

DGAP POLICY BRIEF

The Economics of Great Power Competition

Why Germany Must Step Up on Defense



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Without a sound economic foundation, political and military ambitions cannot be sustained. This also applies to the geopolitical competition between the United States and its rivals. So far, America and its allies are economically ahead of Russia and China. But where Russia's long-term outlook is weak, China's economic might is rapidly increasing. Despite the war in Ukraine, Washington will have to focus its resources on Asia. In Europe, Germany, with its large financial and economic base, should lead on military spending and enhanced security.

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- To counter Russian and Chinese revisionist policies, the United States and its allies will need to mobilize greater resources. Economic analysis strongly suggests that the bulk of additional US resources will have to be deployed in Asia.

 - As the United States continues its strategic shift toward Asia, its European allies will have to shoulder a greater defense burden in view of Russian revisionist policies.

 - European NATO countries are well-placed to counter Russia in terms of resources. Germany can afford higher defense spending more easily than the other major European countries.
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REVISIONIST VS. STATUS QUO POWERS

The United States and its allies are status quo powers; China and Russia are revisionist powers. Russia wants to change the status quo in Eastern Europe, China in East Asia. Despite the Ukraine war, China continues to present a greater long-term challenge to the status quo than Russia. China is rising economically, while Russia is experiencing stagnation and relative decline. Whether Russo-Chinese cooperation intensifies or not, China's rise has important implications for American strategy, transatlantic relations, and German and European defense policy.

The United States is strongly committed to defending the status quo in Asia as well as in Europe, and it has good reasons for doing so. Preventing the rise of a hegemonic power on either side of the Eurasian landmass has been a strategic interest for more than a century. The United States fought two world wars and committed to an extensive forward military presence and extensive security guarantees during the Cold War to prevent Europe and East Asia from falling under German, Japanese, or Soviet hegemony.

Whether or not a Sino-Russian geopolitical bloc emerges, both China and Russia are set on a collision course with the United States and its allies. Economically, the US-led alliances are well-positioned to engage in long-term geopolitical competition, provided the United States manages to maintain alliance cohesion. But to remain competitive, America will need to shift attention and resources to Asia – Russian revisionist policies notwithstanding.

This will force its European allies to take on greater responsibility for defending the status quo in Europe. Germany has a pivotal role to play here. As the economically and financially most powerful country in Europe, it will have little choice but to contribute to strengthening European security. Unlike smaller countries, it cannot free-ride on the security provided by its European allies. Germany also has at its disposal greater economic, financial, and technological resources than its European partners. The main challenge will be to convert economic resources into military power and enhanced security in an efficient and effective way.

ECONOMIC AND FINANCIAL PARAMETERS FAVOR CHINA, LONG-TERM

Economic might is the foundation of political and military power. It is also a prerequisite for engaging in successful long-term geopolitical competition. Paul Kennedy and Robert Gilpin have famously argued that shifting economic fortunes underpin the rise and fall of great powers.¹ The economically stronger or ascendant power, or alliance of powers, emerges victorious, often but not always in the wake of a 'hegemonic war.' Anecdotal evidence suggests that more forceful military mobilization or more innovative military tactics may confer a temporary advantage, but rarely translate into strategic victory.²

How do the US-led alliances on the one hand and China and Russia on the other hand compare in terms of economic power?

At present, the aggregate economic resources of the United States and its allies outstrip the combined resources of China and Russia. But the current and prospective 'balance of economic resources' is much more favorable for the status quo powers in Europe than in Asia. The economies of European NATO members are five times larger than Russia's, and even prior to the imposition of the war-related sanctions, the Russian economy was already stagnating. Its long-term growth outlook is weak, given its demographics, dependence on natural resource exports, and uncompetitive domestic markets. Russia will be lucky if its growth rate matches that of low-growth major European economies like France and Germany, especially if the substantial one-off drop due to sanctions is taken into account.

