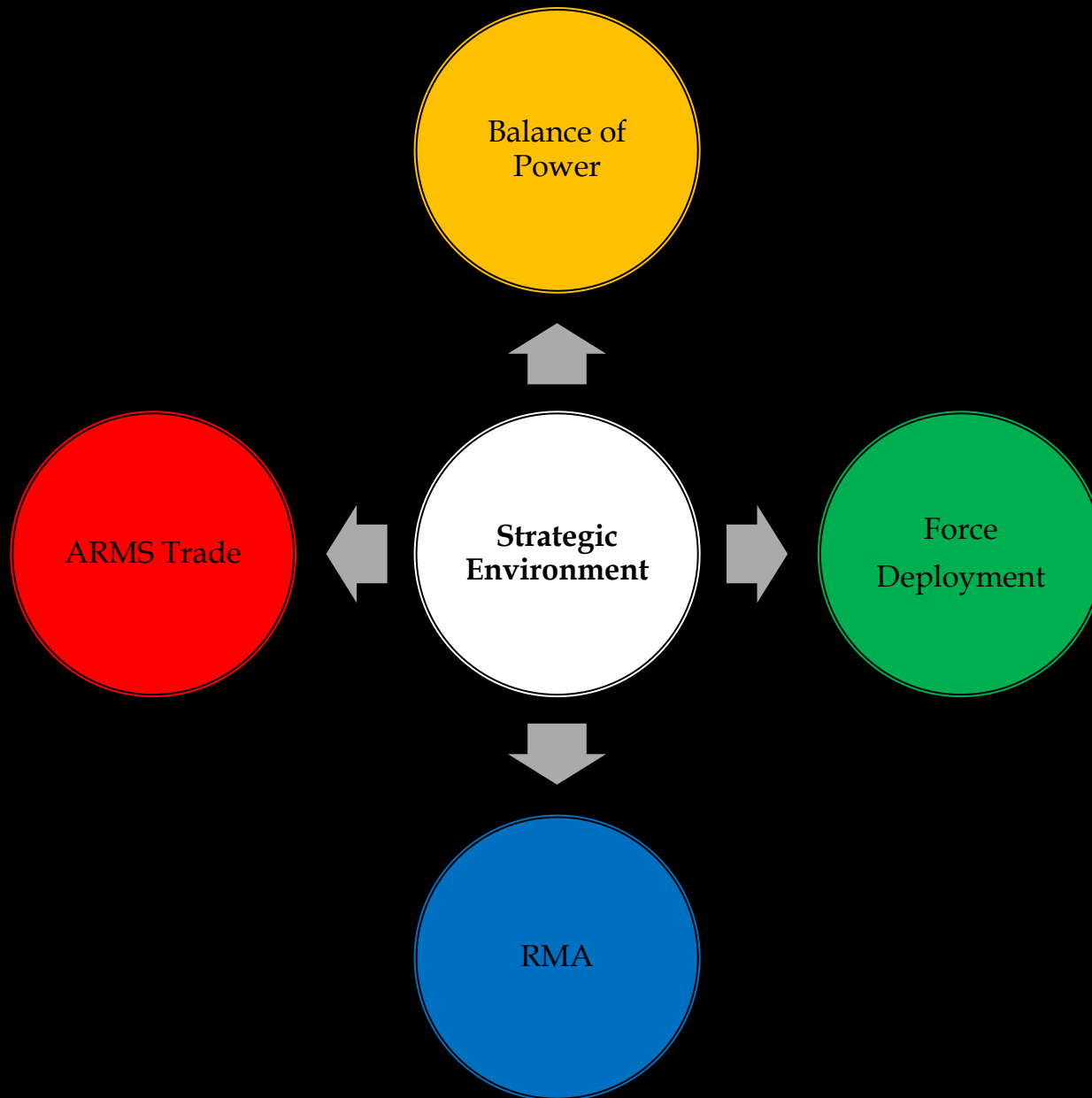


Lingkungan Strategis XXI

-Andi Widjajanto-



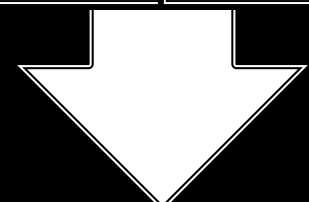
Unipolar Moment-Concert of Power



Differentiation of
Distribution of Power

Imperial Overstretch

Limit of Innovation

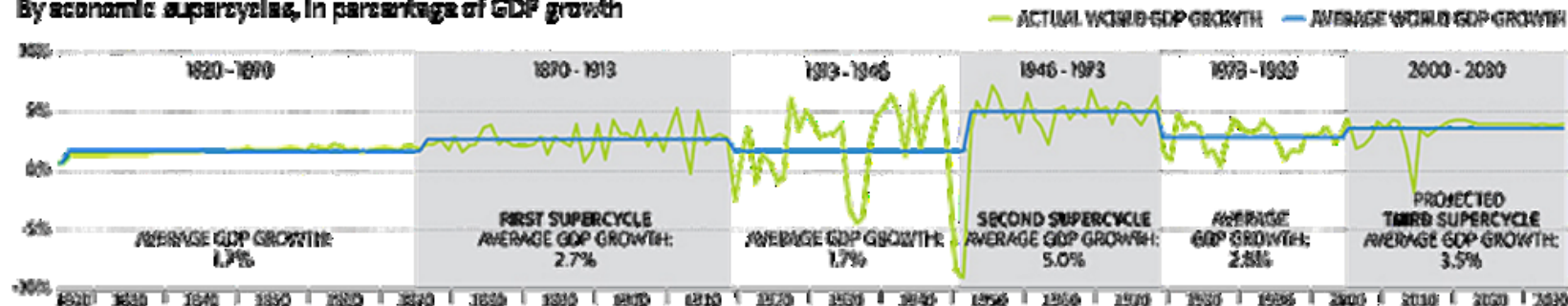


System Disequilibrium

World War: Hegemonic vs Revisionist State(s)

