

Brad DeLong & Sean Speer:

How the long 20th century transformed the world:

Economist Brad DeLong on how we got rich and what comes next:

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SEAN SPEER: Welcome to Hub Dialogues. I'm your host, Sean Speer, editor-at-large at *The Hub*. I'm honoured to be joined today by J. Bradford DeLong, a well-known economic historian and professor at the University of California Berkeley who served as a senior official in the U.S. Treasury Department and is responsible for the widely read economics blog, *Brad DeLong's Grasping Reality*.

He's also the author of the fascinating new book, *Slouching Towards Utopia: An Economic History of the Twentieth Century*, which challenges conventional narratives about the economic story of the past 150 years or so. I'm grateful to speak with him about the book, including what he calls the "long 20th century," the factors that produced significant economic growth over this period, and why it ultimately failed to produce the utopia that some had anticipated. Brad, thanks for joining us at Hub Dialogues. Congratulations on the book.

BRAD DeLONG: Thank you for inviting me. It's a great pleasure. I don't know whether to be congratulated writing it. Certainly, I'm blessed, that when you write a book, you discover how many friends you have and also how many friends the book has. It is more than you would've imagined possible in terms of people who take your arguments seriously, who write in earnestly, and who ask their friends to read about it as well.

SEAN SPEER: Well, as listeners will learn, I think that's for good reason. There's a ton of insight in the book. I want to get into it right away. You argue that what you call the "long 20th century," which ran from roughly 1870 to 2010, was fundamentally marked by economics. It was in your words, an era in which the

“economy was the dominant arena of events and changes, and economic changes were the driving force behind other changes in a way never seen before.” Let’s start with a two-part question. First, why have you chosen 1870 and 2010 as the beginning and endpoints of your story? Second, why do you think it’s important to ultimately understand this era of great wars, grand ideologies, and massive social change through the lens of economics?

BRAD DeLONG: Well, let me answer just half of your first question and the question of why 1870. Let me start with the tent pole of that being, say, something written by British moral philosopher and economist John Stuart Mill and his *Principles of Political Economy*. First edition written in the 1840s, last edition written in the 1870s. Even in the 1870s, Mill is saying that all of the mechanical inventions up to this day, and he admits that they were mighty and important, have not lightened the day’s toil of a single human being. That is, they have rather allowed a great many more people to live on the earth, but to live the same life of drudgery and imprisonment. He goes on to say that, yes, well our rich in 1870 are vastly richer than the richer of 1770, the year 1000, or say minus 3000 or so back when the principal thing you got to do if you were rich was eat meat and drink beer in large quantities.

Up until 1870, at least since we discovered agriculture and moved from towns to the cities, in minus 6,000 or so, human life for most people had been the same old, same old. By the sweat of your brow, you shall earn your bread. Then the thugs with spears come along and they take a good chunk of it for themselves and in the meantime, one-third of families wind up without surviving sons, which causes great social anxiety if you’re, say, a middle-aged woman in an agrarian society without a surviving son who is going to advocate for you.

Technological advances, yes, but offset by rising populations, which means smaller farm sizes and worse raw materials from which you can make your crafts. That not static but rather long history in which people are always poor, or the bulk of people are always poor, and governance and politics are mostly about how can an elite manage to grab enough for itself and elbow competing elites out of the way. That really is history up until 1870, and it is only after 1870 that there’s the possibility of history being something different. It comes into view.

SEAN SPEER: You attribute the rise of sustained economic growth and progress to three key developments: globalization, the industrial resource laboratory, and the modern corporation. You write, “They unlocked the gate that had previously kept

humanity in dire poverty.” What’s their significance and how do they effectively interact together to set off the story of growth at the heart of your book?

BRAD DeLONG: Well, if I had to write it over again, I would not say they were the keys to unlock the lock, I would say that there either were 30 locks and you had to unlock each one as time passed and as civilization advanced and people got better at figuring out how to cooperatively work together and discover things. But unlocking the first 27 of the locks or so made a big difference. That by, what is it, near -1000, there are maybe 50 million people on the earth and by 1500 there are 500 million and so your average farm size is only one-10th as large in 1500, notionally, as it was in -1000, and yet people are still eating enough in 1500. Better technology matters a lot.