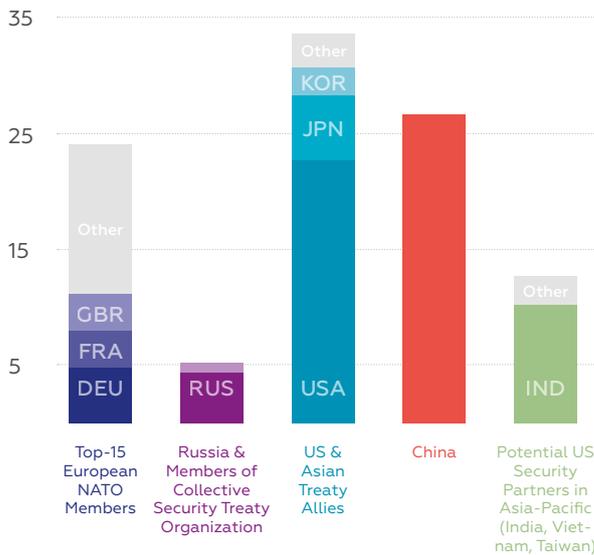
In Asia, however, the aggregate economic size of the US-led alliances exceeds China's by a far smaller margin. The Chinese economy is also growing much faster. Under reasonable assumptions, it will be twice as large as the US economy by the middle of this century. It will then exceed the combined economic size of the United States and its regional allies. These are baseline projections, and it is worth noting that significant risks attach to China's future growth trajectory, much more than to the outlook of the mature, lower-growth advanced economies of the United States and allies. Chinese growth has averaged nearly ten percent a year

1 Robert Gilpin, *War and Change in World Politics* (Cambridge 1981); Paul Kennedy, *The Rise and Fall of the Great Powers* (New York 1987).

2 Anecdotal evidence: Greece forced Persia into retreat, but Persia's retreat was owed to an unrelated domestic political crisis. Frederician Prussia only escaped certain defeat several times due to the broader international diplomatic constellation. The ultimate defeat of Nazi Germany and Imperial Japan despite both countries' initial military success was virtually inevitable due to differences in economic power. (Yamamoto saw this clearly.)

ECONOMIC SIZE FAVORS US-LED ALLIANCES (FOR NOW)

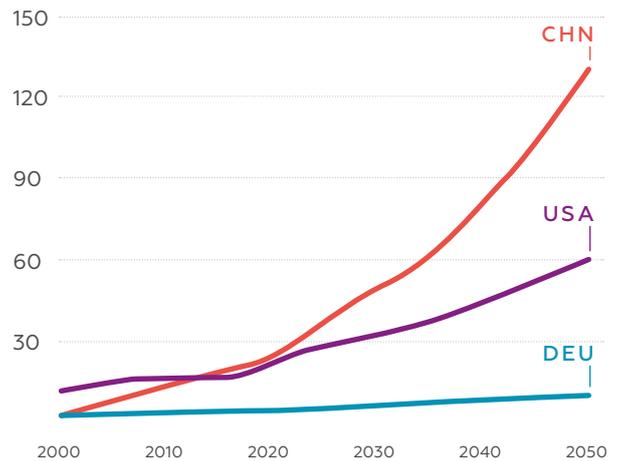
Alliance Economic Strength (GDP, PPP, USD trillion, 2021)



Source: IMF, SIPRI (2022)

CHINA'S ECONOMY IS ALREADY LARGER THAN AMERICA'S

(GDP, PPP, USD trillion, projection)



Source: IMF (2022); author's projection

since its economic opening in the late 1970s. More recently, trend growth has dropped closer to six percent and is set to decline further. China's official 2022 target is five and a half percent. By comparison, the present US growth potential is estimated to be around two percent or less.

China certainly has sufficient savings to finance capital accumulation. But this is of little use if not enough profitable investment opportunities can be identified. Doubling down on infrastructure investment will only lead to excess debt accumulation and raises the risk of a financial and economic crisis. Rapidly deteriorating demographics, a declining catch-up growth potential, and the so-called middle-income trap³ represent considerable risks to China's economic outlook. So-called economic rebalancing to make growth more sustainable is proving challenging. Nevertheless, in all reasonable scenarios, Chinese economic growth will exceed American growth. The Chinese economy will therefore continue to pull ahead of the American economy. This will allow China to increase defense expenditure far more rapidly than the United States and its allies, while keeping it

stable as a share of GDP and thereby limiting the resource drain on the economy.

