Trump, USA competitiveness, and China

The aging super-power is set for decline

About this Report

Trump policies & sustainable competitiveness: Implications

November 2017

Methodology, calculation, & report compilation by SolAbility.

Acknowledgements

The compilation and calculation of this Index would not have been possible without the data and time series made available by the World Bank Indicator database, various UN agencies (UNDP, UNEP, UNICEF, FAO, WHO, WMO, www.data.un.org), the International Monetary Fund (IMF), and other non-governmental organisations (including Transparency International, Reporters without Borders, The New Economics Foundation, The Institute for Economics and Peace, The Fund For Peace).

About SolAbility

SolAbility is an independent sustainability think-tank and advisory, with presence in Korea and Switzerland.

SolAbility is the maker of 3 DJSI Super-Sector Leaders. Amongst others, we have designed and implemented the sustainable management systems for GS Engineering & Construction (DJSI Global Industry leader 2012), Korea Telecom (DJSI Global Industry Leader 2011-2013, 2015), and Lotte Shopping (DJSI Global Industry Leader 2010-2015).

SolAbility Sustainable Intelligence
Zurich, Seoul
www.solability.com
contact@solability.com

Table of Contents

Foreword

The World's largest two economies, the USA and China, have recently announced new policies. Both are based on a outspoken rhetoric of national strength and pride, and both continue their respective economic policies of the past 2 or 3 decades. In the case of the US, proposed policies in terms of social, environmental and economic models is a continuation of policies that began with Ronald Reagan in the 1980s of state reduction and deregulation, only more extreme; while China is set its policies with a state-directed and controlled free market economy supported by concerted investments.

A big difference is that the USA has been the dominating super power and the dominating economy more or less since World War 2, i.e. for more than 70 years, while China is only re-finding its old strength and stand after a slump of nearly 150 years, starts actively looking for its adequate position on the World stage. In other words – the US is a bit old, a bit fat, a bit slow, can't move that fast anymore; while China sees itself on the beginning of a new epoch, is hungry, and the state structure allows for quick implementation of policies and realisation of investment projects.

This is not a political report. It analysis policies, just as, a management consultancy, we analyse business system and policies against their efficiency, thoroughness, and most importantly, against their implications on the bottom line. Free of ideological bias.

The US – in particular under the new administration – is advocating a free a market approach, where as much as possible should be left to self-regulation by the market, reducing the role of the state as much as possible. China, on the other hand, continues to advocate a state-directed free market approach, where the state directs the economy through investments and policies supporting the priorities and economic development. Given the low level of actual democratic participation in the US other than in elections with a very limited choice, the difference is more in economic and social development than in governing. With China pushing more and more on the World stage, it is possible that we have a new competition between two different state systems on our hands. Whether we like that or not.

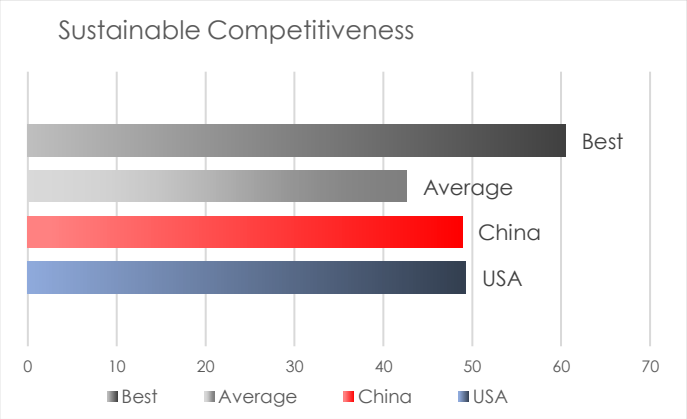
In this light, SolAbility has evaluated the impacts of US policies as proposed by the new administration, as well as Chines policies on the ground – based on the 111 indicators used for the Global Sustainable Competitiveness Index.

We hope you find this information useful.

