Getting Ready for the New Form of Value Chains

Veerathai Santiprabhob, Governor of the Bank of Thailand

Inspirational Talk, CLMVT Forum 2019

Bangkok, Thailand

24 June 2019

Ladies and gentlemen,

A very good afternoon to you all.

I'd like to first thank the Ministry of Commerce for hosting this event, and for all of you to be here. This forum presents a great opportunity for business leaders and policymakers to exchange thoughts on how this vibrant region fits in the picture of the new world, and how we could prepare ourselves to become the new value chain hub.

It's great to hear of all the progress that has been made, both within ASEAN and more specifically within the CLMVT region, and to see ways we could collaborate to build up regional value chains that would become the "new value chain hub" of Asia, which is very fittingly the theme for this year's meeting.

My talk today is supposed to be an "Inspirational Talk", but I doubt very much that a conservative central banker will be able to inspire business leaders like yourselves.

I'd like to take on this year's theme from another angle, and instead paint a picture of what the "new form of value chain" might look like, 5 or 10 years from now. How will the nature of the future value chains change? How will the technological advancement transform the value chains in this region?

I intend for this talk to inspire us to really start thinking about what the future might bring, and what we can do to be ready for it. In my talk today, I'll highlight 3-4-5: three driving factors behind the changes we see, four key implications these driving factors bring, and five steps moving forward.

Let me start with the first driving factor: the growth of the CLMVT region. With each passing year, the "gap" between the so-called advanced economies and emerging markets are closing, and our region is catching up very fast.

As people get wealthier, they consume more. We have already seen this happening. Throughout the 1990s and early 2000s up to the GFC, the share of imported consumption goods into the CLMVT region had been steady at around 0.7 percent of world imports. Over the past decade, this share more than doubled to 1.6 percent of world imports. Consequently, we can expect domestic consumption in CLMVT to be an important driving force for the value chain going forward. Not only consumption volume will increase with per capita income, types of products consumed, together with their quality and diversity will also improve. CLMVT will soon become an important and high potential market within ASEAN. The other important aspect that will go up in conjunction with the standard of living is rising wages. Soon, we will not be able to rely on low labor cost as the source of comparative advantage.

The second driving force shaping the new form of value chains is the rapid advancements in technology. Automation is on its way to replace low-skilled and semi-skilled manufacturing jobs, making it much harder for a country to be competitive with low wages alone. While the use of robots in factories in the ’70s were limited to precision tasks in a controlled environment, artificial intelligence and machine learning have expanded the roles of robots in the manufacturing world.

I’ll give you an example. In one egg farm in China, it takes only one employee to oversee 170,000 hens. A traditional farm would have to employ at least 170 employees. Machines do all the collecting and sorting of eggs. Sensors could be trained to spot sick or dead hens and alert the controller so he could take appropriate actions.

Humanless warehouses are also becoming more prevalent, and some e-commerce giants are trying to go further: Amazon is exploring automated delivery systems, and China’s JD.com is looking to automate the entire process, starting from shipping containers.

Technological advancements have also made many non-tradable services tradable. While what we generally think of when talking about tradable service is a tech support call center or business process outsourcing, we have moved a long way from that. Today, tradable services include product designs, entertainment, and even medical services. The first 5G-enabled remote surgery was done in Spain earlier this year. As services become more tradable, the concept of borders between products and borders between nations starts to fade away.

The third driving force that I would like to highlight is increasing geopolitical tensions. While technological advancements are slowly erasing the borders between countries and making people more connected than ever, an opposing force—the increasing and prolonged geopolitical tensions among major countries—is also at work.

Perhaps no tension has been getting as much attention as the ongoing trade conflict between the US and China, but this is just one of the many ongoing tensions around the world. Think about the more recent US-Iran tensions as well as other conflicts in the Middle East, India-Pakistan tensions, the highly uncertain outcome of Brexit, the unresolved nuclear situation in the Korean Peninsula, disputes in the South China Sea, and domestic political instability in various parts of the world. These tensions introduce new type of risks into the design of value chains—risks whose premiums are difficult to evaluate. Regardless of whether these tensions are prolonged or short-lived, they will have real effects on trade and investment patterns. Trade diversion, production relocation, and investment decisions driven by geopolitical pressure today will have a long-run effect in dictating the shape of our future value chains.

