Looking at the impressive list of those who have given this Graham Memorial Lecture in the past, I cannot help but to feel both honored and humbled. Most of them were great economists like Professor Graham, and ten of them were Nobel Prize winners! I am only a modest practitioner with some academic dispositions, which boil down to my habit of trying to relate what I do to the big picture. Hence the first reason for choosing today’s reality grounded lecture theme: “The Changing Landscape of International Trade.”

My second reason for choosing this topic is of course Professor Graham’s major legacy in international trade, along with his view that economics and international trade matter because of their impact on society, a view that I also share. I am not a believer in free trade merely for ideological reasons. What my experience tells me is that opening trade can be a large benefit to social welfare under a number of conditions. I explored this idea in my book, *The Geneva Consensus*, which I wrote just after I recovered my freedom of speech when I left the position of WTO Director General. The title of the book was a play on the Washington Consensus, according to which, in a nutshell, liberalization of markets works for the fittest, and God will take care of the rest. I think the benefits of open trade are true today and will remain true into the future, but the conditions under which open trade increases welfare are changing. They are changing because the landscape of international trade is changing, which is in turn changing because its shaping factors are changing. These changes are important for understanding both the present and future economics as well as the politics of trade. As we can see, puzzled as some of us may be with the debate about trade in the presidential campaign here in the US this year, these changes – some would say transformations or even revolutions – are those taking place within what I deem the three major shaping factors of international trade: technology, regulation, and culture. Why are they the major shaping factors of international trade? Simply because they impact the trade costs, relative prices, and productivity differences which are and will remain the main drivers of international trade flows.

I will now examine them one by one.
I start with technology. Nothing in human history has so consistently impacted the size and composition of international trade. Why is this so? Because for a long time the main obstacle to the expansion of international trade was distance, or more precisely the cost of distance. These costs have been greatly reduced by successive waves of innovation in transportation systems, which are responsible for successive waves of globalization. For the businesses and exporters who drive international trade, technology has made it cheaper and easier to transport goods, deliver services from a distance, or now transport information and data. Two or three major evolutions have driven globalization over the past 50 years. The first is the invention of the modern shipping container by Mr. McLean, which cut the cost of loading and unloading freight in harbor, thus reducing the costs of transport by sea by a factor of 50. Then it was internet. Today it is 3D printing. Each time, these innovations have cut the cost of trade, thus giving more power to the Ricardo-Schumpeterian theory. I don’t need to expand on that—Professor Graham did a great job of expanding that theory from something that was basically a two country/two sector model to something that was much more sophisticated and complex. But let’s agree for the sake of simplicity and brevity that Ricardian comparative advantage and Schumpeterian destructive creation are the two reasons why trade opening creates efficiencies, which then under certain conditions can translate into social welfare. The reduction of the costs of distance has led to more opportunities for the international division of labor and for specialization, thus unleashing the potential of Ricardo and Schumpeter’s theory. What hampered the international division of labor for a long time was the cost of distance. Add these three technologies and trade becomes much faster and cheaper, paving the way for these global value chains that nowadays define the world economy, moving from what Richard Baldwin called the sort of “made here, sold there” concept of trade to what I dubbed when I was DG of the WTO the “made in the world” concept. The numbers are there if you want to measure this transformation: foreign value added in exports (i.e., what an average country needs to import in order to export) is growing steadily. This ratio was 15 percent twenty years ago. It is 25 percent today and it will be 40 percent twenty years from now. This creates a huge volume of trade as goods or services are made in different places, each place adding a part of the value of the final product. Technology also impacts the composition of trade as it impacts the tradability of production. Take the example of health services. A few ago, everyone thought healthcare was something we got at home. Now we know that Indian doctors can do efficient, long-distance surgery for a relatively low price – an export of services for India and an import of services for the person who needs the surgery outside India. This composition effect on goods and services is all the more obvious when we begin measuring trade using more appropriate indicators for these circumstances. This requires leaving behind old measurements of trade in volumes in favor of the correct measure of trade, which is in value addition. While measuring trade in volumes can be useful for measuring globalization, it makes
no sense in a world of global supply chains if you are looking to find out how trade works and where the benefits of trade occur. The multilocalization of the production of goods and services which results in a higher volume of trade for the same production tells you something about how production systems globalize, but it does not tell you anything about whether it increases your domestic value addition. This is why I launched a push for academics to switch from the old measurement to the new measurement when I was in Geneva. I’m happy to see that this is now the direction we are going in, but I continue to see reputable trade academics comparing trade to GNP, where trade is calculated in volumes but GNP in value addition, which is essentially putting a ratio between apples and oranges.