1 Sustainable Competitiveness 2017: China & US neck on neck

The US has been the most powerful country and the biggest economy in this World for a considerable span of time by now, is an aging super-power, while the now second-biggest economy, China, has grown at double-digit rates for nearly 30 years now, catching up and leaving other behind in the meantime.

Both countries are set to undergo a change in policies. The USA with the policies promoted by the new administration, and the changes to the organisation of the party.



Current Sustainable Competitiveness scores of the US and China vs average and best score

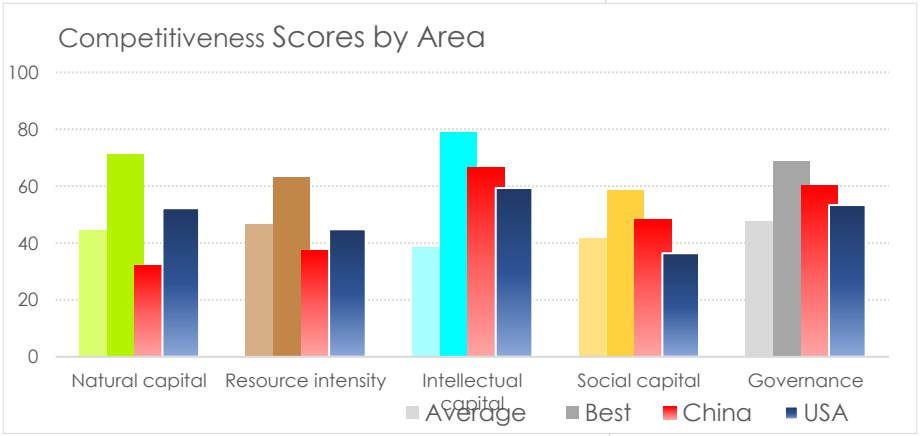
The US and China are the World's two largest economies. It is worth having a closer look at the US, and put those implication in relation to the expected developments in China. While it is unlikely that all policies proposed by the new US administration will be fully implemented, it is worth considering what they mean for the competitiveness of the USA, and how they would affect the performance of the indicators used for the Global Sustainable Competitiveness Index. This research is based on the assumption that all proposed policies and are implemented to a certain degree (which is not equal to the desired outcome).

There is common ground in US and China policies, but there are also significant differences in the means. Both US and Chinese administrations are based on a rhetoric of national strength, diplomatically and military-wise. However, they use a very different approach and propose very different social, environmental, and economic policies to reach the desired target of a strong nation.

Current Competitiveness Score

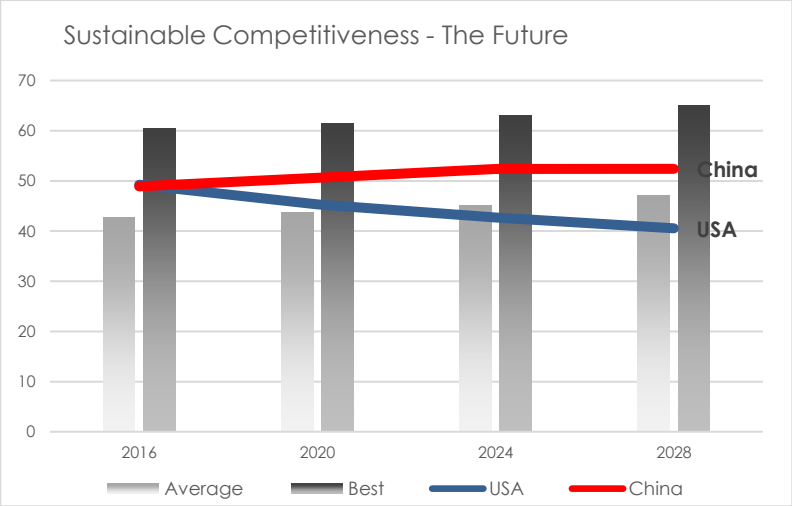
The USA and China are sitting almost neck on neck in the current Global Sustainable Competitiveness Index (GSCI. The USA is ranked 29 with a score of 49.2, while China is ranked 32 with a score of 48.9.

