

Pandemic and the Forensic Accountant Practitioner –
Reflections and Practical Issues

Research Project Report for Emerging Issues /Advanced Topics Course

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Summary

Medical, biological and ecological pandemic experts' opinions have been differing drastically about the dangers of Covid-19 ever since it has appeared. Some Governments still compare it to simple flu while others confine their entire population, among which a proportion of negationist still even doubt the existence of Covid-19. Sanitary measures and vaccines create riots - not in a rush to get them for safety and protection, but in the defense of individual freedom of choice.

Meanwhile, worldwide economical systems are affected. Where does the Forensic Accounting Practitioners Body find common ground to support its opinions in the current pandemic? How do we avoid potentially huge appreciation differences between experts? How do we keep our professional credibility while protecting the public and remain useful in serving the decision makers?

So many assumptions can be affected by this unprecedented situation that the basis of some of our quantification models may be shaken. And we do not know yet to what extent nor for how long.

Extra care and caution will have to be displayed, special attention to the disclosure of otherwise normally accepted assumptions will be mandatory, solid opinions will not be developed in a vacuum, and most of all, the awareness and openness of all practitioners will be pushed to a new level.

It would have been useful to provide a set up (objectives) as to the structure of your paper in order to guide the reader in terms of your discussion.

A Pandemic

A pandemic is an “*outbreak of infectious disease that occurs over a wide geographical area and that is of high prevalence, generally affecting a significant proportion of the world’s population, usually over the course of several months. Pandemics arise from epidemics, which are outbreaks of disease confined to one part of the world, such as a single country. Pandemics, especially those involving influenza, sometimes occur in waves, so that a post pandemic phase, marked by decreased disease activity, may be followed by another period of high disease prevalence.*”¹

On March 11, 2020, the World Health Organization announced their assessment that a severe acute respiratory syndrome coronavirus-2 (SARS-CoV2) causing an illness known as corona disease 2019 (Covid-19) could be characterized as a pandemic. WHO Director-General, Dr Ghebreyesus, also then said: “*All countries must strike a fine balance between protecting health, minimizing economic and social disruption, and respecting human rights.*”²

It is those foreseen “*economic and social disruptions*” that I intend to illustrate and furthermore, their compelling impact on the opinions of the forensic accountant practitioners.

1 Kara Rogers. “Pandemic”

2 World Health Organization, “WHO Director-General's opening remarks at the media briefing on COVID-19 - 11 March 2020”

Affected Industries and Geopolitical Areas

Tourism and travel industry, restaurants and all their supply chains, fashion, showbusiness, museums, film industry, gyms and some professional sports were nearly totally halted worldwide for long periods and have not remotely returned to their normal rate of activity levels almost a year and a half later. We may wonder if the same level of activity will ever come back as people may have developed new habits or taken on replacement activities and may even never return with the same interest, not to mention a certain level of wariness about some activities involving proximity and travelling. Despite all their best efforts, many businesses in some industries will suffer major economical damage and it seems obvious at this point that some will not make it through.

Internet providers and various electronic platforms and services, computer hardware, alcohol, medical services, general renovations services and materials, outdoor activities and corresponding equipment sales are amongst the industries that thrived so far.³ They still had to face unprecedented challenges namely for labour and supply chains where they did not all perform equally, depending on many parameters and some early strategic positioning. But unfortunately, a good early performance is not a guarantee for longer term success: a retailer who did well because of very high inventory may fall victim to a recurring larger inventory in case of an eventual recession in the demand. Economical parameters have shown a lot of volatility during the crisis. They are hard to forecast, even for the experts.

3 Kibrom A. Abay, Kibrom Tafere, Andinet Woldemichael. “Winners and Losers from COVID-19: Global Evidence from Google Search”

Socio-geographic location also made a difference. First, because the various areas did not get the same infection rates as large cities compared to the country sides. Second, the countries, states, provinces and even cities did not all get the same transmission of the virus in the same proportions, time, and waves. But third, geopolitically, protection, treatment and vaccines are not equally available and the populations' response to them is not the same either.

