Working Paper

Projekt: Transatlantische Risikogovernance

Stiftung Wissenschaft und Politik
German Institute for International and Security Affairs

Julia Howald, Stormy-Annika Mildner, Max M. Mutschler, Brittany Sammon, Vanessa Vaughn, Marian Vogel

Transatlantic Risk Governance Survey

Risk Averse Germans and Risk Friendly Americans?

July 2013
Berlin

SWP
Stiftung Wissenschaft und
Politik
German Institute
for International and
Security Affairs

Ludwigkirchplatz 3–4
10719 Berlin
Phone +49 30 880 07-0
Fax +49 30 880 07-100
www.swp-berlin.org
swp@swp-berlin.org

SWP Working Papers are online
publications of SWP's divisions
which have not been formally
reviewed by the Institute.

This Working Paper is
published as part of the project
"New Systemic Risks: Challenges
and Opportunities for
Transatlantic Cooperation",
carried out by the Stiftung
Wissenschaft und Politik (SWP)
and the American Institute for
Contemporary German Studies
(AICGS) at Johns Hopkins
University, USA.

For more information see
http://www.swp-berlin.org/en/
swp-projects/transatlantic-risk-
governance/introduction.html

Julia Howald is a research assistant of the Executive Board at SWP.
Dr. Stormy-Annika Mildner is a member of the Executive Board at SWP.
Dr. Max Mutschler is an associate in the Americas Research Division at SWP.
Brittany Sammon is a project assistant of the Executive Board at SWP.
Vanessa Vaughn is a project assistant of the Executive Board at SWP.
Marian Vogel is an intern of the Executive Board at SWP.

Introduction: Are Americans More Willing to Take Risks than Germans?

The role of cultural stereotypes

Conflicts in transatlantic economic relations are often traced back to different risk preferences – Americans are seen as risk-seeking whereas Europeans (and also Germans among them) are considered to be risk-averse. Such differences are explained rashly by cultural stereotypes: It is argued that Americans, as a populace of immigrants and pioneers, had to take high risks and be venturesome if they wanted to succeed in the land of unlimited opportunities. In contrast, because Europeans experienced political and religious oppression for centuries, they are more risk-averse than Americans, so the conventional wisdom goes. But do the transatlantic partners really perceive and manage risks differently or is it just a successfully perpetuated myth? So far, there has been no clear answer to this question.

A transatlantic opinion poll

To get a better understanding of the risks perceived on both sides of the Atlantic as well as risk preferences, the German Institute for International and Security Affairs (Stiftung Wissenschaft und Politik, SWP) together with the American Institute for Contemporary German Studies (AICGS) at Johns Hopkins University conducted an opinion poll among U.S. and European transatlantic opinion- and decision-makers from business, think tanks, press, and academia among others. The survey asked about risk preferences, risk identification and choices in risk management tools. With regard to the European Union, the poll was targeted at German opinion- and decision-makers as the country is a key political and economic player in European politics. It is not only the largest economy within the EU and a member of the G8 and G20, Germany is also the strongest proponent of transatlantic cooperation and integration.

Main results

The survey sheds some light on the commonalities and differences in risk perceptions and preferences in the United States and Germany. The responses suggest that U.S. respondents are slightly more willing to take risks than German respondents. Furthermore, U.S. respondents are more willing to accept potential losses in order to achieve high gains than Germans.

The difference, however, is anything but large and thus does not provide a persuasive proof for the above-mentioned thesis. That the thesis needs to be thoroughly questioned is also implied by another finding of the poll: Both, German as well as U.S. respondents, are willing to bear the costs of preventive action in order to mitigate risks. Furthermore, responses to questions under a specific scenario (on how to deal with the risk of a new technology) highlight that both U.S. and German respondents support the idea of the government implementing precautionary regulations. Both agree that the pros and cons of a new technology should be discussed with the public.

With regard to the identification and assessment of risks in different fields, both groups agree on the most threatening and challenging risks.

Furthermore, U.S. and German respondents similarly evaluate the trustworthiness of different information sources regarding these risks such as government publications and media information.

Limitations

While these findings give us some insight in risk perceptions and preferences in the United States and Germany, the limitations of this survey must be stressed. Thus, a specific group of respondents was targeted which does not necessarily represent the wider public: Most of the respondents have advanced degrees; a large number of respondents come from the academia. There were also more male than female respondents, and most respondents were between the ages of 40-69. Last but not least, the survey, with its focus on Germany, tells us little about European risk identification and preferences. Hence, it would be interesting to expand the survey to a broader subject group as well as to more EU member states.

The Survey

Basics

Participation and questions asked

The survey was conducted from December 2012 through January 2013 and sent to 9449 Americans and Europeans. Approximately 10% (922 responses) responded to the survey and of those responses about 70% answered the whole survey. The analysis was limited down to a comparison between German and U.S. responses due to the high share of German responses (84%) within the European group and Germany's significant role in transatlantic cooperation. Respondents were asked to indicate their general risk attitudes and their willingness to take risks or their tendency to err on the side of caution. Respondents were also asked to choose the five greatest risks from a list of 21 global economic and financial, environmental and health, natural resources, and security risks and to rank them on a scale of 1 to 5. Respondents were also asked to assess the greatest risks within specific areas including the economy and finance, the environment and health, natural resources, and security. Furthermore, respondents were asked to rank their level of trust in the sources they use to evaluate risks. Respondents were also confronted with the hypothetical scenario that a new technology was introduced with uncertainties involved and asked to give their stance on how the issue should be handled.

Characteristics of Survey Respondents

Nationality

Overall, 37 countries were represented in the survey across various regions including Europe, North America, the Middle East, Latin America, Asia, and Russia. This diversity is probably due to the fact that people with

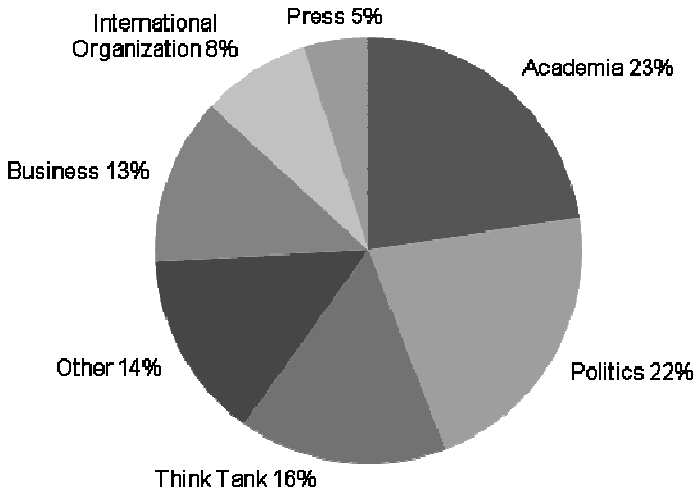
different nationalities work for U.S. or EU institutions. Most respondents were either from EU member countries (59%) or the U.S. (37%). Although respondents came from 22 EU member countries, Germans within the EU group made up a predominant percentage (84%). Germany and the U.S. were the two largest nationalities represented and together made up a combined 86% share of overall survey responses (Germany 49%, U.S. 37%). These similar showings in numbers made a comparative focus on Germans and Americans ideally suited for our survey purposes.

Professional Background

Respondents were asked to identify their professional background by choosing from a list of categories including academia, think tank, political, business, international organization, press, or other. Most respondents both from the U.S. and Germany have a background in academia, with a slightly larger percentage of U.S. academia (36%) compared to German academia (23%). The percentage of respondents from think tanks was approximately the same for both the U.S. (15%) and Germany (16%). German respondents had nearly four times the percentage of respondents with a professional background in politics (22%) compared to U.S. respondents from politics (5%). The percentage of German respondents from international organizations (8%) and the press (5%) was slightly higher compared to U.S. respondents from international organizations (5%) and press (3%). In contrast, the percentage of U.S. respondents with a professional background in business (15%) and other backgrounds (20%) was higher than the percentage of German respondents from business (13%) and other backgrounds (14%).

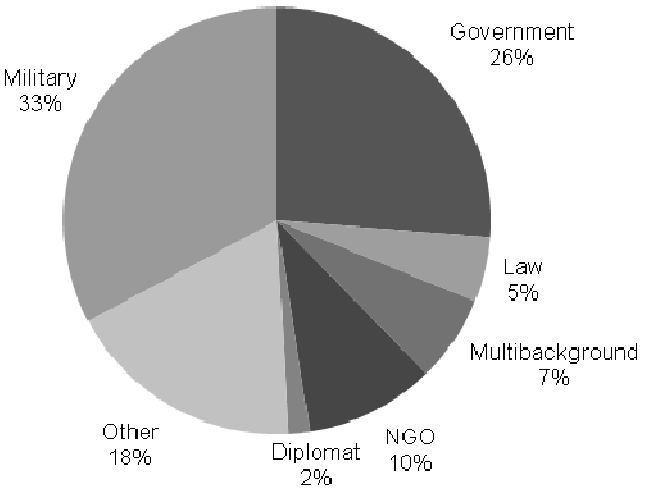
20% of U.S. respondents and 14% of German respondents indicated that they came from another professional background than the ones mentioned above. Among the "other professional background" category, a significant number of respondents work for the government (Germany: 26%, U.S. 22%). Also, a large group of the German respondents (33%) work for the military. The number of U.S. respondents working in this field was significantly lower (3%). On the other hand, while professionals with a background in law were represented strongly among U.S. respondents (22%), this was not the case among German respondents (5%).