Ladies and gentlemen,

The growth of emerging market economies and the CLMVT in particular, technological advancements, and prolonged geopolitical tensions... What implications do these key driving forces have on the new form of value chains? I would like to highlight four key movements that we will see in the coming years.

The first movement is the regional consolidation of goods-producing supply chains: goods will be traded more with our own neighbors and countries in our region rather than with some far-off countries.

Even though it was masked by the Global Financial Crisis, the offshoring movement is said to have ended a decade ago. Over the past decade, the share of goods produced in the world that are exported through value chains declined from 28 percent to 22 percent. Robotization and automation made cheap labor less relevant when companies decide where to place production. A recent study done by McKinsey Global Institute has found that, contrary to common perception that trade flows from low- to high-wage countries, only about 18 percent of global trade is driven by labor-cost arbitrage.

In the same way that the lowered cost of transportation sparked globalization in the ’90s, the lowered cost of manufacturing through automation set off the current nearshoring and onshoring movements, and regional consolidation becomes a key character of tomorrow’s value chains.

In addition to the lowered cost of production, mass customization and the need to adjust the product’s design quickly to respond to consumers’ preferences are also key factors in the process of nearshoring and onshoring. Rising geopolitical tensions—trade issues and geopolitical conflicts—help induce many companies to move production for US consumers from Asia to the US and Mexico. March of this year was the first time since 2003 that the US imported more goods from Mexico than from China.

Aside from the nearshoring and onshoring, the accelerated growth of countries in our region will drive further regional consolidation of value chains. If we look at the map, we will see that our region is located right in the middle of the three most populous countries in the world: China, India, and Indonesia. Together, they are home to 40 percent of the world population. High income growth and the rise of the middle class observed in many emerging markets will increase demand in this region going forward. China, for example, used to export 17 percent of what it produced in 2007; the portion of goods exported dropped down to only 9 percent in 2017.

Looking ahead, with the driving forces mentioned, the share of goods traded within our region will only keep increasing. Although today the US and Europe remain important export destinations for all of us, goods produced in CLMVT in the future will be servicing more regional demand. The larger regions surrounding us—ASEAN, China, East Asia, and India—will increasingly become destinations by themselves, and regional consolidation will become a more prominent feature of the new value chains.

The second movement is the increased importance of services in the economy. According to McKinsey Global Institute, cross-border service trade is growing more than 60 percent faster than trade in goods. This trend will continue in at least two ways: the creation of supply chain for the service sector, and the increasing value-added share of services within the manufacturing supply chain.

A good example comes from the automotive industry. Daimler and BMW, two German automobile giants, joined hand earlier this year and pledged 1.1 billion USD to explore alternative service-focused business models by setting up joint ventures providing services in taxi-hailing, car sharing, parking, and EV charging.

As our people's wealth increases, they will also shift their consumption profiles towards service, ranging from tourism, entertainment, medical services, financial services, and educational services. Regional hospital chains are also expanding, serving the growing demand of people in the region, and each hospital in the chains become a niche player with different role and specialization.

Even in manufacturing supply chains, the value-added share of services is increasing. Firms around the world today are spending more on brands and intellectual property: the share of revenue firms spent on intangible assets such as design, R&D, marketing, and after-sale services increased from 5.4 percent in 2000 to 13.1 percent in 2016.

Rapid technological progress brings about shorter product life cycles, and manufacturing firms in many areas start providing leasing services, adding value to downstream processes and blurring borders between products and services. All this is made possible with the help of technology that reduces the cost of maintaining customer profiles, and IoT, sensors, and data analytics that help firms monitor how the leased products are being used as well as predicting when maintenance will be needed.

The increase in demand of services through the region's rising middle-income group and the increase in supply of services through firms' changing business model mean that services will have a large role to play in tomorrow's value chains. I should also point out that trade in services is seldom a victim of trade tensions, giving it all the more potential to grow.

The third major shift that we will see is the increased role of online platforms and sharing economy in value chains.

In my view, the ability to connect buyers and sellers from all over the world through technological platforms is one of the most radical ideas of the past decade. Platforms help reduce search cost and make economic transactions that would have not happened otherwise possible. Middlemen—most of the time large corporations—who traditionally took on this role of connecting different nodes in a value chain, dictating the path of the value chain, could be replaced by online platforms that make potential buyers and sellers more visible to everyone. Buyers see what sellers are offering and are able to efficiently choose products or services that best suit their needs. Similarly, sellers see more clearly what the market demands and are able to adjust their production accordingly.