Governments' Responses and Sanitary Measures

The governmental response to the pandemic had a significant impact on the progression of the pandemic and the casualty's toll. It also had a broad influence on the economical outcome of Covid-19. The "*fine balance*" referred to by Dr Ghebreyesus cited before was not aimed at with the same values worldwide.

Countries, provinces and even cities were not affected to the same extent by the pandemic. Accordingly, sanitary measures were not the same worldwide and some Governments applied substantially different sanitary measures in otherwise similar circumstances. Just compare Sweden to France or Canada to USA, Brazil, or Russia to observe totally opposite sanitary responses. The ethics of those decisions may be based on cultural differences, and the pandemic did not come along with an instruction guide as to how to harmlessly get rid of it. No matter the casualties, the economical impacts may be drastically different whether businesses were closed or not and if the population was confined or not, how long, to which extent and how the vaccination campaigns have progressed.

Governments' Interventions in Market Economy

Substantial financial assistance was provided to population and businesses through a multitude of mechanisms in mostly all the wealthiest countries, the countries that were generally also most affected by the first waves of the pandemic.

These numerous government interventions all interfered with a theoretical Market Economy, where only a stable force of competitive pressure dictates the pricing, employees looking for the highest paying jobs and buyers for the best product at the lowest price.⁴

These governmental interventions coupled with the disruption of the supply chains altered the balance of the free market economy, affecting all pricings from labour to cost of goods and services and creating all sorts of market distortions, whether micro-economical (specific cases) or macro-economical (industry, area, nations or even worldwide).

Labour Force, Cost of Goods and Services – Trend Summary Review

One of the first and most recognized impacts of the pandemic was on the labour force.

In this uncertain or more complicated work environment (work schedules changing, masks, safety protocols) and family situations (day care and schools closed, vulnerable ones needing more assistance), many people opted for earlier retirement. Covid-19 pressured more people to retire from the workforce. According to a report issued by the United States of America Federal Reserve, 29% of the people who retired in 2020 indicated that factors directly related to Covid-19 were the reason that they retired.⁵

4 Kimberly Amadeo and Thomas J. Brock. "What Is the Market Economy?"

5 Stephanie Asymkos. "Covid-19 forced many into retirement earlier"

The various governments' financial assistance programs, though most likely necessary, may have made it less attractive for people in the labour force to hurry back to their prior employment or look for a new one while they were supported financially. Many have concerns whether it is safe to return to work where they would be exposed to more people and the risk of contracting the virus. Some also chose to move on to jobs in other industries. According to a survey conducted in early 2021 by the Conseil du Patronat du Québec, Quebec's largest employers' association, *"94% of its members are struggling to find new workers and more than half of Quebec's largest employers have had to turn down contracts due to the labour shortage."*⁶

According to another survey conducted by Statistics Canada in April 2021 on business conditions⁷, it appears that most businesses were *"concerned with future survival and expected to face a variety of obstacles in the short term."* For 37.8% of them, the *"rising cost of inputs, including labour, capital, energy and raw materials"* were the expected obstacles, while *"attracting new or returning customers"* was the main concern for 27.8%. To make it through, 19.9% of businesses expected to raise their prices over the following three months.

6 Tim Sargeant. "Quebec businesses struggle to hire employees due to labour shortage"

7 Statistics Canada. "Canadian Survey on Business Conditions, second quarter 2021"

Many costs of goods have already increased, due to an increased demand on the market, sometimes combined with a reduced or delayed supply. We may think about spas or swimming pools sales while people were confined and could not go on vacations. We may also think about bicycles, kayaks, camping gear, boats, recreational vehicles, snowshoes, or cross-country skis that were sold out in all the stores and people selling second-hand products for the price of new. This reality was so widespread that we probably all have experienced this phenomenon first-hand in one field or another.