Figure 1
Professional Background German Respondents



Source: Own diagram based on the results from the SWP-AICGS 2012-2013 Transatlantic Risk Governance Survey[1]

Figure 2
Professional Background "Other" German Respondents



[1] This notice applies to all diagrams used in this working paper.

Figure 3
Professional Background U.S. Respondents

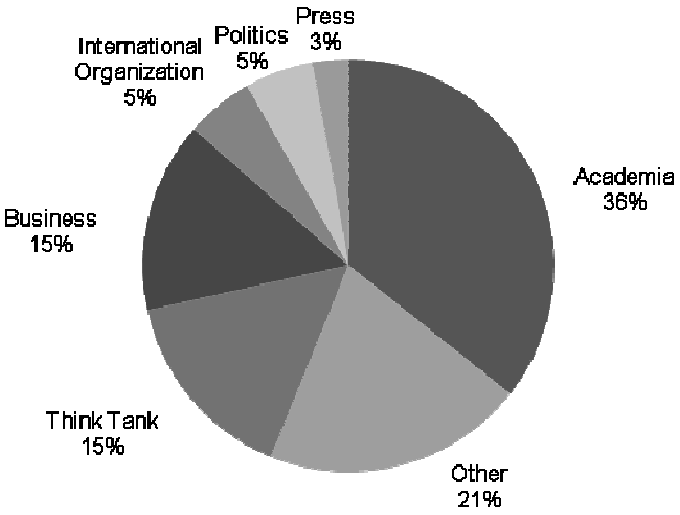
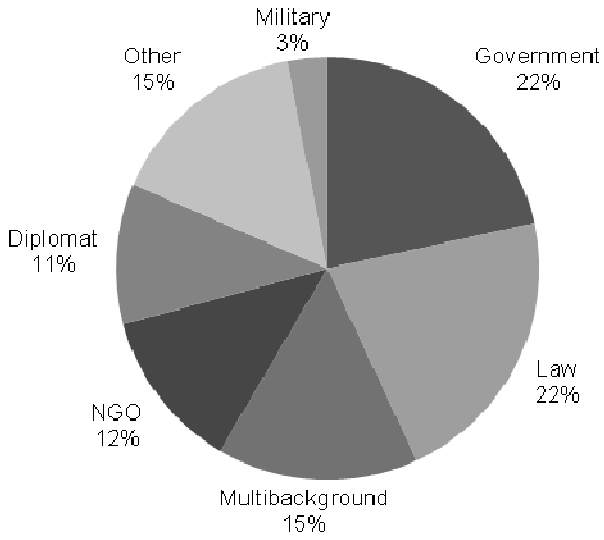


Figure 4
Professional Background "Other" U.S. Responses



Education
Most respondents both from the U.S. and Germany listed either a PhD/Doctorate (U.S. 48%, Germany 43%) or a Master's Degree (U.S. 34%, Germany 42%) as the highest education level attained. The percentage of U.S. respondents who listed Bachelor's Degree (12%) as the highest education level attained was about four times the percentage of German respondents (3%). While 6% of German respondents listed High School, or Hochschulreife, as the highest education level attained, no respondents from the U.S. (0%) listed this education level.

Gender
Approximately three-quarters of respondents from the U.S. and Germany were male (U.S. 75%, Germany 78%) compared to the number of female respondents (U.S. 25%, Germany 22%).

Age
About three-fourths of the German respondents were in the 50-59 age group (31%), the 40-49 age group (24%), and the 30-39 age group (24%). About one half of U.S. respondents were in the 60-69 age group (31%) and the 50-59 age group (20%).

No representative survey

Before turning to the results regarding the general risk identification, assessment, and preference, it should be stressed that the respondents do not represent the general population. In fact, the persons questioned represent people that are engaged in transatlantic matters such as social scientists and people working for governmental organizations.

General Risk Preferences

Questions asked in the survey

In order to assess the general risk preferences, the survey respondents were not only questioned on their personal attitudes towards taking risks in general but were also asked to indicate whether potential gains or losses play a more crucial role when taking decisions. Furthermore, the survey wanted to find out if the respective respondent would be willing to bear the cost of preventive action necessary to mitigate risks. Respondents were also confronted with a hypothetical scenario that a new technology was introduced with uncertainties attached and asked to indicate their stance on how the issue should be handled. The answers to these questions are crucial for assessing room for transatlantic cooperation because they indicate how similar or different U.S. and German respondents perceive and identify risks and how they prefer to handle them.

Apart from that, the survey wanted to find out if the German and U.S. respondents have a similar perception of certain risks and asked the participants to choose and rank their top five risks from a list of 21 global risks. In order to gain an even better insight into the evaluation of different global risks, respondents were also asked to assess the greatest risks within specific policy fields including economic and financial policy, environment and health policy, natural resource policy, and security policies.

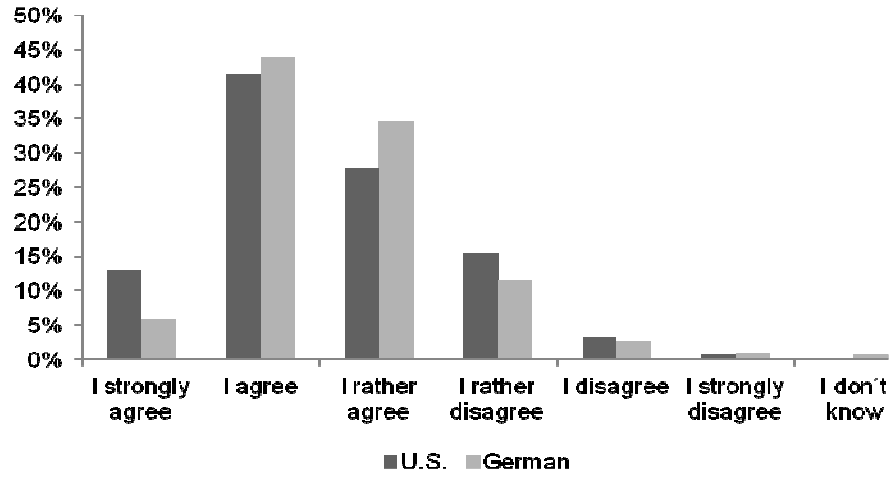
Finally, respondents were asked to rank their level of trust in different information sources about the global risk indicated, namely government publications, scientific publications, personal experience/research, and media information.

General willingness to take risks

In order to find out how risk-friendly or risk averse the respective survey respondents are the survey asked them to indicate their position on the question, "In general, how willing are you to take risks?" The respondents were able to choose seven different answers on a scale ranging from "I strongly agree," "I agree," "I rather agree," "I rather disagree," "I disagree," "I strongly disagree," to "I do not know."

Most respondents from both the U.S. and Germany said that they were generally willing to take risks (U.S. 82%, Germany 84%), compared to respondents who disagreed (U.S. 18%, Germany 15%). However, U.S. respondents' willingness to take risks is clearly higher (13% of U.S. respondents strongly agree, whereas this can only be said for 6% of German respondents).

Figure 5
Q9. In General, Are You Willing to Take Risks? (German and U.S. Responses)



Willingness to accept high potential losses in order to achieve high gains

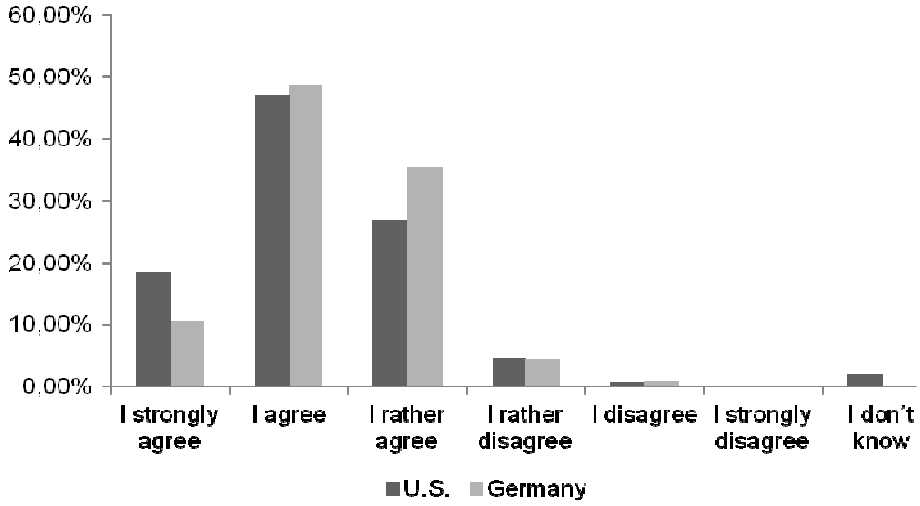
While more U.S. respondents agreed they were willing to accept high possible losses in order to achieve high gains (58%) compared to respondents who did not agree (41%), more German respondents disagreed (66%) than those who agreed (33%).

Figure 6
Q10. In Order to Achieve High Gains, I am Willing to Accept High Potential Losses (German and U.S. Responses)

Willingness to bear the costs of preventive action in order to mitigate risks

An overwhelming majority of respondents from both the U.S. and Germany agreed they were willing to bear the costs of preventive action in order to mitigate risks (U.S. 93%, Germany 93%) compared to respondents who disagreed (U.S. 5%, Germany 5%).