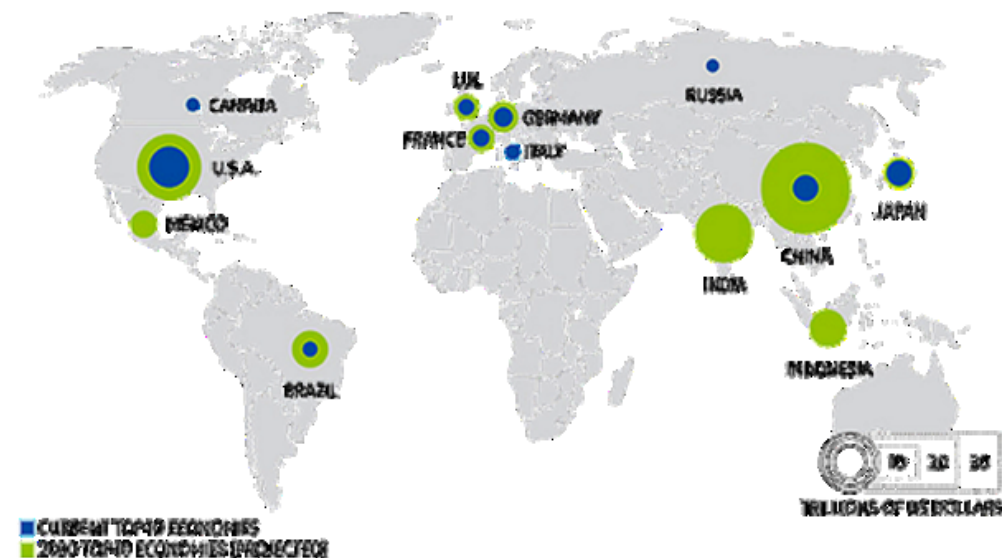
World Economic Growth

By economic supercycles, in percentage of GDP growth



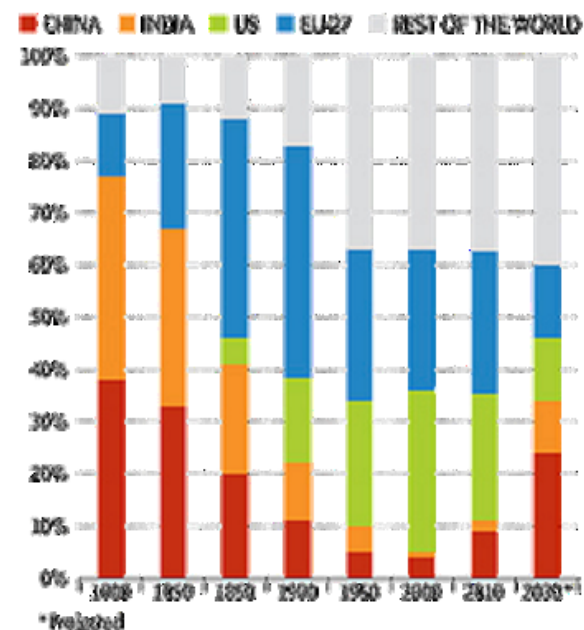
World Major Economies Growth

By top-10 major economies, in trillions



World GDP Share

By major economies, in percentage of world GDP



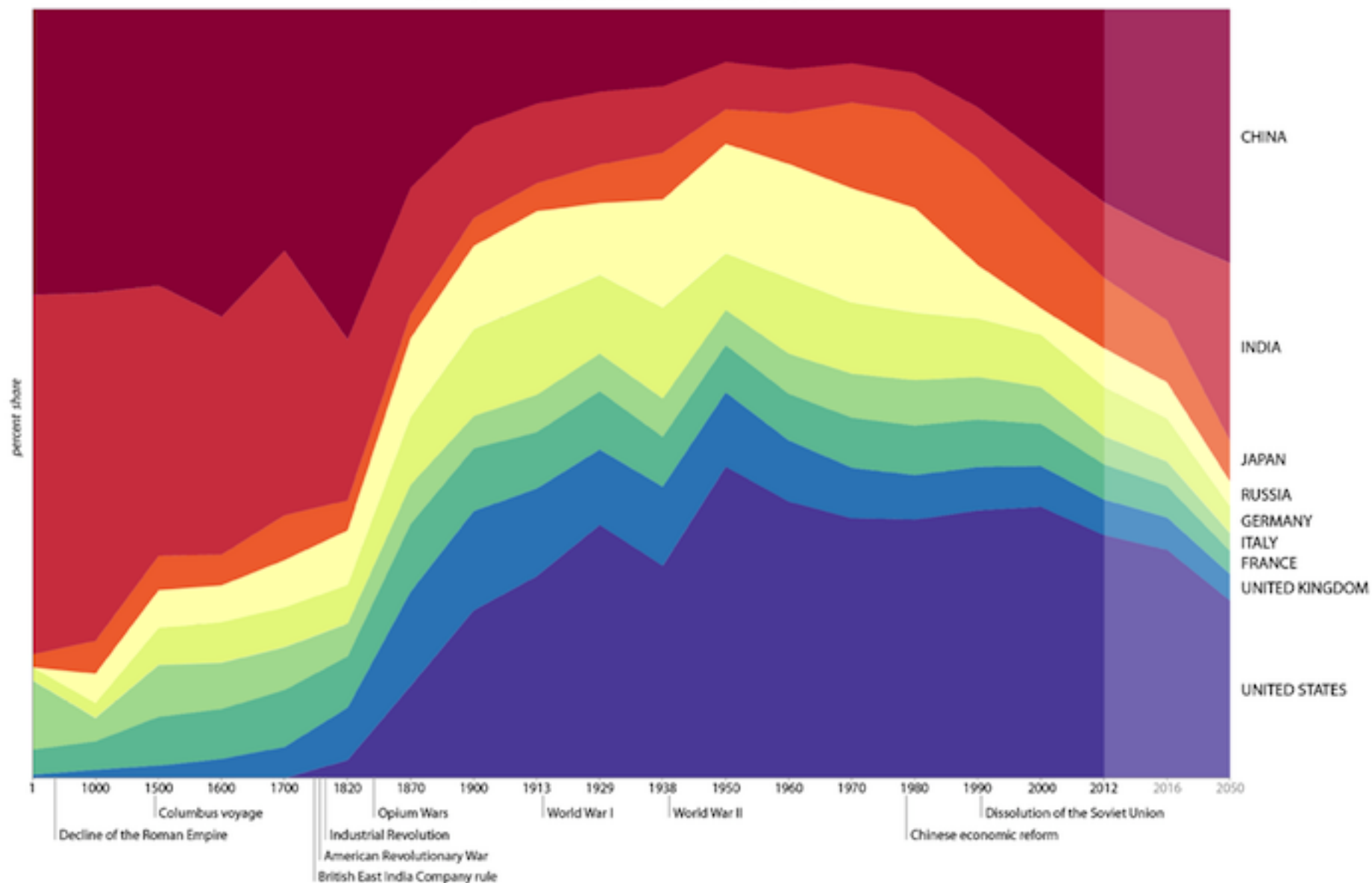
Source: International Monetary Fund (IMF), Standard Chartered Research, Angus Maddison, World Bank (WB), World Economic Forum (WEF)



-aw-

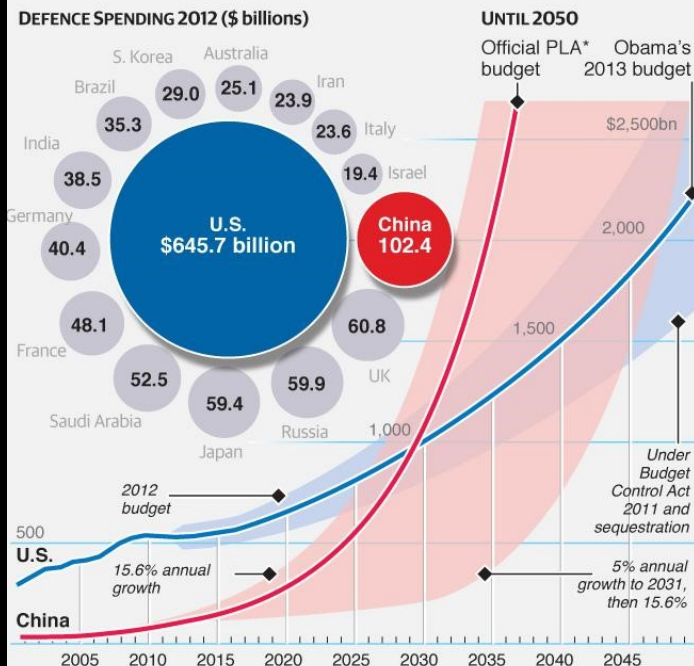
A history of balance of power

based on percentage share of combined GDP (PPP) of the 9 great powers



CHINA'S DEFENCE SPENDING TO OUT-STRIP THE U.S.

U.S. military spending in 2012 exceeded that of the next 14 countries combined, but China could overtake the Americans within 20 years if it continues to expand at its current rate. Budget crises in the West have already seen Asian defence spending as a whole overtake that of Europe



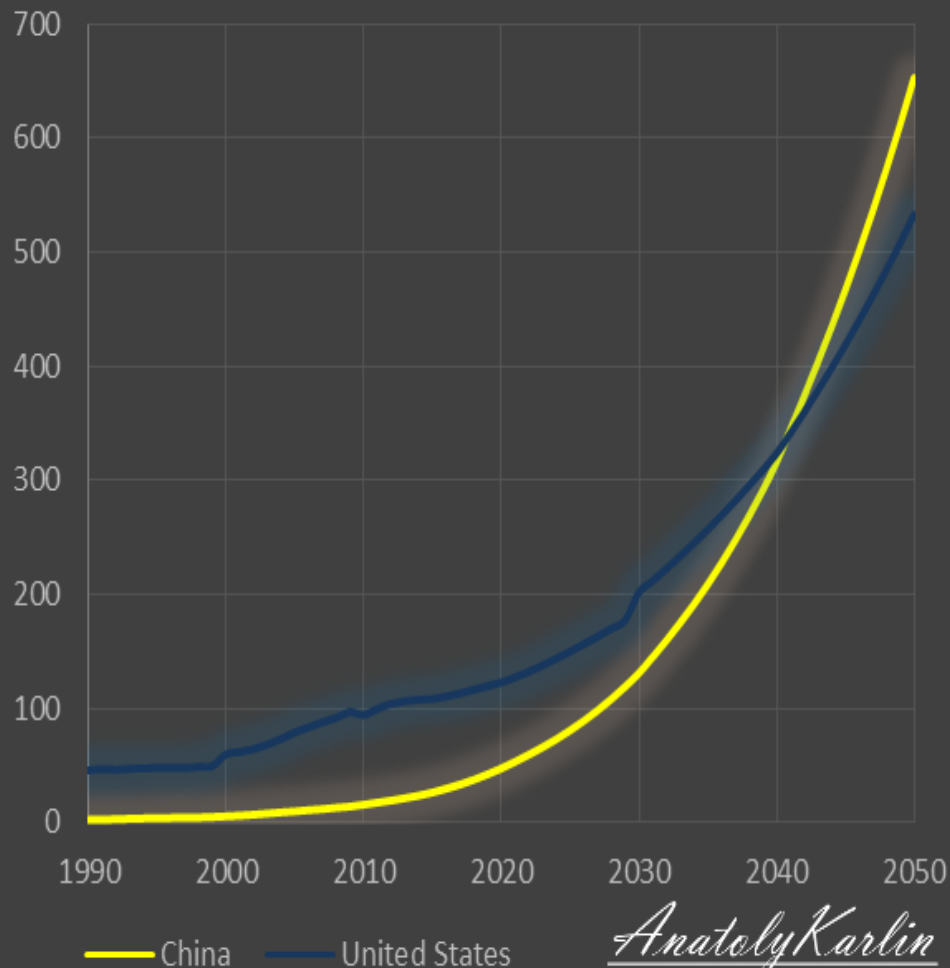
TECHNOLOGY GAP RAPIDLY CLOSING

FIFTH GENERATION STEALTH FIGHTERS

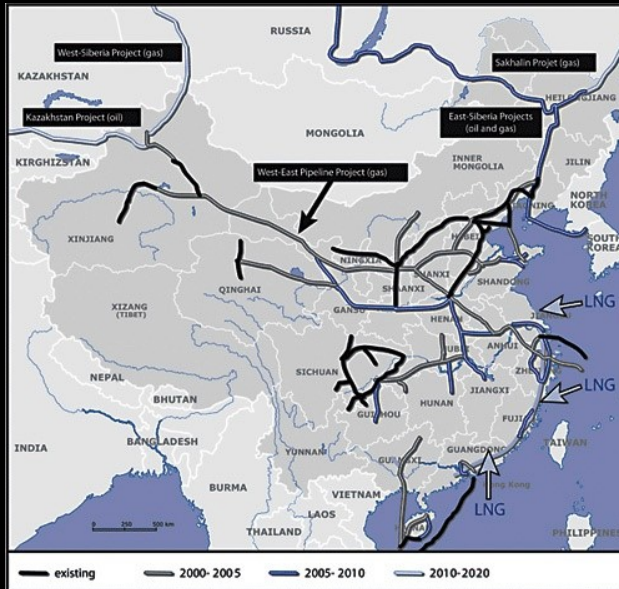
The Chinese J-31 appears intended for fighter-interceptor role similar to U.S. F-35, while the heavier J-20 would have strike ground capabilities similar to American F-22



