center for global studies bonn

BONN POWER SHIFT MONITOR 2019

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FOREWORD

Dear Reader,

Ever since its foundation in 2010, the Center for Global Studies (CGS) of the University of Bonn has been dedicated to the investigation of shifts in global power configurations. In 2018, the CGS published a revised version of the Bonn Power Shift Monitor (BPSM) and we are now happy to present its latest update.

In order to reveal the newest trends in global power shifts, identifying winners and losers of power changes up to 2017, we updated the data and further extended the time period covered. With our report, we gladly present to you recent developments crucially affecting the political, economic, and military status of the world's leading countries. Discover with us how China is steady, but now significantly slower, in catching up with the United States. While the USA is suffering further power losses, explore how Germany recorded a renewed power rise in the past years.

We would like to thank our German and international partners, who enrich our work at CGS with valuable input, for their trust in our work over the past years. Special thanks go to Christiane Heidbrink, who in her role as project manager coordinated and implemented the revision of the BPSM. Special thanks also to Dr. Andrej Pustovitovskij, especially for the layout, and all colleagues for their contributions in revising the BPSM. Finally, we would like to thank Marion Romagna and all our student assistants for their valuable support.

On behalf of my entire team, I hope that you may find the report exciting and enlightening and that you enjoy reading the update as much as we did compiling it!

Prof. Dr. Xuewu Gu

Director of the Center for Global Studies

Executive Summary

The Bonn Power Shift Monitor (BPSM) evaluates the major trends in global power shifts among the 19 nation states within the G20. As heavyweights in global politics, these 19 states are of major importance as global rule-setters due to strategic capacities and their involvement in networks, political alliances, and international organizations worldwide. The BPSM defines power as the ability to assert state interests and preferences in international affairs by drawing from beneficial resources that may vary in different decision-making situations. For this reason, we have selected eight indicators, which illustrate whether a state finds itself in a beneficial position based on its relative global weight. Out of 206 countries in the world, the 19 selected countries alone account for global shares of between 48 and almost 90 percent in the BPSM categories. As an open-access tool to explore the hallmarks of power, cross-validate scientific findings and provide strategic insights into the patterns, scope, and nature of power shifts around the globe, the BPSM provides a useful framework for research which may be adjusted to respective users' needs.

The most striking trends in power shifts among the G20 states between 2015 and 2017 are presented in the first section of this publication. These findings are contrasted and complemented with a long-term view of power shifts since 2005. The following section presents the dynamics within and between the eight selected power categories. While a superficial view of the overall changes suggests continuity, the in-depth analysis of the respective categories reveals significant dynamics within and between the positions of the G20 states. Thereafter, a selection of BPSM country reports illustrates the analytical opportunities of our approach. All 19 country profiles are also available online in addition to further analyses and findings. Since we base the BPSM on the principles of transparency and accessibility, only open-source data is included. Descriptions of our principles, the categories selected, and our calculations are presented in the methodology chapter at the end of this publication.

Although this BPSM report concentrates on a very short timeframe of only three years, it still offers illuminating insights into changes in the distribution of global power. It also demonstrates that the tool is designed to be constantly updated and extended as new data becomes available.

In this report of the Bonn Power Shift Monitor, we will showcase:

1. that the United States is still the most powerful country in the world.

2. that the United States will hold this position longer than presumed in our last issue due to China's weakening growth rates.

3. that China remains the biggest gainer in global power shares.

4. that the United Kingdom is the only G20 state losing both relative and absolute weight since 2015.

5. that India shows the greatest percentage gain in power,

6. whereas Saudi Arabia lost the most percentages in power.

7. that Italy demonstrated the largest country-specific growth.

8. that the gap between the power levels of the G20 states has further narrowed, whereas the disparity of power distribution between the regions has further grown.

9. that the expanding India surpassed Japan on rank 5 among the G20 states.

10. that power gains and losses are observed among both traditional "Western" powers and developing countries in the G20.

Based on these findings, we recommend that policymakers, the scientific community, and the media should make a more balanced assessment of relative and absolute power changes. We note with concern that discourses too often and too simplistically harness decline fears by focusing on relative losses. To offer an example: While the trade shares for service exports between the G20 states have declined since 2005, their absolute value has almost doubled. Therefore, everybody should be advised to be cautious with statements about perceived power declines and conflicts derived from them. A sophisticated understanding of power transition dynamics, as provided by the BPSM, serves as a navigational light in times of questioned multilateralism, rising populism, and raging trade wars.

Power Shifts between 2015 and 2017 at a Glance

The nineteen individual states of the G20 are the starting point for our power shift analysis. We selected these major economies as they are key decision-makers in regional and global governance. A first glance at these nineteen major states (G19) reflects their preponderance in all aspects of power. From 2015 to 2017, these states gained weight in only two out of eight Bonn Power Shift indicators. In the remaining six categories, their aggregated change rate lags behind the global trend which deprives them of some shares representing their shifting power status in international affairs.

GDP

Global Change Rate: +10.96%
G19 Change Rate: +10.95%
G19 Global Shares: 2015 – 72.87%; 2017 – 72.86%
Top-Gaining Country: China & India
Relative Trends: 4 out of 19 gained global shares
Absolute Trends: all G19-states increased their GDPP

Merchandise Exports

Global Change Rate: +7.27%
G19 Change Rate: +5.45%
G19 Global Shares: 2015 – 60.65%; 2017 – 59.62%
Top-Gaining Country: Australia
Relative Trends: 12 out of 19 gained global shares
Absolute Trends: 17 out of 19 exported more goods

Service Exports

Global Change Rate: +8.83%
G19 Change Rate: +6.66%
G19 Global Shares: 2015 – 54.65%; 2017 – 53.56%
Top-Gaining Country: India & Saudi Arabia
Relative Trends: 10 out of 19 gained global shares
Absolute Trends: 16 out of 19 exported more services

Military Troops

Global Change Rate: -0.08%
G19 Change Rate: +0.40%
G19 Global Shares: 2015 – 48.05%; 2017 – 48.29%
Top-Gaining Country: India
Relative Trends: 5 out of 19 gained global shares
Absolute Trends: 10 out of 19 increased their troops

Defense Spending

Global Change Rate: +1.15%
G19 Change Rate: +1.10%
G19 Global Shares: 2015 – 83.58%; 2017 – 83.53%
Top-Gaining Country: China & Turkey
Relative Trends: 10 out of 19 gained global shares
Absolute Trends: 11 out of 19 increased expenditures

Top Universities

Global Change Rate: +0.00%
G19 Change Rate: +2.10%
G19 Global Shares: 2015 – 71.50%; 2017 – 73.00%
Top-Gaining Country: Italy
Relative Trends: 6 out of 19 gained global shares
Absolute Trends: with 146 top-rated universities, the G19-states won 3 ranking places compared to 2015

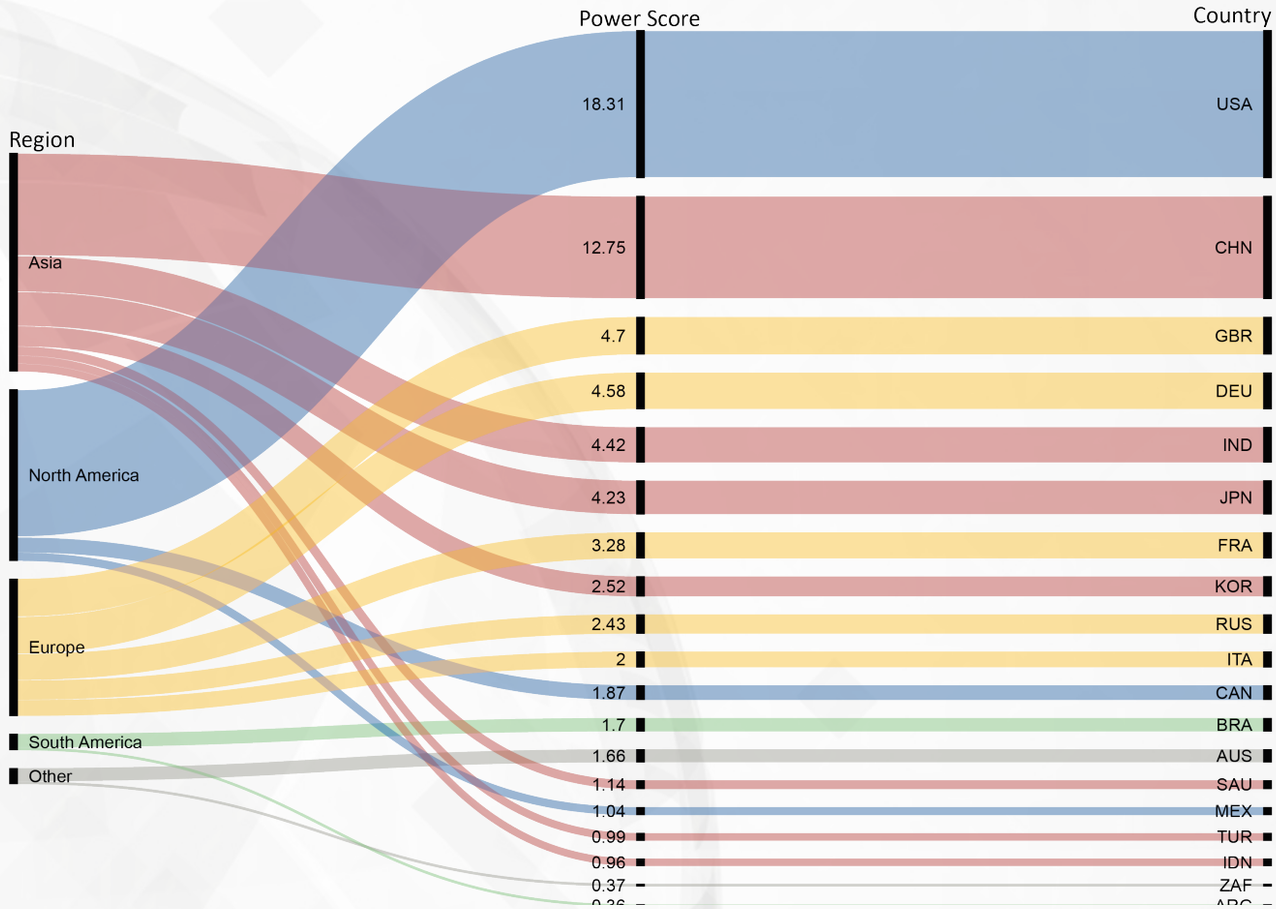
Top Companies

Global Change Rate: +0.00%
G19 Change Rate: -0.46%
G19 Global Shares: 2015 – 87.80%; 2017 – 87.40%
Top-Gaining Country: China
Relative Trends: 3 out of 19 gained global shares
Absolute Trends: with 437 companies on the list, the G19 states lost 2 ranking places compared to 2015