Figure 7
Q11. I am Willing to Bear the Costs of Preventive Actions in Order to Mitigate Risks (German and U.S. Responses)



Scenario

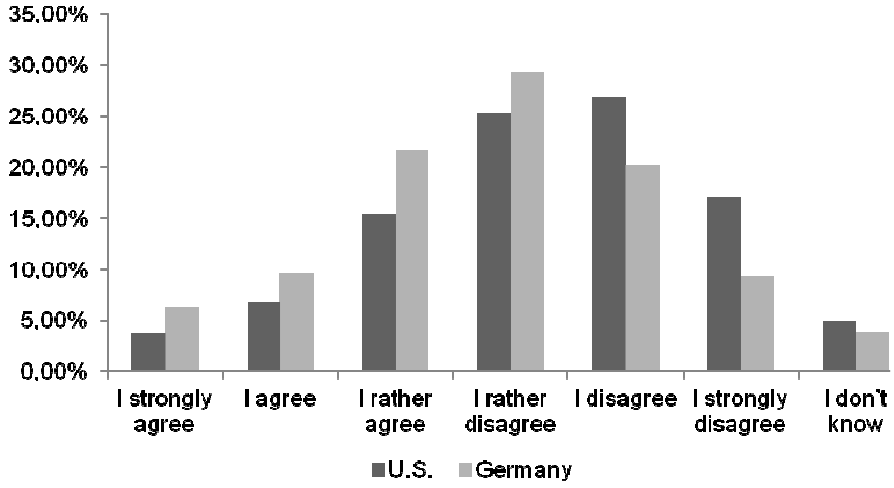
Hypothetical scenarios: introduction of a new technology

In this section of the survey, respondents were confronted with the hypothetical scenario that a new technology was being introduced. According to the scenario, experts were split on whether or not the new technology would do more harm than good. In other words, while 50% claimed there was a substantial risk that the technology would do more harm than good, the other 50% said there was no substantial risk. The participants were asked to indicate their position on how the issue should be handled/managed amidst such uncertainty.

The government should ban the technology

Most respondents both from the U.S. and Germany disagreed with the fact that the government should ban the technology, but the percentage is higher among U.S. respondents (U.S. 70%, Germany 59%). This is in line with the assumption that Americans are more risk friendly than Germans.

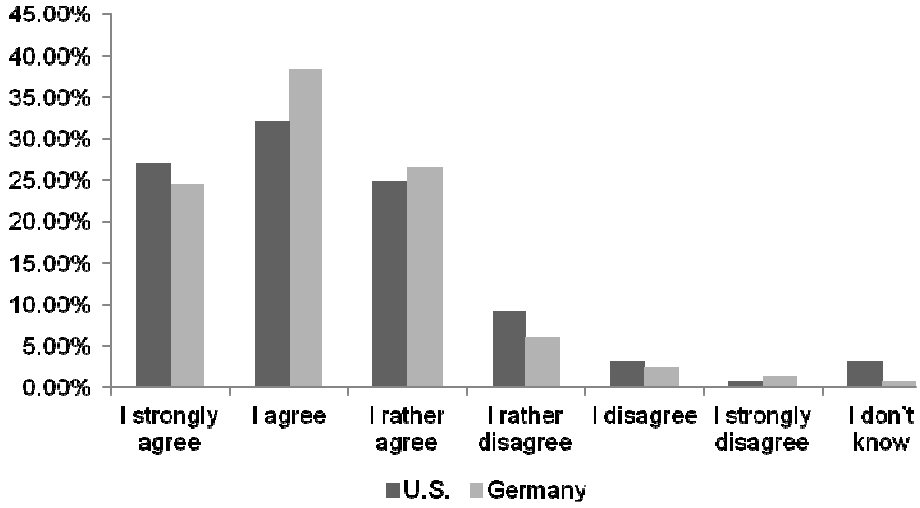
Figure 8
Q18. The Government Should Ban the Technology (German and U.S. Responses)



The government should implement precautionary regulations

Responses on the following question, however, show that this is only half of the picture. Contrary to the general belief that Germans prefer a precautionary approach to new technologies while Americans reject the precautionary principle, the poll does not confirm this. Most respondents, both from the U.S. and Germany, agreed that the government should implement precautionary regulations (U.S. 84%, Germany 89%), while only a small percentage disagreed (U.S. 13%, Germany 10%).

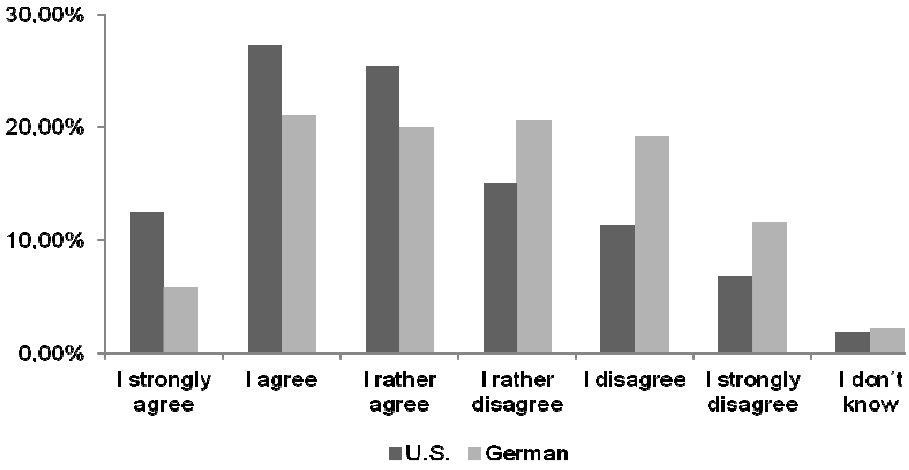
Figure 9
Q19. The Government Should Implement Precautionary Regulations (German and U.S. Responses)



The Opponents of the technology have to prove it is risky

A majority of U.S. respondents agreed that the opponents of a new technology should prove that the technology is risky (65%) compared to those who disagreed (33%). In contrast, about half of the German respondents disagreed with the fact that opponents of a new technology should have to prove that the technology is risky (51%), while the other half agreed (48%).

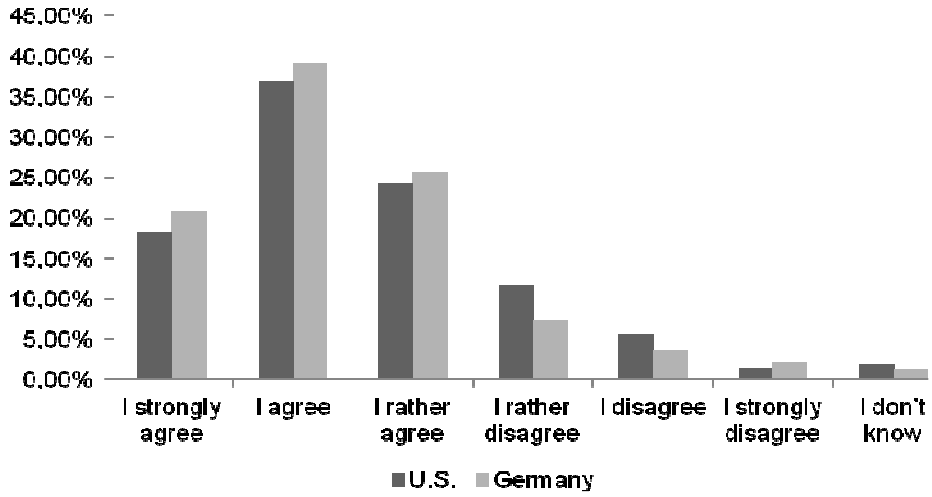
Figure 10
Q20. The Opponents of the New Technology Have to Prove That the Technology is Risky (German and U.S. Responses)



The proponents of the technology have to prove it is not risky

Most respondents, both from the U.S. and Germany, agreed that the proponents of a new technology must prove that the technology is not risky (U.S. 79%, Germany 86%) compared to those respondents who disagreed (U.S. 19%, Germany, 13%).

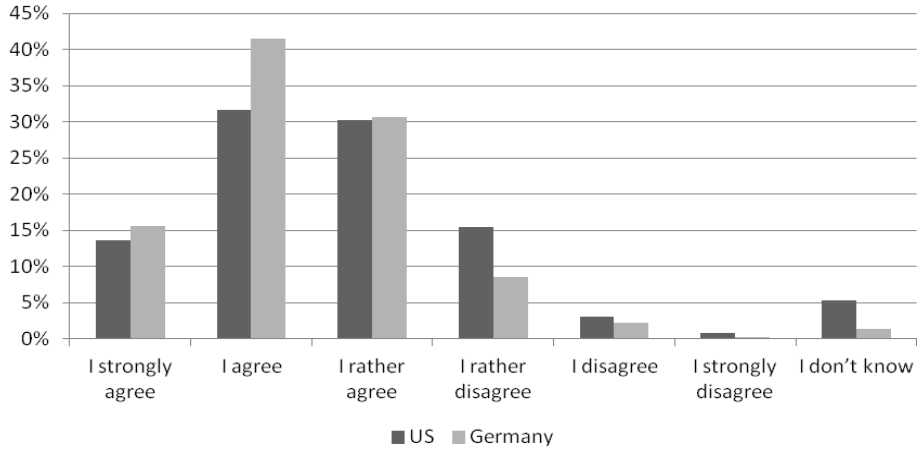
Figure 11
Q21. The Proponents of the New Technology Have to Prove That the Technology is Not Risky (German and U.S. responses)



Preventive measures have to be taken in order to mitigate risks, even if these measures are costly

Respondents, both from the U.S. and Germany, agreed that preventive measures must be taken to mitigate risks, despite the additional cost (U.S. 75%, Germany 88%), although the percentage is higher among German respondents.