Naval Comprehensive Military Power of China vs. USA, 1990-2050



Anatoly Karlin
unz.com/akarlin | akarlin.com



AS

Rusia

Inggris

Perancis

China

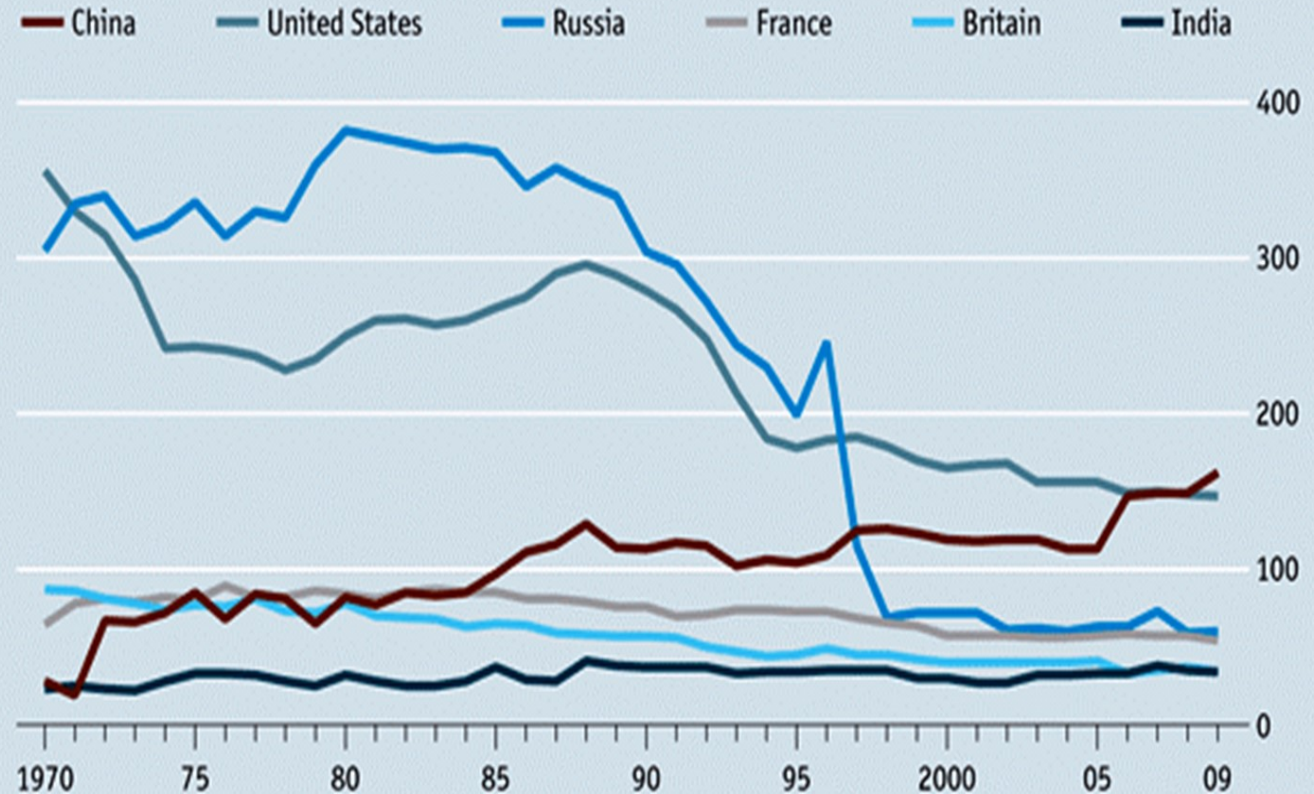
India

Jepang
Korea Selatan
Brazil

Australia, Belanda, Italia, Spanyol, Kanada

Warships

Major combatants, number



Source: International Institute for Strategic Studies

-WW-

Intention

Pattern of Enmity



Capacity

Power Rise



Crisis

Territorial Expansion



WAR

Balance of Power

Hegemonic

Revisionist-Balancing

Bandwoganing



Regional Complex

Pattern of Enmity

Pattern of Amity



Political Ideology

Conservative-Hawkish

Liberal-Dove



Military Organization

Revisionist-Innovation

Status Quo-Conservative



Defense Budget

Arms Build-Up

Arms Maintenance

Arms Reduction



Military Industrial Complex

Autarky

Counter Dependent

Dependent



Proportion of GDP

3.5-4%

1-3%

<1%



The nuclear and conventionally powered
Submarines of the Asia-Pacific
2015

RUSSIA Pacific Fleet



CHINA



NORTH KOREA



SOUTH KOREA



JAPAN



TAIWAN



VIETNAM



MALAYSIA



SINGAPORE



INDONESIA



INDIA



AUSTRALIA

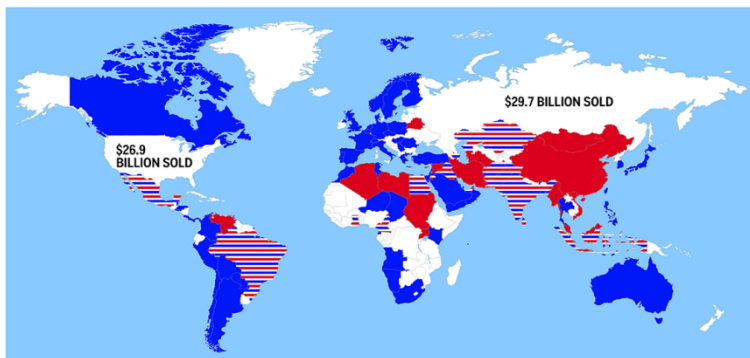




US/RUSSIA ARMS SALES RACE



Even with the Cold War officially over, many countries are aligned with either the U.S. or Russia. This pattern is revealed in the countries receiving arms exports from the two countries, which remain the most powerful militaries and the biggest weapons exporters in the world.



Countries Importing Weapons From The US

COUNTRY	2013 US WEAPONS VALUE	COUNTRY	2013 US WEAPONS VALUE
Turkey	\$2,281,450,000	Brunei	\$51,690,000
Taiwan	\$1,937,450,000	Portugal	\$51,690,000
South Korea	\$1,889,320,000	Poland	\$28,520,000
Australia	\$1,427,690,000	Panama	\$26,740,000
United Kingdom	\$1,183,500,000	Denmark	\$21,390,000
Saudi Arabia	\$999,910,000	Trinidad & Tobago	\$21,390,000
Singapore	\$891,190,000	Greece	\$19,610,000
Morocco	\$752,160,000	Romania	\$17,820,000
Japan	\$632,740,000	South Africa	\$16,040,000
Canada	\$577,490,000	Malta	\$14,260,000
Qatar	\$499,070,000	Equatorial Guinea	\$8,910,000
Netherlands	\$440,250,000	Namibia	\$8,910,000
Sweden	\$358,260,000	Peru	\$8,910,000
Colombia	\$313,700,000	Switzerland	\$8,910,000
Italy	\$294,090,000	Yemen	\$7,130,000
Israel	\$183,590,000	Chad	\$5,350,000
Spain	\$171,110,000	Belgium	\$3,560,000
France	\$162,200,000	Bolivia	\$3,560,000
Germany	\$144,370,000	Czech Republic	\$3,560,000
Thailand	\$133,460,000	El Salvador	\$3,560,000
Argentina	\$133,680,000	Hungary	\$3,560,000
Norway	\$130,110,000	Niger	\$3,560,000
Oman	\$130,110,000	Angola	\$1,780,000
Bahrain	\$117,640,000	Costa Rica	\$1,780,000
Finland	\$108,730,000	Paraguay	\$1,780,000
Philippines	\$108,730,000	Seychelles	\$1,780,000
Kuwait	\$106,940,000	Honduras	>\$1,000,000
Chile	\$101,600,000	Kenya	>\$1,000,000
Lebanon	\$90,900,000	Serbia	>\$1,000,000
Tunisia	\$67,730,000		

Countries Importing Weapons From Russia

COUNTRY	2013 RUSSIAN WEAPONS VALUE
China	\$3,060,350,000
Algeria	\$2,097,860,000
Vietnam	\$1,910,710,000
Venezuela	\$1,570,280,000
Syria	\$1,249,450,000
Myanmar	\$520,450,000
Sudan	\$431,340,000
Uganda	\$310,130,000
Belarus	\$267,360,000
Turkmenistan	\$149,720,000
Mongolia	\$106,940,000
Libya	\$81,990,000
Iran	\$58,820,000
Malaysia	\$24,950,000
Cyprus	\$10,690,000

Countries Importing Weapons From Both

COUNTRY	2013 US WEAPONS VALUE	2013 RUSSIAN WEAPONS VALUE
United Arab Emirates	\$3,702,000,000	\$320,830,000
India	\$1,996,270,000	\$13,661,940,000
Afghanistan	\$1,062,300,000	\$288,750,000
Egypt	\$976,740,000	\$169,330,000
Iraq	\$916,140,000	\$81,990,000
Pakistan	\$647,000,000	\$78,420,000
Brazil	\$301,220,000	\$140,810,000
Mexico	\$213,890,000	\$35,650,000
Indonesia	\$146,160,000	\$645,220,000
Jordan	\$122,980,000	\$78,420,000
Bangladesh	\$99,810,000	\$78,420,000
Kazakhstan	\$5,350,000	\$149,720,000
Azerbaijan	\$3,560,000	\$2,030,130,000
Ghana	\$3,560,000	\$73,080,000
Cameroon	\$3,560,000	\$12,480,000

Note: All weapons are listed in U.S. dollars and are adjusted for 2013 inflation. We put SIPRI's numbers, which are adjusted to 1990 dollar amounts, through the U.S. Bureau of Labor Statistics inflation calculator to come up with the present day dollar amounts.

