The impact of the transforming global economy on the Infrastructure and Real Estate sectors and Investments

A Presentation by

Ron Mock
President & Chief Executive Officer
Ontario Teachers' Pension Plan

to the

Schulich Perspectives Lecture

Wednesday, October 26, 2016
Royal York Hotel
Toronto, Ontario

CHECK AGAINST DELIVERY

Thank you, John, for that kind introduction, and good evening everyone.

To begin, I would like to thank the incredible alumni community here tonight for their work in organizing this event, and for their ongoing support to our students and school. And I thank you for the opportunity to talk to you tonight at this very important and exciting event.

I would also like to congratulate and thank Tim and Frances Price and the Brookfield Partners Foundation for your foresight and generous support of the Brookfield Centre in Real Estate & Infrastructure. I was thrilled to see the groundbreaking, which occurred earlier this fall, of the new Research and Graduate Studies building, which will house this new Centre of Excellence. This Masters of Real Estate and Infrastructure program really is a natural evolution of the same specialization in the MBA program. And it is a beacon to the many upcoming young people who will make their careers in these dynamic industries.

At Ontario Teachers', our combined Infrastructure and Real Estate investments had an equity value of $40.6 billion and an enterprise value of substantially more that at our last year-end. The $40.6 billion is 24% of our fund, so you can imagine that this new institution represents an important milestone to us. Dean Horvath views issues on a global scale and this program and Centre of Excellence are proof of his and his colleagues' vision and insight. Speaking selfishly, I look forward to seeing graduates of the program on future Ontario Teachers' staff lists …

Our Schulich/Ontario Teachers' collaboration goes beyond assets and industries. While the Infrastructure and Real Estate industries are critical to our future, the fact is that our two institutions, along with many others here tonight, are "*in the business*" of our society's future:

- Schulich, by educating and creating the next generation of leaders.
- Ontario Teachers', and our fellow pension funds, by delivering the pension promise of a secure retirement future for generations to come.
- And this extends also to our corporate and other colleagues in this room, who share the industries' vision for change, opportunity and progress.

And that is why we're here tonight: to talk about the future.

#########################

Let me give you some context for my remarks.

The global economy is more interconnected and interdependent today than ever before. It has been transformed in recent years, and the speed of transformation is increasing. New technologies are appearing every day. Exponential computing power increases are making the unthinkable possible, and the challenges and risks of climate change are impacting the entire world. Social engagement and social pressures are impacting governments and corporations alike. Social media has impacted us all and the way we do what we do. Emerging markets are developing their middle class. Developed markets are experiencing slower growth, as well as the very large demographic and productivity challenges that will continue for many more years. Burgeoning national debt is pushing governments to privatize their infrastructure so they can fund projects and ignite growth. All of these factors are converging and re-calibrating the economy and society. The confluence of these forces is impacting all of us simultaneously and is both breathtaking and exciting at the same time.

One of the important consequences of these global forces is the changing relationship between governments and private industry. Global pools of capital from sovereign wealth funds, pension funds and large infrastructure and real estate funds are working closely with governments to deliver outcomes each would struggle to do alone. We are seeing this right here at home, with the Federal Government's Advisory Council on Economic Growth issuing their first report. This is very exciting news for infrastructure, real estate and Canada.

##########################

Such is the economic stage that the infrastructure sector finds itself on today.

Let's look at the growing demand for Infrastructure, first.

In emerging countries, infrastructure demand is driven by growing populations, the expanding middle class, economic growth, urbanization and industrialization. The World Bank sees Infrastructure as *the* vehicle for transforming low and middle income countries into emerging or developing nations.

Many emerging countries see the benefits of foreign investment in their infrastructure. I'll use our investment in Chile's water distribution and treatment systems in 2007, as an example. The country knew they needed this infrastructure. But there were many critical projects competing for capital in Chile at that time. So the government opened the doors to foreign investment and expertise.

The societal benefits to Chile are clear: the water utilities have been able to greatly improve water quality and access to water. They have also provided other health benefits, such as lowering the infant mortality rate. With fewer water-borne illnesses, health costs have come down and productivity has increased.

In the developed world, legacy infrastructure needs maintenance and rehabilitation, as assets age and environmental regulations become stricter. Think LaGuardia Airport...The OECD estimates that $70 trillion in infrastructure investment is needed by 2030 to simply *maintain* the current levels of global GDP growth. Such investment will have a real impact on economies. Increased public infrastructure investment raises output in the short term by boosting demand … and in the long term and very importantly, by raising the economy's productive capacity. In a sample of advanced economies, the International Monetary Fund found that an increase of 1 percent of GDP in investment spending raises the level of output by about 0.4 percent in the same year, and by 1.5 percent four years after the increase.