Figure 12
Q22. Preventive Measures Have to be Taken in Order to Mitigate Risks, Even If These Measure Are Costly (German and U.S. responses)



Discussion with stakeholders

Most respondents both from the U.S. and Germany agreed that the government should discuss the pros and cons of the technology with the direct stakeholders (U.S. 91%, Germany 89%).

Discussion with the public

Most respondents both from the U.S. and Germany agreed that the government should open a discussion on the pros and cons of the new technology to the general public (U.S. 92%, Germany 94%).

Risk Ranking

Which global risks do participants fear the most?

In this part, the survey wanted to find out which global risks are perceived as the most challenging by U.S. and German respondents. Therefore, the respective survey respondents were asked to choose their top five risks from a list of 21 global risks and rank them on a scale from 1(the greatest risk) to 5 (the fifth greatest risk) in order to indicate the importance they attach to these risks. Furthermore, they were asked to choose their top risks in the fields of financial and economic risks, environmental and health risks, resource risks, and new global security risks in order to gain a further insight into the risk identification of both groups.

Top 5 Risks overall

In order to get an insight into the identification and assessment of global risks the respective survey respondents were asked to choose their top five

risks from a list of 21 global risks. Furthermore, they were asked to rank these risks on a scale from one to five, one representing the greatest risk. While doing so they were asked to consider the likelihood of the occurrence as well as the magnitude of the potential negative impact of each risk. German and U.S. respondents made similar choices of top risks, also giving them similar significance with regard to their ranking on the mentioned scale. Both groups considered climate change the greatest risk, followed by the proliferation of weapons of mass destruction, the collapse of the financial system, terrorism, and water shortage.

Moreover, German and U.S. respondents similarly ranked the same risks towards the bottom of the list such as the proliferation of space debris, the weaponization of space, supply shortage of non-energetic mineral and metal resources, and extreme price volatility of raw materials.

Hence, there are not great but only slight differences concerning the evaluation of global risks. For instance, U.S. respondents give cyber attacks and unemployment more weight, whereas German respondents consider environmental pollution and global macroeconomic imbalances to be greater global risks.

Figure 13

Q12. Top Five Risks (Weighted German and U.S. responses – In order to assess the importance of different risks the responses of the respondents were weighted. The response count of the highest ranked and most important risk was weighted times five, the second times four, the third times three, the forth times two and the fifth times one)

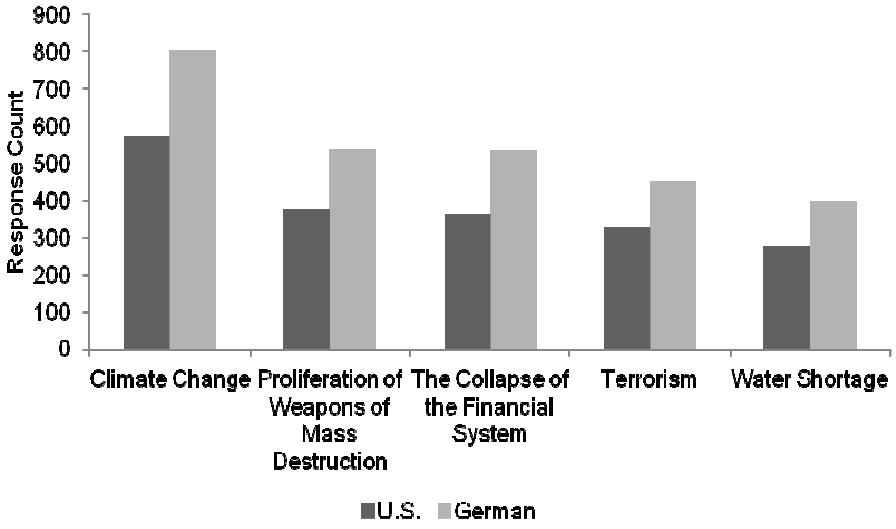


Figure 14
Q12. Most Frequently Rated Risks (German Responses)

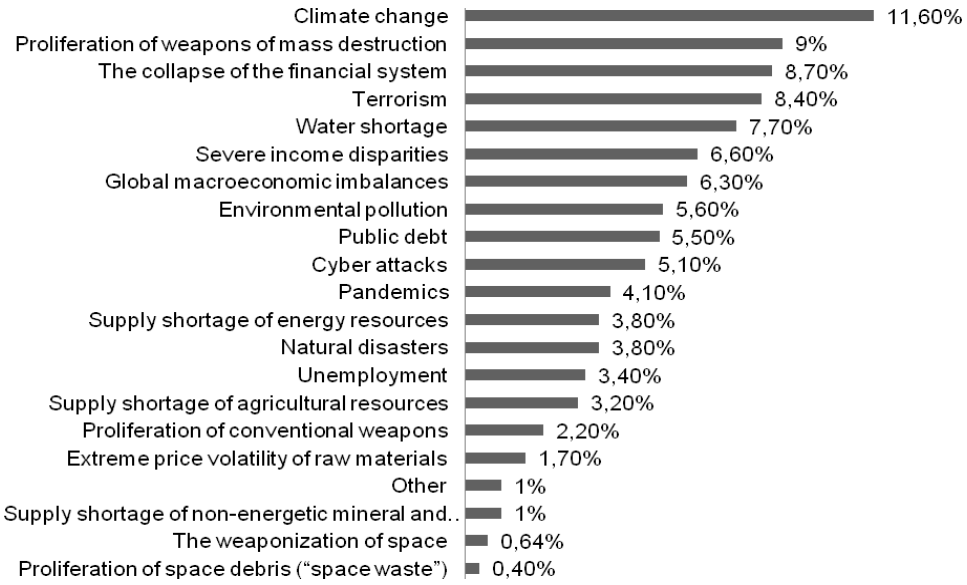
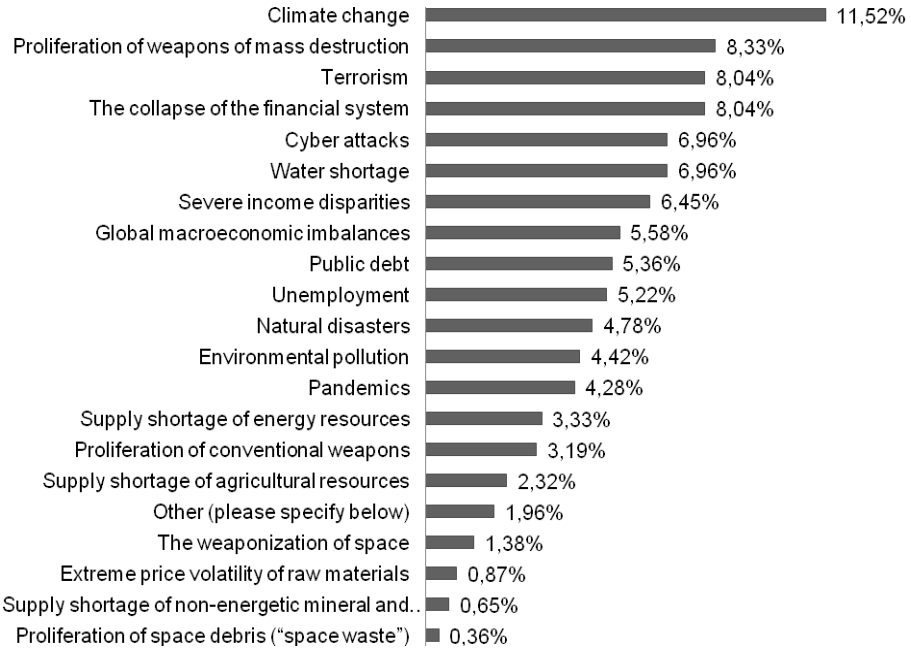


Figure 15
Q12. Most Frequently Rated Risks (U.S. Responses)

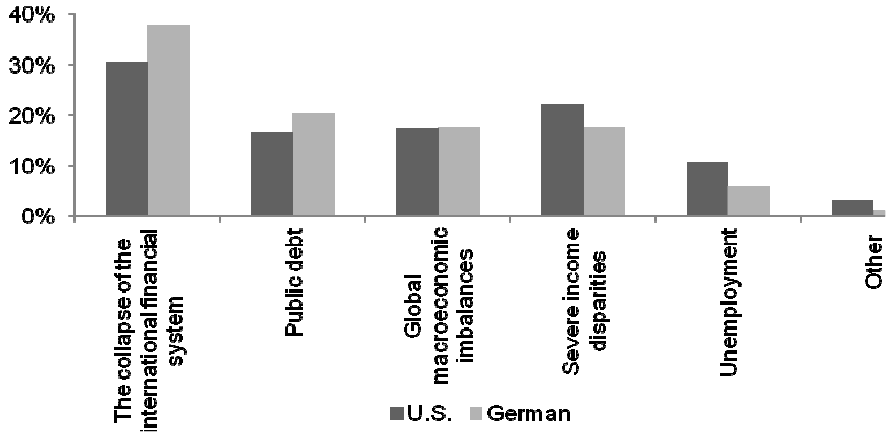


Top Economic and Financial Risk

Most U.S. and German survey respondents agreed that the collapse of the financial system was the greatest global economic and financial risk (U.S. 31%, Germany 38%). The percentage of respondents to list global macroeconomic imbalances as a top economic and financial risk was similar among respondents from the U.S. and Germany (U.S. 17%, Germany 17%).