Construction was probably the industry where the price increase due to labour and material shortages was most notable and most widely reported about.

First, with the pandemic, there was an increase in the demand generally explained by people needing more space to work from home or fleeing high population density areas, creating a major increase in construction material costs. *“The lumber prices jumped more than 500% between April 2020 and May 2021, reaching an all-time high of almost \$1,700 (lumber futures trading price per thousand board feet, traded on Chicago Mercantile Exchange) on May 7th, as sawmills were unable to meet unexceptional (sic) demand for home building and do-it-yourself improvements spurred by the coronavirus lockdowns.”*⁸

It is also interesting to note that the Market Economy is coming back into balance as mill production rebounded and the lumber futures fell below \$500 on July 16, 2021.

⁸ Trading Economics. “Lumber prices jumped more than 500% between April 2020 and May 2021”

Unfortunately, this does not mean that the price of construction lumber will ever come back to its pre-pandemic level. It takes time for the complete supply chain to adjust, and some agents will try to hold on to additional profits. The prices may not drop so soon on the shelves of the hardware stores, according to the Conseil de l'industrie forestière du Québec's economic analysis director, and are expected to display an increased volatility over the coming few years.⁹

Increases in housing demand, labour and raw material prices all translated into significant increases in the real estate prices. This situation was observed worldwide.¹⁰

The number of real estate transactions increased by 106% in Canada between May 2020 and May 2021. They more than doubled. This additional demand on the market caused the average sold price to increase by 39% during the same period.¹¹

Canada Mortgage and Housing Corporation was considering in April 2021 that *“though pace of sales is expected to moderate from recent highs (...) outlooks remain subject to significant risks (...) includ(ing) stronger than expected inflationary pressures potentially leading to higher mortgage rates, among other risks”*¹²

9 Martin Vallières. “Les rabais risquent d’attendre”

10 International Monetary Fund, “IMF Global Housing Watch”

11 WOWA. “Canadian Housing Market Report Jun. 21st, 2021 | Interactive Map”

12 CMHC-SCHL. “Housing markets expected to moderate, risks remain”

Considering that housing is generally a household's most important expenditure, and that it is growing faster than income around the world ¹³, this new residential market balance and uncertainty may create long term and deep-rooted impacts on the economy. Simply stated, this means that the population in general is having less money available for everything else after they have paid for their housing, whether rented or owned. In an economy based on expansion, this is one of the base conditions for a recession of all other sales levels. This could lead to insolvency concerns and global economical recession.

Insurance is another all-embracing area where the pandemic is expected to impact. It is discussed here as another example of the magnitude of the probable economical structure changes. It is yet too early to observe the breadth of the virus' consequences on insurance premiums.

As the replacement of goods and rebuilding costs will have to be reconsidered by insured and insurers to adapt for adequate coverage, we are likely to observe increases on the property-casualty premiums that could be proportional to the value increment of the insured properties. ¹⁴

13 International Monetary Fund, "IMF Global Housing Watch"

14 David Fortier. "Home Insurance Premium Increases"

Though value inflation is the main causation here, the potential increases could be aggravated by more frequent insurance claims due to climate change like hail, freezing rain, heavy rainfalls, violent winds, floods, etc. And as insurance Companies partly cover their claims through investments, the currently very low interest rates are not contributing enough to covering their losses. Insurance Companies are also planning coverage for collection issues as they are expecting more solvency concerns.¹⁵

More solvency concerns suggest that insurance Companies actuaries, economists and other experts are generally forecasting a more difficult economic environment. This is another direct result of the pandemic.