These considerations matter when we try to interpret what is known as the present trade slowdown, which refers to the fact that trade in volumes is decreasing relative to GNP. The sort of 1 to 2 or 1 to 3 proportion between the growth of the economies and the volumes of trade is now back to parity, maybe even a bit less. And you cannot interpret this change without understanding that the expansion of value chains played a big role in the previous increase in trade in volumes. Again, measuring trade in volumes is sometimes not much more than measuring the fact that production has multilocalized. You have to take this into account if you want to understand why, for instance, slowdown in China or Europe impacts volumes of trade, as these economies were previously huge accelerators of trade growth. On top of that, let’s recognize that technological innovations can also limit the accuracy of these observations. Take the example of 3D printing. If I have a 3D printer in my garage and need to fix something on my car, I can just turn the printer on and print the part I need to fix my car. The part is made using an electronic file from abroad. Have I imported a good (the part) or a service (the blueprint for the part)? Is it a good? Is it a service? I don’t know. The reality is that technology is moving in a direction where the line between goods and services, which fall within different legal and statistical regimes, is becoming blurred. We have to think seriously about this impact. Take another example that illustrates the difficulty of measuring trade. How do we take into account the bewildering amounts of data exchanged every minute of every day? These data are used in the production of goods and services, so they must have some sort of value. They contribute to a value addition process. Do we measure data in trade? No. But do they matter in value addition? Of course. This creates new problems and questions about how we measure trade. All of this makes technology, science, and innovation the first big shaping factor impacting the size and composition of trade. These factors evolve quickly and will continue to do so in the future, and we must make sure we keep in the loop!

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After technology, the second most important shaping factor in my view is regulation. Regulatory dissonance between trading partners creates obstacles to trade. For a long time, distance was the single greatest obstacle to trade. But as we have seen, the costs of distance are shrinking. What is now a major obstacle to trade is regulation, or more precisely the differences between regulatory regimes. Trade has always been regulated and it will continue being regulated, but the purpose as well as the means of doing so are changing. I believe this marks a movement – a transition – from an old world to a new world of trade regulation. The old world was a world where the purpose of trade regulation was to protect producers from foreign competition. The new world of trade is a world where the purpose of regulation is to protect consumers from risk. The old world is one of protection. The new one is one of precaution.

Protection was done through tariffs, subsidies, and local content requirements for public procurement. The purpose was to protect domestic producers from foreign competition. Precaution is about setting standards and norms for packaging, traceability, and the safety of food and financial instruments. Health, environment, sustainability, and even social standards are now potentially part of these precautionary regimes.

A few things will remain the same as we transition from the old world to the new world. Opening trade is always going to be about leveling the playing field between countries. In the old world, this was done by eliminating protective tariffs that prevent businesses from selling their goods in your market. In the new world, this is done by harmonizing precaution. If you have the same precautionary standards, then producers can engage in economies of scale which at the end of the day should translate to benefits for the consumer. That doesn’t change. What doesn’t change either is that there remains a grey zone between protection and precaution, which is the reason why you have TBT and SPS agreements in the WTO, one about Technical Barriers to Trade and one about Sanitary and Phytosanitary measures. They establish that while precaution is a legitimate purpose, you cannot unduly manipulate precaution for the sake of protection. In my view, this is the reason we should also have a similar agreement on services. Another thing that doesn’t change is that new trade arrangements in the new world will be influenced by motivations other than trade and economic considerations, which is obviously true in cases like the TPP and TTIP.