But up until 1870, better technology did not matter enough. Technology was improving, but only slowly. However, around 1870 with the coming of the industrial research lab, which means you can take science and then you can rationalize and routinize the discovery and development of ways to apply science to be more productive and cooperative. Then the development of the modern corporation, so you can rationalize and routinize developing and deploying useful ingenious technological ideas in the context of the global market economy in which the incentives are absolutely enormous to do this and the incentives are also enormous to take a look around and copy what’s being made elsewhere, and so you deploy and diffuse modern technologies.

Basically, we’ve had as much proportional technological progress since 1870 as we had between -6,000 and the year 1870 that back in the old days, you could expect humans on average to get 5 percent better at producing things over the course of a century, and we get that amount of technological change every two years. Every generation since 1870, humanity has gotten twice as good at working together cooperatively to organize ourselves and to manipulate nature. That means that each generation really is a different society with much greater possibilities for making us all wealthier.

SEAN SPEER: The notion of American exceptionalism looms large in your history. What’s its role in your understanding of this unique era of economic growth and technological progress? What explains the oversized place of the United States in catalyzing these economic developments? Perhaps more importantly, what’s happened? Why does it feel like America has come to flinch in the face of slowing productivity, stagnant living standards, and sluggish economic growth?

BRAD DeLONG: Well, of course, it was luck. That is the luck of having a continent-scale market and the luck of having the extraordinary river system that North America has. The St. Lawrence and the Great Lakes, the cut off from the St. Lawrence to the Hudson, that is the Erie Canal that lets you avoid unpleasantness, like the fact that the Niagara Falls are rather hostile to boats. Plus the fact that Canada is far enough north that the mouth of St. Lawrence is ice-bound for a depressingly large chunk of the year. The Mississippi, Missouri, Ohio, the Colorado, the Columbia, the Sacramento—lots of wonderful rivers.

On top of these wonderful rivers, we managed to have built railroads by 1870. This means that if it's worth spending money to figure out how engineers can be deployed to invent it, the benefits from deploying it in the continent of North America they're two, three, four times as large as the benefits to deploying it in Europe, especially a Europe that is very interested in friend shoring.

That is, the Germans in 1870 are as uninterested in having key components of their economy made in France as the French are interested in having key components of their economy made in Germany in a way that absolutely dwarfs China and the U.S.'s worries about strategic interdependence and possible weaponization today. After 1870, then the leading industrial countries, the United States, especially its northeast and to some degree its midwest, Britain, and Germany—Germany has the educational system to create engineers in mass but doesn't really have the capital or the continent-sized market. Britain really doesn't have the educational system, and too many smart Britons who ought to have begun becoming engineers are instead learning to translate Greek verse and to write ballad poems which the Romans would've written if the Romans had been Scots.

Only in Scotland did you have a real engineering education tradition and indeed it shows. So much so that when Gene Roddenberry needed a chief engineer for his starship in the 24th century, what does he do? He picks up on the trope and the stereotype of a Scottish engineer. The United States had the educational system, had the continent-wide scale, had the background in terms that they had the enormous natural resources of the North American continent spread over a very small population, and so the idea that you would need to depress labour productivity in order to save on resources just wasn't a thing.

That rocket was lit in 1870, reinforced by the fact that America welcomed immigrants from Europe, at least, in a way that no one else did, and that pulled forward the United States so that it was close to being half a generation ahead of

the richest and most sophisticated other industrial countries for most of the 20th century. It was the place where the big action was happening. It was, as Leon Trotsky like to say, the furnace where the future was being forged.

SEAN SPEER: We've been speaking mostly so far, Brad, about the beginnings of the long 20th century that you outlined in the book. I want to talk a bit about the developments that, in your view, came together in the early 2000s to bring an end to the long 20th century. What are they?