Publications

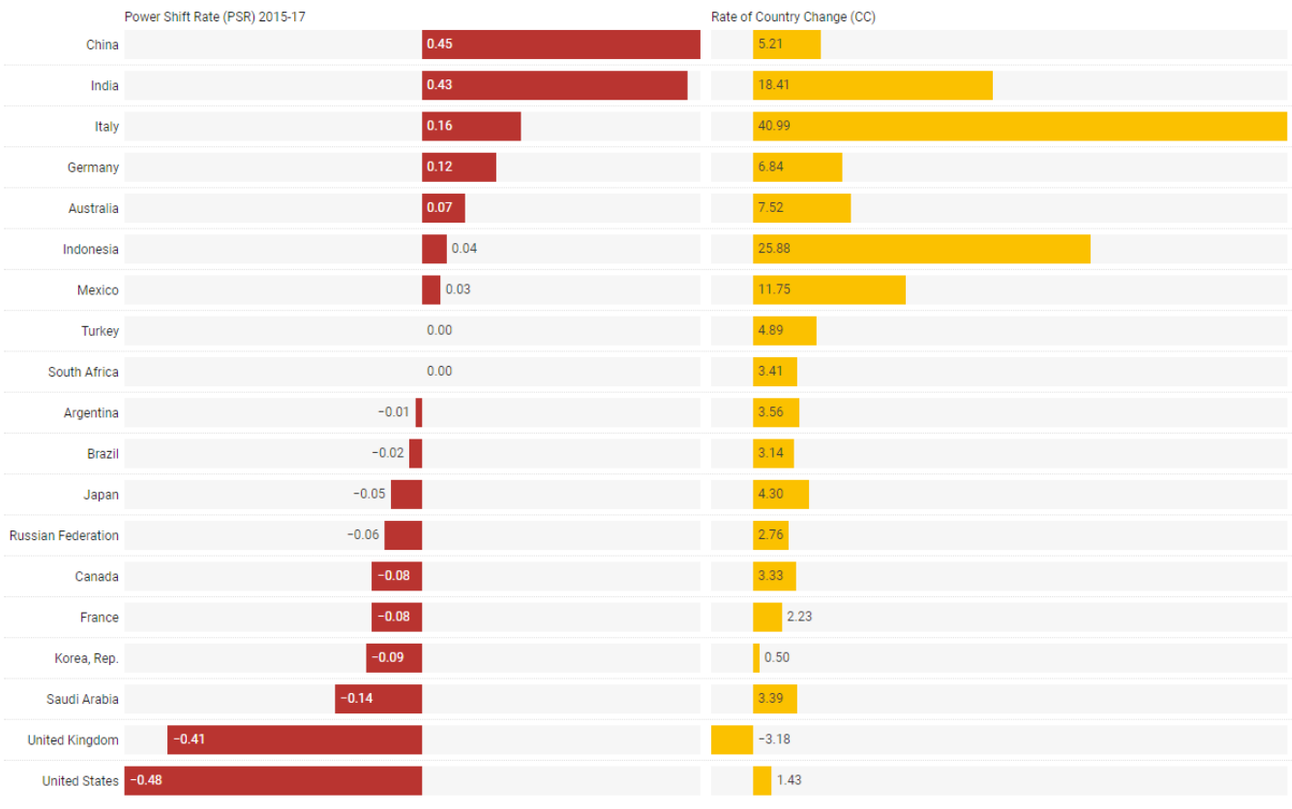
Global Change Rate: +5.06%
G19 Change Rate: +4.79%
G19 Global Shares: 2015 – 76.30%; 2017 – 76.10%
Top-Gaining Country: China & Indonesia
Relative Trends: 8 out of 19 gained global shares
Absolute Trends: 10 out of 19 published more articles

Beakdown of G20 Country Power in 2017



Power Shift Ranking 2015 to 2017 rates

From 2015 to 2017, China has gained the most power (PSR), followed by India, Italy and Germany. Considering only the country specific developments (CC), Italy has taken the greatest steps forward, whereas the UK is the only G20 state presenting a relative and absolute downward trend.

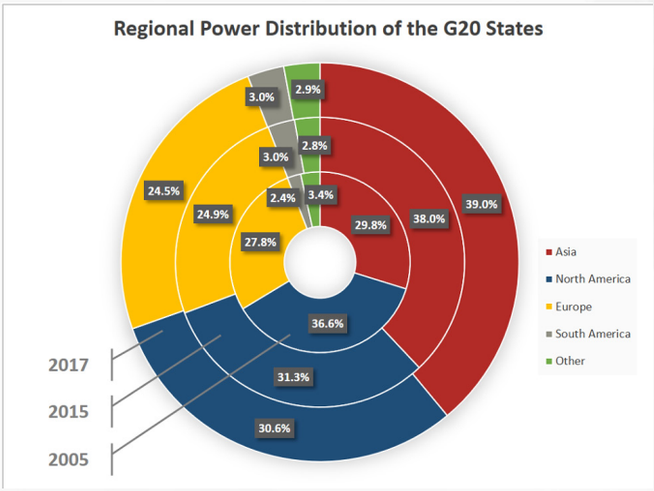


Cross-Country Comparison

The Changing Dynamics of Global Power Shift

The United States remains the most powerful country of the G20 in 2017. Although it is still on a relative decline from 2015 to 2017, its downward curve has further flattened. China, on the other hand, continues to expand as number two in our rankings, but its relative power growth is slowing down significantly. As a result, China's catching up to the USA has thus decelerated since 2013, although it continues to progress. The United Kingdom, which in 2017 was still ranked the third most powerful country in the G20, can be considered the biggest loser in the recent period and is also the only country with relative and absolute losses.

Surprisingly, Germany and Italy, whose global shares of power have been declining for a long time, saw a significant recovery in the years 2015/17. For the first time since 2009, Italy was able to climb back into the top 10 of the most powerful G20 countries, while Germany has managed to retain its fourth place since as early as 2014. Furthermore, Germany shows outstandingly comprehensive gains for the most recent period.
Despite its slowed down power growth, China has still been



the biggest winner of relative power between 2015 and 2017, closely followed by the strongly power expanding India. The Asian riser surpassed France in 2016 and now holds the 5th place among the G20, even surpassing Japan, which comes in 6th. India shows the biggest percentage gain in power and is thus making a major contribution to the further increase of power shares in the Asian region between 2015 and 2017.
Taking a closer look at the chasing pack: While the gap between the midfield states and China has widened between 2015 and 2017, there is evidence of a convergence of power among these countries. The leveling of power that we already described in the last issue of the Bonn Power Shift Monitor thus continues.

In addition to the top 10 countries, both Saudi Arabia and South Korea developed unexpectedly. For while South Korea and Saudi Arabia have usually been among the winners of power shares, the percentage of their relative global power shares fell in the 2015-2017 phase. While their absolute country specific development (CC) is positive, the values are below the average for the G20 states. Taking a closer look at their power scores, South Korea has been able to slightly recover from 2016 to 2017, whereas Saudi Arabia keeps its downward trend.

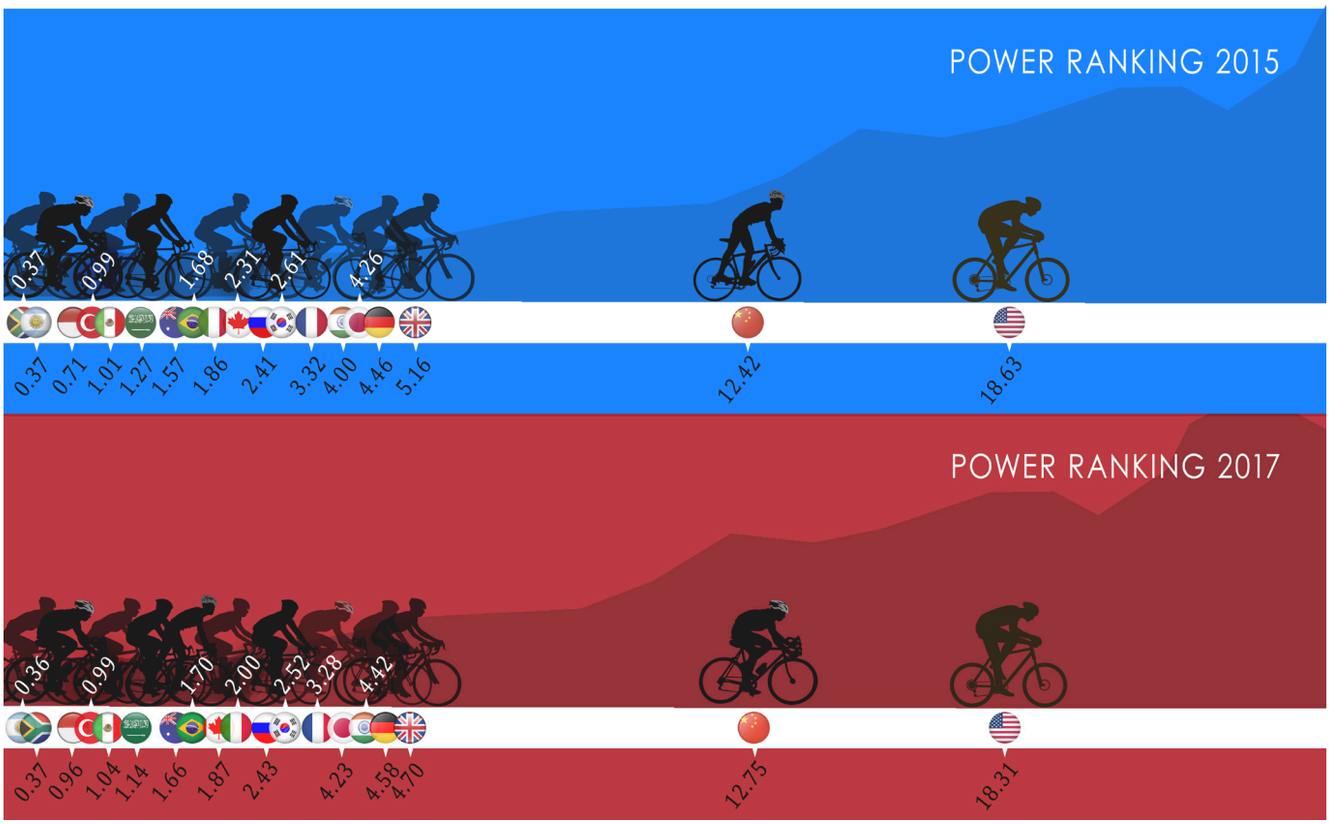
At the bottom of the BPSM power score ranking are Argentina and South Africa. Although they present overall positive power shifts since 2005, the two states remain the weakest of all members and have been unable to pave their way up the ranking. For the latest period of observation, both countries seem to be stagnating with a slightly negative sign, so that the gap to next higher ranked Indonesia has increased from 2015 to 2017.