Quality assurance and review systems found in modern online platforms help create a new form of trust between buyers and sellers. Technology could also come into play in the quality assurance process. One example is EasyRice, a startup based in Thailand that connects rice farmers directly to rice mills, providing AI-based quality assessment through images of rice samples to both the farmers and the mills and a price that is fair to all.

In addition to facilitating economic transactions, sharing platforms eliminate the need for individual firms to make huge investment. Cloud services, for example, eliminate the need for companies to make heavy investment in their own IT infrastructure.

Platforms will also lower the barrier of entry for SMEs into both manufacturing and service value chains. The reduced cost of entry through sharing economy and the direct connection and trust between buyers and sellers created by online platforms pave way for firms—especially SMEs—to design their own product flows and become integral parts of the new value chains.

The fourth change that will happen to value chains is that a country's competitiveness will no longer be based on low-wage labor, but on the ability of the country's workforce to adapt to new technologies.

As firms focus less on the production part of the new value chains and more on processes that require high-skilled labor such as design and marketing, the new value chains will be more knowledge-intensive and less reliant on low-skilled labor, who will most likely be replaced by automation. This does not mean that more people will be unemployed, but other skills will be required. Robots, for example, reduce the need for manual labor, but increase the need for technicians and software designers. The World Economic Forum actually projected that robotization will affect number of jobs positively.

The workforce of the new value chains, nonetheless, must be able to keep up with the technology and be able to acquire new skills as needed, and the challenges for all of us is not only how to train new generation of workforce to have the capacity to learn, but also how to prepare the 123 million people currently in the region's workforce for the changes to come, and, more importantly, how to transform them into lifelong learners in the world of fast-changing technology.

Ladies and gentlemen,

Thus far I have outlined for you the three driving factors: economic growth in our region, rapid technological advancements, and increased geopolitical tensions. These are the factors that will bring about significant changes to the value chains of the future, which will be more concentrated regionally with higher service component that requires knowledgeable, high-skilled workers. I also expect that sharing platforms will play a major role in allowing smaller players into the playing field by reducing investment required, promoting competition in the market.

That is the picture of the new form of value chains that we will see in the coming years. The big question now is, of course, how do we as a region prepare ourselves for it.

Two things are clear. First: we cannot rely on manufacturing employment and manufacturing workers' income alone as key drivers of growth. Second: no matter what you're doing today, strengthening the country's service capabilities will be vital.

To end my talk, I'd like to humbly offer five points for policymakers and business leaders who are here today.

The first point is the need to markedly upgrade digital infrastructure in the region. While traditional physical infrastructure is indeed crucial for the region to become the value chain hub of Asia, our regional cooperation needs to extend beyond that and shift to digital infrastructure, since it will be a key factor that would support value chains of the digital world.

Fast and reliable data connection is a necessity for modern businesses. This means laying down more fiber optic cables and expanding 4G and 5G mobile network coverage, the latter of which should be high on the policymakers' priority list.

My view is that our people will be able to leverage on digital technology quickly once digital infrastructure is in place. Internet penetration of the CLMVT is around 65 percent, compared to the world average of 57 percent. The average cost of data usage is also relatively cheap in this region. However, most of the internet users in CLMVT are concentrated in the urban areas, and there is much room for improvement. Upgrading and expanding coverage of our digital infrastructure will present tremendous opportunities to our firms—especially SMEs—and workforces, allowing them to benefit from modern value chains and new digital platforms.

In addition to digital infrastructure, we need to reduce frictions for service connectivity and data transfer within the region, and this is my second point. Mutual recognition, harmonization of rules and regulations, and interoperability of standards will greatly facilitate connectivity in our regional value chains.

In the digital age, the flow of data is growing at a much higher rate than goods traded or financial flows. For many global companies, data have become the most valuable asset that could be used to provide new and better services for their customers.

Another area where I think friction for service connectivity can be reduced is the language barrier within our region. While English is still indispensable, its use within our region is still limited. Without a widely-used common language within our region, we would benefit greatly from platforms that would cut cross the language barrier. Today, translation technology has matured to a point where live translation is possible and it's only getting better. The region could leverage more on the technology to reduce language friction that could impede service connectivity and productive collaborations in the region.

