Sea are placing increased demands on the Armed Forces of the Philippines (AFP) and have exposed their relative weakness. In May 2013, President Benigno Aquino III announced a US\$1.8 billion military modernisation program in addition to the normal defence budget, which largely pays personnel costs. The country's military modernisation efforts have occurred under the guiding principle of 'rebuilding while performing', but it's unlikely that the AFP will achieve either for the time being.<sup>21</sup>

Counterinsurgency and counterterrorism operations will remain a focus for the AFP, despite a declining threat to the state and the increasing need to focus on external defence. Fiscal constraints also limit the scale of the AFP's modernisation. Military modernisation budgets have consistently failed to provide the resources needed to fulfil the armed forces' procurement plans.

Consequently, most equipment has been mothballed. The Philippines' defence expenditure has risen only marginally from US\$2 billion in 2010 to US\$2.9 billion in 2014. As a percentage of GDP, however, it has fallen from 1.2% in 2010 to 0.73% in 2014. The government and military forces also suffer from endemic 'pork barrel' corruption.<sup>22</sup> Additionally, despite the withdrawal of the US military presence in 1992, the AFP relies mostly on US military assistance, subsidised sales and handmedowns.

Because it has limited funds and resources, Manila has decided to focus on improving its surface and naval aviation forces, particularly its antisubmarine warfare capabilities. It has negotiated with its US ally to upgrade Subic Bay and other military installations around the Philippines. There are also plans to build a new naval base, described as a 'mini Subic' and a 'capability upgrade', at Oyster Bay in the South China Sea. However, any planned upgrades are unlikely to credibly deter Chinese aggression in the South China Sea in the short term. Aquino's administration hasn't articulated a viable strategy to remodel the AFP for external operations while overcoming budgetary constraints.

The Philippine Air Force is almost non-existent. The last time it flew a fighter jet (the F-5) for training purposes was in 2005, and it has never flown a fighter in combat against an external enemy. The fighter program has only 22 combat-capable aircraft, which are a mix of types. Pilots also have extremely limited training due to the lack of money to pay for flying hours. To address these issues, in October 2013 the air force announced plans to acquire 12 FA-50 light fighters and eight Bell 412 combat utility helicopters to beef up its defence capability. However, these types of aircraft are used for training purposes.

The Philippine Navy is in an equally bad state. It has no submarine capability, and its most modern warship (BRP *Rajah Humabon*) is a former US destroyer from the WWII era.

The core of the Philippines naval fleet consists of seven Chamsuri-class patrol vessels bought from South Korea between 1995 and 2006.

In July 2013, the Japanese agreed to provide 10 cutters to help counter maritime advances by China. Also in 2013, the Philippines outlined plans to acquire three diesel–electric submarines to protect its interests in the South China Sea.<sup>23</sup> The navy is expected to acquire two new frigates, two or three fast vessels for coastal patrols and eight amphibious assault vessels. Nevertheless, those purchases haven't brought the AFP much closer to a modern naval and air capability.

## Indonesia

Domestic politics is the main influence on Indonesia's military modernisation, and the main concerns are internal security, a desire for national prestige, and a highly insufficient and corrupt defence policy and procurement process that has led to the acquisition of various kinds of sophisticated military platforms. This has translated not into military capability but into an unbalanced force structure.<sup>24</sup> The army (Tentara Nasional Indonesia Angkatan Darat, TNI-AD) has a strong role in the modernisation process but has proven the most resistant to change of all the services, as it has the most resources to lose in modernisation efforts focused on the air and maritime domains.

Indonesia's defence spending has grown considerably in recent years but still remains below 1% of GDP. The first stage of its defence development program to build essential forces by 2024 is to allocate a sufficient budget for the navy, army and air force for the replacement and modernisation of military equipment. However, it's beginning to address concerns about its external security environment, particularly across its vast EEZ.

It's clear that Indonesia's force modernisation is a reaction to keep up with developments in Southeast Asia. Indonesia has seen Malaysia as a 'peer competitor' since the two countries had a naval stand-off in June 2009 over the resource-rich 'Ambalat block' in the Sulawesi Sea. Singapore's also a source of disquiet for Jakarta because of its technologically superior forces. To address these challenges, Indonesia aims to have a 274-ship greenwater navy, 10 fighter squadrons and 12 diesel–electric submarines.

In its bid to modernise its 213-ship naval fleet—of which half is no longer seaworthy—Indonesia procured three British-made frigates in 2012. The navy is also modernising its vessels, equipping four Ahmad-Yani Van Speijk-class guided missile frigates and one Kapitan Pattimura (Parchim I)-class corvette with stealth radars. The navy's also cooperating with the Chinese on supersonic cruise missiles.

In 2012, Indonesia's Ministry of Defense announced plans to acquire 12 new diesel-electric submarines by 2020; this was considered the number needed to cover strategic chokepoints around the archipelago.<sup>25</sup> The Defense Minister signalled that this was a reaction to Malaysia's acquisition of two Scorpene-class submarines.<sup>26</sup> In the air domain, Indonesia's attempting to modernise its ageing F-16A/B and F-5E/F fighters. In 2003 and 2007, it purchased 16 Su-27s from the Russians, and has since augmented them with 24 refurbished F-16C/Ds from the US Air Force.