Power Shifts and Power Scores

Within the G20, three major geographic power centers can be detected: First, the North American center under the leadership of the United States of America; second, Europe as a composite power center of the United Kingdom, Germany, France and Italy; and third, an Asian center with China as its main regional power. However, in contrast to 2015, a shift in power towards Southeast Asia can be seen in this region due to the rise of India.

From 2015 to 2017, we detect a further decrease of regional power in Europe and North America, a continuation of power growth in Asia and a seemingly stagnating South America, as well as a slightly positive turn regarding the two countries of South Africa and Australia subsumed under „Other“. Therefore, the Asian rise still continues in 2017 with a widening power gap to the traditional powerhouses. This fits well with the overall development from 2005 to 2017, as only the regional weight of Asia and South America has increased in the last 12 years, while that of North America and Europe steadily decreased. As a result, Asia has overtaken North America as the strongest region among the G20.

Most noticeable among the Asian G20 countries, India's power growth accelerated, visible in its power shift rate (PSR) that rose from 0.27 in 2013/15 to 0.43 in the 2015/17 phase. Contrary to this, China's growth rate decelerated sharply from 0.95 to 0.45. Nevertheless, if Beijing upholds its current growth trajectory, it will presumably reach the power level of the USA in 2023. Even more remarkable is the loss that South Korea has to endure: While it had always been among the winners of global power shares from 2005 until 2015, it lost global power for the very first time during the most recent period, with a PSR of -0.09. In Europe, Germany and Italy have turned around their previously negative developments from -0.13 and -0.12 to 0.12 and 0.16 respectively. Contrary, France and the UK present a loss in power. Especially the UK underwent a negative turn: Its 2015/17 losses of -0.41 exceeded its small power gains of 0.08 of the previous phase. So despite of Berlin´s and Rome´s gains, the G20 states of Europe as a whole could not achieve an increase in power. Thus, Europe´s long-term loss of power continues. In South America, both Brazil and Argentina are comparatively stagnant and even featured a negative prefix for the last years of observation. As a result, Argentina still ranks last among the states under observa-



tion, while Brazil managed to keep place 12.

Summing up the regional developments from 2015 to 2017, only Asia and the "Other" (South Africa + Australia) conglomerate managed to increase their regional weight, whereas North America, Europe and South America lost weight. Therefore, Asia continued its positive and North America and Europe their negative 2005 to 2015 trend. South America and the "Other" region both reversed trends, but in different directions. Thus, power losses and gains can be observed among both traditional "Western" powers and developing countries in the G20.

The loss of relative state power cannot be equated to stagnation or decline within the countries. In a general 2005 to 2017 trend, all G20 member states still show a positive absolute development. In other words, each state under review has improved its internal capacity in absolute terms in an overall trend, expressed as the average of all categories. However, if we take a closer look at the last phase from 2015 to 2017, both South Korea and Saudi Arabia show a surprisingly weak performance, while the United Kingdom is the only country that shows an aggravating downward trend in its Rate of Country Change (CC). This score is a longitudinal measure for each state's performance – the higher, the better. As the CC-score is based on a country's internal development, it reflects better the magnitude of change as it is not downgraded by the size of others (which is the cross-sectional PSR-score).

This is particularly evident in the examples of Indonesia and Mexico. Both countries show strong domestic growth, even though they remain small by international standards. In the 2005/17 review, Indonesia's internal development is even better than that of China and India.

Going on Strong

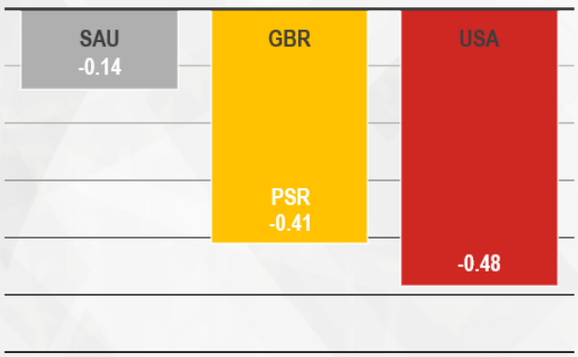
The current 2015/17 ranking of absolute power gains, however, surprises with Italy in first place (40.99 CC), Indonesia in second place (25.88 CC), India in third place (18.41 CC) and Mexico in fourth place (11.75 CC). While this is a continuation of the already known trend for the three Asian countries, the current strong positions of Italy and Mexico is a novelty. In the case of Italy, the CC increase is among others determined by the inclusion of three Italian universities in the ranks of the global top 200 universities. As for Mexico, its gains are also for a significant part the result of one more top university, even though economic factors played an important role as well.

Also of interest is Saudi Arabia's development: The country is among the five strongest power gainers in an overall 2005 to 2017 view, but it has lost the biggest percentage (almost -11%) based on its power score from 2015 to 2017. While its country developments (CC) are overall quite unsteady, its latest scores remain under the G20 average and also result in a relative power loss. Interestingly, this loss is mainly due to a decrease in military spending, a category that has been of significant importance to the traditional hard power Saudi Arabia so far.

Even though South Korea keeps on growing absolutely, its domestic gains decreased massively: While Seoul showed CC figures of as much as 6.15 (2013/15) or even 16.70 (2009/11) in the more recent past, it is only 0.50 now, meaning that the country achieved the weakest absolute growth of all countries with positive figures. This negative development can be traced back for a big part to the indicators of service exports and top companies.

So even though all countries except for the United Kingdom won absolute power in 2015/17, some states made less gains than expected, in particular Saudi Arabia and South Korea. Nevertheless, the fact that the vast majority of the G20 members managed to increase their absolute figures despite of big relative dynamics shows once again that the international power competition cannot be seen as a zero sum game.

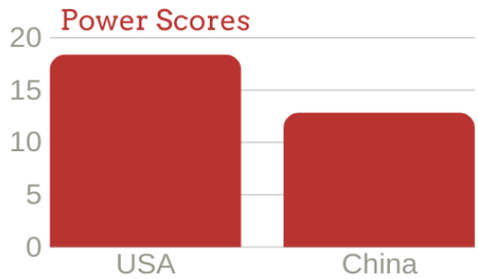
The Three Greates Power Losers 2015-2017



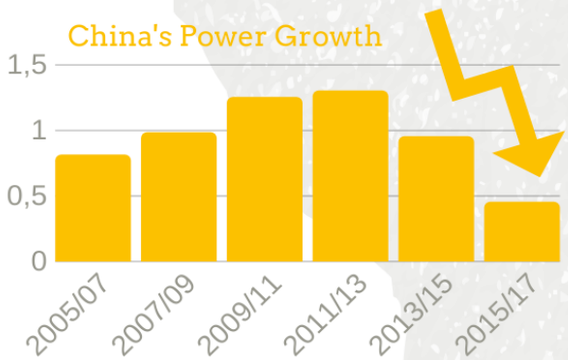
BPSM Key Findings

POWER SHIFTS BETWEEN 2015 AND 2017

1 **The United States** is still the most powerful country in the world.



2 **The United States** will hold this position longer than presumed in our last issue due to **China's** weakening growth rates.

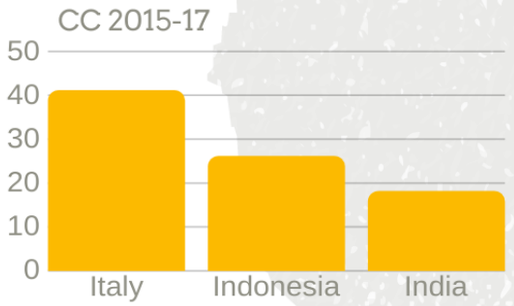


China remains the biggest gainer in global shares. **3**

4 **The United Kingdom** is the only G20 state losing both relative and absolute weight since 2015.

5 **India** shows the greatest percentage gain in power.

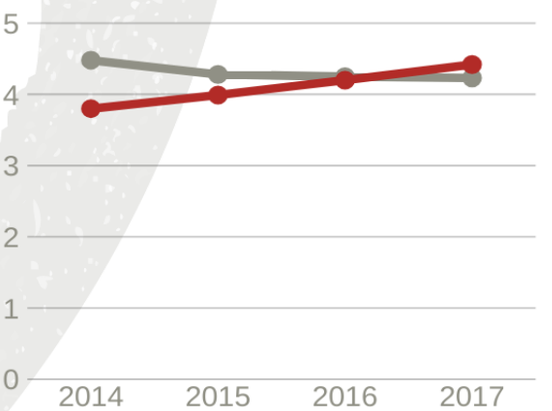
Saudi Arabia lost the most percentages in power. **6**



7 **Italy** demonstrated the largest country-specific growth.

8 The **gap** between the power levels of the G20 **states** has further **narrowed**, whereas the disparity of power distribution between the **regions** has further **grown**.

9 The expanding **India** **surpassed** **Japan** on rank 5 among the G20 states.



10 **Power gains and losses** are observed among **both** traditional "Western" powers and developing countries in the G20.

A Close-Up of BPSM Categories

The Bonn Power Shift Monitor takes into account the shifts among the 19 leading countries, the individual G20 states, in order to assess the dynamics and patterns of power shifts around the globe. Beyond the aggregated BPSM score, the individual categories of GDP, merchandise exports, service exports, armed forces personnel, companies, publications, universities and military expenditure are taken into consideration.
Hubs of Innovation and Growth

Hubs of Innovation and Growth

Turning to the microeconomic forces of development, the BPSM categories of top-rated universities, the world's largest companies, and publication output underscore the G19's status as hubs of innovation and growth. In each category, more than two thirds of the entities or articles can be assigned to the monitored countries alone.