BRAD DeLONG: First, it may actually not have ended that is, Larry Summers, for example, thinks that my book ends with a huge mistake. That I should simply say the same story continues, that humanity keeps getting twice as wealthy every generation as it was the generation before. But this process of Schumpeterian creative destruction creates enormous social, political, psychological, cultural stresses. That if I wanted to become an orthodox Marxist for a second, I would say the forces of production are being transformed every generation, which means the relations of production and then all of society built on top of it has to be transformed too.

That with this swapping out of our hardware, every generation, we need to frantically rewrite the economic-sociological-political cultural running code of our society every generation so the thing doesn't crash. We have to keep doing this generation after generation and we're not doing too well, and we're doing it yet again right now as we move from the value chain economy into the info-biotech economy worldwide. Books are successful only if they tell a single story that people can grasp, and a story has to have a beginning, a middle, and an end.

In the 20 years after 2000, a bunch of things happen. Adam Tooze might call them a long-running polycrisis. That first in 2001, forms of religious terrorism and war that we thought people really had outgrown after the 30 years war of 1648 suddenly appear to be back on the menu. Come 2003, the United States government ceases to, at least, pretend to be a benevolent cooperative hegemon in the world interested in getting along with everyone and says, "We're going to start acting more like a great power in our own interest."

2007, my friend, John Fernald, who knows more about this than anyone else in the book says that the engine of productivity growth, which has led to a doubling of our human technological competence every 30 years, steps down to only half that pace. My friend Blanc would say that that is largely the consequence of the fact that the neoliberal turn made the large corporations that used to run the industrial

research labs focus much more on their bottom line and much less on blue sky research, and the failure of governments also under neoliberal pressure in order to make every penny count, to pick up the slack.

2008 demonstrates that we have forgotten everything we knew about how to keep financial crises from disrupting the economy. 2010 demonstrates that we have forgotten everything we might have learned about the importance of rapidly returning economies to full employment after a big depression. Then come 2016, we see the rise of anti-democratic movements that Frank Fukuyama had assured us had died in the World War II era with the victory of democracy.

Then 2021 sees the return of major power war to the European continent, with people thinking that the way to make their country great is not through soft power but through hard power, that you want to convince the Ukrainians that they actually are not a separate nation but instead merely an ethnicity of the Great Russia. The soft power way would be to fund a bunch of ballet troops to give performances in Kyiv and Odesa, have poets reading the works of Pushkin in town squares in Kharkiv and the Donbass. Have people playing the music of Tchaikovsky and Lviv and so forth, but not to send killer robots to stock the skies looking for people to kill and things to blow up.

All of these things together mean that, come 2020, we're no longer in a situation in which the problem is using our rapidly increasing wealth. That our wealth is doubling every generation, we simply have to figure out how to equitably distribute it and also properly utilize it. Instead, we seem to have bigger problems with running our society, plus global warming is now a civilization-shaking threat.

There is always the fear that nuclear proliferation will attain critical mass. That George W. Bush said there were three countries that were an axis of evil, and the one that the United States steps most gingerly around is North Korea, the one with nuclear weapons. The one that did not have any nuclear weapons program, Iraq, we overthrew the regime in two weeks in 2003. Iran is stepping gingerly and very much wondering how rapidly it should attempt to advance its nuclear program, or if it shouldn't, what it can possibly get in return for not going nuclear.

All of these things seem to me to make 2010 really a good cutoff point, to say that the story from 1870 to 2010 was that humanity ceased being the poor society of largely peasants and craftsmen, where governance overwhelmingly was of the elite figuring out how to run its force and fraud, domination, and exploitation game over others and keep its own share. Instead, the possibility of building a true utopia

came into view because we doubled our collective wealth every generation. By 2010, though, it was clear that simply doubling our wealth every generation was not enough. Then we had to face the problems of the 21st century, which were, in some ways, bigger than that of simply we are getting the wealth, we have to figure out how to distribute and utilize it.