China's increasing economic might will force the United States to mobilize and allocate greater resources to Asia. With Chinese capabilities focused on Asia, the United States – which deploys its military assets globally – will face an increasingly difficult strategic challenge. As a result, America's European allies will need to take greater responsibility for European defense.⁴

Economic Size Is Not Everything

Per capita income matters, too. It is a proxy for the extent to which governments can extract and mobilize resources for the purpose of geopolitical and military competition. Chinese (\$19,000) and Russian (\$30,000) per capita income is far below that of US (\$68,000), German (\$57,000) and EU (\$47,000) incomes. Naturally, much depends on the willingness of the population to support long-term competition by foregoing present and future consumption. In purely economic terms, however, the United States and its wealthier allies can extract greater re-

3 Middle-income trap refers to the experience of many developing country that once they reach a certain level of per capita income, they experience a significant downward shift in economic growth due to a failure to adjust their growth model. See Barry Eichengreen et al., Growth Slowdown Redux, NBER Working Paper 18673, 2013: https://www.nber.org/system/files/working_papers/w18673/w18673.pdf (last accessed: April 5, 2022)

4 Council on Foreign Relations, Revising US Grand Strategy towards China (New York 2015); Elbridge Colby, The Strategy of Denial (New Haven 2021); Rush Doshi, The Long Game (Oxford 2021).

sources than relatively poorer China or Russia. This would be particularly true in wartime. This diminishes somewhat China's economic size advantage, as its per capita income will only be about half that of the United States by mid-century.

In peacetime, the ability to mobilize resources for geopolitical competition is also affected by the level of government and external debt. The United States is the world's largest international debtor, and China is the world's second-largest creditor (after Japan). This may be thought to limit the ability of the United States to mobilize external resources. But with the dollar as the world's dominant reserve currency and strong sovereign creditworthiness, the United States retains a very significant ability to mobilize international resources, at least for now. Similarly, a high level of government debt may constrain the government's ability to raise defense expenditure. US government debt is high, though judging by the level of US interest rates, this does not pose a constraint, for now.

Nevertheless, the longer geopolitical competition lasts and the greater the additional need for resources becomes, the more binding the economic and financial constraints will prove in relative terms, even for the United States. As a major international creditor, China is in a more comfortable position, at least during peacetime. Chinese government debt is also lower than America's (though debt data are not strictly comparable). Most importantly, China's significantly higher trend growth will allow it to increase resources dedicated to competition more rapidly than America.

Viewed from yet another angle, higher non-productive (in an economic sense) defense expenditure represents a drain on a country's future economic production potential. Converting savings into non-productive military 'investment' (effectively: government consumption) limits a country's ability to invest and grow, potentially driving it into economic stagnation and financial collapse. The USSR, for example, was forced to divert a large share of its economic production to support its defense needs, thereby limiting domestic consumption and investment. This 'guns-versus-butter' trade-off proved unsustainable, economically and politically. In this respect, China has far greater leeway than the United States, given its extremely high domestic savings rate, fewer resources allocated to defense (as a share of GDP) and faster economic trend growth. In purely economic terms, the United States and its allies have a challenge on their hands.

US ALLIANCES OUTSPEND CHINA AND RUSSIA (FOR NOW)

Defense Spending (2020, in 2019 constant dollars, USD billion)



*Japan, Germany, France, UK, Korea, Italy, Australia
Source: SIPRI (2022)

Last but not least, the United States and its allies continue to outspend both China and Russia by a wide margin. Of course, Washington has global commitments compared to China's and Russia's more regional focus. Still, from a resource perspective, US-led alliances are more than competitive for now. But by the middle of the century the 'balance of resources' and hence potentially the balance of power will have shifted in fundamental ways. Barring a prolonged economic crisis, China will emerge as a serious challenge given its rapidly expanding resource base. And this does not even take into account that Chinese defense spending, measured as a share of GDP, is only about half of US spending (1.7 percent vs. 3.2 percent of GDP).

A purely resource-based approach has its limitation. Gross domestic product, per capita income, debt levels, and savings and consumption rates are imperfect if helpful proxies for a country's ability to engage in competition. So is military spending. The level of spending certainly matters, but so does its efficiency ('bang for your buck'). Engaging in successful security competition requires more than just resources; it requires the right policies in terms of investing in military technology, building the appropriate operational capabilities, preparedness, training, and so on. In alliances, efficiency of resource allocation also requires coordination to avoid duplication. And in a strategic context, it requires spending resources on capabilities that are effective at countering an oppo-