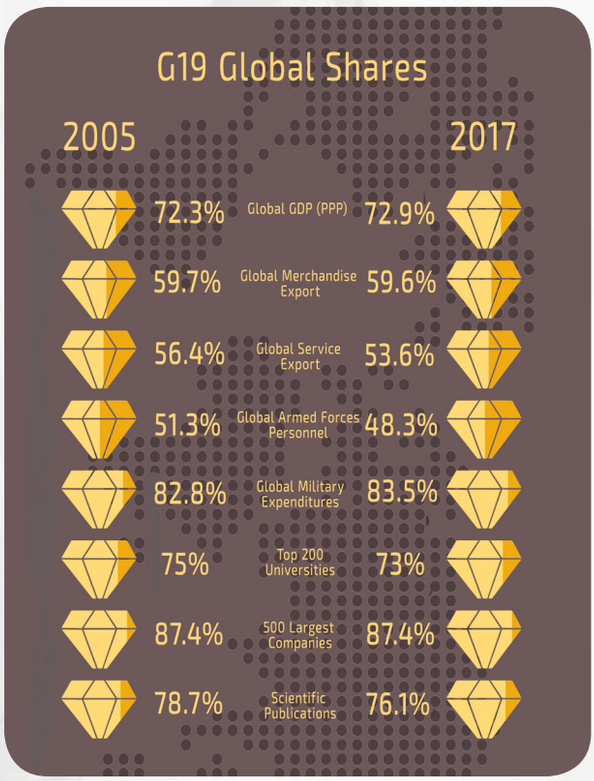
Starting with the category of scientific publications, it can be seen that on average the G19 countries lost global weight, although their publication output increased by 4.79%. Since the worldwide number of publications increased by 5.06%, the G19´s global shares fell slightly from 76.30% in 2015 to 76.10% in 2017. In absolute terms, ten of the nineteen countries surveyed succeeded in boosting their publication density, while nine suffered losses. Indonesia has undergone the greatest change, with an internal rate of change of +218% since 2015 and an almost threefold increase in the number of publications to 14,471 by 2017. Still, this number is only a fraction of China's excellent achievements with almost 457,000 scientific articles published in 2017. With this increase of 12% compared to 2015, China gained the most market shares (1.19%) among the eight G19 countries that were able to increased them.
After a decline in the number of top universities until 2015, the number has increased by 2017. While previously 143 top-ranked universities could be noted among the examined states, two years later 146 are listed among the leading faculties. Therefore, the G19 countries improved their global shares from 71.50% in 2015 to 73.00% in 2017. Only Indonesia and Turkey do not feature any universities among the global top 200, both in 2015 and 2017. Italy, which only listed one university in the top 200 list in 2015, was able to add three universities to the ranking. Thus, the Mediterranean State has experienced the largest increases in market shares (+1.50%) and in absolute figures (+300%). While Australia lost the most universities between 2005 and 2015, from 17 to 8 universities, it has again seen an increase, albeit small, of +1 in the last two years and therefore increased its market shares by 0.5%. Overall, 6 out of the 19 states gained global share. Not among them were the two states with the most top universities, the USA and the UK, both of which had to accept the loss of one university each.
While the BPSM shows a slightly positive trend among top-ranked universities, the number of the G19´s top companies fell from 439 in 2015 to 437 in 2017. Therefore, their global shares decreased slightly from 87.80 to 87.40% over the same period. Only three countries – China, the US and Germany- gained ranks on the list, while eight have been ousted. The biggest winner is China, managing to increase the number of top corporations from 98 in 2015 to 109 in 2017. Two countries, Argentina and South Africa, do not host any Fortune 500 enterprises. Likewise, both states did not boast any top-rated universities, which underscores a micro-structural power lack. While Indonesia recorded an increase of two companies in 2015, the number fell again to one in 2017.

Apart from quantitative changes, a glance at structural changes for the G19's top 500 companies can be just as fruitful. Comparing different industries on the entire Fortune Global 500 list between 2015 and 2017, there is a clear shift at hand: The raw material and mining as well as the production of goods industries, on the one hand, lost far more companies on the list than they have gained. For retail, media, and IT, on the other hand, lots of new companies have entered the list, while only few have left it. These results can be taken into greater focus with regards to individual G19 members: Most saliently, the US adheres to the overall development regarding all industries. Losing companies in both the production of goods and the material and mining sector, its gains can mostly be attributed to media and IT as well as retail. Although similar trends can be recorded for China, the People's Republic boasts significantly more winners than losers in the finance and insurance sector as well.

Economic Growth / Performance

In each of the economic categories (GDP, merchandise exports, and service exports), the selected states produce more than half of the global volume. Concerning GDP, these countries account for more than two thirds. Generally, no major changes can be recognized in the category of GDP since 2015, and the 19 states under observation continue to account for approx. 73% of the world's GDP. All countries increased their GDP absolutely, with India receiving the biggest domestic gains, while four states managed to gain global shares, with China being the top winner. The USA, on the other hand, is by far the biggest loser of global shares, losing 0.57 % of the worldwide GDP. This results in China having a bigger GDP than the USA now, with a difference of 2.94 percentage points of global shares.

Turning to Service Exports, the G20 increased their sales from $2.7 trillion in 2015 to $2.9 trillion in 2017. On a global scale, this development lags behind the average pace resulting in lower shares (-1.42 percentage points) for this category. Nevertheless, these states still produce more than half of the services exported worldwide in 2017 (around 54%), and 10 out of 19 managed to increase their global shares, while 16 exported more services in total. Saudi Arabia achieved the largest absolute increase with 25%, even though its shares of the world exports remain low at 0.3%. India made the biggest gains in global shares, winning 0.28% of the world´s Service Exports, while China lost the most (-0.55%). The top three countries in this category still are the USA, the UK and Germany, which account for about half of the G20's total exports with a combined global share of 26.9%.



Furthermore, in the category of Merchandise Exports a slight decrease can be observed, as the G20 states lost 1.03 % of global shares. However, they still account for approx. 60% of the global total, and 17 out of 19 countries exported more goods absolutely, while 12 made relative gains. The biggest winner, both absolutely and in global shares, is Australia, whereas China is by far the biggest loser relatively (-0.99 %), and the UK reduced its absolute exports the most of all observed countries. Despite its recent lost, the ranking is still led by China, closely followed by the USA and Germany.

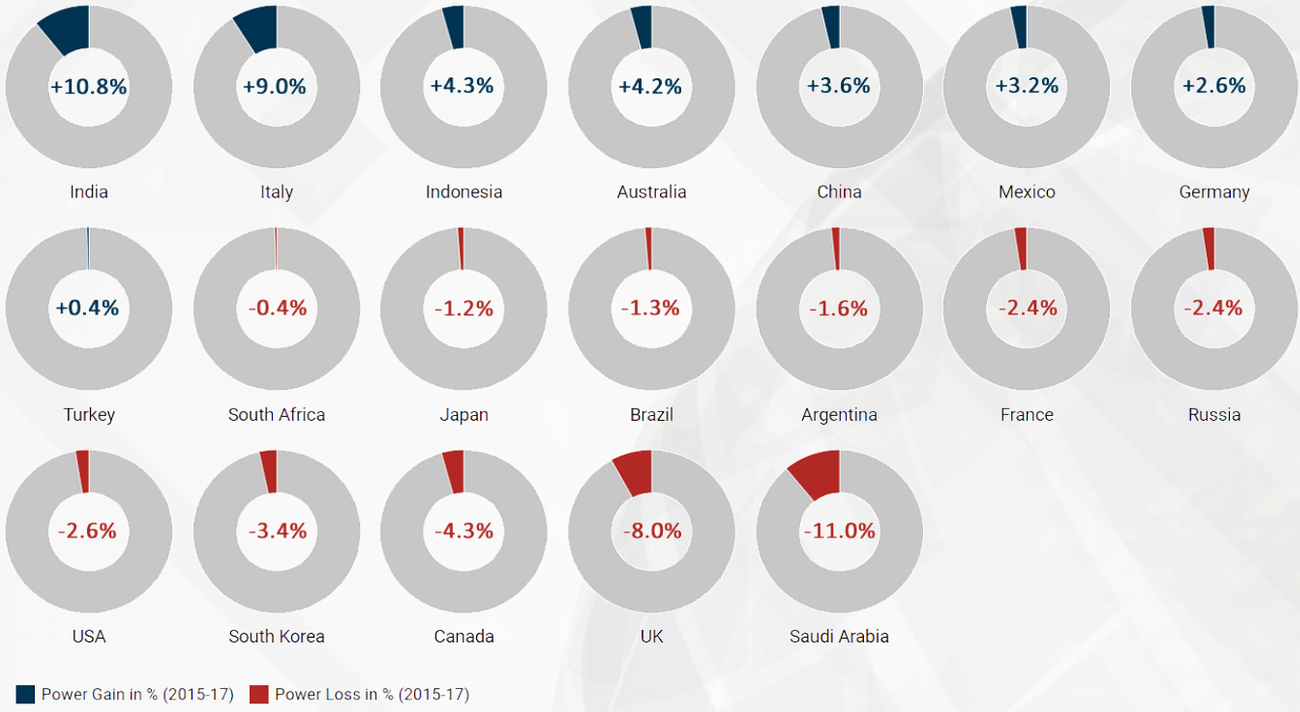
Defense Trends

While a reduction of the G20´s global shares of armed forces could be detected for the observation period of 2005 to 2015, no further decrease can be observed for the period of 2015 – 2017, as the 19 states actually gained more shares, albeit very moderately (+ 0.40%). 10 of them increased the number of their troops, and 5 won global shares. The top gaining country here is India again, winning 0.86 % of the global total of armed forces and increasing the size of its military by 8.3 %. In contrast, China continues the trend of further decreasing its active personnel, losing 5.2 % absolutely and 0.5 % relatively, thus making it the biggest loser in the most recent phase. As a result, India managed to overtake China in the 2015-2017 phase and is now in the lead.

Even though the G20 as a whole slightly lost shares of the global military expenditures, 10 out of 19 actually gained shares, and 11 increased their spending. Turkey, India, Canada and China show the steepest budget expansions, while the level of their general military expenditure is in the lower third, except for China, which comes in second behind the USA. The USA, China and Saudi Arabia are leading the ranking, even though both the USA and Saudi Arabia have suffered losses. Saudi Arabia shows the highest loss of the recent period, with an absolute decrease of 20.2%, thus losing 1.11% of global shares. At first glance, these marked decreases in Saudi Arabia´s military spending come as a surprise, since this country is traditionally focused on its hard power. Nevertheless, considering the kingdom´s dependence on oil revenues and the trouble in this sector during 2015/17, this development is not too astonishing.