Aside from digital infrastructure, standardization, and interoperability, regulations also need to change. According to the World Bank's latest Doing Business report, it takes on average 62 days to deal with regulations to start a business in CLMVT. With the speed of technological progress that's only getting faster, the brilliant idea we had two months ago might have already been outdated by the time we get the permission to start a company.

In order to improve the ease of doing business, it is important that we overhaul existing laws and regulations, taking into account the current fast-moving digital environment.

In addition, regulating new technologies has its own challenges. Being too eager to adopt new technologies could pose unnecessary risks to the system, but being too cautious, waiting until the technology is proven safe, could mean that it's too late for domestic firms to compete with firms from outside who have accumulated years of experience with the technology. Sandbox approach, common among central banks, where new technologies are welcomed but are deployed only in a limited scope, could provide a platform where both the players and regulators learn the benefits and limitations of new technologies together.

My fourth point is the liberalization of the service sector. In my view, the barriers obstructing service connectivity within our region are still very high, and we need to think more about professional mobility within the region as well as licensing schemes that would allow service providers to serve customers in the region more freely and allow service-sector value chains to develop within the region.

As the world grows toward services, the region needs to build up service capability in order to stay relevant and connected to the new global value chains. Service liberalization within the region would promote competition and reallocation of resources. Air transport liberalization in ASEAN, for example, helped promote competition in the industry and is responsible for the boom of our tourism industry during the past decade.

Competition created through service liberalization would also lead to specialization. The diversity of services provided within the region can complement one another and benefit the creation of new regional service value chains, as we have witnessed in goods-producing value chains.

My last point is the reskilling and upskilling of our workforce. As mentioned earlier, the decreased value-added from the actual manufacturing process through automation means that there will be less left to gain for countries who still try to compete with wages and tie themselves to the manufacturing portion of the value chain. In addition, the new value chains will be dynamic, and workers need to be able to adapt quickly to the ever-changing demand. We need to train new generations to have the capacity to learn and fully utilize new technologies, as well as prepare the region's current workforce to adapt to technologies and transform them into lifelong learners.

All these points might sound daunting, but they are steps we need to take in order for us to keep up with the fast-changing world. It is important that we do not shy away from big challenges. We should dream big, aim high, but start from small steps today.

Coming from the Bank of Thailand, I'd like to share one example of small steps in the financial sector that central banks in the region have taken. Earlier this year in April, we held an event to showcase the ASEAN Payment Connectivity initiatives that aimed to reduce cross-border costs of remittances and fund transfers. At present, blockchain technology is being used for remittances and fund transfers between Thailand and Cambodia, Laos, and Myanmar. The use of third-party blockchain technology means that banks do not have to make large individual investments. Interoperable QR payment system based on EMV standard being deployed across ASEAN countries is one example of standardizations that I hope would grow to be foundation for cross-border payments in the region in the future. Furthermore, Thailand's National ITMX—the main switch for our faster pay system—has developed the capability to process domestic fund transfers and payments for other countries should they wish to rely on the ITMX platform to launch domestic faster pay system. Using the same system would facilitate the intraregional financial connectivity and greatly reduce the investment cost each country would need to incur.

Within Thailand, we have recently amended many of our financial regulations, for example, allowing Thai banks to lend to firms in CLMV in Thai Baht, reducing the Thai ownership requirement of money transfer businesses from 75 to 25 percent, and initiating regulatory reforms, making digital financial transactions much easier and allowing banks to step into modern business of the digital world.

Ladies and gentlemen,

The wave of change is coming and will continue to move fast. More goods and services will be traded within the CLMVT region due to technological advancement, geopolitical tension, and regional economic growth. Future value chains will have to answer more to regional demand, whose emphasis will shift from goods to services.

In the digital world, the ability to move fast before some global big-tech companies take control in setting the standard is crucial. Each of us, I'm afraid, is too slow and too small to tackle this wave alone. Only by banding together can we prepare for it and ride this wave of challenges and opportunities. Ultimately, I believe that regional collaboration—building digital infrastructure, reducing connectivity frictions, liberalizing services, and getting our people ready by providing platforms to reskill and upskill the workforce—will be key to the success of our region.

Ladies and gentlemen, I look forward to riding this wave of challenges and opportunities with all of you.

Thank you very much.