US-LED ALLIES AND (POTENTIAL) PARTNERS VERSUS CHINA & RUSSIA

LAND	Population (million, 2021)	GDP (USD trillion, PPP, 2021)	Per capita income (USD, PPP, 2021)	Defense expendi- ture (% of GDP, 2020)	Defense expen- diture (USD bil- lion, 2020)	Govern- ment debt (% of GDP, latest)	Net Inter- national Investment Position (% of GDP, latest)	
US	333	22.7	68,000	3.4	732	133	-65	
Japan	128	5.6	44,500	1.0	48	257	62.8	
Korea	52	2.4	47,000	2.8	44	51	26.4	
Philippines	112	0.9	9,000	1	3	59	-5.6	
Australia	26	1.4	55,000	2.1	27	62	-41.1	
New Zealand	5	0.2	44,000	1.5	0,1	52	-46.2	
US & (Selected) Treaty Allies	Thailand	69	1.3	19,000	1.5	7	58	11.0
	Germany	83	4.7	57,000	1.4	49	73	78.4
	UK	67	3.2	47,000	2.2	50	109	-25.7
	France	67	3.2	49,500	2.1	49	116	-32.7
	Italy	59	2.6	43,000	1.6	27	155	2.1
Canada	39	2.0	52,000	1.4	22	110	58.7	
TOTAL	1040	50.2			1058.1			
Russia & China	China	1,412	26.7	19,000	1.7	261	69	13.0
	Russia	146	4.3	29,500	4.3	65	18	26.8
	TOTAL	1.558	31,0			326		
Poten- tial US Partners	India	1,375	10.2	7,000	2.9	71	91	-14
	Vietnam	99	1.2	11,700	2.3	N/A	46	N/A
	Taiwan	24	1.4	59,000	2.1	10	38	205.1
	TOTAL	1,498	12.8			81.0		
FOR REFERENCE:								
EU	447	21.6	47,000	1.6	228	91	-3.7	

Source: UN, IMF, World Bank, SIPRI

ment's capabilities or exploiting its weaknesses. The willingness and ability to convert available economic resources into effective geopolitical power are the least quantifiable variables when assessing the relative long-term competitive position of a country. On this one, the jury is out.

NON-ECONOMIC PARAMETERS OF COMPETITION FAVOR US-LED ALLIANCES

Economic size and military spending matters. So does the efficiency of military spending. So do other factors that will likely allow America and its allies to remain geopolitically competitive in East Asia and beyond, in spite of a widening resource disadvantage.

Geography Favors America Over China

Geography matters. The United States dominates the North American continent, facing economically and demographically far less powerful states to its north and south, with which it has amicable relations. The US navy dominates the oceanic approaches in the Atlantic and the Pacific. This allows Washington to concentrate its defense spending on the navy and air force, limit expenditure on manpower-intensive homeland defense, and forward-deploy its military to Asia, its global commitments notwithstanding. It can also focus its military power on China's geostrategic chokepoints. By comparison, Europe is geographically much more vulnerable, given the relative proximity of Russia and the absence of the so-called 'stopping power of water.'

China and Russia are also in a less favorable geographic position. China is surrounded by many countries, some of which are sizeable economically and demographically. Some also have nuclear weapons. China also faces island chains controlled by the United States and its allies that put China at risk of being cut off from maritime access and critical imports, including energy and food. Finally, China has territorial or maritime disputes with many countries in its neighborhood, which makes it more difficult for Beijing to expand its influence and win friends and allies. Russia is in an even worse position: To its west (Europe), it is confronted with a powerful military alliance that has a far larger economic base. To its south, it has to contend with geopolitical instability (Caucasus and Middle East). To its east, it faces a rising China as well as economically powerful US allies such as Japan and South Korea.