But many things will also change as we move from the old world to the new world. The first thing that changes I have already hinted at: when it comes to opening trade, leveling the playing field remains the name of the game, but the way you level the playing field is very different. In the old world it was simple. You remove the protective measure, generally a tariff. The ideal tariff was zero and until you’ve reached zero, you’ve not finished the job. In the world of precaution it’s totally different. Levelling the playing field is not about getting rid of the measure. Levelling the playing field
is about getting rid of the differences between those measures. Imagine that I am a trade minister and I go to my parliament and say, “ladies and gentlemen it is in our country’s interest to promote trade. Because of that, I believe we should relax our pesticide residue standards at our borders to open the door for more trade in flowers. It would help our consumers and it would be great for African producers.” I would get laughed out of the room. Nobody is going to buy that because the notion of putting the health of citizens at risk by reducing their level of precaution for the sake of improving world trade or even the price of flowers will not pass anywhere. Standards cannot just be reduced the same way we get rid of tariffs. The way we deal with these obstacles to trade in the new world requires a different approach. One reason behind this difference is the fact that the new obstacles to trade – these non-tariff barriers to use WTO jargon – are more connected to what I call collective preferences. Unlike technocratic issues like tariffs, precautionary issues inspire the public’s imagination and dreams, and on the other side of the coin their nightmares. The public’s relationship to GMOs and data privacy is closely linked to their value systems, cultures, and what they consider to be good and bad. In this area, there are some huge fractures across the Atlantic. The US generally supports the death penalty while Europe widely opposes it. That doesn’t really impact the way we trade. But when we consider that Americans support GMOs and Europeans dislike them, or the fact that the two sides have very different concepts of data privacy, we can see how these differences can have major consequences for trade and economic life. The way non-tariff barriers impact trade in the old and new worlds is also very different. The average worldwide trade-weighted tariff is five percent of the cost of a good. By comparison, it costs the average producer wanting to reach out to a global market by conforming to various precautionary regimes roughly 20 percent of the product’s value. Therefore the obstacle to trade stemming from regulatory differences in the world of precaution is four times greater than something like a tariff.

I have already explained how leveling the playing field is politically very different, but it is also technically very different. Dealing with regulatory differences on pesticide residues and car bumpers is not something for trade negotiators. Leveling the field on pesticide regulations requires understanding how they impact human health. Leveling the playing field in car safety equipment means understanding why we have small bumpers on European cars and big ones on US cars, which stems from the fact that crash tests are carried out in a different way on both sides of the Atlantic. Trade negotiators do not know anything about bumpers or pesticides, so they are not qualified to deal with these standards the way they deal with tariffs. Instead, these issues need to be put into the hands of experts and regulators. Meanwhile, the discourse on leveling the playing field cannot be one of negotiation and tradeoff. Safety standards are non-negotiable. Imagine if I went to my parliament and said, “ladies and gentlemen, we are going to make a tradeoff in precaution. We will...
take the US safety standards on lighters and they will take our safety standards on toys.” It would be unacceptable. This is not something we can trade off. The only solution is convergence of precaution via various possible processes, be it harmonization or mutual recognition, or certification. And by the way, the only direction we can go is upwards. Any other direction is not just morally wrong; it is politically impossible. There is no way convergence in precaution can work going downwards. Our experience with TTIP proves this. Look at how German public opinion has turned against these negotiations. Perceptions of downward convergence in that country have put 70% of that country’s population against TTIP. Why is this so? Not because Germany has suddenly become a protectionist country. Germany has long been and will continue being a precautionist country. As we enter the world of precaution, the importance of public attitudes in world trade will require more attention than ever. Another big difference between these two worlds is that in the world of protection standards were public. In the world of precaution, standards can just as easily be private, including along the supply chain. Before, governments would single-handedly decide on anti-dumping procedures and set customs duties at a level of this or that. Today, both public and private authorities are determining the level and administration of precaution. In the private sector, Walmart, Carrefour and Ahold will compete over who has the greenest products. And in order to convince the consumer that their stuff is the greenest, they will set a more stringent pesticide residue standard than the public one. They’ll offer something greener, better, more healthy. If I’m a Rwandan flower exporter and Walmart decides that the level of pesticide residues they sell to their consumers should be more stringent than the public standard, I just have to adjust to the new, more stringent private sector standard. Otherwise I’m not going to sell my roses in their stores, and if I can’t do that I’m effectively back to a system where I had a huge tariff on my roses. What is “fair” trade is paradoxically more easily decided by private entities than by sovereigns!