The US leads China in Natural Capital and Resource Intensity, while China scores higher in Intellectual Capital, Governance Efficiency, and Social Capital.



2 Outlook: USA to fall substantially behind China in the GSCI

Translating the proposed policies of the new US administration into performance data shows that the US competitiveness would fall considerably, mainly in the innovation, social and governance areas. Cutting budgets in crucial aspects of development pillars such as education, and infrastructure will not only have direct negative impact on the competitiveness of the USA, but also indirect through increased insecurity and instability, and father growing inequality and crime rates, as well as the indirect impacts of the further degrading natural environment. The US is expected to drop from a current sustainable competitiveness score of 49.2 to just above 40 (below global average), falling down to a rank somewhere in the 80s or 90s from its current rank of global 29th.

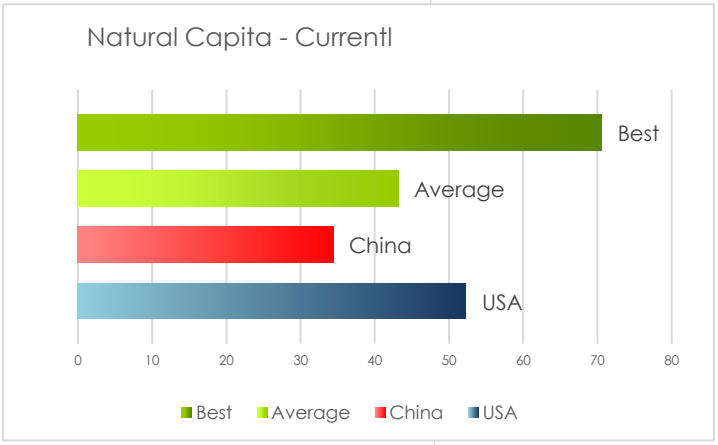


Expected development of US and China GSCI scores if proposed policies are implemented

While XI is proposing significant changes to the party structure and power governance that could eventually shift the country from a one-party state to a one-man state, social, environmental and economic policies are set to continue as previously, with only marginal correction – a state-directed free market economy where the government directs investment and economic development priorities. China is a super-tanker in motion. The investments of recent years in education (innovation), infrastructure, and sales channels, in combination with further investments and incentives in and for green technologies is expected to increase China's competitiveness score over the next 10 years. However, China's competitiveness most likely will be hindered over time by the new rigidity under Xi. History shows that authoritarian regimes are facing the same problems – the frontiers of the system restrict the creativity required to sustain world-class innovation over time. In combination with environmental constraints, China's sustainable competitiveness is expected to decline slowly after 2024.

2.1 Natural Capital: US slowly declining, China staying low

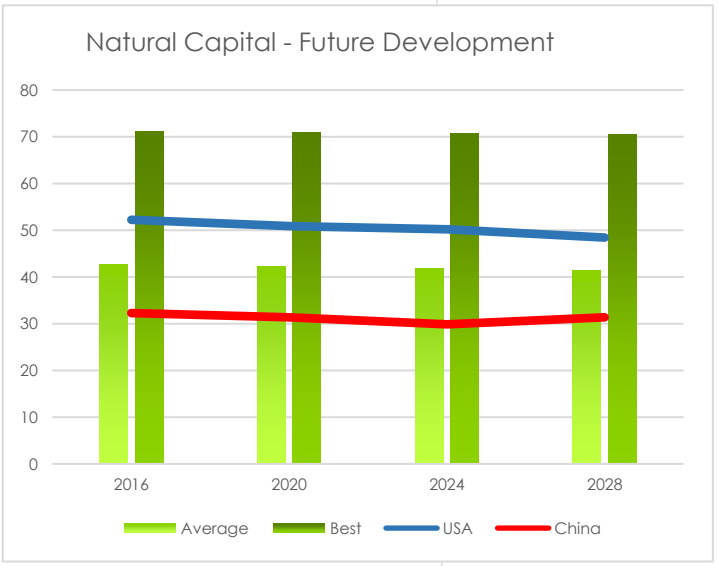
The Natural Capital is composed of the given natural environment – resources, biodiversity, and fertility - of the land of a country. Most of these factors are influenced by external factors, only few are directly through controllable through policies, regulations or other human activities. Forest areas for example can be protected or re-grown. However, water availability and the overall quality of the natural environment and resources are more determined by external factors – climate change, pollution namely. These factors are also man-made, but the time laps from changing regulation and activities till the impact on the ground is large. Changes to the Natural Capital therefore occur only slow and small – both positive and negative.