America Also Benefits from Regional Allies

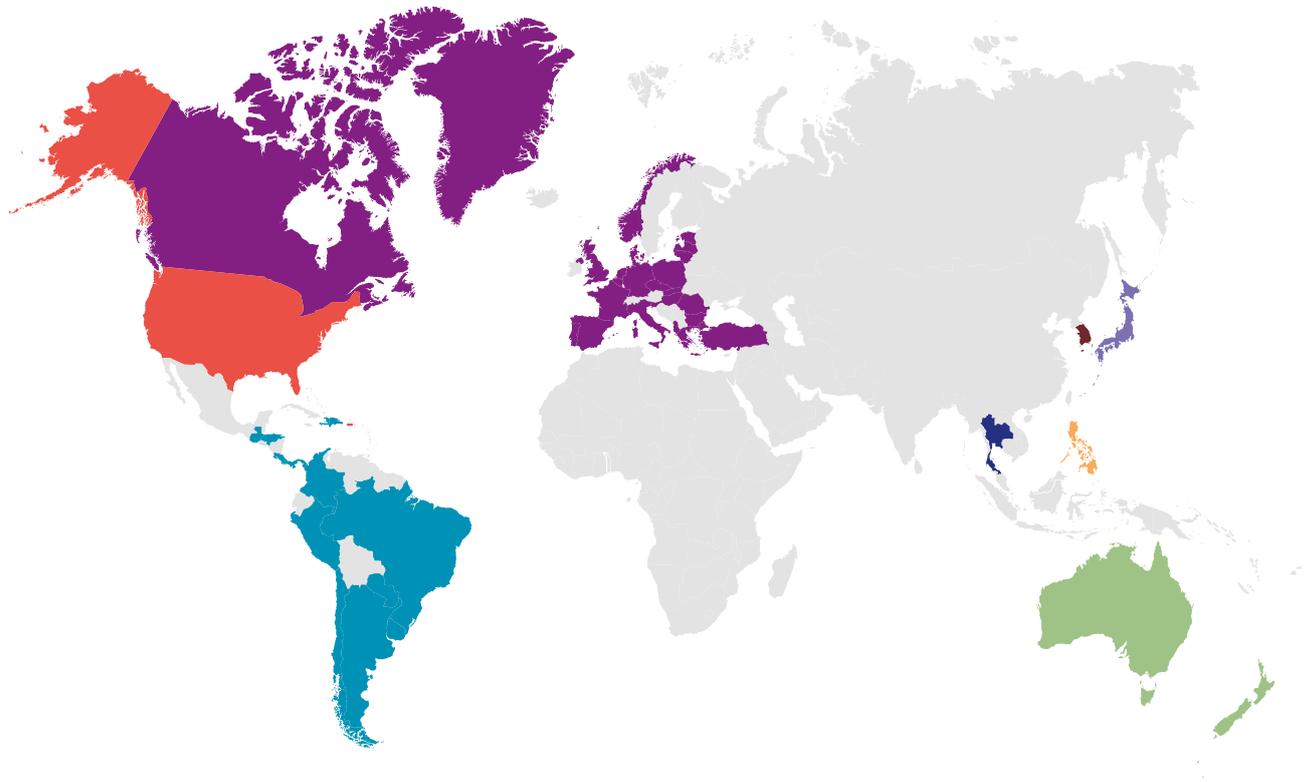
Alliances matter. They allow the United States to tap into a broader resource base to engage in competition. Nine of the world's fifteen largest economies (measured in purchasing power parity terms) are American treaty allies. The combined economic resources of NATO exceed Russian resources several times over. The various US alliances in Asia currently also outstrip China in economic terms – and this does not account for 'friendly' countries, such as India and Taiwan. Over time, India or Vietnam may join or at least closely coordinate with US alliances in Asia, thereby adding to the resource base, if they become sufficiently fearful of an ever more powerful China challenging the status quo. Maintaining alliance cohesion can diminish the efficiency and effectiveness of resource mobilization. But it adds to aggregate economic power. Churchill's quip about the only thing being worse than fighting with allies is fighting without them comes to mind.

China has only one formal treaty ally, impoverished but nuclear-armed North Korea. Its economic engagement strategy built on the Belt and Road Initiative has allowed it to garner greater influence. Some smaller countries, for example, have granted China permission to establish naval bases. But even if recipient countries have become more sensitive to Chinese interests, the economic partnerships have not yet translated into formal alliances. Meanwhile, Russia has re-established close relationships with several former Soviet republics. While this helps prop up Russia's position in its 'near abroad,' it does virtually nothing to enhance its aggregate alliance strength. Aside from Russia, the Collective Security Treaty Organization consists of Armenia, Belarus, Kazakhstan, Kyrgyzstan, and Tajikistan, whose combined GDP is smaller than that of the Netherlands.

Washington and its Allies Lead on Technology

Technology matters. Technological leadership can provide a country with a decisive military advantage (Think of the US nuclear bomb), and it helps underpin its longer-term economic growth trajectory. This may be particularly true in the case of today's emerging technologies. At risk of oversimplification, the United States and, to a lesser extent, Europe continue to lead in terms of cutting-edge research. China and Russia effectively have to compete head-on with the combined technological potential of virtually all the world's advanced economies: North America, Europe, and East Asia, including Australia and New Zealand.