Finally, another big difference is the way that the relationship between producer and consumer works in the political economies of the two worlds. As I already said, obstacles to trade in the old world were tariffs. When you remove them, you trigger a competitive shock on the economic system. Producers aren’t happy about it, but their consumers sure are. The problem is that, as we all know, the victims of trade opening are usually more vocal than the ones that benefit. Many consumers may not even know they are benefitting from lower prices because of more open trade. In the old world, a trade minister’s main opponents would be the producers who fear competition, while the consumers who want lower prices would support him or her. In the new world, it’s the other way around. Producers are on the side of the trade minister because they like the notion of making gains from economies of scale, thanks to leveling the playing field in precaution. But there is also a very big risk we didn’t have before. There could be passionate opposition from the side of the
consumers if they get the impression – and that’s what consumer organizations will probably tell them – that they risk losing their cherished level of precaution in the name of opening trade, a legitimate concern. This also changes not only the political economy at home, but also the political economy in the international trade system.

I’ll give you just one example of that, which is how this can affect the MFN (Most Favored Nation) system and the special and differential treatment system, which are a long-standing doctrine in the multilateral trade regime. In the WTO, there is a very strong theoretical and doctrinal preference for non-discrimination, stemming from the Most Favored Nation principle. But there are exceptions in order to factor in the fact that poor and developing countries can only compete with rich countries if they are given a special and differentiated treatment that allows them an asymmetric trade regime where they can export more easily than they can import. This leaves them with a degree of freedom to levy higher tariffs for instance. This has been a major pillar of the strategy that the GATT and the WTO have been trying to put together in order to make sure that trade opening did effectively improve public welfare, even in developing countries that can’t normally compete with richer producers. That sort of approach was fine in the old world of trade. The US, EU, and Japan all had preferential regimes under which they imported roses from Rwanda at zero percent tariffs whereas they imported roses from Costa Rica at 10% and Israel at 20%. This mirrored the fact that Rwanda is the poorest – poorer than Costa Rica, which in turn is poorer than Israel. This gives us a neat and simple structure: Zero, Ten, Twenty. In the new world of trade, this is dead. Precaution is by definition Most Favored Nation because you cannot discriminate with precaution. I’m not going to my parliament and say we have X pesticide residue standard for Rwanda, Y standard for Costa Rica, and Z standard for Israel. It just doesn’t work. It’s impossible. It makes no sense theoretically, practically, nor politically. The world of precaution therefore changes the political dynamics of trade opening. In that sense, the switch to precaution creates an added burden for the poorest countries unless Aid for Trade programs are both strengthened and expanded.

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Let me now move to the third and final shaping factor which influences trade opening after technology and regulation: culture, meaning public attitudes to trade. And that obviously matters a lot in the legitimization of trade policies, whether they are public if decided by my parliament or private if decided by Carrefour or Walmart. Both authorities will factor into their policy the preferences of their constituents or consumers. The impact of public attitudes on international trade has existed for a very long time. To complicate matters, public opinions may impact the trade of certain commodities more than others. Any serious anthropologist tells you that the relationship we
have to food is not the relationship we have to shirts. There are traditions. Some religions are extremely prescriptive about what is good food or what is bad food, or when you should eat this food or not that food. So there are many relationships that make trading food different from trading shirts or socks. Another factor impacting attitudes to trade is whether you are a citizen of a small country or a big country. If you’re a citizen of Switzerland or Sweden or Denmark, the importance of going international in order to grow your economy is obvious. If you’re in the US, it’s a bit different. It’s easy to think that you’re already such a big part of the pie that you don’t really have to mind the rest of the world. These things we know. We’ve experienced them for centuries. These public attitudes have become more important progressively in what I called a moment ago the old world of trade. And why is that so? Because the strength and violence of Ricardo-Schumpeterian shocks on economic and social fabrics have increased with globalization and technology. The impact of these shocks has grown because distance has shrunk. The system works much more efficiently and we are back to the fundamental economic and political economy of trade, the one of the old world where trade works because it is painful and it is painful because it works. The system becomes better and better as we specialize, but as it becomes better and better it also becomes more and more painful. This explains the understandable reaction of some stakeholders, mainly workers who are impacted by this expansion of international trade and the removals of protections in the old world which have led to disruptions, insecurity, and vulnerability. This is why it is important to have domestic systems to cope with these negative effects and create a more positive shock absorber through safety nets, training, skills, education, social security, and unemployment benefits. We know that. And by the way, it’s no coincidence that in the old world of protection, public opinion was most favorable to trade when social systems were most sophisticated. There was a strict correlation between the level of welfare in a country and its citizens’ response to the question, “is trade opening good for your country.” One reason that the European reaction to trade opening was different from the US reaction stems from the fact that the European welfare system is much larger than that of the US, which is also what probably explains this trade demonization which you find in some of your presidential debates. That’s how it worked then and even still works now because we are not yet totally out of the old world of trade and not totally in the new world of trade. We are somewhere in between.

