



Probis Club of Central Edmonton Newsletter

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May Events:

Mel and Yves organized and then hosted 2 tremendous presentations on ZOOM in May. They took on this unique task and delivered, congratulations to both.

Tuesday, May 19 Dr. Randy Goebel of the U. of A. delivered a presentation on Artificial Intelligence. Dr. Goebel became interested in AI early in his life and has been dedicated to it ever since. Randy is Professor in the Department of Computing Science at the University of Alberta, Associate Vice President (Research) and Associate Vice President (Academic), and Fellow of the Alberta Machine Intelligence Institute. His recent research is focused on the formalization of visualization and explainable artificial intelligence. His presentation dealt with a number of subjects, including:

- Putting the science of AI in context
- Trade off in autonomous systems
- Some applications

It was interesting to learn that Canadian AI research is highly ranked in the world. Two universities in Canada are recognized as centers of research, the U. of A. being one. He put the AI in context by stating AI does not replace human intelligence. The science of AI is researching the 'science of intelligence'.

He illustrated AI by showing us examples such as a person being able to lift an arm using hardware that can read the brain's intention. The arm will begin lifting quicker than the biologic system of nerves. He ran a video of a drone that was equipped with weapons and is capable of hunting and killing combatants. Another video was of a robot dog that could walk over different terrain.

Also, discussed is the role of AI in law. For examples, programs can search through legal cases and select the ones most relevant to a case. This can assist judges in evaluating a case before them. U. of A. has been quite successful in competitions with other universities on this process. Another area is in the field of health, which can use a range of health data to identify more precise health determinations.

One point made is that there is a need for more regulation. A great many countries are taking their own approach. Also, as in the case of the killer drones, this is taking place in the private sector.

Randy provide an insight into the world of AI and captivated all members signed onto Zoom.

Wednesday, May 27 Dr. Kevin Milligan spoke on “The Covid Crisis: Impacts on the Canadian Economy and Canada's Public Finances”. As a side note, this presentation was delivered from British Columbia. It could well be a harbinger of things to come.

Kevin is a Professor of Economics in the Vancouver School of Economics at the University of British Columbia and is also affiliated with the C.D. Howe Institute and the National Bureau of Economic Research. Since 2011, he has served as Co-Editor of the Canadian Tax Journal.

Kevin started by describing the current state of the economy comparing it to pre-covid world and other recessions. The economic impact of covid is dramatic and worldwide. His presentation was illustrated by graphs from C. D. Howe. He highlighted:

- Restaurant reservations
- Activity on Google maps / Apple maps
- Car sales
- But notice rail shipments, ports. Not much change.

C.D. Howe graphs are real time as compared to Stats Can reports which take several weeks to prepare. Due to the speed of the Covid impact these reports are of little use to policy makers. He also shared the Parliament Budget Office charts with us. An example is one showing GDP drop of 12%. The job market took a big hit with a great many people not working, though a significant number are shown as having a job. For example, hours worked is down 18%. The number of people impacted are in the millions. These are just a few of the examples of the information provided.

Having laid out the state of the economy he spoke about the many programs put in place by the Federal Gov't to mitigate the impact of the economic downturn. The list on the Budget Office website is quite extensive. One point he noted was people are not spending. In his view this due to a supply shortage, that is, no were to spend as opposed to a lack of cash. The hit on the federal deficit is dramatic. It is now projected to be \$252.1 billion. This is about 48% of GDP. To finance this the government has being borrowing money. The Bank of Canada has acquired this debt by expanding the money supply.

The C.D. Howe data also illustrated the differing impact on work reduction between various social groups.

So, what did he say all this means for the future? His view is tempered by uncertainty on how long the economic hits will last. Given that it is reasonably short:

- He does not see a significant inflationary impact
- Since a significant number of people not working have jobs to return to. He expects employment to recover, at least in part.
- The current annual deficit can be handled, but it will be very difficult if repeated. As such this may not require significant tax increases.
- Low long-term bond rates make the interest on debt increase more manageable.

In general, he was optimistic. He qualified this position by stating it was in context of horrific state we are in.

This was easily a fascinating presentation and very timely.

Stay Healthy