This is still a relatively low investment in naval and air capabilities, and most of Jakarta's modernisation plans are overambitious. Unlike concerted efforts to translate expensive purchases into air and maritime capability, as in Vietnam and the Philippines, Indonesia's force modernisation efforts will leave its military with an unbalanced force structure and no long-term funds or resources to maintain naval or air capabilities.

## Singapore

Since the 1960s, the primary aim of Singapore's force modernisation has been to deter Malaysia and Indonesia from interfering with the city-state's sovereign prerogatives and vital economic interests. Like Australia's forces, the Singapore Armed Forces (SAF) apply the principle of 'technological superiority'; that is, having the best equipment but a numerically small force.<sup>27</sup> Due to Singapore's persistent sense of vulnerability, the SAF has contributed to Southeast Asia's modernisation trend, especially in its bid to create the 'Third Generation SAF'.<sup>28</sup>

The SAF has benefited from steadily increasing defence expenditure and the gradual development of a substantial indigenous defence industry capable of producing and modifying equipment for national purposes. Singapore's recent procurements indicate serious efforts to enhance its naval and air capabilities.

The Republic of Singapore Navy already fields a balanced and professional force. It operates six stealth frigates and four landing platform dock ships, and is examining the possibility of acquiring larger amphibious ships.<sup>29</sup> In November 2012, Singapore announced that it had signed a contract for the purchase of two new Type 218SG conventional submarines to join its two refurbished Archer-class submarines. It also has some of the most advanced antisubmarine warfare capabilities in the region, although most of its neighbours don't have the naval technology to pose a credible threat.

In September 2013, the Republic of Singapore Air Force confirmed that it will fit its 74 F-16C/Ds with improved radar, and in the past year has boosted its F-15SG multirole fighter fleet from 24 to 40 aircraft to replace its ageing F-5S fighters. Since 2011, the air force has been seriously considering the F-35B JSF as its next-generation fighter; it is expected that it will purchase from 70 to 100.<sup>30</sup>

Despite its relatively small size and its reliance on reservists and conscripts for the bulk of its military personnel, the SAF stands out as the most impressive in Southeast Asia. Singapore's consistent investment in defence procurement, its rising defence research and industrial establishment and its emphasis on doctrinal development have made its military the best-equipped in the region.

## Malaysia

Notwithstanding Malaysia's economic ties with China, the Malaysian Defence Ministry has voiced increasing concern about tensions in the South China Sea, where Malaysia is a competing claimant. In October 2013, it announced the aim of developing a marine corps for amphibious operations, as well as a naval base at Bintulu in the South China Sea, close to waters claimed by China, to protect the surrounding area and oil reserves.<sup>31</sup>

Consequently, the development of air and maritime forces has been a key feature of Malaysia's military modernisation; however, its efforts face many challenges. The Malaysian Armed Forces' primary focus has always been on internal security, particularly counterinsurgency operations. Its defence acquisition process is also quite corrupt due to political patronage. This has affected the acquisition of further submarines to add to its two Scorpene-class boats purchased from France.

Its force modernisation also suffers from a lack of funds, meaning that most projects announced by the Ministry of Defence will not be implemented and Malaysia will face a capability gap. The Royal Malaysian Navy is to acquire six Second Generation Patrol Vessel – Littoral Combat Ships, but the first ship will arrive only in 2017. There have been moves by the US to offer surplus Perry-class frigates decommissioned by the US Navy, but they have stalled pending the approval of funding. The air force's acquisition of 18 multi-role combat aircraft to replace its ageing MiG-29s (which were due to be retired by 2009) is also stalled due to budget constraints.

## Thailand

Bangkok's focus remains on internal issues in which the Army is central, especially since the 2014 military coup paved the way for the military junta-led government of General Prayut Chan-o-cha. Thailand faces a decades-long Muslim-Malay separatist insurgency in the south of the country and has a history of political violence and coups. Corruption, supply-side pressures and nationalism, as opposed to serious consideration of its external security environment, are driving its military modernisation.

In October 2013, Thailand announced its intention to purchase three submarines as part of a 10-year procurement process, and a submarine fleet headquarters at Sattahip Naval Base is to be completed by 2014.<sup>32</sup> Bangkok referred to the submarine programs of its neighbours when it emphasised the need to add submarines to its naval capabilities.<sup>33</sup>

Although the Royal Thai Navy has a desire to be a bluewater force and increase its presence in the Andaman Sea, that's not likely to happen. Its only aircraft carrier, HTMS *Chakri Naruebet*, is operational only one day per month for training—the rest of the time it's a part-time tourist attraction. New ships, including two frigates from South Korea, have been purchased but will mainly be used for anti-piracy operations.