However, German respondents considered public debt a greater risk than U.S. respondents (Germany 20%, U.S. 17%). On the other hand, U.S. respondents considered unemployment to be a greater economic and financial risk than respondents from Germany, with almost twice the percentage of U.S. respondents rating unemployment as a top economic and financial risk (11%) compared to German respondents (6%).

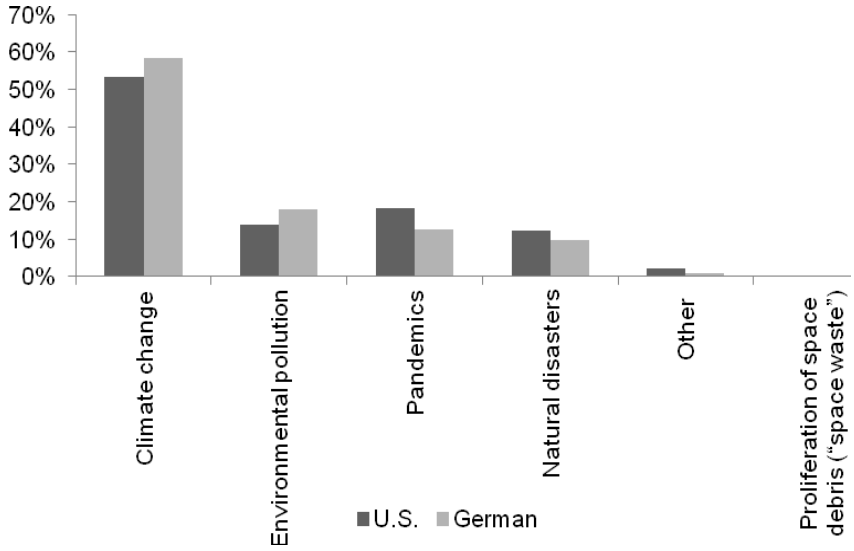
Figure 16
Q13. Top Economic and Financial Risks (German and U.S. Responses)



Top Environmental and Health Risks

Both German and American respondents considered climate change the greatest environmental and health risk (Germany 58%, U.S. 53%). However, German respondents regarded environmental pollution (18%) as a greater risk than pandemics (13%) compared to U.S. respondents (environmental pollution 14%, pandemics 18%).

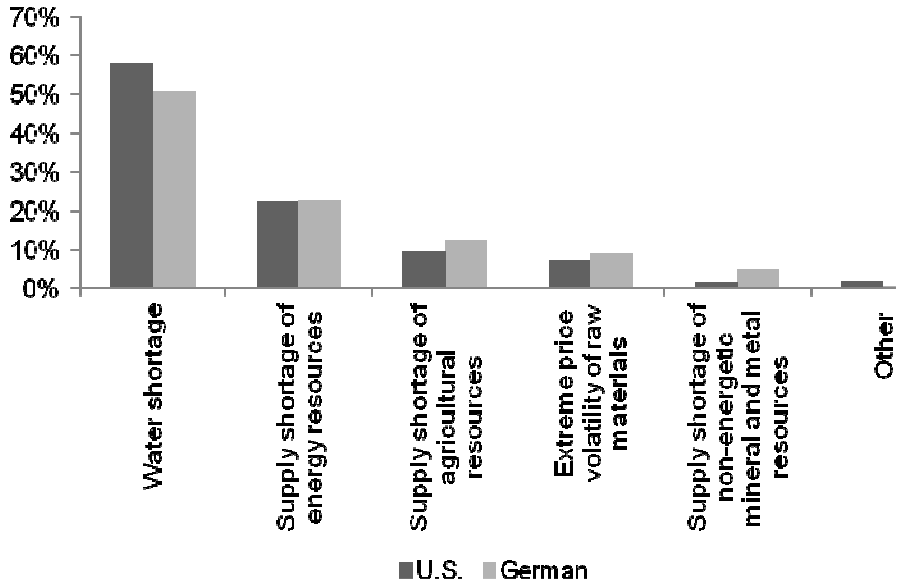
Figure 17
Q14. Top Environmental and Health Risks (German and U.S. Responses)



Top Global Resource Risks

The majority of both German (51%) and U.S. respondents (58%) considered water shortage the greatest risk in this field, followed by supply shortage of energy resources (Germany 22%, U.S. 22%), supply shortage of agricultural resources (Germany 13%, U.S. 10%) and extreme price volatility of raw materials (Germany 9%, U.S. 7%). However, more German respondents considered the supply shortage of non-energetic mineral and metal resources the greatest risk in this field (Germany 5%, U.S. 1%).

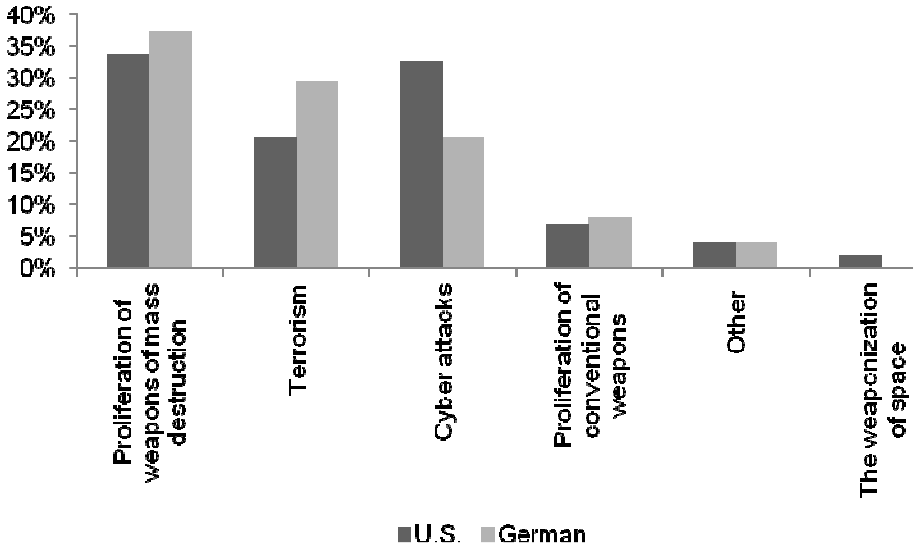
Figure 18
Q15. Top Global Resource Risks (German and U.S. Responses)



Top Global New Security Risks

The proliferation of weapons of mass destruction poses the greatest global new security risk for the German (37%) as well as the U.S. survey respondents (34%). However, U.S. respondents in contrast to German respondents considered cyber attacks a greater security risk (Germany 21%, U.S. 33%). Moreover, German respondents ranked terrorism higher than U.S. respondents (Germany 30%, U.S. 21%). The proliferation of conventional weapons and the weaponization of space was equally not perceived as a high risk although U.S. respondents gave more weight to the weaponization of space than German respondents (U.S. 2%, Germany 0.3%).

Figure 19
Q16. Top Global New Security Risks (German and U.S. Responses)



Trust in information sources

Similar levels of trust in different information sources

When asked about their trust in different information sources concerning the risks mentioned in the survey, namely government publications, scientific publications, media information, and personal experience/research it became clear that German and U.S. respondents similarly trust or distrust the same information sources.

For instance, German and U.S. respondents considered scientific publications to be the most trustworthy information source (very or mostly trustworthy: Germany 76%, U.S. 87%) followed by personal experience/research (very or mostly trustworthy: Germany 69%, U.S. 68%). Government publications were considered less trustworthy by German and U.S. respondents compared to the former information sources mentioned (very or mostly trustworthy: Germany 36%, U.S. 43%). Media information was considered the least trustworthy of the given information sources (very or mostly trustworthy: Germany 17%, U.S. 21%). Although the German and U.S. respondents trusted similar information sources, the extent of trust differed slightly. The German respondents appeared to be a little more skeptical. For example, 25% of the U.S. respondents considered scientific publications a very trustworthy information source whereas this can only be said for 14% of the German respondents.