ESTIMATED COST PER WEAPON

BATTLESHIPS	\$2,000,000,000 + per Ship	
AIRCRAFT	\$350,000,000 per F-22 Raptor	
MISSILES	\$1,410,000 per Tomahawk Cruise Missile	
ARMORED VEHICLES	\$160,000 - \$220,000 per Military Grade Humvee	
ARTILLERY	\$53,620 per M982 Excalibur Artillery Shell	

ASIA'S ARMS RACE

China's rapid military growth is fuelling a spending spree among neighbours anxious to keep pace with the regional superpower

China's first stealth fighter - the J-20 - was unveiled in January, years ahead of Western predictions



Also this year, China is deploying DF-21D anti-ship ballistic missiles and its first aircraft carrier

RECENT ORDERS



CURRENT STRENGTH	China	India	S. Korea	Indonesia	Taiwan	Japan	Singapore	Australia
Total personnel	2,285,000	1,325,000	687,000	302,000	290,000	230,300	72,500	54,747
Main battle tanks	6,550	4,047	2,810	0	926	880	196	149
Combat aircraft	1,907	655	498	96	509	340	104	109
Major surface ships	80	45	47	30	26	52	12	12
Submarines	65	16	13	2	4	16	4	6
2010 defence budget	\$78bn	\$32bn	\$26.5bn	\$5.3bn	\$9.3bn	\$57bn	\$11.5bn	\$21.3bn

Sources: International Institute for Strategic Studies, Jane's Information Group, GlobalSecurity.org, wire agencies

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Force to Force Ratio

```
graph TD; A[Force to Force Ratio] --> B[Military Modernization]; B --> C[Offensive Weapon System]; B --> D[Provocative Force Deployment]; C --> E[Security Dilemma]; D --> E; E --> F[Arms Build Up]; F --> G[Arms Race]; G --> H[WAR];
```

Military Modernization

Offensive Weapon System

Provocative Force Deployment

Security Dilemma

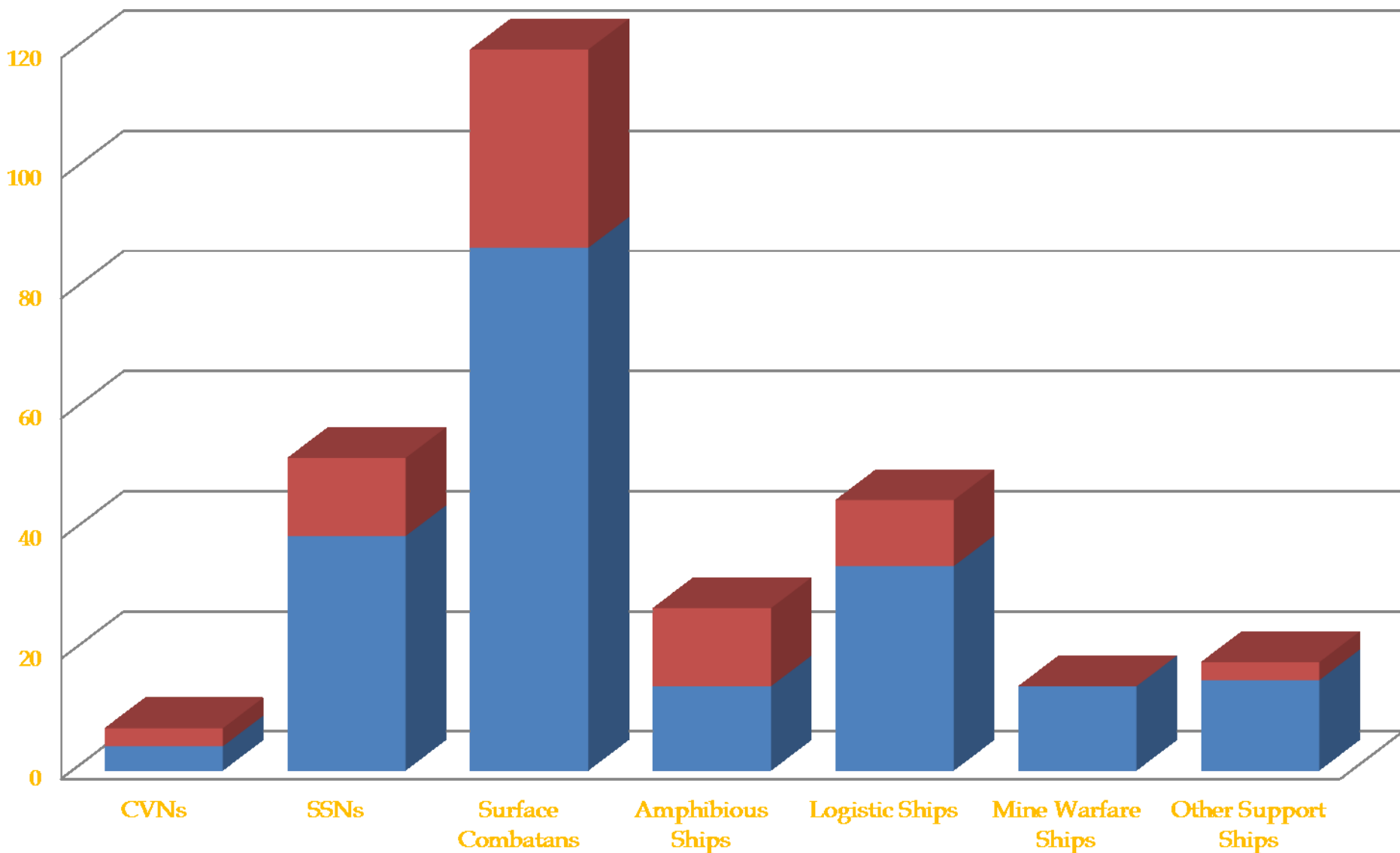
Arms Build Up

Arms Race

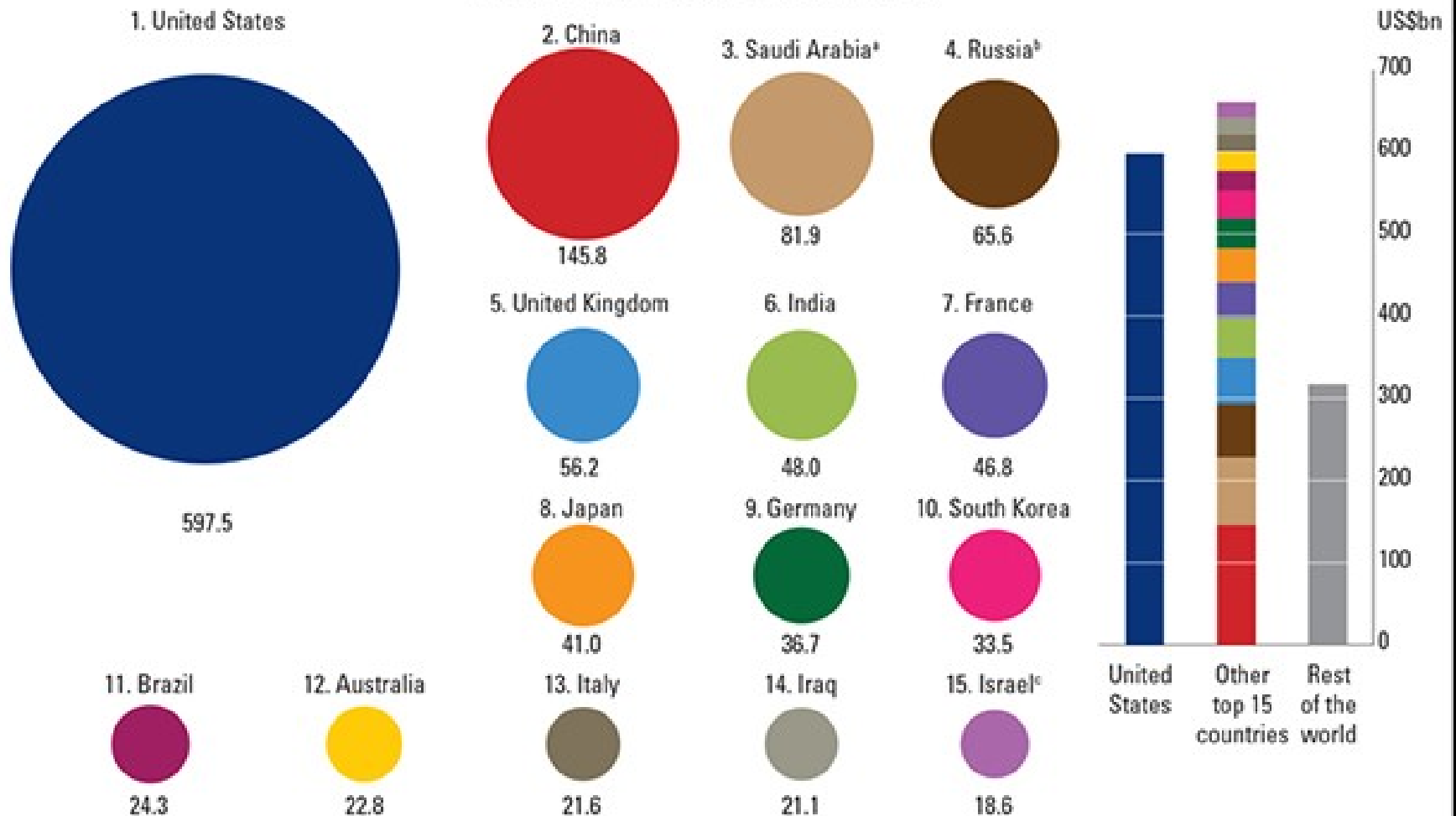
WAR

Proyeksi Pembangunan Kapal Perang 2006-2033

■ 2006-2022 (207: \$275bn) ■ 2023-2033 (87:\$175Bn)