Current Natural Capital scores 2017 for China and the US

The US is blessed not only with magnificent landscapes, but also rich nature, biodiversity and the availability of natural resources, including commodities. The natural capital is the given natural environment, on which the influence of policies is therefore limited. However, Trumps emphasises on perceived economic imperatives over environmental protection and regulation is set to negatively affect the natural capital score. Performance changes are expected in areas such as forest areas, water availability, and pollution levels. In combinations with the effects of climate change, the US natural capital score is expected to slowly decrease, slowly at first, with the full implications only to be felt after 2025.

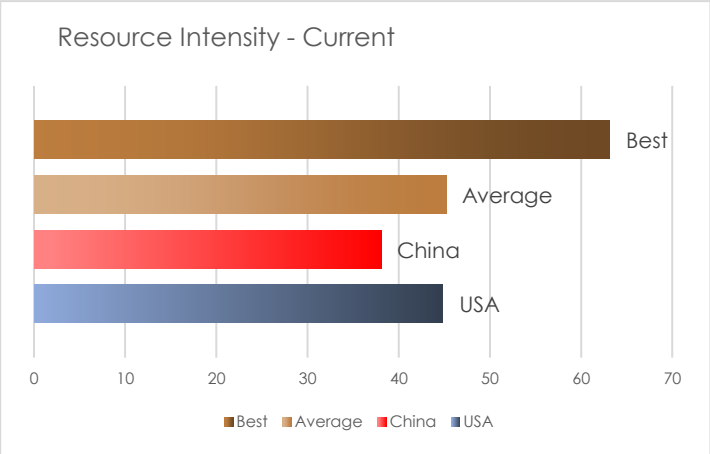
China, on the other hand, is running low on its capacity; the fast industrial development having done significant damage to the environment and resources. However, China is making significant investments into environmental restoration, greening the economy and the cities; the combination of these activities is expected to turn the downward trend after 2024, albeit from a very low current level of natural capital.



Expected development of US and China Natural Capital scores if proposed policies are implemented

2.2 Resource efficiency – China set to overtake US by mid-2020s

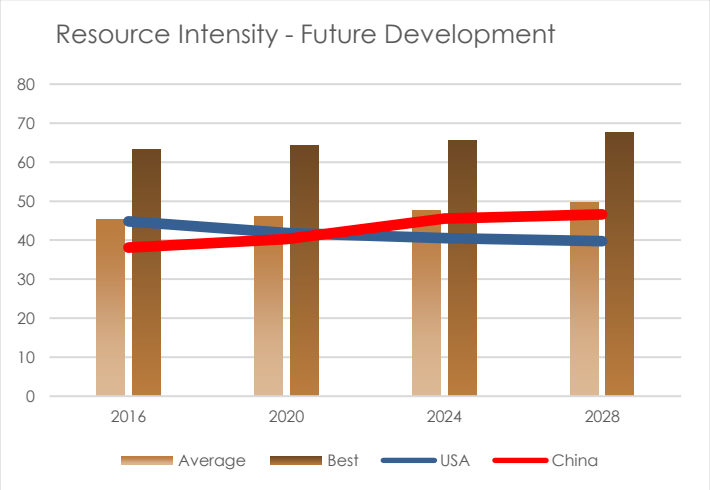
Resource intensity related to how much resources (energy, materials, and by-products, i.e. pollution) a country requires to produce a unit of economic output. In other words - the resource intensity is an indicator for the cost incurred by an economy to produce a unit of output. In addition, resource intensity refers to individual usage of resources, and the depletion of resources through exploitation and pollution.