Figure 20
Q17. Trust in Scientific Publications (German and U.S. Responses)

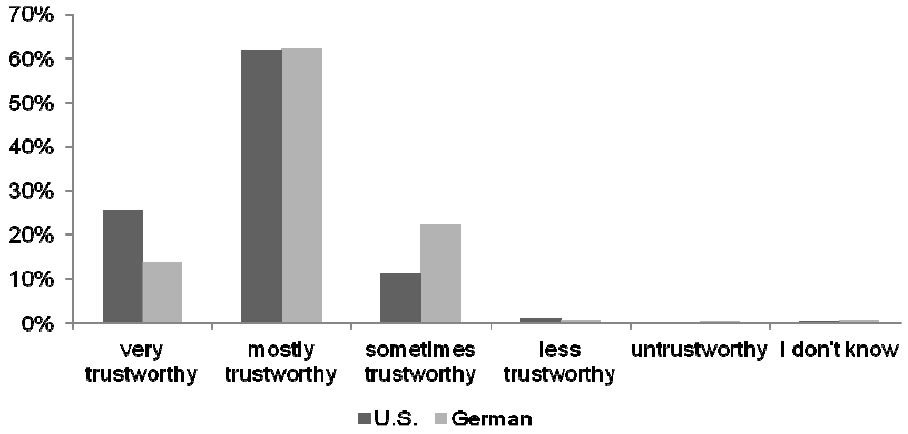
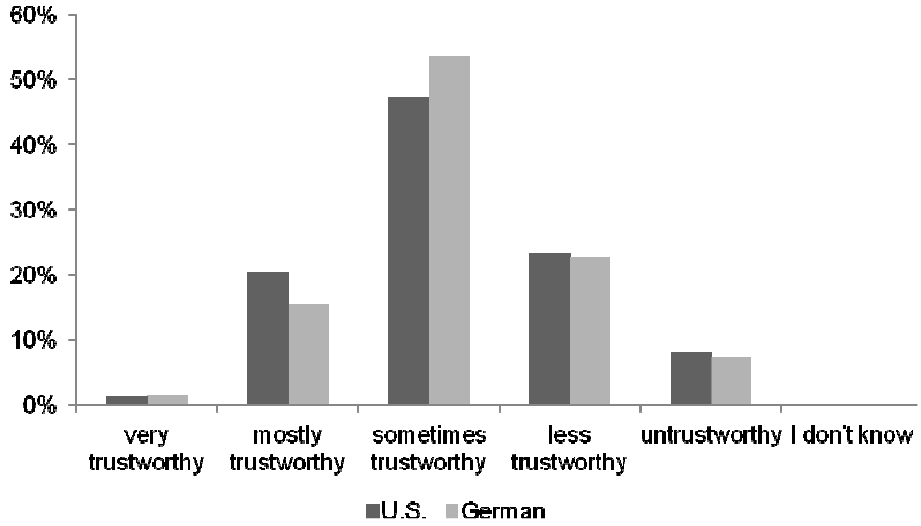


Figure 21
Q17. Trust in Media Information (German and U.S. Responses)



Conclusion

U.S. respondents slightly more willing to take risks

With regard to general risk preferences there were no significant differences between U.S. and German survey respondents. However, there was a trend that suggested U.S. respondents were slightly more willing to take risks than German respondents. For instance, U.S. respondents agreed more strongly that they are willing to take risks and are more willing to accept high potential losses in order to achieve high gains. Moreover, U.S. respondents more strongly opposed the ban of a new technology and

supported the idea that opponents of a technology should have to prove it is not risky than the German respondents do. Also, U.S. respondents were less in favor of the possibility of taking costly preventive measures in order to mitigate risks. However, the differences are anything but large – certainly not as large as the above-mentioned thesis on risk-friendly Americans and risk-averse Germans would imply.

Very similar assessments of the top risks in different policy fields

What is striking is that U.S. and German respondents agreed on the respective top risks. This holds true for the overall list (same ranking of the top five risks), financial risks (collapse of the international financial system), environmental and health risks (climate change), resource risks (water shortage), and new security risks (proliferation of weapons of mass destruction). Regarding the second, third etc. rank, there were some differences. For instance, U.S. respondents submitted that cyber attacks are a greater risk than German respondents did. On the other hand, German respondents gave environmental pollution a greater weight overall and as among environmental and health risk than U.S. respondents did. Also, German respondents considered public dept the second greatest financial and economic risk whereas U.S. respondents placed public debt in fourth place in this field.

High level of trust in scientific publications and personal experience/research

With regard to trust in the information sources about these risks, the results were very similar. Among both U.S. and German respondents, a broad majority trusted scientific publications and personal experience/research. Government publications were seen to be less trustworthy than the formerly mentioned information sources but overall still seen as trustworthy or sometimes trustworthy information sources. Both U.S. and German respondents seemed to be more skeptical toward media information on the mentioned risks. About two thirds of both U.S. and German respondents considered media information less trustworthy or untrustworthy.

Mixed evidence regarding cultural stereotypes

With regard to the stereotypes mentioned in the introductory part of this paper, the survey results suggest that these do not entirely hold true. Overall, there seem to be more commonalities in risk preferences and risk perceptions of German and U.S. survey respondents than the stereotypes would suggest. Still, some tendencies supporting the stereotypes can be found in the survey results as well.

Chances for transatlantic cooperation

So what does this mean for transatlantic cooperation in risk governance? The results suggest that cooperation will generally not be hindered by profound differences in perception and management preferences of global risks. However, the existing differences also imply that cooperation may not be a walk in the park either.

Again it should be stressed that the significance of the survey results is limited and consequently more research is needed in order to make a universally valid statement about the risk preferences, identification, risk assessment and managing tools of U.S. and Germans. Thus, the survey could be expanded to the general public and to more EU member states.

Annex

Methodological Notes:

The survey analysis was conducted with descriptive statistical methods. The significance of the results was not tested through a statistical significance test. Hence, the data cannot be used to draw conclusions about the statistical population of U.S. and German opinion- and decision-makers.

Q2. Nationality		
Answer Options	Response Percent	Response Count
EU Member Country	58.5%	516
Germany	49%	433
Non-German EU Country	9.4%	83
U.S.	36.7%	324
Canada	0.8%	7
		882

Q5. Professional Background				
	U.S.		**Germany**	
Answer Options	Response Percent	Response Count	Response Percent	Response Count
Academia	35.74%	114	22.54%	96
Politics	5.33%	17	21.6%	92
Think Tank	15.36%	49	15.73%	67
Business	15.05%	48	12.68%	54
International Organization	5.33%	17	8.22%	35
Press	2.82%	9	4.93%	21
Other	20.38%	65	14.32%	61
		319		426

Q5. Professional Background "Other"				
	U.S.		**Germany**	
Answer Options	Response Percent	Response Count	Response Percent	Response Count
Government	21.54%	14	26.23%	16
Law	21.54%	14	4.92%	3
Multibackground	15.38%	10	6.56%	4
NGO	12.31%	8	9.84%	6
Diplomat	10.77%	7	1.64%	1
Other	15.38%	10	18.03%	11
Military	3.08%	2	32.79%	20
		65		61

Q6. Gender				
	U.S.		Germany	
Answer Options	Response Percent	Response Count	Response Percent	Response Count
Male	74.61 %	238	77.93 %	332
Female	25.40 %	81	22.07 %	94
		319		426

Q7. Age				
	U.S.		Germany	
Answer Options	Response Percent	Response Count	Response Percent	Response Count
29 or younger	7.52%	24	5.16%	22
30-39	12.23%	39	23.71%	101
40-49	16.93%	54	23.71%	101
50-59	20.38%	65	30.52%	130
60-69	31.03%	99	13.38%	57
70 or older	11.91%	38	3.52%	15
		319		426

Q8. Education Level				
	U.S.		Germany	
Answer Options	Response Percent	Response Count	Response Percent	Response Count
High School/*Hochschulreife*	0%	0	5.87%	25
Bachelor's Degree	11.91%	38	3.05%	13
Master's Degree	33.54%	107	41.55%	177
PhD/Doctorate	47.96%	153	42.72%	182
Other	6.58%	21	6.81%	29
		319		426

Q9. "In general, I am willing to take risks"				
	U.S.		Germany	
Answer Options	Response Percent	Response Count	Response Percent	Response Count
I strongly agree	12.79%	38	5.87%	24
I agree	41.41%	123	43.77%	179
I rather agree	27.61%	82	34.47%	141
I rather disagree	15.48%	43	11.49%	47
I disagree	3.03%	9	2.69%	11
I strongly disagree	0.67%	2	0.98%	4
I don't know	0%	0	0.73%	3
		297		409

Q10. "In order to achieve high gains, I am willing to accept high possible losses."

	U.S.		Germany	
Answer Options	Response Percent	Response Count	Response Percent	Response Count
I strongly agree	2.36%	7	0.24%	1
I agree	25.93%	77	9.29%	38
I rather agree	29.63%	88	23.72%	97
I rather disagree	23.91%	71	36.43%	149
I disagree	13.47%	40	21.27%	87
I strongly disagree	3.70%	11	7.82%	32
I don't know	1.01%	3	1.22%	5
		297		409

Q11. "I am willing to bear the costs of preventive action in order to mitigate risks."