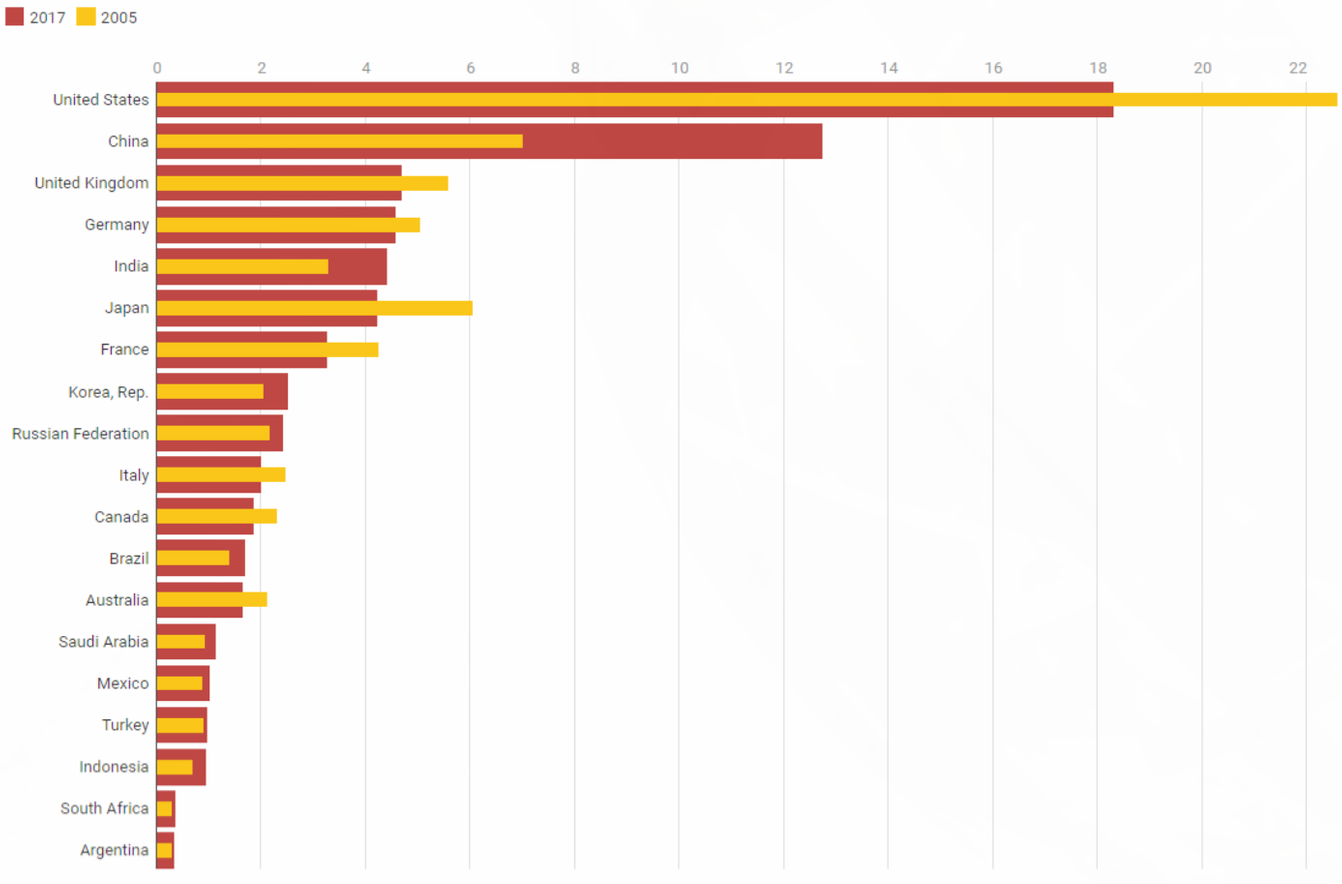
Percentage Change in Power from 2015 to 2017

The charts illustrate to what extent the G20 member states gained or lost power from 2015 to 2017. India has expanded its power the most over these two years. Italy, which is among the greatest power losers in an overall 2005 to 2017 view, now presents the second largest increase based on previous power score. A contrary trend is presented by Saudi Arabia: Although it is a rising power in a global view since 2005, it presents the steepest downturn for the last two years of observation.



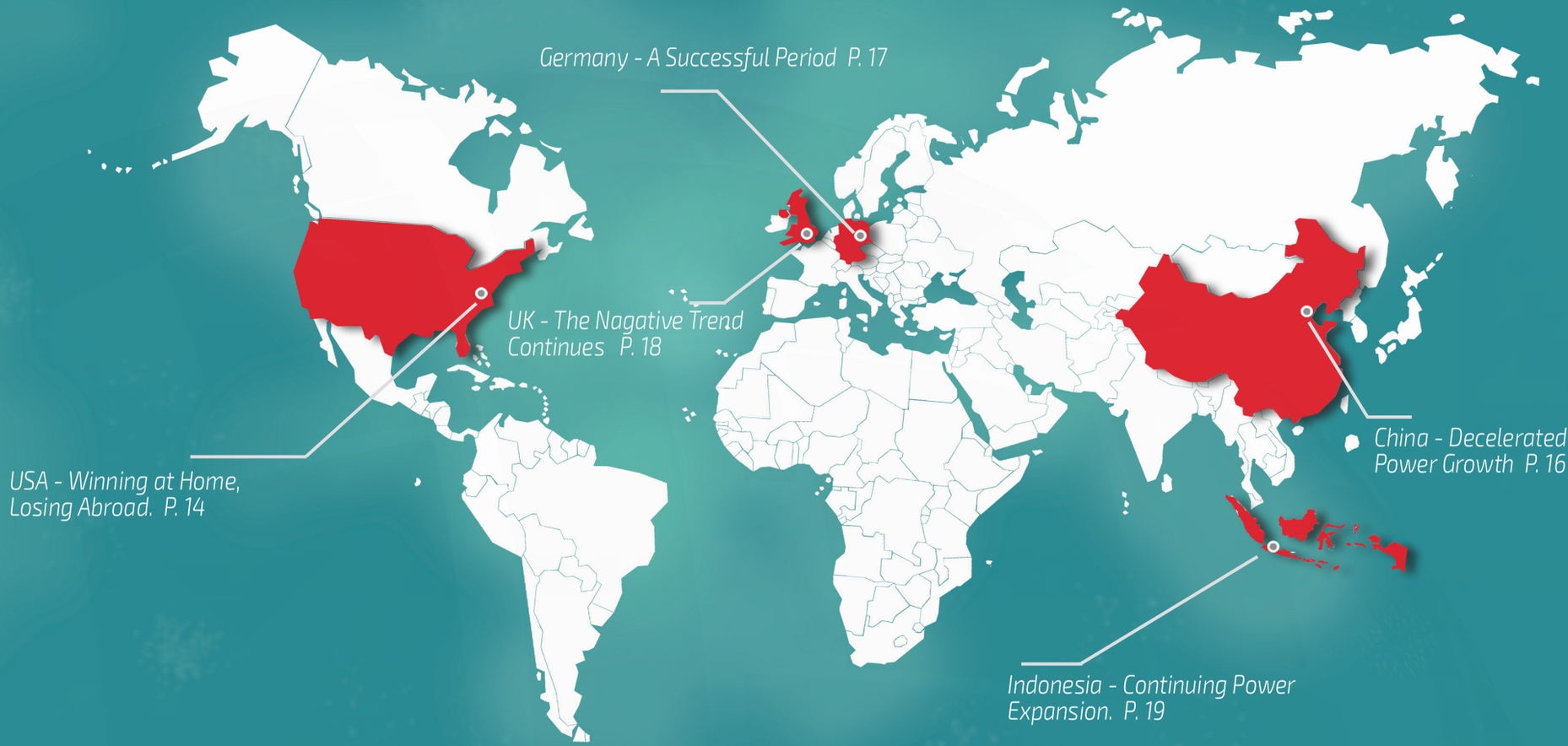
Power Scores of 2005 and 2017

The United States is still the most powerful country in the G20, but it has also lost the greatest amount of power. The next strongest member states of the G20 in 2017 are China, the United Kingdom, Germany and India. By contrasting the Power Scores of selected years, we calculate the corresponding Power Shift Rate (PSR) between two points in time.



Selected Country Reports

The next pages offer five selected BPSM country profiles for the 2015 to 2017 power shift review. The reports for the United States of America, the People's Republic of China, Germany, the United Kingdom and Indonesia may also be found online in addition to the other thirteen member states of the G20 as well as further analyses of the Center for Global Studies (CGS). We hope that this selection will pique your curiosity and deepen your meaning of global power shifts within and between the leading states of our globalized world.

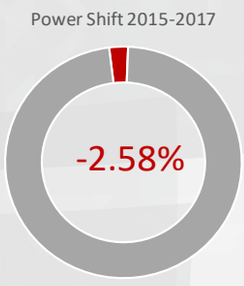


USA

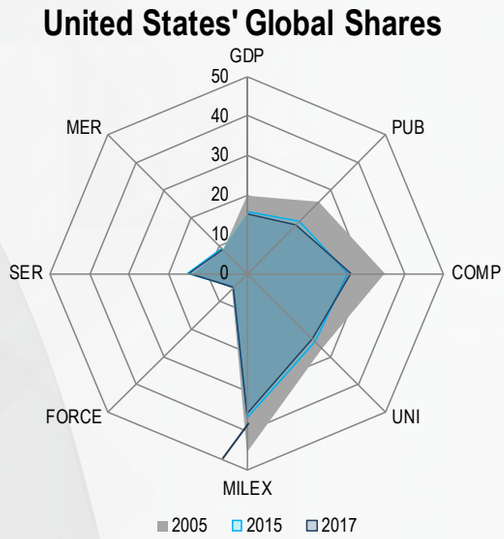
Winning at Home, Losing Abroad

The United States of America is still and clearly the most powerful country in the world. However, it has been losing international power for the whole-time span from 2005 to 2017. Nevertheless, Washington´s relative power loss has decelerated with a Power Shift Rate of -0.48 percent for the latest 2015/17-phase, compared to -0.62 percent for 2013/15. Moreover, while the USA lost power in absolute terms during the previous period of 2013/15, its domestic score has been growing recently, with a moderate, but clearly positive Rate of Country Change of 1.43 percent.

This positive absolute development is mainly due to the improvement in three categories: merchandise exports, armed forces, and top companies. While all of them decreased absolutely in 2013/15, the United States partly recuperated in each of them during 2015/17. However, only two categories, armed forces and top companies, show growth in absolute figures as well as country shares. Nonetheless, these gains did not suffice to compensate for the relative losses in other categories, especially since Washington lost significantly more international weight concerning GDP as well as merchandise and service exports than in the years before.



But what factors contributed to the US' slower decline pace? First, the relative losses in military expenditures decreased. While the Market Change, which indicates the relative development of single categories, was -3.23 percent for 2013/15, it shrunk to -1.05 percent in the 2015/2017 period. Additionally, as already mentioned, both armed forces and top companies contributed with relative gains as well, while the negative relative development of top universities and the number of scientific publications stayed on the level of the previous period.



While the USA was leading in seven out of eight categories in 2005 (all except for the number of armed forces), it only ranks first in three categories in 2017 (service exports, military expenditures and top universities). Most recently, the USA lost the first rank in scientific publications to China.