Current Natural Capital scores 2017 for China and the US

Both the US and China are not leading nations in this respect, the US ranking 110 and China near the bottom at 161 in the 2017 GSCI.

In this light, the focus of the new US administration on fossil energy merits particular interest. Fossil energy usage is associated with maintenance AND fuel costs, whereas renewable energy only has investment and low maintenance cost, but no fuel cost. With the massive cost reduction of the renewable technology in recent years – which is set to continue – fossil energy will soon be what its name suggest, regardless of the global oil, gas and coal prices: fossil. Not competitive. While private business will continue to invest in renewables, driving down energy costs, the proposed fossil projects and incentives are going tie large investments with little or negative return for the US economy. Capital that will not be available for other projects that would yield higher returns. In addition, the proposed policies related to loosening environmental regulation across the board are expected to slow recent efficiency gains made in output of pollutants

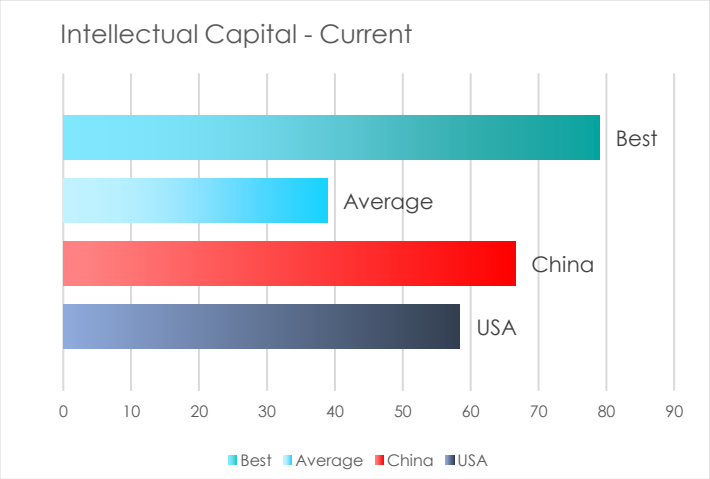


Expected development of resource intensity scores for the US and China if proposed policies are implemented

This is particular dangerous in the light of investments made in efficiency gains and cheap renewable energy by most other countries, including (and notably), China. While China relies still relies on coal and other fossil energy carriers, the country heavily has and is still increasing investments in renewable energy technology – which does not only drive down energy cost, but also created jobs and reduces the output of pollutants. As a result, China is expected to overtake the US in resource efficiency by the mid-2020s.

2.3 Intellectual Capital: US to drop out of world elite?

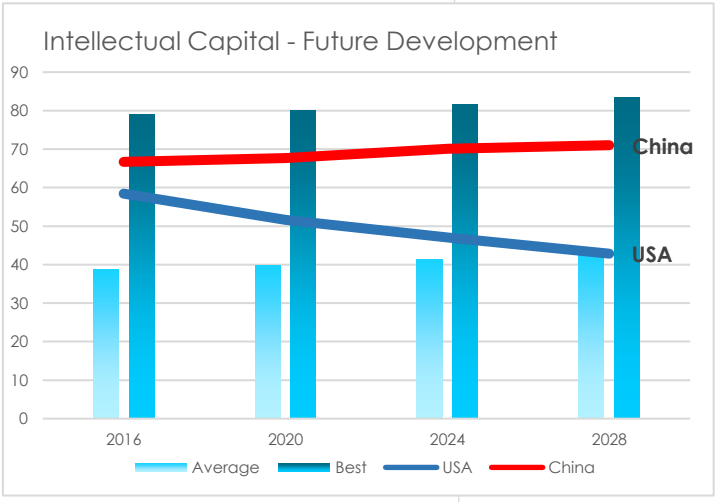
The Intellectual Capital describes a country's ability to compete on the top level of the globalised markets through constant innovation and development of new technologies, products and services by evaluating the value-chain of innovation: education performance on all levels, R&D performance and innovation indicators. The US is currently ranked 19 in this criteria, China 4th.