In the new world of trade, this question of public attitudes to trade opening is even more important. This is because fears and anxieties are even more important, larger, and in a way more legitimate than in the old world. This again has to do with precaution and sustainability. If I’m a German and I’m convinced that TTIP means having to eat chlorinated poultry or pork fed with ractopamine, I won’t support that agreement. I think there’s a risk that it is bad for my health. I remind you that in the old
world, a few producers had a problem with trade opening. In the new world, it is not just a few producers anymore. It’s all the stakeholders in the side of consumers who believe they are threatened by opening. If you have a few producers against you and a large number of consumers with you, that’s one thing. If you have most consumers against you and only a few producers with you, that is a totally different game. Because of this, much more care must be taken in the new world to address people’s anxieties and fears. This starts with transparency. Transparency is not to be expected in negotiations on tariffs. You cannot be very transparent because you do not want to show your cards too early. Only at the last minute can you accept the equivalencies between my tariff on bicycles and your tariff on scrap metal, for instance. In that case, there obviously needs to be a bit of secrecy. If it’s about pesticide residues, GMOs, data privacy, or chlorinated poultry and there is no transparency in the negotiation, you’ll bump into extremely serious problems with the public, as the Europeans have done with TTIP. Culture as an important feature of the legitimization of trade opening therefore becomes even more important in the world of precaution.

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Let me now conclude with one or two policy recommendations which take into consideration the transformations I have tried to describe.

Number one is nothing new: domestic policy should come first in addressing the problems trade opening brings as a price for the efficiencies it creates. This is true today and will remain true in the future, even in the world of precaution where the shock of competition is not what it used to be when you reduce protection, but where the impact on consumers may be important. So the domestic handling of this, starting with transparency, becomes more and more important.

The second policy recommendation, which involves an inevitable question for trade academics, is the question of what the appropriate forum is for dealing with these issues at an international level. Is it multilateral? Is it regional? Is it bilateral? Thousands of pages have been written on this issue. In my opinion, this was not an issue in the old world of trade because in my experience multilateral, regional, or bilateral agreements have always syngereized to progressively get rid of obstacles to trade. The issue is different in the new world of trade, and we need to think seriously about some sort of international regime that would address this problem of progressive regulatory convergence stemming from this issue of precaution. I can only hint at such an approach, as it would involve the issue of values. Given that precaution is so connected to the specificity of collective preferences, you cannot go very far in the convergence of precaution and regulation without dealing with this issue. A customs tariff on bicycles and scrap metal is ideologically neutral. Bicycles are the same everywhere.
Scrap metal is the same everywhere. And bicycles are made with scrap metal. But let’s take GMOs or pesticide residues or animal welfare standards, for instance. Most of us still eat meat, but we still have systems of regulations that dictate how animals should be raised and slaughtered. And these regulations differ because the ethical, spiritual, and religious mindframes that govern them are different.

We will have to address these issues in the future. It will be a tough journey, because it requires accepting that in some areas values should converge in political and philosophical terms – which is already a challenge – while in other areas subsidiarity has to prevail, meaning that we don’t have to cope with these things. Applied to the case of TTIP, this reasoning means that issues like the size of bumpers are not very complex, so must be dealt with first. I would keep more emotional issues like GMOs or animal welfare standards for much later because there is very little chance anything serious will happen in the short-term.

This final remark takes me back to Professor Graham. Polanyi, who lived in the same world as Graham, underlined why economic systems on the one side and political and social systems on the other side need to be imbedded. Otherwise, tensions arise and conflicts happen. And I think the transformations of trade which I’ve mentioned tell us how important for the future it is to keep making sure that economic systems and social systems are imbedded, which I think was also Professor Graham’s fundamental stance. One which I once again share!