Top 15 Defence Budgets 2015^a US\$bn

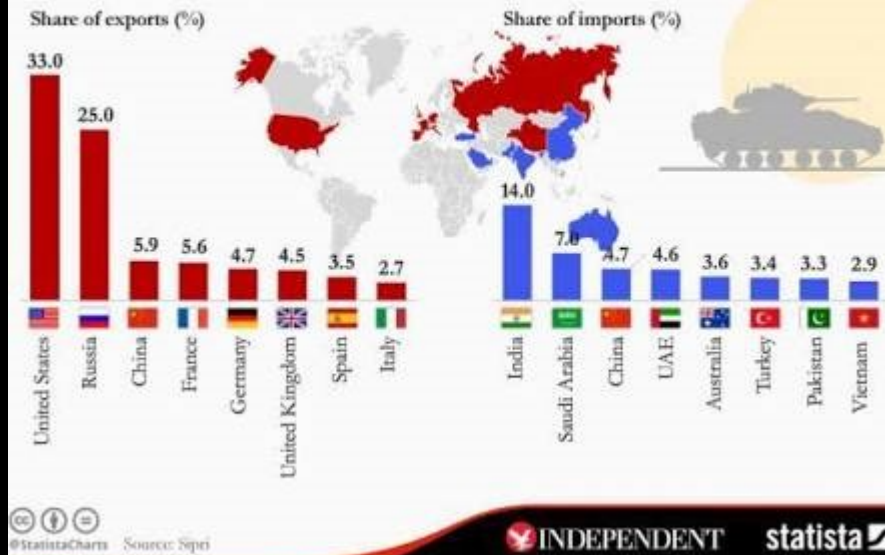


^aIncludes Interior Ministry funding; ^bUnder NATO defence spending definition; ^cIncludes US Foreign Military Assistance

Note: US dollar totals are calculated using average market exchange rates for 2015, derived using IMF data. The relative position of countries will vary not only as a result of actual adjustments in defence spending levels, but also due to exchange-rate fluctuations between domestic currencies and the US dollar. The use of average exchange rates reduces these fluctuations, but the effects of such movements can be significant in a number of cases.

The major players in the global arms market

Top arms exporters and importers (2011-2015)



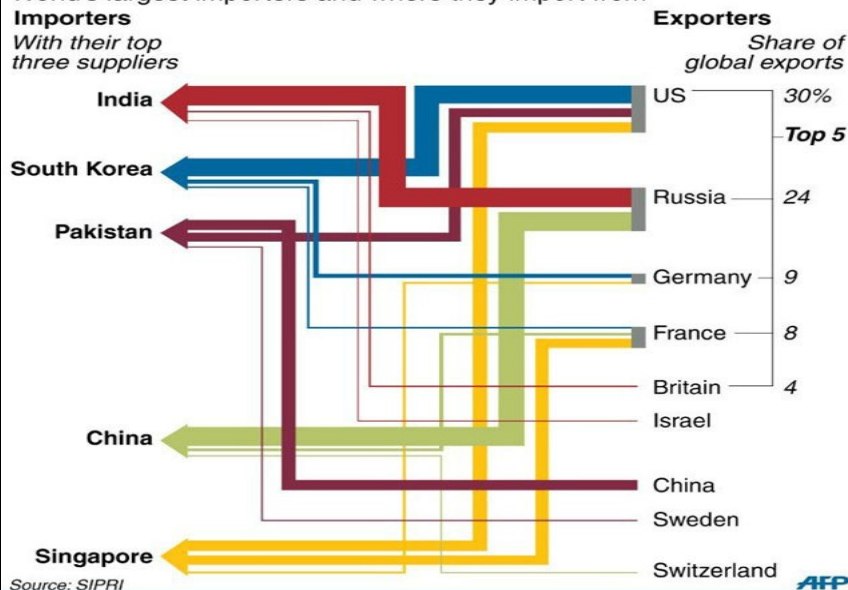
GLOBAL ARMS IMPORTS

The US, Russia, and China were the world's three largest arms exporters in 2014. Where these countries send arms provides insight into their geopolitical influence around the globe.

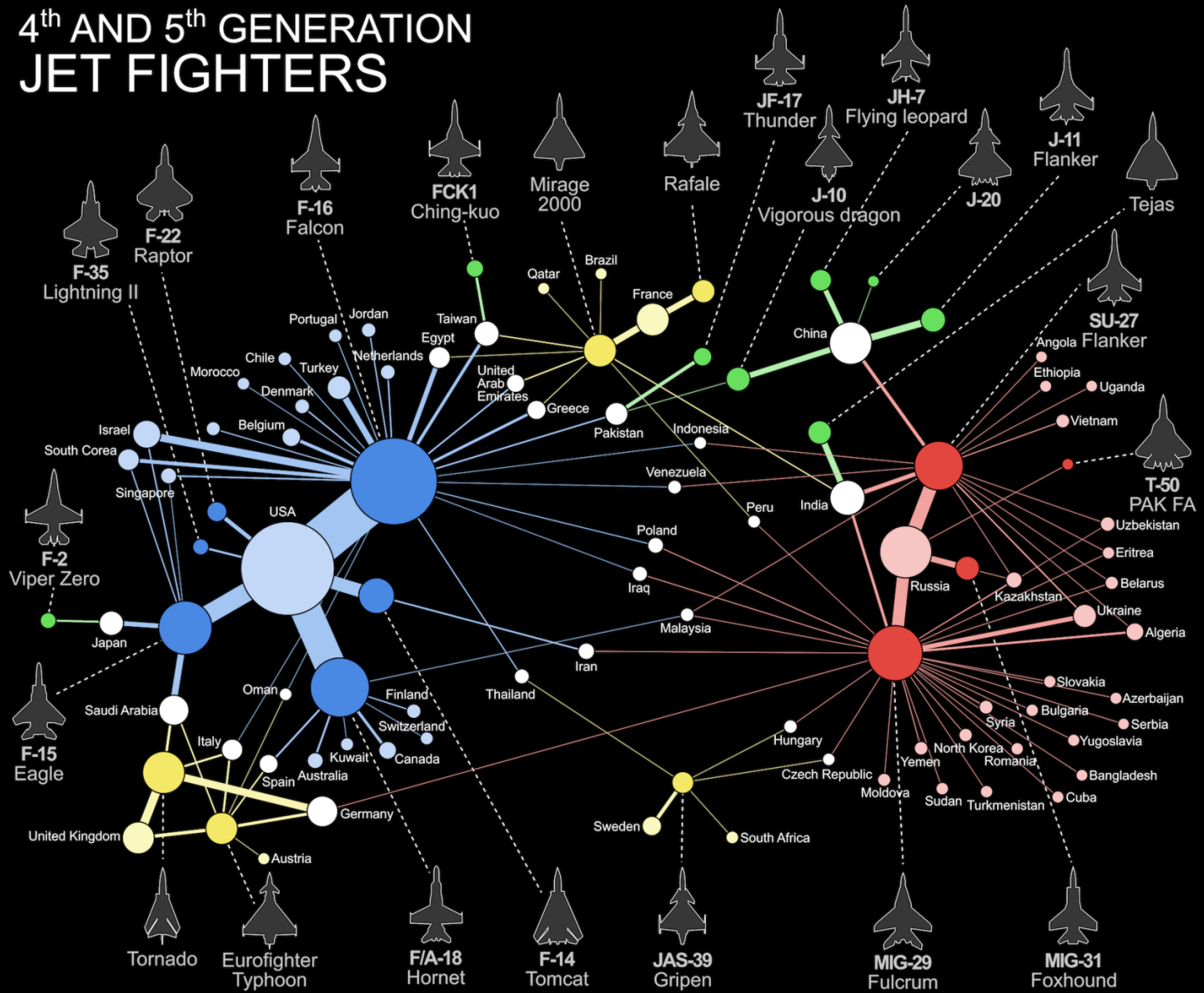


World arms trade

World's largest importers and where they import from
Importers
 With their top three suppliers



4th AND 5th GENERATION JET FIGHTERS



Su-50

PAK-FA RUSSIAN 5TH GENERATION MULTIROLE FIGHTER

T-50 PAKFA

○ КНХААПО/ИАПО >

First prototype of PAK-FA 5th generation multi purpose fighter for the Russian Air Force
Russia 01 Unit 2007



► SUKHOI T-50 051

> JAN 2010
1st prototype
RUSSIA



► SUKHOI T-50 052

> MAR 2011
2nd prototype
RUSSIA



► SUKHOI T-50 053

> NOV 2011
3rd prototype
RUSSIA



► SUKHOI T-50 054

> DEC 2012
4th prototype
RUSSIA



► SUKHOI T-50 055

> OCT 2013
5th prototype caught on fire in June 2014†
RUSSIA



SU-50EK

○ КНХААПО/ИАПО > JUL 2018

Based on Su-50 an export version for South Korea integrated with South Korean Avionics
South Korea 20 Units 2018-20



SU-50ES

○ КНХААПО/ИАПО > NOV 2022

Based on Su-50 a export version for Iran
Iran 20 Units 2022



SU-50

○ КНХААПО/ИАПО > JAN 2016

Modernized and complete version of Test-50 PAK-FA
Russia 60 Unit 2016-21



SU-50E

○ КНХААПО/ИАПО > JUN 2016

Based on Su-50 a special export version for India
India 144 Units 2016..



Su55-FGFA

○ КНХААПО/ИАПО/ИАЛ > JUN 2020

Twin seater version of Su-50
co developed with India specially for the IAF
India 40 Units 2020..



Su-55 FGfAM

○ КНХААПО/ИАПО > AUG 2020

Based on FGfA a further modernized and integrated twin seat Su 50 for the Russian Air Force
Russia 20+ Units 2020..