SEAN SPEER: That's a comprehensive answer. Brad, I should just say in parenthesis one of my favorite lines in the book is, "The history of the long 20th century cannot be told as a triumphal gallop or a march or even a walk of progress along the road that brings us closer to utopia. It is rather a slouch at best." It seems to me that that comprehensive answer in a way helps to elaborate on that central insight in the book.

BRAD DeLONG: Do note that that thought is not original. It was stolen from William Butler Yeats. His poem "The Second Coming", which is his reaction to having grown up in a relatively peaceful Ireland getting richer and richer.

Then boom. Along comes the British Tory Party's decision that it's going to partner with terrorists in Northern Ireland to prevent Irish self-rule.

Boom. Along comes World War I, the Easter Rebellion, and then the post-World War I semi-settlement. Then it truly looks as if the centre cannot hold, the falcon cannot heal to hear the falconer, and that there is some rough beast slouching towards Bethlehem to be born rather than a Messiah who will lead us into a prosperous and happy new Jerusalem.

Steal from the best always. I've stolen from Yeats here and I am proud of it.

SEAN SPEER: You set up the book in the way as a dialogue between two Vienna-born thinkers: Free market economist Friedrich Hayek and the moral philosopher Karl Polanyi, who incidentally spent his later years in Canada.

BRAD DeLONG: He did. Karl Polanyi's wife had been one of Lenin's followers when Lenin had only five followers in Zurich in 1916. And so, the FBI and the CIA were extremely averse to having her in the country for long, which is why Karl Polanyi eventually left Bennington College in Vermont and Columbia University in New York for Canada.

SEAN SPEER: Exactly. As I understand it, he lived out his life in Pickering, Ontario of all places. My question for you is what's the significance of these two

intellectuals to your story? How do they represent competing conceptions of how to think about political economy?

BRAD DeLONG: We are right now 8 billion of us. We have to figure out how to cooperate somehow. A command and control military top-down organization—well, you’ve worked for command and control organizations with a boss who tells people what they have to do or what they should be doing. By the time the span of control gets not very large, the boss is pretty much clueless as to an awful lot of what is happening in the organization. A lot of the organization’s time is spent evading either the instructions of the boss and doing something else that would be a better thing to do, and then trying to get the boss not to realize exactly how little of the actual running of the organization he is doing.

Having a single mind at the top and turning everyone else into robots doesn’t work. The next stage was to write a rule book, to have a bureaucracy, and have someone write down what we’re going to do in every situation. You’ve worked for bureaucracies and the rule book covers only a third of cases, and even in the cases it covers, the rule book is often not the right thing to do.

There is all of this papering over of what is being done. There’s also the possibility of organizing things in a market. Give people control over resources. Make them their property and say, you decide what to do with this. Then also, provide people with incentives. You use this resource productively and you will get a form of social power to accomplish your other purposes. We call it money but it really is social power. It’s the power to command the attention of people and to get things you might need for your other purposes. Provided you can rig the marketplace and rig prices so that prices are in accord with social values, all of a sudden, when you have a market, you have managed to crowdsource the solution to every possible social problem that the market can handle.

We need to move away from carbon energy and use more solar power? Give people a way to make money by installing and then running solar panels. We need people in Toronto to have eggs? Have people in Toronto buy eggs and thus give whoever gets the eggs to Toronto money that they can then distribute to induce other people to raise half chickens and then ship the eggs to Toronto.

That the properly structured market under the right conditions is a way of turning us from a command and control organization in which there is one person who says what we should do and everyone else obeys in a complicated ant-like fashion that’s not very useful. Or alternatively, a rule-bound bureaucracy in which we are all

software bots that respond automatically to situations, which once again doesn't—harnessing all 8 billion of our brains towards solving social problems can be wonderfully, wonderfully productive in terms of creating cooperation and wealth, provided prices are in accord with social values. That's the first problem.

The second problem is as your Friedrich von Hayek who sang this song of the excellences of the market as a crowdsourcing device, and thus a superior form of socialization, the loudest, as Hayek said, "The market can make us rich. It cannot be fair." That fairness means you give resources to people who deserve them in some sense or who would benefit from them in some sense. The market gives wealth, gives social power to those who happen to control resources that are both scarce and valuable. We can ask the market to make us rich, said Hayek, we cannot ask the market for social justice. It can't do that.