Current Intellectual Capital scores 2017 for China and the US

Student performance in the US is dismal as is – one of the lowest performance across OECD countries according the PISA surveys. The main points of the new education policy seems to be budget cuts and privatisation of the education sector. However, it is rather unlikely that cutting educational budgets, and giving away a higher share of what is left thereafter to shareholders and CEOs will facilitate improvement of US student performance. In addition to this, R&D budgets in relation to GDP has been decreasing for years, and there is no visible strategy to actually improve the environment that enables creativity and innovation. Loosening regulations only helps businesses that are not competitive on the global market to survive somewhat longer, but does not generate new business or foster globally competitive innovation.

The implementation of policies proposed by the current US administration is expected to decrease the US intellectual capital score, dropping to around 45 from the current 58, while Chine is expected to improve with the global leaders. ***China is set to outdistance USA innovation performance significantly by 2025 if policies proposed by the current US administration are to be implemented***.

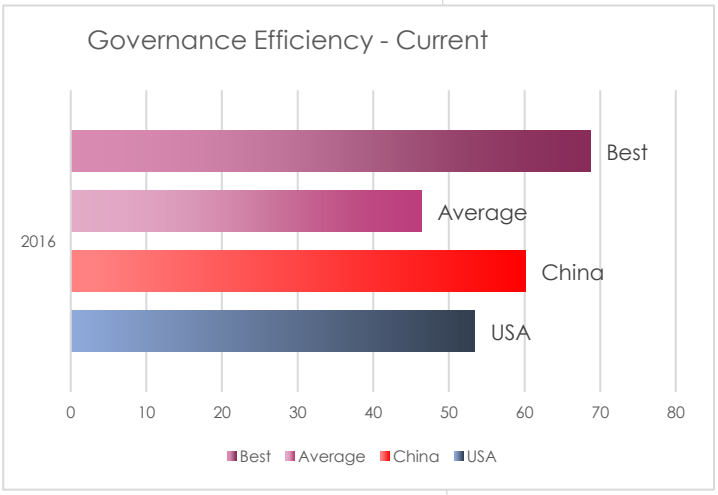


Expected development of Intellectual Capital scores for the US and China if proposed policies are

China's educational and innovation indicators on the other hand have been improving steadily over the past 20 years. The number of graduating engineers in China is currently tenfold the equivalent US number. With further investments in education, the catching up of Chinese universities and the advancement of R&D facilities, both general education and ultimately innovation capabilities are expected to improve over the next decade. However, the rigidity of the system under XI (who in contrast to his predecessors appears to be targeting a personal long-term reign) is likely to undermine the innovation capabilities thereafter.

2.4 Governance efficiency – investments, infrastructure, frameworks

The governance Efficiency pillar of the Global Sustainable Competitiveness Index is not about governance systems; it measures the performance (outcome) of government policies and budget allocation. The governance efficiency indicator is designed to evaluate and measure the environment the government is providing for businesses and the society through policies and budget allocation. Indicators used include, amongst others, investments, infrastructure indicators, economic diversity, industrial competitiveness, financial market stability, public services. The USA is currently ranked 50 with a governance efficiency score of 53.4, while China is ranked 11th with a score of 60.2.