Douglas Peterson of McGraw Hill Financial wrote in a GE Report this spring that increasing spending on infrastructure by just one percent of real GDP would support 730,000 jobs in the US, and increase economic growth by 1.7 percent. For emerging economies like Brazil, it would generate 2.5 percent in economic growth. Now *that* is leverage. This drives *lasting* productivity… As everyone in the room knows, productivity, particularly in developed countries, has been in decline for a few decades. And Canada is no exception.

Innovation and having a plan … a long term vision of a country's infrastructure needs … is the natural driver of meeting such need. Developed and emerging countries alike are looking at building and upgrading their infrastructure with new technologies and applications. Technological innovation, for example, provides new and more efficient possibilities for low carbon and climate resilient infrastructure.

As we know, solar and wind power technologies are currently redefining power generation. When Spain's Santander decided to divest its holdings in Cubico Sustainable Investments, a global renewable energy and water infrastructure company, we welcomed the opportunity to increase our already substantial investment in this company. Today we build and operate solar and wind operations in eight countries around the world...

Re-thinking transportation also will bring benefits. Did you know that, as of last year, there were nearly 30,000 kilometers of high speed rail operating globally, moving 1.6 billion passengers a year? That is the equivalent of one-seventh of the world's population travelling annually on high speed trains. Even more striking is the fact that China alone expects to have more than 38,000 kilometers of high speed rail lines in operation by 2025. This will be a huge boost to their productivity.

By connecting commerce, technology and population centres, high speed rail has an enormous role to play in improving productivity. We have carried this message to our provincial and federal governments here at home. For example, imagine having a high speed rail line to connect the Kitchener-Waterloo tech hub directly with commercial centres such as Toronto...

In February, the mayors of Kitchener and Toronto pitched such improvements to transit infrastructure as two-way, all-day GO services, and high speed rail between the two cities.

I was further encouraged by the province's June announcement of the first stages of an agreement with CN Rail to build a freight corridor, allowing cargo-hauling trains to be moved off the tracks between Union Station and the Kitchener Go train station.

The Federal Finance Minister's Advisory Council on Economic Growth report released last week makes the direct connection between infrastructure, productivity, jobs and economic growth. And importantly, it marks a new trend in government-industry partnerships. Let me quote from the report:

"It is imperative for Canada to deliver infrastructure that meets the country's growing needs. Used appropriately, infrastructure can be one of the most powerful levers at the government's disposal for both long term productivity improvement and near term stimulus. In order to fully harness this potential, however, Canada should leverage the trillions in institutional capital waiting on the sidelines and focus this investment productively."

The Advisory Group builds its recommendations around three initiatives:

- First, developing a true federal infrastructure strategy for economic growth
- Second, by creating a Canadian Infrastructure Development Bank to leverage institutional capital and deliver over $200 billion worth of projects over 10 years. (The Council calls this a "once-in-a-generation opportunity for Canada)
- and third, catalyzing the participation of institutional capital in existing assets

With more than a trillion dollars in assets, Canada's top pension funds and infrastructure funds represent enormous pools of capital that already invest globally and at a unique level of sophistication. Canadian capital is attracting the attention of governments from around the world. Prime Ministers, Finance Ministers and ambassadors from India, Mexico, the UK and Australia, among others, all are approaching us for our infrastructure investment expertise. The world's economic leaders are not just looking for someone who can write big cheques. They need *partners* who are forward thinking … who do more than just buy assets … who help modernize and indeed *transform* their countries' infrastructure delivery. So as you can imagine, we are delighted to be approached here at home as well … to be given the opportunity to help transform our own economy.

########################

And now, I'll turn to the Real Estate sector, which is equally influential in the re-drawing of our future… and equally impacted by transformative change, which is driven by growing urbanization and rapid technology deployment. .

Just think of this: Global demand for residential real estate is expected to reach $4.9 trillion in 2030. By that time, the E7, the largest emerging markets, are forecast to overtake the G7, shifting the balance of demand for real estate development and innovation to these emerging market regions.

#######################

By 2020, the 21st century's great migration to urban areas will be well underway. Cities will be swelling across the fast-growing countries in Asia, Africa, the Middle East and Latin America. By 2050, the urban population will increase by 75 percent to 6.3 billion, up from 3.6 billion in 2010.

Even the developed Western nations will continue to urbanize, albeit at a slower pace. The volume of building activity will be immense, expanding the world's inventory of institutional-grade real estate. Global construction output is expected to almost double to US$15 trillion by 2025, up from US$8.7 trillion in 2012.

Emerging markets in Asia will be the fastest growing region, with sub-Saharan Africa expected to be the second highest.

China, the world's most populous nation, will continue to see the largest migration from rural areas. Millions of people every month already move to urban centres in search of a prosperous middleclass future.

PwC predicts in its report, Real Estate 2020: Building the Future, that by 2025, there will be 37 megacities in the world, that is centres with populations of more than 10 million. In 2014 there were 23. Twelve, or one-third, of these cities will be in emerging markets.