If we try to make it do that, Hayek said well, then we destroy its ability to do what it can do. And it will make us poor and put us on the road to fiefdom where we have neither wealth nor social justice. The opposite pole to Friedrich von Hayek is Karl Polanyi who says, "Well, yes markets are nice, markets are very productive, but markets are tremendously inhuman." In a market economy, the only rights that are recognized are property rights. If you don't have property rights, you have no social power at all. The market literally does not see you if you cannot wave cash and offer to buy some.

Polanyi said people will not stand for a society in which the only rights that count are property rights. That people think they have property have a right to an income commensurate with how hard they work and what they deserve. People think that they have a right to stability. That their life will not be totally overturned simply becomes some rootless cosmopolite financier 3000 miles away decides that their life no longer satisfies a maximum profitability test. People feel like they have a right that the community they grew up in and they live in not change or not change too fast.

They'll not be bulldozed once again because the market decides that this particular industry and productive apparatus has actually better moved to Shenzhen and ought to have moved last year. People demand and think they have a right that things be fair. Which means not only that equals be treated equally, but also that moochers who are unequal to you not be able to get away with stuff.

These four forms of resistance to the market's recognition of only property rights will, says Polanyi, mean that if you try to follow what Hayek says we must do and

try to make everything run by the market, you're going to have social explosion after social explosion. That you simply cannot organize a society around the principle that the market giveth, the market taketh away, blessed be the name of the market. Instead, you have to figure out some way to get society to understand that the market was made for man not man for the market.

Most of at least political economy and much, much of governance and much of governance gone wrong in the 20th century is the tension between these two poles. Between the markets attempting to create productivity at the price of demolishing anything you can call society, and then society trying to defend its particular conceptions of justices which may not be very just, and to squelch the market in return.

SEAN SPEER: Let me ask about one particular political economy model and how it fits into your broader story. China's political economy model is a subject that we frequently discuss on this podcast. How does its model of economic development fit in this tension between the relative role of markets and the state in engineering economic progress during the long 20th century? Has China, in a way, learned the same lessons that you're trying to impart about political economy, or is its model flawed in other ways? Maybe to put it concretely, what if anything, should Western policymakers learn from China's experience over the past 40 or 50 years?

BRAD DeLONG: It is absolutely fascinating that they start out from virtually ground zero in 1976 after the cultural revolution, after this Soviet command and control we build big factories, we reinsert the peasantry on the communes, we attempt to create ideological conformity. It's a disaster, it's as much a disaster as it was in the Soviet Union, it robs the country of 80 percent of its potential wealth. Then starting in 1976, Deng Xiaoping who had been one of the principal architects of the Stalinist economy previously back before he'd been purged during the cultural revolution says, "We have to try something else. We can't be capitalists but we can create a situation in which local villages and townships have an interest in letting people start and run businesses." Then they have a kind of extremely close relationship between the growing private sector in China and the local party officials whose protection is needed for the local private sector to run.

Not the same kinds of protection that your property is yours and the king's judges will protect it against others that he had in Britain, but that, while your property is not yours, the party bosses will clear the way for you to use things as if they were yours as long as you are useful and as long as you are producing enough tax revenue for the local township or village budget and provided you'll find enough

jobs for the nephews of party bosses who need jobs badly and haven't done too well out on their own.

From 1976 to 2010, step by step you have the Chinese government stepping away from the plan, creating more and more and more of a modern market economy although with the property rights of entrepreneurs and businessmen—always these strange property rights that depend on your having the right connections with the right people in the government at the right time, or it all can vanish suddenly and instantly as it has for many Chinese tech billionaires and others over the past 10 years or so.

It's absolutely marvelous. It's absolutely wonderful what's happened that they've been able to do this. Now, it's not as great a miracle as one often has heard said, that coastal China's rate of growth after 1976 is very much like Japan's rate of growth after 1950, or South Korea's rate of growth after 1960, or Singapore and Taiwan's after 1960, and Hong Kong's after 1960, or Vietnam's, which starts a decade later than China. Thailand and Indonesia are up there too.