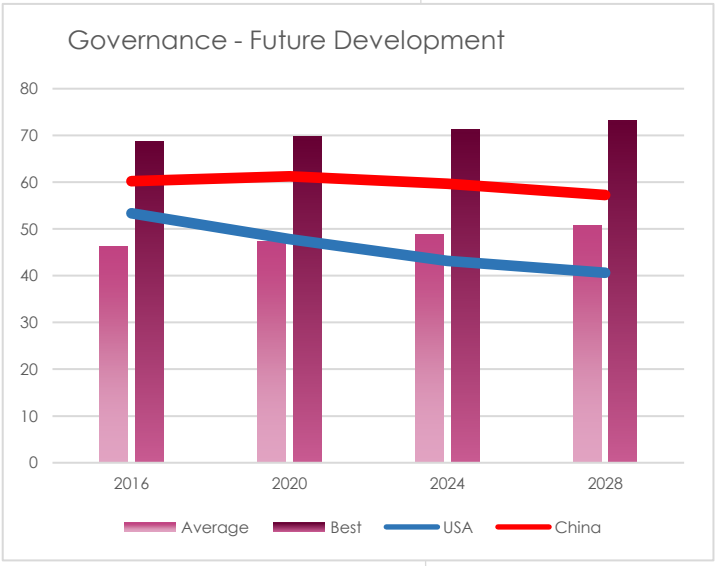


Current Governance Efficiency scores for the US and China

The current administration's priorities are set on increase military spending while cutting all other sectors of the state budget; reduction of taxes, deregulation, and private investments to maintain the ailing and in some cases deteriorating infrastructure. While private investors might invest in profit-promising key infrastructure, it is questionable whether private capital owners will invest in suburban roads or rural bridges with little return outlook. China at the same time further invests in infrastructure development – roads, ports, high-speed rail networks, airports, educational, health and other public facilities. Infrastructure-wise, China is set to outdo the US by a long distance in the near future already.

All empiric studies show that deregulation does not lead to more competitiveness. Deregulation might lead to slightly reduced cost (in some, but not all cases), and leads to concentration of market power in few hands, which in turn is cumbersome to innovation. The proposed loosening of already weak regulations in the financial markets is likely leading to new risk taking by asset managers and rent seekers; leading further increased instability and the risk of new bubbles.

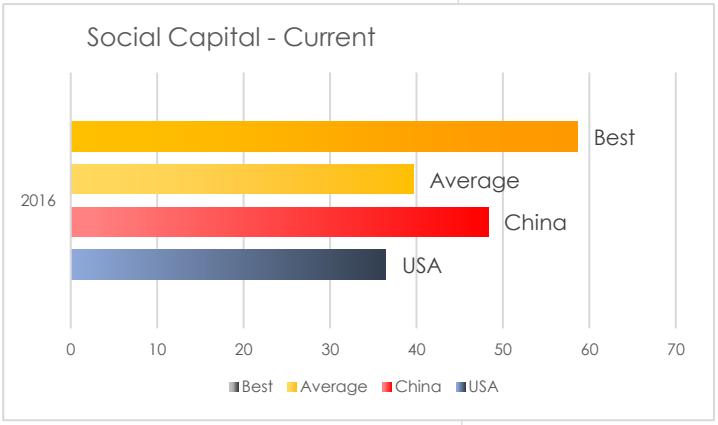
Applying the effects on the performance of the Governance Efficiency indicators shows that the US could fall beyond the global average after 2025, while China is expected to maintain its status, but slightly decreasing after the mid-20's.



Expected development of Governance Efficiency scores for the US and China if proposed policies are implemented

2.5 Social Capital

Social cohesion is essential to a functioning society. The Scola Capital is made up from individual freedom, security, health, and well-being. Indicators used for this criteria include different health availability/affordability and performance indicators, crime statistics, freedom of press and freedom from repression, as well as inequality an gender performance indicators.



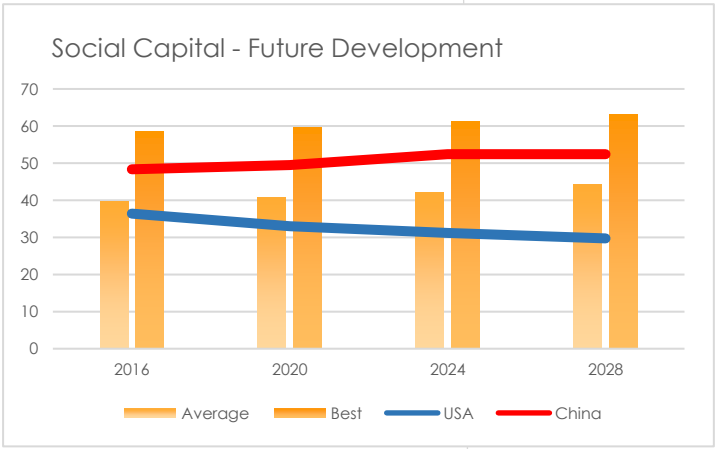
Current Social Capital scores

The Social Capital describes the aspects that allow a society to flourish and its economic entities to operate without disruption and stability.