Guide

■ Main direction of development

■ Versions of modifications

— Deliveries

○ Producer

> First flight

Close to a dozen of Aircraft with variation in camouflage



AVIATION CORPORATION
SUKHOI



**DEFENDING
RUSSIA**

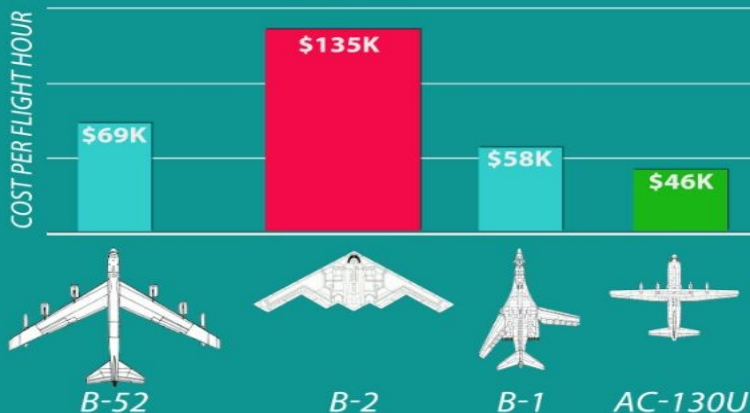
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COST OF AIRCRAFT MAINTENANCE PER FLIGHT HOUR

SMALL AIRCRAFT



LARGE AIRCRAFT



WWW.WORLDDWARWINGS.COM

THE MASSIVE ECONOMIC IMPACT OF THE F-35 PROGRAM

The U.S. and its allies have committed themselves to Lockheed Martin's fifth-generation F-35 aircraft. With an estimated cost of \$400 billion spread across eleven nations and 46 states, the often-maligned project has become too big to fail.

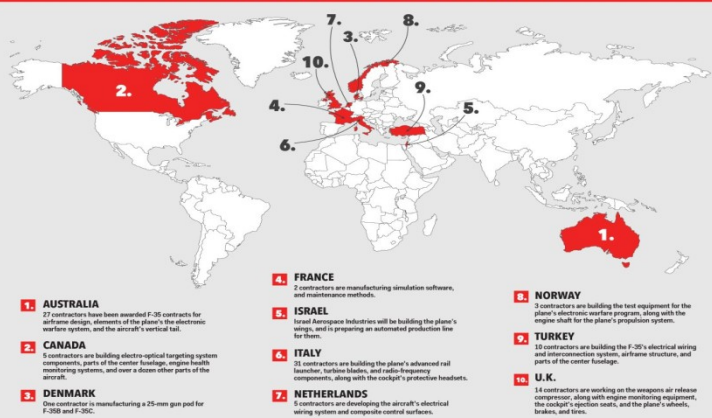
Conventional Take-off And Landing (Ctol) F-35

- Crew: One Pilot
- Max Level Speed At Altitude: Mach 1.6/mach 1.8+
- Internal Fuel Range: ~1,200 Nautical Miles
- Service Ceiling: 50,000 Ft.



- 6 Weapon's Hardpoints (Missile Storage)
- In-Flight Refueling Door (Boom)
- Internal 25mm Barrel Gatling Gun
- Cockpit Ejection Seat
- Active Electronically Scanned Array (AESA)

Countries With F-35 Economic Impact:



States Where F-35 Has Had Economic Impact Over \$100 Million:



States With No Economic Impact:

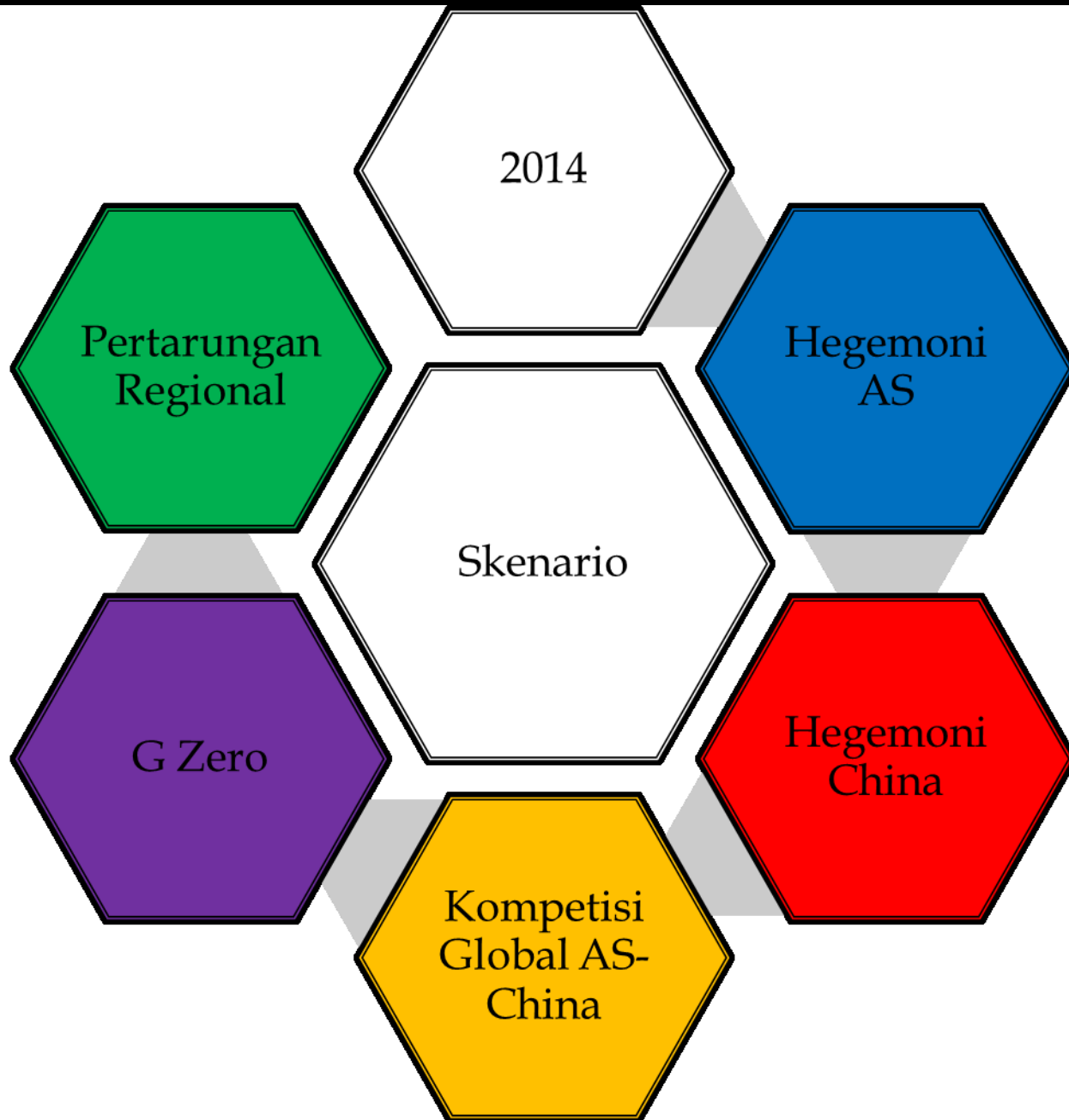
1. ALASKA
2. WYOMING
3. NEBRASKA
4. HAWAII

F-35 Is Directly Responsible For
32,500 JOBS IN 46 STATES

BUSINESS INSIDER

Source: US DoD, openair.org

-WW-



Skenario		S0	S1	S2	S3	S4	S5
		2014	Hegemoni AS	Hegemoni China	Kompetisi Global AS-China	G Zero	Pertarungan Regional
Karakteristik	Probabilitas	1	Rendah-Sedang	Sedang	Sedang-Tinggi	Rendah	Tinggi
	Polaritas Sistem Internasional	Unipolar	Unipolar	Unipolar	Bipolar	Multipolar	Multipolar
	Tingkat Stabilitas Sistem Internasional	Tinggi	Tinggi	Tinggi	Tinggi	Rendah	Sedang
	Perimbangan Militer	Condong ke AS	Condong ke AS	Condong ke China	Condong ke AS	Tanpa Perimbangan	Perimbangan Regional
	Kebijakan Aliansi	Quasi Alliance	Integrasi ke AS	Tanpa Aliansi Global	Aliansi AS	Tanpa Aliansi Global	Aliansi Regional
Trajektori		1 KPM 2024	1 KPM 2024 2 Peace Deviden	1 Kekuatan Regional 2 KPM 2024 3 Tentara Teritorial	KPM 2024	Tentara Teritorial	Kekuatan Regional
Tanggapan Strategis	Strategi Diplomasi-Pertahanan	Netral: Dynamic Equillibrim	Bandwoganing AS	Bandwoganing China	Balancing	Power Rise	Regional Balancing
	Doktrin Pertahanan	Defensif	Defensif	Defensif	Ofensif	Ofensif	Ofensif
	Program Senjata	Base Force	Base Force	Base Force	Base Force	Moderinization	Arms Build Up
	Sistem Senjata Utama	Air-Maritime Patrol	Air Control Maritime Surveillance	Air Control Maritime Projection Missile Shield	Air Strike Maritime Projection	Air Strike Maritime Projection	Air Strike Maritime Projection
	Anggaran Pertahanan	Rendah	Rendah	Rendah	Tinggi	Sedang-Tinggi	Sedang-Tinggi
	Dukungan Politik	Sedang	Tinggi	Rendah	Sedang	Tinggi	Sedang

-22-

Trajektori		T0	T1
		2014	KPM 2024
Karakteristik	Probabilitas	1	Tinggi
	Kapabilitas Militer	AD: Tentara Teritorial	AD: Mechanical Division
		AL: Naval Patrol - Brown Water Navy	AL: Maritime Surveillance - Green Water Navy
		AL: Air Patrol	AU: Air Control
		Terpadu: -	Terpadu: Komando Gabungan
	Strategi Diplomasi-Pertahanan	Dynamic Equilibrium	Regional Balancing
	Kebijakan Aliansi Global	Non Aliansi	Non Aliansi
	Stabilitas Sistem	Tinggi	Sedang
	Konflik Internal	Tinggi	Sedang
Determinan	Pertumbuhan Ekonomi	Sedang-Tinggi (6-7%)	Sedang-Tinggi (6-7%)
	Anggaran Pertahanan/PDB	Rendah (1.2%)	Sedang (2.5-3%)
	Demokratisasi	Inisiasi Demokrasi	Konsolidasi Demokrasi
	Regim Politik	Demokratis	Demokratis
	Karakter Regim	Dove	Hawk
	Hubungan Sipil Militer	Kendali Sipil Lemah	Kendali Sipil Obyektif
	Profesionalitas Militer	Sedang	Tinggi (5)
	Industri Pertahanan	Infant	Industri Ceruk