	U.S.		Germany	
Answer Options	Response Percent	Response Count	Response Percent	Response Count
I strongly agree	18.52%	55	10.02%	41
I agree	47.14%	140	46.45%	190
I rather agree	26.94%	80	36.43%	149
I rather disagree	4.71%	14	3.91%	16
I disagree	0.67%	2	1.22%	5
I strongly disagree	0%	0	0%	0
I don't know	2.02%	6	1.96%	8
		297		409

Q12. Most frequently rated one of the top five global risks (U.S. Responses)

The collapse of the financial system			
Answer Options	Response Count	Percent from total (1380)	Weighted response count
1 (greatest risk)	27	1.96%	135
2	31	2.25%	124
3	18	1.30%	54
4	16	1.16%	32
5	19	1.38%	19
	111	8.04%	364
Public debt			
Answer Options	Response Count	Percent from total (1380)	Weighted Response count
1 (greatest risk)	23	1.67%	115
2	15	1.09%	60
3	11	0.80%	33
4	14	1.01%	28
5	11	0.80%	11
	74	5.36%	247
Macroeconomic imbalances			
Answer Options	Response Count	Percent from total (1380)	Weighted Response count
1 (greatest risk)	12	0.87%	60
2	17	1.23%	68
3	15	1.09%	45
4	20	1.45%	40
5	13	0.94%	13
	77	5.58%	226
Severe income disparities			
Answer Options	Response Count	Percent from total (1380)	Weighted Response count
1 (greatest risk)	23	1.67%	115
2	13	0.94%	52
3	18	1.30%	54
4	20	1.45%	40
5	15	1.09%	15

	89	6.45%	276
Unemployment			
Answer Option	Response Count	Percent from total (1380)	Weighted response count
1 (greatest risk)	15	1.09%	75
2	14	1.01%	56
3	15	1.09%	45
4	19	1.38%	38
5	9	0.65%	9
	72	5.22%	223
Climate change			
Answer Options	Response Count	Percent from total (1380)	Weighted response count
1 (greatest risk)	59	4.28%	295
2	35	2.54%	140
3	27	1.96%	81
4	20	1.45%	40
5	18	1.30%	18
	159	11.52%	574
Pandemics			
Answer Options	Response Count	Percent from total (1380)	Weighted response count
1 (greatest risk)	7	0.51%	35
2	7	0.51%	28
3	11	0.80%	33
4	17	1.23%	34
5	17	1.23%	17
	59	4.28%	147
Natural disasters			
Answer Options	Response Count	Percent from total (1380)	Weighted response count
1 (greatest risk)	8	0.58%	40
2	15	1.09%	60
3	6	0.43%	18
4	16	1.16%	32
5	21	1.52%	21
	66	4.78%	171

Environmental pollution			
Answer Options	Response Count	Percent from total (1380)	Weighted response count
1 (greatest risk)	4	0.29%	20
2	18	1.30%	72
3	15	1.09%	45
4	10	0.72%	20
5	14	1.01%	14
	61	4.42%	171
Proliferation of Space Debris ("Space Waste")			
Answer Options	Response Count	Percent from total (1380)	Weighted response count
1 (greatest risk)	0	0.00%	0
2	1	0.07%	4
3	1	0.07%	3
4	2	0.14%	4
5	1	0.07%	1
	5	0.36%	12
Supply shortage of energy resources			
Answer Options	Response Count	Percent from total (1380)	Weighted response count
1 (greatest risk)	5	0.36%	25
2	8	0.58%	32
3	9	0.65%	27
4	8	0.58%	16
5	16	1.16%	16
	46	3.33%	116
Supply shortage of agricultural resources			
Answer Options	Response Count	Percent from total (1380)	Weighted response count
1 (greatest risk)	4	0.29%	20
2	5	0.36%	20
3	8	0.58%	24
4	3	0.22%	6
5	12	0.87%	12
	32	2.32%	82

Supply Shortage of Non-Energetic Mineral and Metal Resources			
Answer Options	Response Count	Percent from total (1380)	Weighted response count
1 (greatest risk)	0	0.00%	0
2	1	0.07%	4
3	2	0.14%	6
4	3	0.22%	6
5	3	0.22%	3
	9	0.65%	19
Water shortage			
Answer Options	Response Count	Percent from total (1380)	Weighted response count
1 (greatest risk)	12	0.87%	60
2	23	1.67%	92
3	21	1.52%	63
4	22	1.59%	44
5	18	1.30%	18
	96	6.95%	277
Extreme Price Volatility of Raw Materials			
Answer Options	Response Count	Percent from total (1380)	Weighted response count
1 (greatest risk)	1	0.07%	5
2	2	0.14%	8
3	4	0.29%	12
4	2	0.14%	4
5	3	0.22%	3
	12	0.87%	32
Terrorism			
Answer Options	Response Count	Percent from total (1380)	Weighted response count
1 (greatest risk)	18	1.30%	90
2	20	1.45%	80
3	30	2.17%	90
4	23	1.67%	46
5	20	1.45%	20
	111	8.04%	326

Proliferation of weapons of mass destruction			
Answer Options	Response Count	Percent from total (1380)	Weighted response count
1 (greatest risk)	32	2.32%	160
2	26	1.88%	104
3	18	1.30%	54
4	19	1.38%	38
5	20	1.45%	20
	115	8.33%	376
Proliferation of conventional weapons			
Answer Options	Response Count	Percent from total (1380)	Weighted response count
1 (greatest risk)	6	0.43%	30
2	2	0.14%	8
3	11	0.80%	33
4	11	0.80%	22
5	14	1.01%	14
	44	3.19%	107
Cyber attacks			
Answer Options	Response Count	Percent from total (1380)	Weighted response count
1 (greatest risk)	11	0.80%	55
2	17	1.23%	68
3	30	2.17%	90
4	20	1.45%	40
5	18	1.30%	18
	96	6.96%	271
The weaponization of space			
Answer Options	Response Count	Percent from total (1380)	Weighted response count
1 (greatest risk)	1	0.07%	5
2	2	0.14%	8
3	2	0.14%	6
4	7	0.51%	14
5	7	0.51%	7
	19	1.38%	40

Other (please specify below)			
Answer Options	Response Count	Percent from total (1380)	Weighted response count
1 (greatest risk)	8	0.58%	40
2	4	0.29%	16
3	4	0.29%	12
4	4	0.29%	8
5	7	0.51%	7
	27	1.96%	83

Q12. Most frequently rated one of the top five global risks (German Responses)

The collapse of the financial system			
Answer Options	Response count	Percent from total (1880)	Weighted response count
1 (greatest risk)	45	2.39%	225
2	34	1.81%	136
3	33	1.76%	99
4	23	1.22%	46
5	29	1.54%	29
	164	8.72%	535
Public debt			
Answer Options	Response count	Percent from total (1880)	Weighted response count
1 (greatest risk)	19	1.01%	95
2	36	1.91%	144
3	13	0.69%	39
4	20	1.06%	40
5	16	0.85%	16
	104	5.53%	334
Global macroeconomic imbalances			
Answer Options	Response count	Percent from total (1880)	Weighted response count
1 (greatest risk)	23	1.22%	115
2	28	1.49%	112
3	22	1.17%	66
4	21	1.12%	42

5	24	1.28%	24
	118	6.28%	359
Severe income disparities			
Answer Options	Response count	Percent from total (1880)	Weighted response count
1 (greatest risk)	17	0.90%	85
2	26	1.38%	104
3	31	1.65%	93
4	24	1.28%	48
5	26	1.38%	26
	124	6.60%	356
Unemployment			
Answer Options	Response count	Percent from total (1880)	Weighted response count
1 (greatest risk)	7	0.37%	35
2	14	0.74%	56
3	17	0.90%	51
4	12	0.64%	24
5	14	0.74%	14
	64	3.40%	180
Climate change			
Answer Options	Response count	Percent from total (1880)	Weighted response count
1 (greatest risk)	89	4.73%	445
2	41	2.18%	164
3	36	1.91%	108
4	34	1.81%	68
5	18	0.96%	18
	218	11.60%	803
Pandemics			
Answer Options	Response count	Percent from total (1880)	Weighted response count
1 (greatest risk)	8	0.43%	40
2	14	0.74%	56
3	17	0.90%	51
4	14	0.74%	28
5	25	1.33%	25

	78	4.15%	200
Natural disasters			
Answer Options	Response count	Percent from total (1880)	Weighted response count
1 (greatest risk)	9	0.48%	45
2	14	0.74%	56
3	14	0.74%	42
4	19	1.01%	38
5	16	0.85%	16
	72	3.83%	197
Environmental pollution			
Answer Options	Response count	Percent from total (1880)	Weighted response count
1 (greatest risk)	20	1.06%	100
2	18	0.96%	72
3	30	1.60%	90
4	18	0.96%	36
5	19	1.01%	19
	105	5.59%	317
Proliferation of space debris (“space waste”)			
Answer Options	Response count	Percent from total (1880)	Weighted response count
1 (greatest risk)	0	0.00%	0
2	1	0.05%	4
3	1	0.05%	3
4	3	0.16%	6
5	2	0.11%	2
	7	0.37%	15
Supply shortage of energy resources			
Answer Options	Response count	Percent from total (1880)	Weighted response count
1 (greatest risk)	8	0.43%	40
2	13	0.69%	52
3	20	1.06%	60
4	16	0.85%	32
5	15	0.80%	15
	72	3.83%	199

Supply shortage of agricultural resources			
Answer Options	Response count	Percent from total (1880)	Weighted response count
1 (greatest risk)	6	0.32%	30
2	13	0.69%	52
3	14	0.74%	42
4	14	0.74%	28
5	14	0.74%	14
	61	3.24%	166
Supply shortage of non-energetic mineral and metal resources			
Answer Options	Response count	Percent from total (1880)	Weighted response count
1 (greatest risk)	1	0.05%	5
2	3	0.16%	12
3	2	0.11%	6
4	6	0.32%	16
5	8	0.43%	8
	20	1.06%	47
Water shortage			
Answer Options	Response count	Percent from total (1880)	Weighted response count
1 (greatest risk)	17	0.90%	85
2	34	1.81%	136
3	24	1.28%	72
4	34	1.81%	68
5	36	1.91%	36
	145	7.71%	397
Extreme price volatility of raw materials			
Answer Options	Response count	Percent from total (1880)	Weighted response count
1 (greatest risk)	3	0.16%	15
2	3	0.16%	12
3	5	0.27%	15
4	10	0.53%	20
5	11	0.59%	11
	32	1.70%	73