In conclusion, the most powerful country in the world sends mixed signals. Even though it is still losing power, its power loss is slowing down, and it is recovering domestically. Furthermore, while merchandise exports and the number of top companies are increasing absolutely and the country shares in the latter do as well, Washington faces even bigger relative losses in the economic BPSM categories than before. With the Trump administration causing lots of unexpected upheaval concerning global trade and the relations to China, it is hard to predict the United States' development in the years to come. Although there is still a considerable power gap between the USA and China in 2017, in the face of China's continued rapid power growth Washington must certainly step up its efforts to keep its place at the global top.

BONN POWER SHIFT MONITOR INSIGHTS

THE USA IN 2017

01 United States on Top

The United States is still the most powerful country in the world, but has also lost the most power shares since 2005.

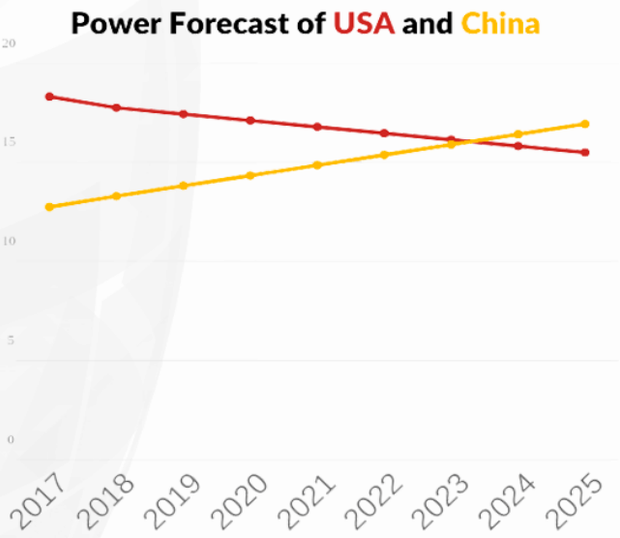
USA Ranked 1st:
Service Exports
Military Expenditures
Top Universities
Top Companies

02 Global Power House

In four out of eight BPSM indicators, the USA is ranked first.

03 Bipolarity Postponed

Due to China's decelerated growth, USA will hold its leading power position longer than presumed in last year's BPSM issue.



04 China's Rise

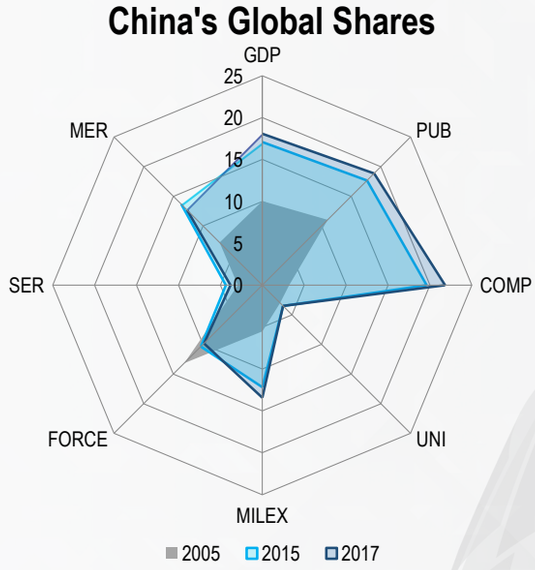
In the categories GDP (PPP), merchandise exports and scientific publications China has already surpassed the USA.

05 Winning at Home

Despite its relative power loss, the United States presents a strong aggregated domestic growth rate.

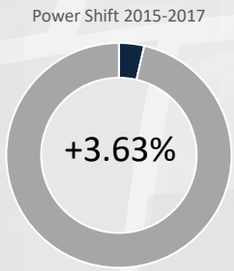
CHINA

Decelerated Power Growth



China has continuously recorded power gains over the entire period from 2005 to 2017, but the Power Shift Rate (PSR) has slowly been declining since 2013. From 2015 to 2017, China's Power Score has risen from 12.3 to 12.75, an increase of 0.45 percentage points, which means that its power growth has decelerated compared to the PSR of 0.95 in the period of 2013/15. This development reveals that China's catching-up to the United States has slowed down since 2013, although it continues to progress. Turning to the percentage changes in power from 2015 to 2017, China's progress of +3.6 percent remains far behind India's power plus of +10.8 percent. Still, China´s absolute growth among all categories (CC) is as big as 5.21 percentage points, making it the 6th biggest absolute winner in the recent period.

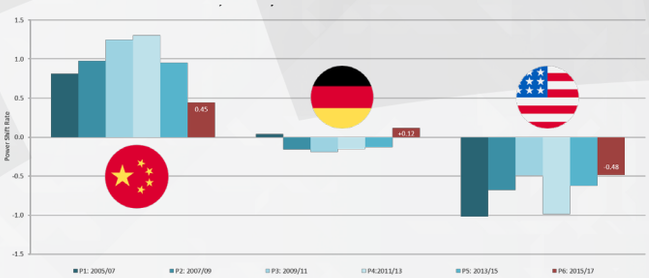
China has occupied second place in the BPSM G20 power ranking since 2005. Although the United States' power share has declined by -0.48 from 2015 to 2017, Washington is still in lead with nearly six Power Score points ahead. Compared to 2015, the poles United States and China continue to dominate the ranking on a similar scale, although the distance between the two has further narrowed. Taking a closer look at the development within the power categories, China presents no change in the category of top universities, staying at seven, while it managed to increase the number of Chinese companies among the Global 500 from 98 to 109. Nonetheless, the United States still lists 23 more top companies. However, in terms of scientific publications, China managed to surpass the USA as the world's leading publisher in 2016. Since 2015, it raised its output by more than 12 percent, publishing 456,960 scientific articles in 2017 – to compare, the US published 423,529 articles in that year.



Since 2015, China has slightly decreased its merchandise (-0.45 percent) and, even more so, its service export numbers (-5.03 percent), which results in a decrease of its global shares in those categories as well. Nevertheless, Beijing still comes in first in merchandise and fifth in service exports, both absolutely and relatively. The Chinese GDP (PPP) has grown further, with an increase in global shares of 0.99 percent, thus reaching its high at 18.08 percent of the global GDP in 2017. China also increased its military expenditure by 11.22 percent in absolute figures and occupies the second place after the USA with 13.4 percent of the G20 states' expenses. With a further shrinking of its armed forces by -5.21 percent to a total personnel number of close to 2.7 million, China continues its modernization course in the military sector. The mantra of quality over quantity has already been observed in the last BPSM episode, leading to the consequence that China lost its leading position in the armed forces category in 2016 and now comes in second behind India.

As a result, China now ranks first among the G20 in three categories: GDP, merchandise exports and scientific publications. Despite its slowed down power growth, China has still been the biggest winner of relative power (PSR) between 2015 and 2017. Due to its decelerated growth, the BPSM power forecast projects a later date of power parity between the USA

China, Germany and USA Power Shifts in Phases



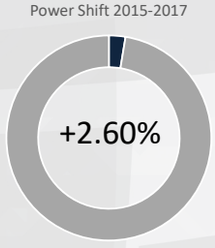
and China. In the 2018 BPSM forecast, the medium estimator expected China and the USA to present the same power level during 2021. Due to the new dynamics, this date has been postponed to mid-2023. In some economic domains, China has already replaced the United States as world leader which signifies an extraordinary increase in hard, soft and structural power. Nevertheless, China still has to manage a multitude of internal and external challenges that endanger the sustainability of its rise, as well as reaching the next level of development, whose impact on China's future power and its BPSM position still needs to be seen.

GERMANY

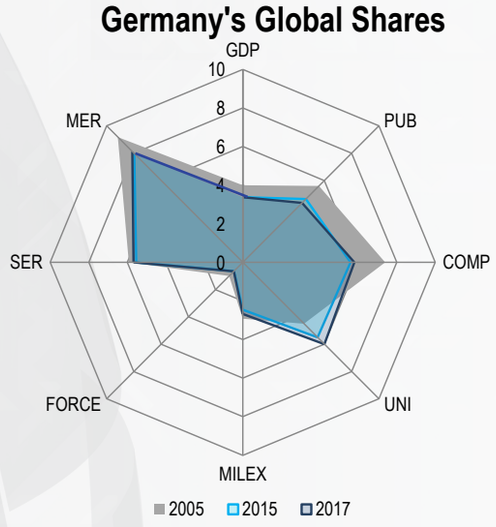
A Successfull Period

During the most recent period examined by the Bonn Power Shift Monitor, Germany achieved a surprising success: For the first time since the period of 2005 – 2007, Berlin receives a positive Power Shift Rate (0.12). This increase in power was sufficient to let Germany climb up our Power Score ranking, being now on place four (before: five), thus surpassing Japan. From 2015 to 2017 alone, Germany's power score recovered by 2.6 percent. Additionally, Germany also made substantial absolute gains, with a Country Change Rate of 6.84.

Having a look at the categories, another interesting development can be observed: All indicators except for publications show a positive growth both absolutely and relatively (with the exception of GDP, where Germany could only make absolute gains) during the latest period. The biggest absolute gains can be found in the categories of GDP, service exports and military spending (all of them with Indicator Change Rates of about 10 – 11), while the biggest relative gains stem from the categories of universities (with an outstandingly strong Market Change of 0.50), military spending and companies.



As mentioned before, the only category with a negative trend between 2015 and 2017 is scientific publications. Germany's absolute publication numbers have been relatively stable since 2012, whereas its global share is on an overall decline since 2005. This raises the question whether Germany has already reached its limits in scientific output. Interestingly, the UK and Japan, both traditional powers in the international system present a similar picture so that the rising India managed to overtake all three of them by 2016 in this category. Although



Germany shows a weakening picture regarding publications, it is still a globally leading location for science as indicated by the 12 top universities on the QS world university ranking.

This marks a strong comeback compared to an overall power loss during the time of 2005 – 2015. However, it should be noted that Germany's power development has been rather irregular since the beginning of the Power Shift observation period. Berlin often recorded power increases for a short time, only to endure substantial losses right after. Hence, it is uncertain whether Germany will be able to sustain the positive development of this period and whether it has the potential to climb up even further in our ranking of power. Christiane Heidbrink and Kai Beerlink take a closer look at Germany's "Powerful Comeback" in issue 2/2019 of our Bonn Power Focus.