There have been marginal improvements in the air domain. The Royal Thai Air Force is one of the best equipped and best trained in Southeast Asia, due to regular exercises with its US, Australian and Singaporean counterparts. In 2010, it announced plans to upgrade its F-16A/B fleet to extend the fleet's life to 2025, and in March 2013 the government agreed to fund a second batch of six aircraft.

However, despite these efforts, the Thai military's entanglement in domestic politics overwhelms its efforts to sustain and modernise operational capability. In 2014, for the first time, it wasn't invited to RIMPAC. The US has cut military aid, raising questions about Thailand's future as a US ally.

## Implications for Australia

This section examines implications of Asian military modernisation programs for the Australian Government and the ADF.

### A more dangerous neighbourhood?

The dynamics of regional military modernisation indicate that the future security environment in the Western Pacific will only become more contested. Northeast Asia's already caught up in action–reaction dynamics. China's responding to American military preponderance in the region, while Japan's responding to China, particularly over the disputed Senkaku/Diaoyu Islands. South Korea's showing evidence of reacting to Japan, as its pattern of acquisitions demonstrates that it's no longer focused solely on North Korean contingencies.

In the context of the US alliance framework in the region, the build-up of capabilities in friendly countries (Japan, South Korea and Singapore) could be beneficial to Australia. Whether it's a reaction to China or a form of hedging, it has created a counterbalance to the PRC.

In Southeast Asia, it's evident that Vietnam is making concerted efforts to respond to China's aggressive stance in the South China Sea and is investing in its air and maritime capabilities. Singapore's force modernisation also indicates hedging with the US and its allies. Indonesia, the Philippines, Malaysia and Thailand have acknowledged the need to modernise their air and maritime capabilities, but their processes are haphazard and haven't taken into account the long-term maintenance required for sophisticated platforms.

Nevertheless, at a minimum, Southeast Asian force modernisation will increase the chances of a 'lucky punch'. The introduction of more advanced platforms is problematic for ADF planning. For example, it has led to the proliferation of submarines as an asymmetric and disruptive technology, and to anti-ship cruise missiles that can be fired from even smaller vessels. This could have quite a dramatic effect on the survivability of ADF surface vessels.

Stability in maritime Southeast Asia is central to Australian defence policy. While there may be an emerging arms race in Northeast Asia, the scale of it means that the ADF won't be a decisive player, although it might be able to help bolster other forces. It's the haphazard force modernisation of Southeast Asia that will pose problems for the future force structure of the ADF. The proliferation of systems such as submarines and anti-ship cruise missiles could increase regional instability and pose problems for forward-deployed forces.

### The ADF: losing the capability edge?

Since the Vietnam War, the ADF has aimed not only at aligning with US forces, but also at maintaining a small force that's technologically superior to those of all Southeast Asian countries, especially when it comes to air and maritime power. If action–reaction dynamics and an arms race lead to regional countries closing the gap, that would directly affect the basic tenets of ADF force planning and structure. Although a direct attack on Australia remains unlikely, the defensive advantage of our geography could be eroded by the introduction of more advanced platforms in Southeast Asia and by potential conflict between major powers in Northeast Asia.

The implications are significant. If the Australian Government were to deploy our forces in Southeast Asia, the ADF could face more sophisticated capabilities. While the ADF won't lose its capability edge in Southeast Asia in the medium term, in the short term investments in certain platforms increase the chance of a 'lucky punch'. For instance, Indonesia is testing supersonic missiles from its frigates and putting Chinese anti-ship cruise missiles on fast attack craft. In the future, with rising economic growth, Southeast Asian countries will be likely to overcome problems such as maintenance and logistics and increase their combat capability through improved situational awareness and better command and control systems.

The 2015 Defence White Paper will need to address how the ADF will modernise its own air and maritime capabilities in a neighbourhood that's becoming more complex, but that doesn't mean restructuring or planning for a war against China or a Southeast Asian country. Rather, future force structuring should continue to pursue the objective of maintaining a small but technologically superior force capable of supporting allied operations in the broader region.

However, emphasis needs to be placed on the changing strategic environment in Southeast Asia.

We need to ensure that our investments translate into long-term naval and air capabilities that can exploit potential shortfalls, and that they don't result in an unbalanced force structure similar to those of many of our neighbours. That is, as well as investing in regional technological superiority in defence, we need to invest in training and research to maintain expensive acquisitions and turn them into sophisticated capabilities.

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## Acronyms and abbreviations

|       |                                   |
|-------|-----------------------------------|
| A2/AD | anti-access/area-denial           |
| ADF   | Australian Defence Force          |
| AFP   | Armed Forces of the Philippines   |
| EEZ   | exclusive economic zone           |
| GDP   | gross domestic product            |
| JMSDF | Japan Maritime Self-Defense Force |
| JSDF  | Japan Self-Defense Forces         |
| JSF   | Joint Strike Fighter              |
| PLA   | People's Liberation Army          |
| PRC   | People's Republic of China        |
| ROKAF | Republic of Korea Air Force       |
| SAF   | Singapore Armed Forces            |

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