We can expect the need for real estate development, investment and operation to explode in tandem with this migration. And we can expect innovation to accelerate to address these new needs.

The Swedish-Swiss multinational corporation ABB is a leader in power and automation technologies. It reported at the World Economic Forum in Davos this past winter that over $40 trillion dollars will be invested in urban infrastructure over the next 20 years. This investment will include transportation, housing, hospitals and other social amenities.

Not only are there millions more people to accommodate in housing and work environments … but this massive migration will bring with it increased demand and opportunity for smarter buildings and indeed smarter cities. Such change will be driven by the technology and real estate industries and their tenants. And it will be equally as impactful on existing and new urban centres.

By 2020, technology will have altered the economics of entire subsectors of the industry, and changed the way that real estate developers and the investment community operate. The impact of omni channel retailing is evident worldwide. For example, the need for physical space is already shrinking across most real estate subsectors. Entire retail chains are disappearing from our main streets, as video and other specialty retail customers move online … think Blockbuster vs Netflix and Apple TV … Barnes and Noble will close over 220 stores by 2023 because their business has moved online … Macy's has announced they will be closing nearly 40 stores... Meanwhile, as online shopping delivery times become shorter, the need for warehousing close to customers is growing.

Smart cities will become the new norm. The Netherlands' Amsterdam Smart City initiative, for example, enhances the city's real-time decision-making abilities. It has hundreds of large and small projects underway. Advanced mass transit, smart energy meters in homes and smart lighting and video observation systems in public spaces are just some of the projects that will help the city reach its goals of reduced traffic, energy savings and improved public safety. And it does this by utilizing information technology to improve city services. Barcelona, Copenhagen, and Dublin are also leading the smart city movement, using data analytics to improve urban life for residents and businesses.

For real estate developers, technology advances will make eco-efficient building more practical. The technologies behind smart building management systems and city-wide energy management systems are continually becoming more advanced and affordable.

I'll use Cadillac Fairview's Deloitte Tower in downtown Montreal as an example of change, only because I know it best.

The 26-storey tower opened in May 2015. It was the first fully privately-financed premier office building to be built in downtown Montreal in more than 20 years.

Cadillac Fairview took three main economic drivers into consideration in its planning for this structure:

- Resource efficiency and contaminant reduction
- Occupant health and wellness
- Individual and organizational productivity

All of these factors have demonstrable bottom line impacts. But they also have significant social impact, a welcome sign of our times. Let me illustrate by example...

Deloitte Tower is 44% more energy efficient than typical buildings. It uses 51% less potable water than typical office buildings. Its windows feature a special coating that allows for maximum natural light, while minimizing heat gain.

96% of all occupied space has direct exterior views, which allows individuals to adjust and re-focus their eyes, reducing fatigue, headaches, and eye strain. It features air quality sensors that monitor carbon dioxide levels, helping to reduce grogginess and increase alertness and overall wellness.

From a productivity point of view, forward-thinking companies are re-assessing the relationship between their workspace and their business. These companies recognize workspace is crucial to the engagement, retention and growth of their people. They see their workspace as a competitive advantage.

By 2025, millenials will make up 75% of the US workforce. With their high frequency of communication and less formal interactions, their workspace needs are distinct.

In Deloitte's case, they are well aware that millennials will be driving their profitability in the future. As such, they are choosing locations and designing spaces that cater to millenials' values. For example, according to some surveys, millenials value work-life fit more than they do compensation growth or skill development. In addition, their social, professional and personal networks are invaluable to them. Their workspace needs to reflect that. So Cadillac Fairview and Deloitte worked together to ensure employees could access each other easily and workspaces could be reconfigured easily to accommodate change.

Their recruitment efforts indicate that the new workforce is noticing: their first recruitment cycle since moving into their new tower saw a 90% acceptance rate, compared to the pre-move rate of 60%. In today's knowledge-based economy, this is the type of impact that employers can and should anticipate.

################

As I hope these examples show, there has never been a more exciting or interesting time to be in the Real Estate and Infrastructure industries. Globalization, urbanization and digitization have changed the world economy forever, bringing with them the unlimited potential of these industries' roles and impact ….

Dezso and Andre and Schulich as a whole are playing a key role in this new order. They are sparking the enthusiasm needed to build the talent and skills that will drive progress, productivity and innovation on a global scale … improving the interconnectivity between finance, planning, social, regulatory, government and political alignment. Their reciprocal faculty arrangements with business schools around the world … China, India, Italy and many more countries … will create an international connectivity that brings a global perspective to the real estate and infrastructure programs.

I know I speak for all of my colleagues in the industry when I say we are proud to be associated with an institution and individuals who think and act on this scale. You aren't just building smart structures and smart cities. You are building a smarter society. But most importantly, you are increasing productivity and creating a brighter future for us all. For that I commend you and thank you most sincerely.

And now I am glad to take any questions you might have ….

#####################################