-22-

Pertahanan Indonesia 2045

Reformasi Militer



Tentara Profesional

Transformasi
Pertahanan



KPM 2024

Inovasi Militer



Kekuatan Regional
2045

1999

2009

2014

2029

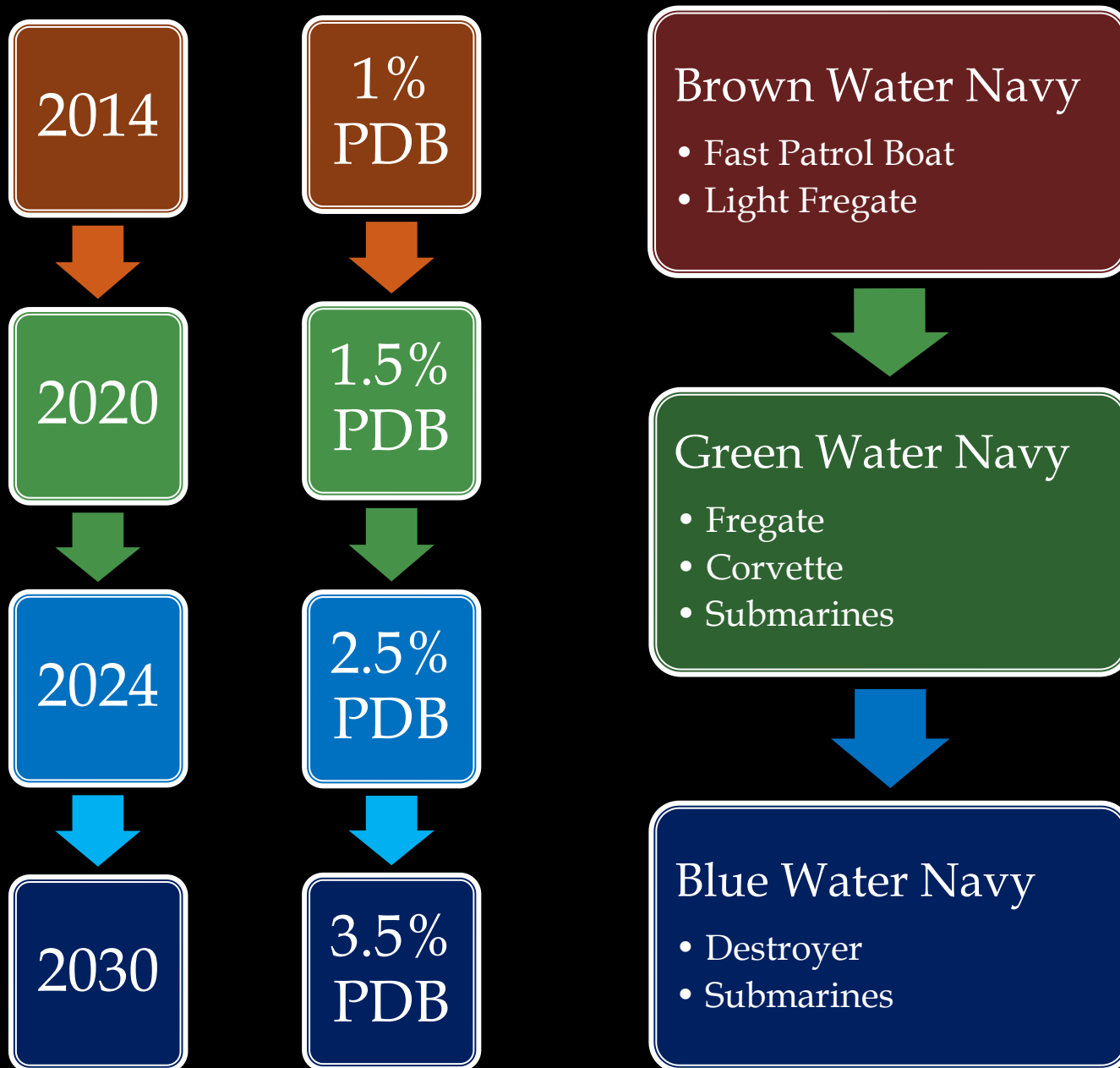
2045

Konsolidasi
Demokrasi

Ekonomi
Pertahanan

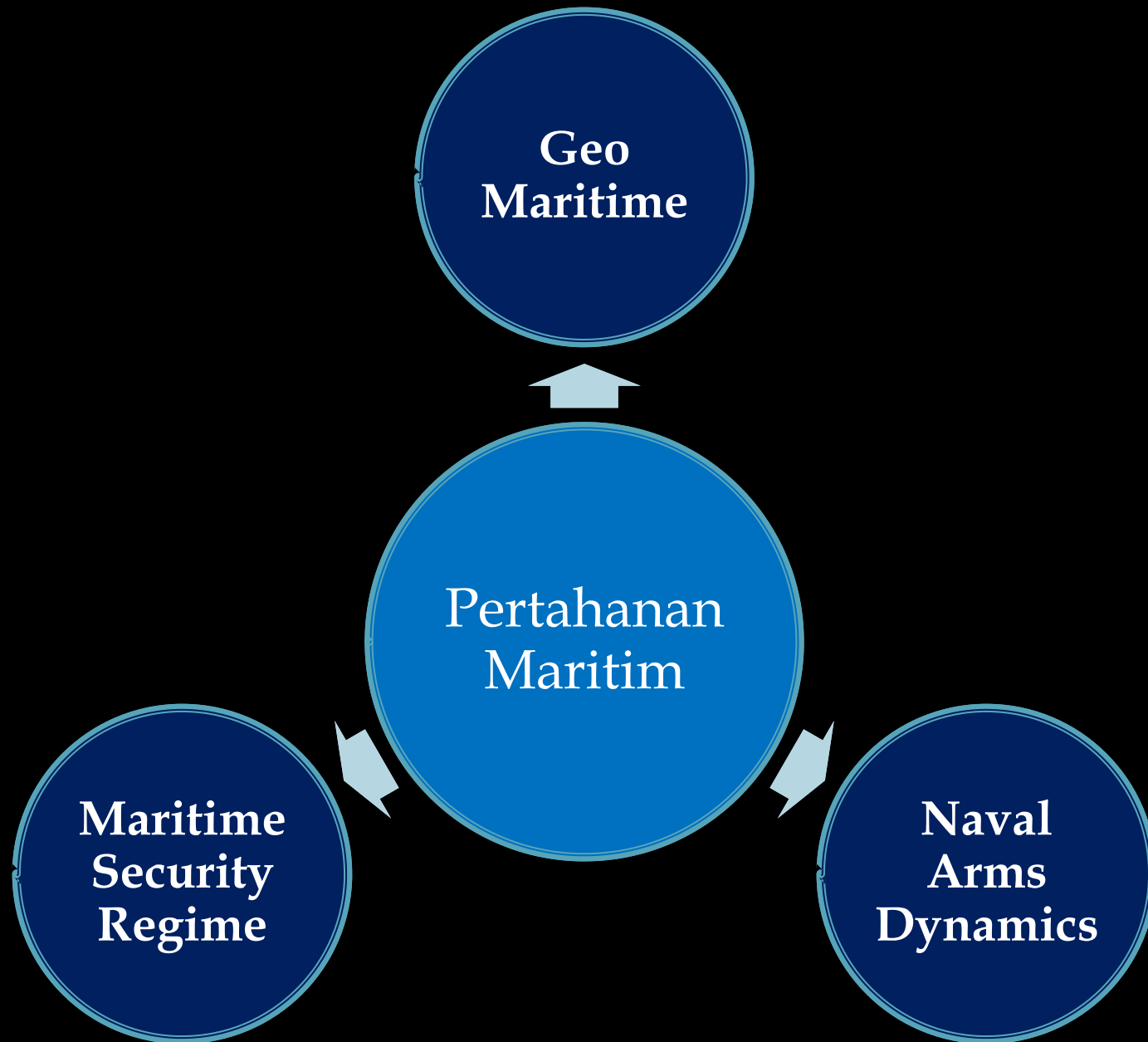
Teknologi
Pertahanan

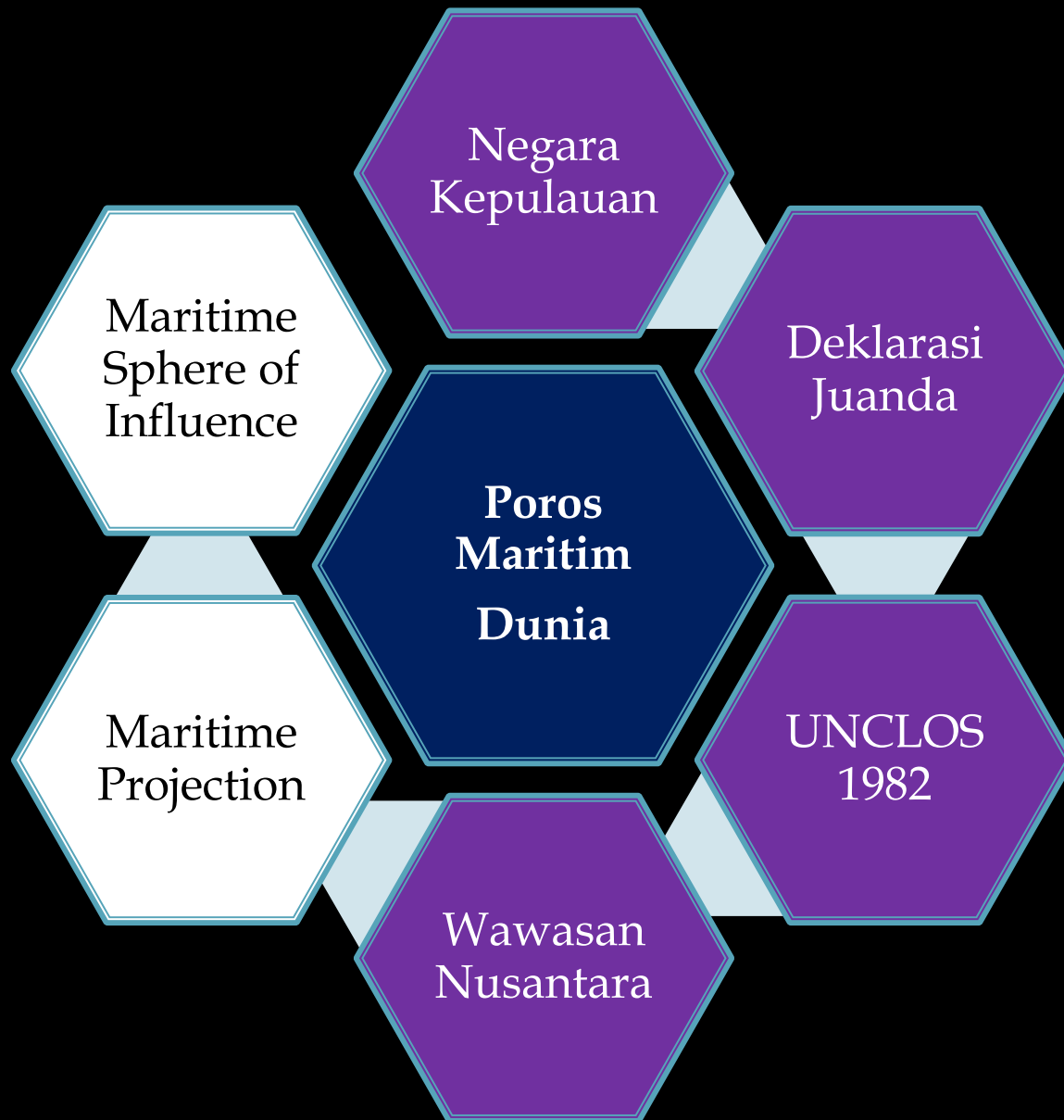