US-LED ALLIES AND (POTENTIAL) PARTNERS VERSUS CHINA & RUSSIA



NORTH ATLANTIC TREATY (1949) ANZUS TREATY (1951) PHILIPPINE TREATY (1951) MANILA PACT (1954)
 RIO TREATY (1947) UNITED STATES US-JAPAN SECURITY TREATY (1960) REPUBLIC OF KOREA TREATY (1953)

China, supported by extensive government resources, is catching up but remains behind. Russia has a good record of converting technological advances into military power but is disadvantaged by a much narrower technological base, and recent sanctions are going to make things worse. In the short term, technological decoupling will further hamper China's and Russia's ability to compete, even if over the longer term, it will make them pursue indigenous innovation more forcefully.

Economic size may not be everything, but it matters. Economic trends suggest that the US-led alliances are well-positioned to compete with the revisionist powers. While China's economic rise is set to eventually outstrip the combined size of America's Asian alliances, the country will continue to be hampered by a lower per capita income, a less favorable geography, and a technological gap vis-à-vis the United States and its allies. Nevertheless, differential economic growth will leave the United States little

choice but to shift resources to Asia. It will also increase US pressure on its European NATO partners and especially Germany to shoulder a greater part of the defense burden. And it may even lead to increasing American demands for Europe to help the United States defend the status quo in Asia.

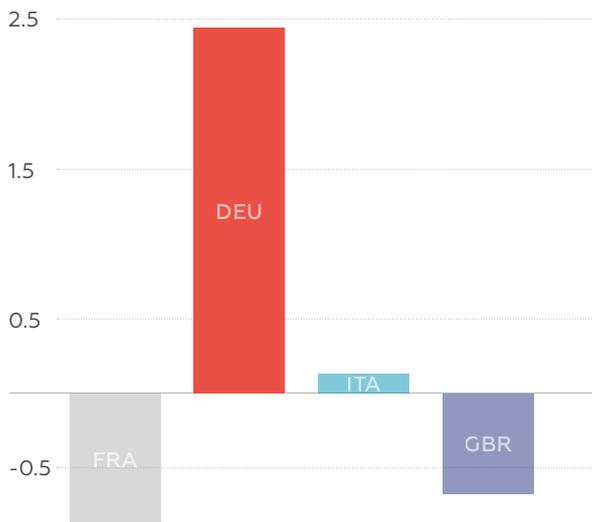
Germany Can Afford to Step Up

To meet the revisionist challenge, the United States and its allies will need to mobilize greater resources. Regarding their GDP, European NATO countries far outstrip Russia. But in terms of defense expenditure, the comparison is less favorable. As Washington directs greater resources and attention to Asia, Europe needs to step up. Among all the European countries, Germany is best positioned in relative and absolute terms to do so.

First, Germany is the world's second-largest international creditor after Japan. Second, government debt is relatively low, the so-called structural fiscal

GERMANY IS THE WORLD'S SECOND LARGEST INTERNATIONAL CREDITOR

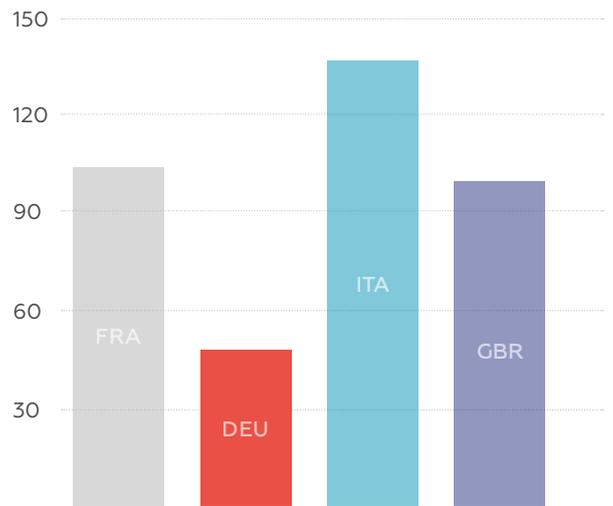
(Net International Investment Position, EUR trillion, 2021)