The USA is ranked 129 (of 180) in the Social Capital criteria of the 2017 Global Sustainable Competitiveness Index, below global average, while China is ranked 37.

Proposed cuts to health programs, indifference to inequality, and the lack of programs to improve the living conditions of the lower levels of society will have further negative impact on the social cohesion of the USA, and further rise in crime rates as a consequence of the former cannot be excluded.

China on the other hand is planning further investments in the health sector, improving the social capital of the country. However, increasing rigidity and social controls are expected to offset the gains made in other fields after 2020.



Expected development of Social Capital scores for the US and China if proposed policies are implemented

3 Conclusions

The final fine print of the proposed policies of the new US administration are still not fully clear, and it is doubtful if and how many and to what extend these policies eventually will be implemented. However, analysing the implications of these policies, if fully implemented, in the Global Sustainable Competiveness shows a significant decline in sustainable competitiveness. That is of double significance, because a majority of countries are implementing sustainable management practices, some more, some less. In other words: while the rest of the World advances, the US retreats. As a consequence, the USA would score nearly 8 points lower in the GSCI, and drop from its current ranking of 29 to somewhere in the 80s or 90s. Below the global average.

Luckily for the US, it is unlikely that all of the proposed policies will be fully implemented. However, even in the case of a policy reversal after 2020, damage to US competiveness in some aspects seems to be inevitable.

On the contrary, China is expected to increase its levels of competitiveness for some years to come.

China is a super-tanker in motion, with many of the current key policies set to continue at least into the near-term future. The continuation of investments in infrastructure, education, R&D, and the greening of infrastructure and the economy is expected to take China further up the ladder in terms of competitiveness for 5-10 years into the future. However, environmental constraints (in particular water scarcity, water pollution, and air pollution, plus the implications of climate change), combined with the new rigidity, power monopolisation and the associated potential for corruption could choke further advancements and slow innovation sometime after 2020. Organisational changes to the party structure indicate that President XI intends to abolish one key pillar of the Chines success since Deng Xiaoping: the notion that the party (and by the Chinese definition of party, the country) is more important than individual people. Many analysts believe that Xi is to abolish the voluntary limitation of the term of the party leader, and remain president for longer. If that is the case, more repression and in-fights for power and wealth behind the scenes are inevitable and will stall the Chinese development after 2025.

In other words: China might overtake the US as the strongest super-power much earlier than anyone has thought at the beginning of this century, but might stall itself soon thereafter.

Disclaimer

No warranty

This publication is derived from sources believed to be accurate and reliable, but neither its accuracy nor completeness is guaranteed. The material and information in this publication are provided "as is" and without warranties of any kind, either expressed or implied. SolAbility disclaims all warranties, expressed or implied, including, but not limited to, implied warranties of merchantability and fitness for a particular purpose. Any opinions and views in this publication reflect the current judgment of the authors and may change without notice. It is each reader's responsibility to evaluate the accuracy, completeness and usefulness of any opinions, advice, services or other information provided in this publication.

Limitation of liability

All information contained in this publication is distributed with the understanding that the authors, publishers and distributors are not rendering legal, accounting or other professional advice or opinions on specific facts or matters and accordingly assume no liability whatsoever in connection with its use. In no event shall SolAbility be liable for any direct, indirect, special, incidental or consequential damages arising out of the use of any opinion or information expressly or implicitly contained in this publication.

Copyright

No Offer

The information and opinions contained in this publication constitutes neither a solicitation, nor a recommendation, nor an offer to buy or sell investment instruments or other services, or to engage in any other kind of transaction. The information described in this publication is not directed to persons in any jurisdiction where the provision of such information would run counter to local laws and regulation.

The Sustainable Competitiveness Index

6th edition

2017

www.solability.com