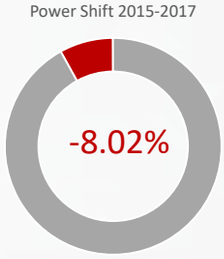
GREAT BRITAIN

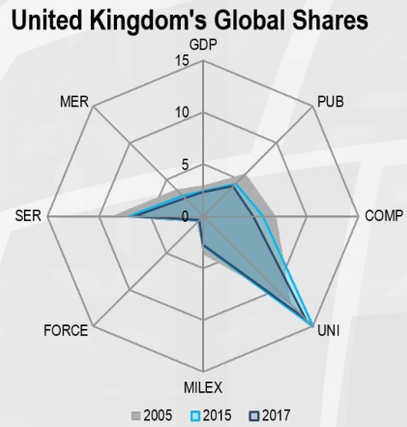
The Negative Trend Continues

After the United Kingdom had already experienced power losses in the period from 2005 to 2015 with a Power Shift Rate (PSR) of -0.47, this development continued with a PSR of -0.41 for the following two years. London's Power Score (PS) fell from 5.11 in 2015 to 4.70 in 2017. Among the G20 members, only the USA recorded an even bigger loss of power during this period, with a PSR of -0.48. The two states are thus far behind the third-largest loser Saudi Arabia with a PSR of -0.14. If one relates these losses to the country's Power Score, the UK is even the second-largest power loser (ahead of Saudi Arabia) with a drop of -8.02 percent.

Looking at the individual categories, the UK presents an extensive loss of global shares in all domains examined between 2015 and 2017. Its relative decline is connected to absolute losses in the individual categories: The UK is the only G20 member presenting a negative country change rate of -3.18 percent between 2015 and 2017. Among the eight BPSM indicators, it progressed in only two categories: GDP (PPP) and service exports. As their rates are, however, below the global average, its domestic gains did not translate into international ones, but have even resulted in share losses.
The losses in the Fortune 500 companies' segment is particularly noteworthy, where the number of British firms fell from 29 in 2015 to 24 in 2017. These losses lead to a decrease in its country share from 5.80 to 4.80 percent. In general, there has been an uneven but continuous downward trend in this category.

In the period from 2005 to 2015, the country thus recorded relative losses in all indicators, except for the top universities – a category in which the UK can proudly present a long prestigious history. The defending of its role as a scientific top dog is made more difficult by the fact that publication figures are slightly declining and are thus more relativized by rising states like India or China.





Despite these losses, Britain has been able to hold its third place among the most powerful G20 countries since 2015. However, the gap to fourth-placed Germany has shrunk, while the gap to second-placed China has grown. As the only G20 member states that presents both relative and absolute losses, the UK is hence one of the greatest power losers of the latest period of observation.

INDONESIA
Continuing Power Expansion

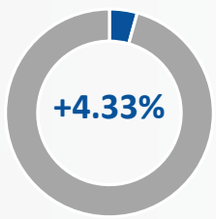
Indonesia has already been one of the most successful rising powers in the G20 in our previous BPSM issue. As its latest numbers indicate, this power expansion has not yet come to an end. Among the G20 member states, Indonesia is only a minor powerhouse. With a Power Score of 0.96, the Asian riser ranks only 17th out of 19 and has never left this place since 2005. The country thus starts from an unfavorable position, but if it continues its current growth trajectory, it is likely to overtake the next higher ranked Turkey in the near future. It already managed to expand its score by 35 percent since 2005, which is the second-highest increase based on the individual scores for the total period behind China (+82 percent).

Taking a closer look at Indonesia's latest developments, its country change rate is still remarkably high. With a Rate of Country Change (CC) of 25.88, it presents the second-highest country changes behind Italy (40.99) and ahead of India (18.41). Indonesia's relative and absolute power increase is owed to only four out of the eight BPSM categories, indicating a great, but non-uniform thrust forward.

The most striking category is that of scientific publications. Although Indonesia has yet to present a university among the top 200 (only Turkey presents the same poor pattern), its scientific publication numbers have surged to new highs. Already in the latest BPSM issue, Indonesia was honored for its enormous growth in this category. Between 2015 and 2017, the output has more than tripled (+218 percent) from 4,555 to 14,471 articles. The gap between the international reputation of its universities and its high publication output might be related to its Science and Technology Index (SINTA) – a system introduced in early 2017 to measure research performance whose scores are also related to publication numbers of researchers. Critics have already warned in the past that Indonesian researchers are pushed to inflate their performance rating by quantity over quality, i.e. by a high number of low-quality publications. That being said, it is in general a positive development for the country that its researchers show that they are able to play a larger role in international science.

The gravest factor is the loss of one company among the Global Fortune 500. In 2013, Indonesia managed to list its first company, the Petroleum company Pertamina, on the Fortune 500. One year later it was followed by another energy company, Perusahaan Listrik Negara. Since 2016, however, the latter was stricken off the Global Fortune 500 which raises the question of whether Indonesia is able to produce a favorable economic environment for large-scale businesses.

Power Shift 2015-2017



In view of its military-build up, Indonesia presents an irregular-lar pattern since 2013. Between 2009 and 2013, the country raised its expenditures significantly, but since then, it seems to be an up and down. This results in its second negative rating among the BPSM categories. Interestingly, in terms of armed forces, Indonesia reports constant numbers since 2011 leaving this category without influence on the country's Power Shift Rate. However, the Asian riser continues to expand its hard power in economic ways: In all three economic categories (GDP, merchandise and service exports) the BPSM records both relative and absolute gains for the 2015/17 period. All in all, Indonesia continues its rise which is likely to translate into a better ranking in the next issue of the BPSM.

Methodology

The Concept

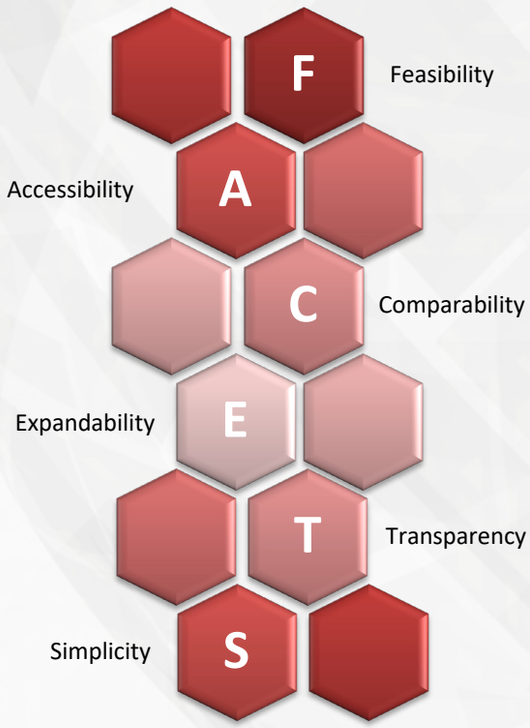
The Bonn Power Shift Monitor (BPSM) uncovers and analyzes power shifts among the world's leading industrialized and emerging economies. Our goals are to raise awareness of the phenomenon of global power shifts and to demonstrate the extent and pace of these power alternations. By doing so, we hope to generate a public discourse about reasons and consequences of global power shift as well as a new wave of academic debates about power concepts and the measurability of power.

Reflecting the existing debates about hard power, soft power, as well structural power, we emphasize power as an ability to overcome political obstacles and to prevail in preference conflicts. Our understanding of power is, therefore, of an eclectic nature, combining the classical capabilities of resources, impact on related actors, the attractiveness of a country, and its ability to innovate structures. This reveals our understanding that power is comprised of the capacities, the willingness and the ability to assert political preferences. They are the minimum power fundament. If one of these components is missing, the power of a nation in terms of ability to prevail in preference conflicts threatens to decline.

Eight indicators (GDP, Merchandise Exports, Service Exports, Armed Forces, Military Spending, Leading Companies, Top Universities, Scientific Publications) serve as an eclectic access to project the power weight of a nation in the world. Thereby, we identify shares of a nation on these eight categories of global power resources as its power weight in the world. We demonstrate the power weights of nations and their shifts with a system of scores. Being a tool for analysis, the scores and shifts provided by the BPSM help to explain and predict changes of power among the leading industrial and emerging countries.

For the sake of usefulness and reliability, the BPSM is guided by six principles: feasibility, accessibility, comparability, expandability, transparency and simplicity. Their initials build the acronym "facets", which directly refers to our basic idea to integrate the power theories in one model. By incorporating freely available data only, the BPSM is of unique accessibility, expandability, and transparency for researchers, students and beyond. It avoids definitional fuzziness and statistical complexities in its theoretical and calculation model in order to ensure the simplicity of the approach. With this, the model remains comprehensible for the public and easily extendible. This again ensures the comparability of results and feasibility of analysis beyond the project.

BPSM Principles



The Indicators

Indicator	Unit	Source
1. GDP	PPP; current int. Dollar	World Bank
2. Merchandise Exports	total USD	World Bank
3. Service Exports	total USD	World Bank
4. Military Troops	total number	World Bank
5. Defense Spending	constant 2017 USD m	Stockholm Institute for Peace Research
6. Top Universities	total of Top 200	QS World University Ranking
7. Top Companies	total of Top 500	Fortune

Please note: The data has been completely updated in 2019. Due to this update, the numbers and results of the 2018-report have changed to some extent. Please make sure that you refer to the respective year when you quote the BPSM. World numbers are based on available data and may thus deviate from reality.

GDP

GDP (PPP) is the value of all final goods and services produced within a nation in a given year provided in a standard measure by purchasing power parity (PPP) rates. GDP (PPP) in current international dollar was selected as an indicator, because it illustrates the overall state of an economy, its purchasing power in international comparison, the size of the national market as well as the general economic prosperity. The basic assumption is that the higher the GDP (PPP) of a state, the higher its economic power in the international system. This in turn affects different hard and structural power aspects, e.g. to influence bargaining processes such as trade agreements or to enforce sanctions.

Merchandise Exports

Merchandise exports records the so-called free on board (f.o.b.) value of goods delivered to the frontier of the exporting country for shipment. This indicator covers tangible commodities; thus, services are not included. This indicator illustrates the integration of a state's economy into global markets as well as its competitiveness. The indicator reveals the shifts on the global trade market, hence market power shifts between the leading export nations. Higher merchandise exports translate into the capacity to influence international economic structures and shape them according to a state's production and trade interests.

Service Exports

Service exports record intangible commodities that are delivered across a state's border. Comparable to the merchandise exports indicator, service exports illustrate the integration of a state's economy into global markets as well as its competitiveness. However, the nature of service exports is inherently different as it does not appraise material power structures, but immaterial ones such as financial flows, communication and information structures as well as knowledge. On the globalizing market that is increasingly based on internet networks, service exports highlight power shifts by indicating the economic and social changes such as the digitalization of markets or shifts towards a service society.