Terrorism			
Answer Options	Response count	Percent from total (1880)	Weighted response count
1 (greatest risk)	21	1.12%	105
2	30	1.60%	120
3	42	2.23%	126
4	38	2.02%	76
5	26	1.38%	26
	157	8.35%	453
Proliferation of weapons of mass destruction			
Answer Options	Response count	Percent from total (1880)	Weighted response count
1 (greatest risk)	47	2.50%	235
2	32	1.70%	128
3	25	1.33%	75
4	35	1.86%	70
5	30	1.60%	30
	169	8.99%	538
Proliferation of conventional weapons			
Answer Options	Response count	Percent from total (1880)	Weighted response count
1 (greatest risk)	7	0.37%	35
2	5	0.27%	20
3	8	0.43%	24
4	13	0.69%	26
5	9	0.48%	9
	42	2.23%	114
Cyber attacks			
Answer Options	Response count	Percent from total (1880)	Weighted response count
1 (greatest risk)	17	0.90%	85
2	12	0.64%	48
3	19	1.01%	57
4	17	0.90%	34
5	31	1.65%	31
	96	5.11%	255

The weaponization of space			
Answer Options	Response count	Percent from total (1880)	Weighted response count
1 (greatest risk)	1	0.05%	5
2	2	0.11%	8
3	2	0.11%	6
4	3	0.16%	6
5	4	0.21%	4
	12	0.64%	29
Other			
Answer Options	Response count	Percent from total (1880)	Weighted response count
1 (greatest risk)	11	0.59%	55
2	3	0.16%	12
3	1	0.05%	3
4	2	0.11%	4
5	3	0.16%	3
	20	1.06%	77

Q13. Greatest global economic and financial risk				
	U.S.		Germany	
Answer Options	Response Percent	Response Count	Response Percent	Response Count
The collapse of the financial system	30.51%	83	37.97%	142
Public debt	16.54%	45	20.32%	76
Global macroeconomic imbalances	17.28%	47	17.38%	65
Severe income disparities	22.06%	60	17.38%	65
Unemployment	10.66%	29	5.88%	22
Other	2.94%	8	1.07%	4
		272		374

Q14. Greatest global environmental and health risk				
	U.S.		Germany	
Answer Options	Response Percent	Response Count	Response Percent	Response Count
Climate change	53.31%	145	58.29%	218
Pandemics	18.38%	50	12.57%	47
Natural disasters	12.13%	33	9.89%	37
Environmental pollution	13.97%	38	17.91%	67
Proliferation of space debris ("space waste")	0%	0	0.27%	1
Other	2.21%	6	1.07%	4
		272		374

Q15. Greatest global resource risk				
	U.S.		Germany	
Answer Options	Response Percent	Response Count	Response Percent	Response Count
Supply shortage of energy resources	22.06%	60	22.46%	84
Supply shortage of agricultural resources	9.56%	26	12.57%	47
Supply shortage of non-energetic mineral and metal resources	1.47%	4	4.81%	18
Water shortage	58.09%	158	50.53%	189
Extreme price volatility of raw materials	6.99%	19	9.09%	34

Other	1.84%	5	0.53%	2
		272		374

Q16. Greatest global new security risk

	U.S.		Germany	
Answer Options	Response Percent	Response Count	Response Percent	Response Count
Terrorism	20.59%	56	29.68%	111
Proliferation of weapons of mass destruction	33.82%	92	37.43%	140
Proliferation of conventional weapons	6.99%	19	8.02%	30
Cyber attacks	32.72%	89	20.59%	77
The weaponization of space	1.84%	5	0.27%	1
Other	4.04%	11	4.01%	15
		272		374

Q17. Trust in information sources about the above mentioned risk				
	U.S.		Germany	
Answer Options	Response Percent	Response Count	Response Percent	Response Count
Official government publications				
Very trustworthy	4.80%	13	4.02%	15
Mostly trustworthy	38.01%	103	31.90%	119
Sometimes trustworthy	44.65%	121	45.31%	169
Less trustworthy	9.23%	25	14.21%	53
Untrustworthy	3.32%	9	3.75%	14
I don't know	0%	0	0.8%	3
		271		373
The media	Response Percent	Response Count	Response Percent	Response Count
Very trustworthy	1.11%	3	1.34%	5
Mostly trustworthy	20.3%	55	15.28%	57
Sometimes trustworthy	47.23%	128	53.62%	200
Less trustworthy	23.25%	63	22.52%	84
Untrustworthy	8.12%	22	7.24%	27
I don't know	0%	0	0%	0
		271		373
Scientific publications	Response Percent	Response count	Response percent	Response count
Very trustworthy	25.46%	69	13.71%	51
Mostly trustworthy	61.99%	168	62.37%	232
Sometimes trustworthy	11.07%	30	22.31%	83
Less trustworthy	1.11%	3	0.81%	3
Untrustworthy	0%	0	0.27%	1
I don't know	0.37%	1	0.54%	2
		271		372
Personal experience/research	Response percent	Response count	Response percent	Response count
Very trustworthy	22.51%	61	20.91%	78
Mostly trustworthy	45.39%	123	47.72%	178
Sometimes trustworthy	23.25%	63	16.89%	63
Less trustworthy	5.54%	15	1.88%	7
Untrustworthy	0.74%	2	1.61%	6
I don't know	2.58%	7	10.99%	41
		271		373

Other	Response percent	Response count	Response percent	Response count
Very trustworthy	4.17%	2	20.69%	12
Mostly trustworthy	14.58%	7	24.14%	14
Sometimes trust-worthy	22.92%	11	6.9%	4
Less trustworthy	12.5%	6	3.45%	2
Untrustworthy	12.5%	6	5.17%	3
I don't know	33.33%	16	39.66%	23
		48		58

Q18. "..., the government should ban the technology."	U.S.		Germany	
Answer Options	Response Percent	Response Count	Response Percent	Response Count
I strongly agree	3.02%	8	6.28%	23
I agree	6.42%	17	9.56%	35
I rather agree	15.47%	41	21.58%	79
I rather disagree	24.91%	66	29.23%	107
I disagree	27.17%	72	20.22%	74
I strongly disagree	17.74%	47	9.29%	34
I don't know	5.28%	14	3.83%	14
		265		366

Q19. "..., the government should implement precautionary regulations."	U.S.		Germany	
Answer Options	Response Percent	Response Count	Response Percent	Response Count
I strongly agree	27.17%	72	24.59%	90
I agree	32.08%	85	38.25%	140
I rather agree	24.91%	66	26.5%	97
I rather disagree	9.06%	24	6.01%	22
I disagree	3.02%	8	2.46%	9
I strongly disagree	0.75%	2	1.37%	5
I don't know	3.02%	8	0.82%	3
		265		366

Q20. "..., the opponents of the technology have to prove that the technology is risky."

	U.S.		Germany	
Answer Options	Response Percent	Response Count	Response Percent	Response Count
I strongly agree	12.45%	33	5.74%	21
I agree	27.17%	72	21.04%	77
I rather agree	25.28%	67	19.95%	73
I rather disagree	15.09%	40	20.49%	75
I disagree	11.32%	30	19.13%	70
I strongly disagree	6.79%	18	11.48%	42
I don't know	1.89%	5	2.20%	8
		265		366

Q21. "..., the proponents of the technology have to prove that the technology is not risky."

	U.S.		Germany	
Answer Options	Response Percent	Response Count	Response Percent	Response Count
I strongly agree	18.11%	48	20.77%	76
I agree	37.98%	98	39.07%	143
I rather agree	24.15%	64	25.68%	94
I rather disagree	11.66%	31	7.38%	27
I disagree	5.7%	15	3.55%	13
I strongly disagree	1.51%	4	2.19%	8
I don't know	1.89%	5	1.37%	5
		265		366

Q22. "..., preventive measures must be taken in order to mitigate risks, even if these measures are costly."

	U.S.		Germany	
Answer Options	Response Percent	Response Count	Response Percent	Response Count
I strongly agree	18.11%	48	15.57%	57
I agree	37.98%	98	41.53%	152
I rather agree	24.15%	64	30.60%	112
I rather disagree	11.7%	31	8.47%	31
I disagree	5.66%	15	2.19%	8
I strongly disagree	1.51%	4	0.27%	1
I don't know	1.89%	5	1.37%	5
		265		366

Q23. "..., the government should discuss the pros and cons of the technology with direct stakeholders.

	U.S.		Germany	
Answer Options	Response Percent	Response Count	Response Percent	Response Count
I strongly agree	36.60%	97	31.15%	114
I agree	38.49%	102	42.90%	157
I rather agree	15.47%	41	15.30%	56
I rather disagree	3.77%	10	4.64%	17
I disagree	2.64%	7	2.19%	8
I strongly disagree	1.13%	3	2.19%	8
I don't know	1.89%	5	1.64%	6
		265		366

Q24. "..., the government should open a discussion of the pros and cons of the technology to the public".

	U.S.		Germany	
Answer Options	Response Percent	Response Count	Response Percent	Response Count
I strongly agree	43.4%	115	40.98%	150
I agree	33.21%	88	40.16%	147
I rather agree	15.85%	42	12.57%	46
I rather disagree	3.4%	9	3.28%	12
I disagree	1.51%	4	1.64%	6
I strongly disagree	1.13%	3	0.27%	1
I don't know	1.5%	4	1.09%	4
		265		366