That coastal China has been growing like an East Asian economy in the age of globalization with integration into world trade, a Confucian, very much pro-educational tradition, and a willingness on the part of the developed north to accept the exports of East Asia. First because we wanted to show the communist Chinese that capitalism was much more productive. Then because we thought if we got China into the world economy and helped it grow rich, it would become more democratic.

Right now, we have maybe what, 150 million people in China who live like Spain and maybe another 300 million, maybe 400 million, who live like Poland, and then 900 million in the interior, where it's still a lot like Bolivia, or would rather be a lot like Bolivia if you had a nephew who had moved to Spain and was sending home a bunch of money from Spain to help you live better than people who live in Bolivia. It's the second-largest economy in the world. It's a great technological powerhouse in a bunch of industries, but it's not yet made the transition to a relatively wealthy country. Of course now Xi Jinping has taken what we thought was its trajectory under Deng Xiaoping, Jiang Zemin, and Hu Jintao and transformed it.

Saying we are not, in fact, becoming more like Western Europe and North America. We are following our own path. That if say social democrats wanted the economy to be a combination of Friedrich von Hayek's market with Karl Polanyi's concern for society and for the non-property rights expectations that people have,

as how a good society should run, all of it blessed by John Maynard Keynes's beliefs that if you are clever enough with managing the economy, by having the government pull the right levers, you can maintain full employment and keep income distribution relatively equal. China is saying, no, that's not what we're doing.

We are having Friedrich von Hayek's market, yes, but it is controlled and commanded by a Leninist party, not a shotgun marriage of von Hayek to Polanyi, but a shotgun marriage of von Hayek to Lenin, and the priest, instead of being John Maynard Keynes, the priest is Confucius, the priest is master Kung with the bureaucratic ideas of good governance and right action and orientation. Whether as a ruler over others or being filially pious to your ancestors and to your relatives. Will it work? I can't imagine how, but then I also have been unable to imagine how China could work for 40 years now. At every point, I've said this thing is going to crash in the next decade, and so far I've been wrong for at least 35 of those years.

SEAN SPEER: You mentioned globalization in your answer, and it's something that is present throughout the book. I want to take that up. In particular, how contemporary globalization was communicated to ordinary citizens in advanced economies. The basic premise was that it was a positive sum development in which the likelihood of concentrated losers was mostly deemphasized. In hindsight, had policymakers and opinion leaders instead framed it something like the following: that globalization would reduce global inequality but contribute to higher levels of domestic inequality, I wonder if the public opposition would've been earlier and stronger. Let me ask you this: was it inevitable that hyper-globalization, as you called in the book, would contribute to rising inequality in the U.S., Canada, and elsewhere or could it have been pursued in a way that produced some of the global upsides without some of the domestic downsides?

BRAD DeLONG: It was our choice here in the United States as a country to cut back on the inheritance tax on capital gains taxes and on high-income taxes. It wasn't the opening up of the global market that greatly leveled our tax system from the progressive social democratic one after World War II to the one where right now, as Warren Buffett says, his secretary pays a higher tax rate than he does, and where I, where my income is mostly your standard W2 wage and salary income, pay a much higher tax rate than does my hedge fund principal manager brother.

That was our choice to do that. It was our choice in the 1980s, or Ronald Reagan's, to say, we're going to spend a bunch more money on the Cold War and we're going to cut taxes for the rich as a result. And yes I promised to balance the budget but that's out the window so we're going to borrow a lot of money from abroad and by

borrowing a lot of money from abroad, we have to offer them higher interest rates. Higher interest rates mean a higher value of the dollar.

It was Ronald Reagan who sent American Midwestern manufacturing the first shutdown now signal by saying virtually everything you make can be made cheaper elsewhere precisely because the value of the dollar is so high. I'd say, overwhelmingly, for the United States, globalization has been ill-managed but globalization has not been the principal source of rising inequality. It has been starving education of investment and it has been moving the tax system away from progressive to a much more flatter system that has done it. Globalization's a very easy thing to blame.