Armed Forces

Military troops counts all active duty military personnel plus paramilitary forces if it seems that they serve to support or replace regular military forces. This indicator illustrates a classical hard power category of the International Power Theories, e.g. in Realism. Military forces reflect the military strength and thus the ability of a state to defend itself and its citizens. It also indicates the location of a state in the global security structures as higher numbers of military personnel enhance the capacities to generate or deprive security which may also influence bargaining processes.

Military Spending

Defense spending in constant 2017 million USD illustrates the trends of a country's military expenditures over time by adjusting it to a consistent base year measure. This process-oriented category reflects a state's willingness to gain military might and thereby hard and structural power in international relations. It also indicates national preferences, for example security perceptions and risk assessments, military modernization, as well as the preparation or involvement in armed conflicts. In brief, the defense spending of a state illustrates its willingness to change to the status quo of global power structures and predicts possible power shifts.

Top Universities

The world's top universities are monitored by the QS World University Ranking. Leading universities are central hubs of scientific knowledge production and a country's academic outreach on a global level. Depending on the research, universities contribute to the hard, soft and structural power of their home countries in various ways. More specifically, leading universities illustrate the research quality, international connectedness and academic reputation of a country which provides soft power in form of prestige or the attraction of academic staff. The indicator also illustrates the capacities to shape current and future structures of knowledge, innovation, production and technology.

Top Companies

The largest companies of the world as ranked by the Global Fortune 500 according to their revenues shape the economic structures around the globe. These companies represent engines driving globalization, innovation, production, and communication. In this way, they contribute to the hard, soft and structural powers of their home countries in various ways similar to universities. More specifically, leading companies particularly shape the financial flows and thus interdependent structures on a global level illustrating the structural power of a country. Giving another example, leading companies boost national reputation by serving as globally known brands which contributes to a state's soft power.

Publications

The publications indicator covers the number of science and engineering (S&E) articles collected by the National Science Foundation. The figures shown refer to publications from a selection of journals, books and conference proceedings which are assigned to the institutional address(es) listed in the article. The publications cover the fields of engineering, chemistry, physics, geosciences, mathematics, computer sciences, agricultural sciences, biological sciences, medical sciences, other life sciences, psychology and social sciences. In our globalized world, innovation, invention and knowledge transfer have become central metrics for state competitiveness influencing hard, soft, and structural power alike. This indicator also reflects the scientific community, level of knowledge and higher education of a country.

The Calculation

The Power Score (PS)

The Power Scores (PS) correspond with the average country shares of a particular year. By doing so, the Power Scores and thus Power Shift Rates are based on the model of relative shares on global resources.

$$\frac{Country\ indicator}{World\ total} x100 = Country\ Share\ in\ \%\ (CS)$$

1. Calculate the country shares by dividing the world's total by the country figure. In the absence of a world total for top universities and companies, we use the number of entities included in the ranking (200 and 500), which gives more weight to these indicators in our index. This fits in our model as we assume that micro-economic hubs are of central importance to a country's position in the globalized network of states.

$$\frac{1}{n}\sum_{i=1}^{n} CS = Power\ Score\ (PS)$$

2. Calculate the average to derive the Power Score of a country for a certain year. In our model n equates to seven as this is the number of indicators, hence country shares used.

The Power Shift Rate (PSR)

$$PS_{t2} - PS_{t1} = Power\ Shift\ Rate\ (PSR)$$

The Power Shift Rate (PSR) is the difference between the Power Scores of two points in time. This score illustrates whether a country lost or gained considering all indicators of our index.

1. Use the Power Scores of two points in time (t) to calculate the Power Shift Rate (PSR).

Rate of Country Change (CC)

In contrast to the relative Power Shift model, the rate of country change examines the development of the country figures without

$$\frac{I_{t_2} - I_{t_1}}{I_{t_1}} x100 = Indicator\ Change\ Rate\ \%\ (ICR)$$

comparing them to the global total. This model reveals whether a country has experienced a positive or negative trend over the years.

$$\frac{1}{n}\sum_{i=1}^{n} ICR = Rate\ of\ Country\ Change\ (CC)$$

1. Calculate the rate of change between two points in time (t) of each indicator.

2. Calculate the average to derive the Rate of Country Change (CC). In our model n equates to seven as this is the number of indicators, hence country shares used.

Index of Abbrevations

Abbreviation	Full
ARG	Argentina
AUS	Australia
BRA	Brazil
CAN	Canada
CC	Rate of Country Change
CHN	China
COMP	Companies (total of Global Fortune 500)
CS	Country Share (Indicator World Share)
DEU	Germany
FORCE	Armed forces personnel (total)
FRA	France
GBR	United Kingdom
GDP	GDP (PPP, current int. Dollar)
ICR	Indicator Change Rate
IDN	Indonesia
IND	India
ITA	Italy
JPN	Japan
KOR	Korea, Rep.
MC	Market Change (Comparison of Country Shares)
MER	Merchandise exports (current USD)
MEX	Mexico
MILEX	Milex (constant 2015 USD m)
PS	Power Score
PSR	Power Shift Rate
RUS	Russian Federation
SAU	Saudi Arabia
SER	Service exports (BoP, current USD)
TUR	Turkey
UNI	Universities (total of QS top 200)
USA	United States
WLD	World
ZAF	South Africa
PUB	Publications

Bonn Power Shift Data Monitor Data Table 2015-2017

	2015-17 Power Shift Details				GDP		MER		SER		FORCE		MILEX		COMP		UNI		PUB	
Rank	Country	Country Code	PSR	CC	**MC**	**ICR**	**MC**	**ICR**	**MC**	**ICR**	**MC**	**ICR**	**MC**	**ICR**	**MC**	**ICR**	**MC**	**ICR**	**MC**	**ICR**
1	China	CHN	0.45	5.21	0.99	17.38	-0.99	-0.45	-0.55	-5.03	-0.53	-5.21	1.26	11.57	2.20	11.22	0.00	0.00	1.19	12.16
2	India	IND	0.43	18.41	0.53	19.42	0.07	11.90	0.28	18.57	0.86	8.30	0.54	17.96	0.00	0.00	0.50	50.00	0.66	21.16
3	Italy	ITA	0.16	40.99	0.00	10.90	0.10	11.04	0.10	14.55	-0.03	-2.76	0.21	16.54	-0.40	-22.22	1.50	300.00	-0.15	-0.14
4	Germany	DEU	0.12	6.84	0.00	10.88	0.15	9.20	0.14	11.60	0.01	1.52	0.22	10.21	0.20	3.57	0.50	9.09	-0.28	-1.33
5	Australia	AUS	0.07	7.52	0.00	10.85	0.17	23.08	0.10	18.68	0.00	0.35	0.12	9.31	-0.20	-12.50	0.50	12.50	-0.16	-2.15
6	Indonesia	IDN	0.04	25.88	0.06	13.68	0.05	12.24	0.03	13.98	0.00	0.07	-0.01	-0.57	-0.20	-50.00	0.00	0.00	0.40	217.69
7	Mexico	MEX	0.03	11.75	-0.04	8.82	0.01	7.58	0.05	20.69	0.00	-0.01	-0.08	-18.24	-0.20	-33.33	0.50	100.00	0.02	8.51
8	Turkey	TUR	0.00	4.89	0.02	12.36	0.02	9.14	-0.13	-6.48	0.00	0.00	0.19	24.17	0.00	0.00	0.00	0.00	-0.07	-0.10
9	South Africa	ZAF	0.00	3.41	-0.03	4.96	0.01	9.77	-0.01	4.73	-0.01	-2.62	-0.01	-2.73	0.00	0.00	0.00	0.00	0.04	13.13
10	Argentina	ARG	-0.01	3.56	-0.05	3.56	-0.01	3.24	0.01	11.64	0.00	-0.43	0.02	7.10	0.00	0.00	0.00	0.00	-0.01	3.38
11	Brazil	BRA	-0.02	3.14	-0.26	0.67	0.07	13.97	-0.05	1.98	0.00	0.07	0.00	1.11	0.00	0.00	0.00	0.00	0.05	7.35
12	Japan	JPN	-0.05	4.30	-0.29	3.58	0.16	11.74	0.18	14.55	0.01	0.46	-0.05	-0.53	-0.60	-5.56	0.50	12.50	-0.31	-2.38
13	Russian Federation	RUS	-0.06	2.76	-0.10	7.41	-0.07	3.55	0.03	11.85	-0.13	-2.42	-0.67	-13.63	-0.20	-20.00	0.00	0.00	0.66	35.30
14	France	FRA	-0.08	2.23	-0.05	8.82	-0.04	5.71	-0.04	8.04	0.00	0.21	0.18	6.61	-0.40	-6.45	0.00	0.00	-0.31	-5.10
15	Canada	CAN	-0.08	3.33	-0.05	7.30	-0.10	2.65	0.00	8.53	0.02	6.67	0.18	17.31	0.00	0.00	-0.50	-12.50	-0.21	-3.32
16	Korea, Rep.	KOR	-0.09	0.50	-0.02	9.53	0.04	8.91	-0.30	-8.00	0.00	-0.08	0.07	4.39	-0.40	-11.76	0.00	0.00	-0.10	1.01
17	Saudi Arabia	SAU	-0.14	3.39	-0.09	3.96	0.02	8.98	0.04	25.27	0.00	0.20	-1.11	-20.21	0.00	0.00	0.00	0.00	0.02	8.94
18	United Kingdom	GBR	-0.41	-3.18	-0.06	8.31	-0.29	-4.03	-0.50	1.16	-0.02	-2.86	-0.05	-0.86	-1.00	-17.24	-1.00	-6.67	-0.35	-3.30
19	United States	USA	-0.48	1.43	-0.57	6.95	-0.37	2.91	-0.45	5.61	0.05	0.87	-1.05	-1.73	0.80	3.13	-1.00	-4.08	-1.30	-2.17
	World	**WLD**	0.00	4.15	0.00	10.96	0.00	7.27	0.00	8.83	0.00	-0.08	0.00	1.15	0.00	0.00	0.00	0.00	0.00	5.06
	G19 Average		-0.01	7.70	0.00	8.91	-0.05	7.95	-0.06	9.05	0.01	0.12	0.00	3.57	-0.02	-8.48	0.08	24.25	-0.01	16.25

Please note: The data has been completely updated in 2019. Due to this update, the numbers and results of the 2018-report have changed to some extent. Please make sure that you refer to the respective year when you quote the BPSM. World numbers are based on available data and may thus deviate from reality.

Publisher: Center for Global Studies (CGS)
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Graphics source: ©colourbox.com

ISSN: 2699-0970

Published: November 2019

Please cite as: Center for Global Studies (CGS). 2019. Bonn Power Shift Monitor 2019. Ed. Christiane Heidbrink. Bonn: University of Bonn.