Source: IMF (2022)

GERMANY HAS SIGNIFICANTLY LOWER GOVERNMENT DEBT THAN ITS PEERS

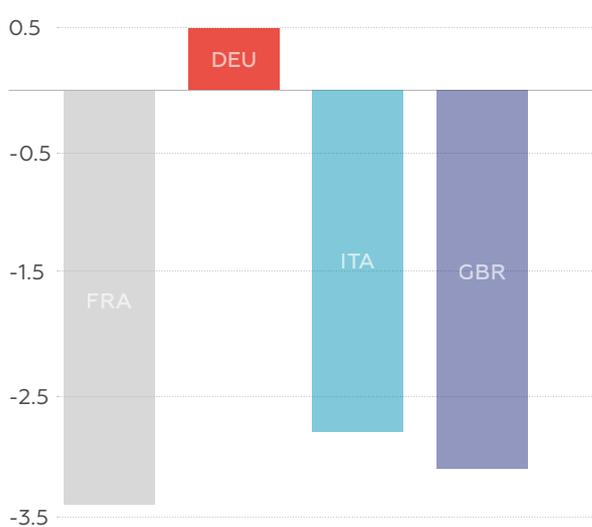
(Net Government Debt, % of GDP, 2025F)



Source: IMF (2022)

GERMANY'S FISCAL POSITION IS VERY STRONG

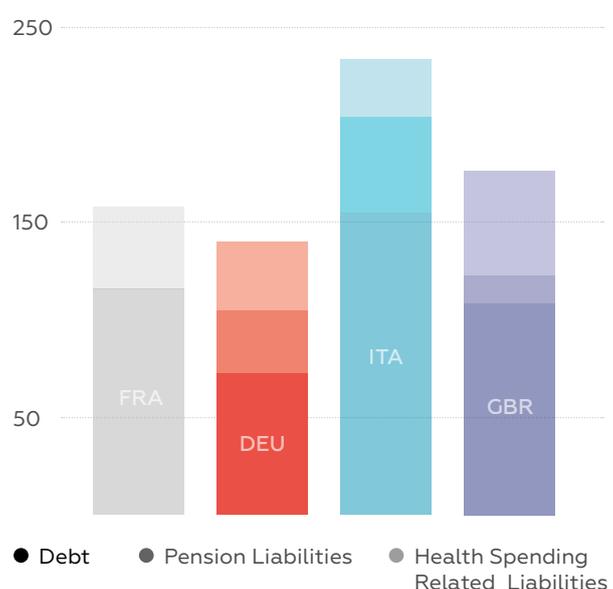
(Structural fiscal balance, % of GDP, 2025F)



Source: IMF (2022)

GERMAN DEBT POSITION IS RELATIVELY SOLID EVEN AFTER ACCOUNTING FOR DEMOGRAPHIC CHANGE

Government Liabilities (2021, % of GDP)



Source: IMF (2022)

deficit is small, and the cost of government debt is low.⁵ (Pre-COVID-19, Germany ran a structural budget surplus.) Even if implicit liabilities are added to the existing debt stock, debt amounts to less than 150 percent of GDP, far less than for its European peers. Third, both low interest rates (for now) and large current account surpluses are indicative of ‘excess’ savings. This offers the opportunity to convert ‘excess’ savings into increased military expenditure in a cost-effective way. Germany also has the largest and most advanced industrial and technological base in Europe, and it has a higher per capita income than its main European allies. Its longer-term economic growth outlook is comparable to that of its European partners.

Europe has the resources to compete with Russia – it just needs to mobilize them. Germany is what in this context may be called the indispensable power due to its demographic size, economic weight and wealth, financial resources, and technological-industrial base. Economically and financially, Germany is well-positioned to spend more on defense – much more so than most of its European allies. Germany must step up and can step up.

A final thought: If the Ukraine crisis demonstrates anything, it is that under President Joe Biden, the United States remains strongly committed to defending the status quo in Europe. This stance is shared widely among US policymakers and most legislators. But should a president of Donald Trump’s political beliefs be elected in 2024 (or after), the outlook for European security could quickly become more uncertain. This is just one more reason why Europe and especially Germany need to mobilize greater resources in support of their security and in defense of the status quo.

5 A sustained increase in defense expenditure might require a reform of euro area fiscal rules if it is not financed through higher revenues.



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