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AS

Rusia

Inggris

Perancis

China

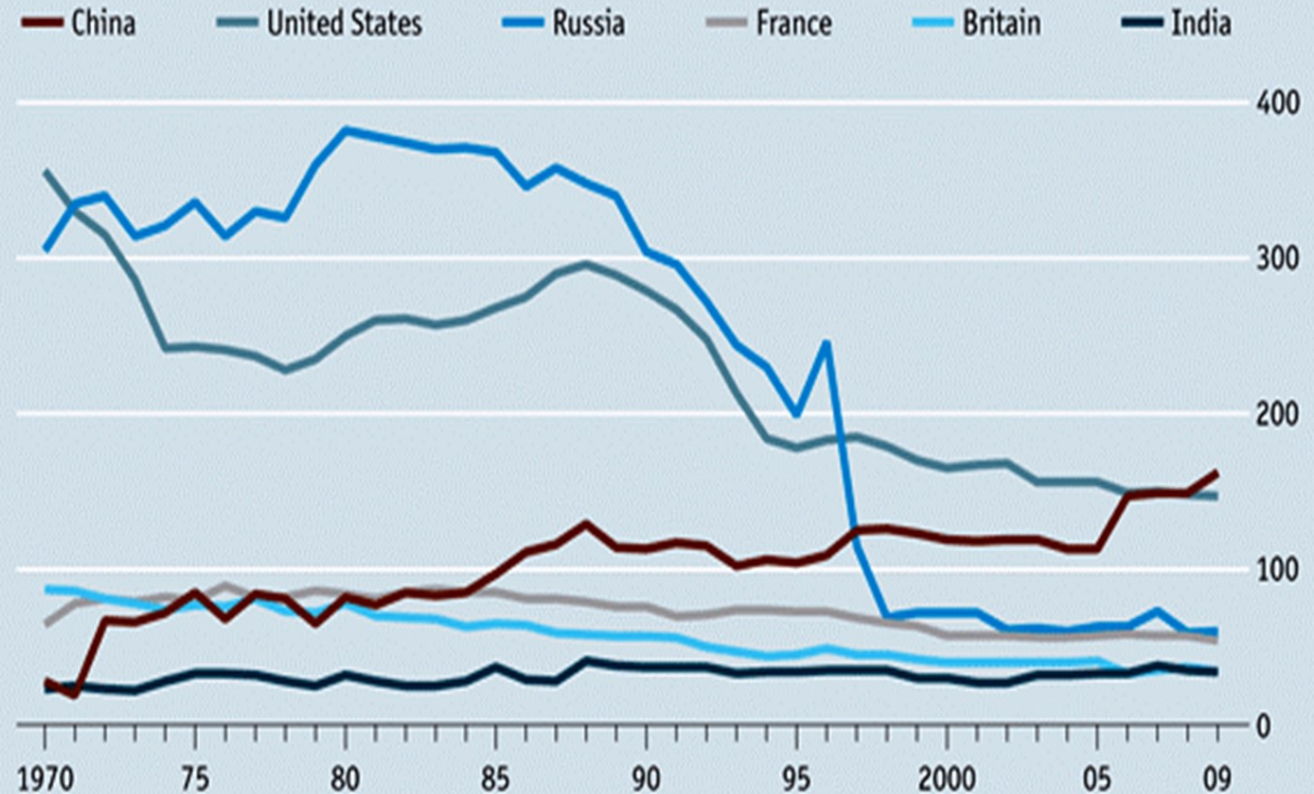
India

Jepang
Korea Selatan
Brazil

Australia, Belanda, Italia, Spanyol, Kanada

Warships

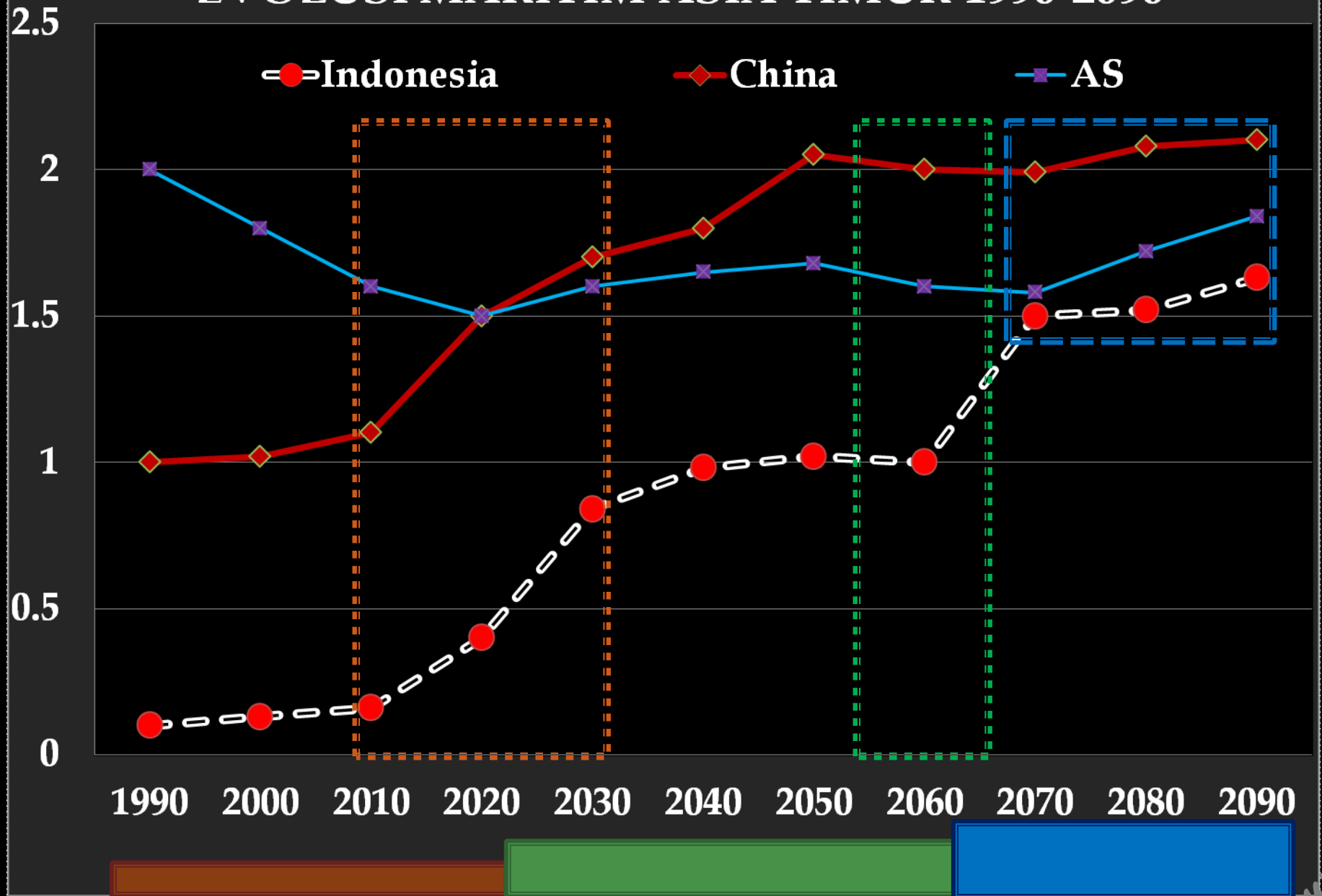
Major combatants, number



Source: International Institute for Strategic Studies

-WW-

EVOLUSI MARITIM ASIA TIMUR 1990-2090



-200-