You're more likely to win an election if you blame foreigners for whatever is going wrong than if you take big aim at any particular class of domestic people about one-third of whom are likely to vote for you if you kind of leave them alone. I would say that most of the downsides of globalization for the global North have been the result of failures that were overwhelmingly domestically made and that to say that globalization did this to us—no, globalization provided a way to excuse your own failures.

SEAN SPEER: Let me ask you a penultimate question. The book ends with a description of contemporary political economy and with the quotation "A new story which needs a new grand narrative that we do not yet know has begun." In light of that context, I'd be remiss, Brad, if I didn't ask you what you think Canadian policymakers ought to be doing to not only bolster growth in Canada but to create the kind of economic resilience that the country will need in an era of geopolitical uncertainty.

BRAD DeLONG: Can I say something that Chrystia Freeland reacted badly to when I said it to her 20 years ago, back when she was a journalist, long before she became a politician?

SEAN SPEER: Yes. Please.

J. BRADFORD DeLONG: Allow the United States to annex you, turn British Columbia into six states, change the median voter in America from some guy in a pickup truck with a gun rack outside of Nashville to a nurse practitioner in Toronto. It's very much in some ways the Brexit problem in reverse.

I understand why no sane and rational Canadian would want to be part of the United States of America given its extraordinary weirdnesses of all kinds. But an awful lot of what influences and determines what happens in Canada is settled in Washington.

This indeed is something that I did tell Chrystia Freeland. That is that Canada needs to have someone minister level, or maybe two people minister level, who are actually in Washington all the time acting like American senators act saying this concerns us and we're here and we're affected by it too. We know that you don't think about us much, but we're here on this continent with you. We're in a very tight and productive relationship. You need to listen to us and at least take care of what matters to us. In the same way that I think Brexit is going to be a total disaster for the island of Britain precisely because Europe is now going to make Europe's policies without any regard for Britain whatsoever, and that's going to hurt in a bunch of ways.

You know, Mexico and Canada have very long faced this problem of what do you do on the North American continent with I don't know what you want to call us, a paranoid and delusional elephant hopped up on some strange, mind-altering tranquilizers sometimes or not. And so, that's the first and most obvious thing. ¶ Then the natural second stage if you're not going to allow yourself to be annexed by the United States and thus change the median voter determining who actually holds power in Washington into some sensible Canadian who properly roots for *les habitants*, strengthening the political globalization requiring that the global North countries move together on economics, on social policy, on military, and security policy is Canada's best friend and best option. That small countries should be the most pro process, pro international organizations, pro near consensus required for motions, of anyone. Actually, I think Canada has done an amazingly good job of playing its hand over the course of the past 150 years or so. It's a rather nerve-wracking hand to have to play.

SEAN SPEER: Let's wrap up with a question looking forward. If the end of your book is indeed right and the long 20th century is over, what's your sense of what comes next? What's the future state of political economy going to look like?

BRAD DeLONG: Well, if we're smart, we will succeed in fighting global warming very, very quickly and have an economy that's reoriented toward non-carbon energy globally within 20 years and then have a strong sense that the world has the power to do things together coming out of that.

The next is that we are moving from a global value chain mode of production, set of forces of production, and we conspicuously did not rewrite the relations of production, political, economic, social, cultural, running software code of society on top of that hardware to produce a very good outcome over the past generation. Now we have to rewrite our society's—global society's—software again in order to fit with the requirements and the requisites of the info biotech economy that we're rapidly moving into. We need to do that. How do we do that? I have not the slightest idea, but I think all 8 billion of us should be thinking about how to do that starting now or rather starting 10 years ago.

SEAN SPEER: Well, one way to think about the future is to return to the past. In that sense, I strongly recommend to listeners the book *Slouching Towards Utopia: An Economic History of the Twentieth Century*. J. Bradford DeLong, thank you so much for joining us at Hub Dialogues.

BRAD DeLONG: Thank you very much for inviting me.