Though at first the virus impact may not be considered the reason for low interest rates referred to by insurance Companies, we will examine later in the macroeconomic analysis that one of the responses to the economical threat of the pandemic by the Bank of Canada was to reduce their interest rate and furthermore, announcing that they intend to keep it at this level to fight inflation.^{16, 17}

15 Gary Shaw and Neal Baumann. “2021 insurance outlook Accelerating recovery from the pandemic while pivoting to thrive”

16 Bank of Canada. “COVID-19: Actions to Support the Economy and Financial System”

17 Tiff Macklem, Governor of Bank of Canada. “Monetary Policy Report - Press Conference (Webcasts)”

Latent Fiscal Impact

For the federal government only, it is estimated that the cost of Canada's Covid-19 Economic Response Plan was \$135.6 billion as of March 31, 2021, ¹⁸ plus an additional \$76.3 billion expected for the fiscal year ending March 2022 ¹⁹. A total of \$211.9 billion spent by the federal government alone, before considering any additional costs resulting from further waves of potential variants or any longer-term necessary intervention.

These figures are so large that they become hard to visualise. For the last non-Covid-19 fiscal years, Canadian Government's total revenue was \$311 billion for 2017-18 and \$332 billion for 2018-19 ²⁰. This allows a certain yardstick perspective. As total expenditures were already larger than revenue for these two fiscal years, and notwithstanding the likeliness of the federal revenue reduction during the same period, it is expected that Canada's Covid-19 Economic Response Plan spending will necessarily translate into additional federal debt. ²¹

Governmental debt involves the use of funds to cover the recurring borrowing costs and eventually for future repayments. According to the Parliamentary Budget Officer of Canada, our federal public finances would necessitate no less than 48 years to return to their pre-pandemic status. ²²

18 Government of Canada. "GC InfoBase - Infographic for Government of Canada"

19 Government of Canada. "Government-wide reporting on spending and operations"

20 Government of Canada. "Annual Financial Report of the Government of Canada Fiscal Year 2018–2019"

21 Government of Canada. "Debt Management Strategy for 2020-21"

22 Office of the Parliamentary Budget Officer, "News Releases – Federal finances sustainable over the long term – but most provinces and territories are not"

That is half a century long! And only for the expected expenditures up to March 2022, and even excluding the extension of the Economic Response Plan, as announced by Canadian Finance Minister Chrystia Freeland on July 30, 2021. ²³

I am not commenting on the actual unsustainable fiscal policies referred to by the Parliamentary Budget Officer of Canada, but it seems inevitable that many Canadians will face impossible tax regulation as opposed to services provided to them by the state.

Sooner or later, this will have to be assumed as new taxes, increases in taxation rates, service reductions or any combination of them all, impacting again on the economy and again generating even more economical disturbances.

How Long? Quest for Vaccines and Threat of Variants

The previous analysis has shown that the pandemic has already had a significant impact on people and the economy. As we have already seen in real life a film scenario highly improbable according to most, it remains just as difficult at this point to figure out the global outcome. The essential question is: how long?

So much of the economy is at stake depending on how long to develop, produce and inoculate a vaccine, find a cure, to be rid of this pandemic, to return to our pre-pandemic stable and somehow predictable activities. As experts have totally disagreed from the beginning, we can only all humbly agree at this point that we still simply do not know.

²³ Agence France-Presse. "Ottawa prolonge les programmes d'aide jusqu'au 23 octobre"

We can hope that through vaccination, the world population will reach a certain level of global protection by some date. We can pray that no formidable variant will threaten the entire human race and activities.

We can expect that people will naturally regain confidence and that all will return to normal by a certain date. We can wish that all this will happen without further crisis, such as the demonstrations and social unrest observed lately many times and, in many countries, as the Delta variant is flaring worldwide.^{24, 25}

Like so many experts in about as many medical and social fields, any expected date would nonetheless only represent one hypothesis among many others that could turn out to be just as valid. Forensic accountant practitioners are not pandemic experts. And neither are the decision makers that we serve.

As a businessperson, as a politician, as a consumer, as an employee and as a forensic accountant practitioner as well, we must nonetheless modestly decide where we stand from the information available at any given moment.

As professional expert witnesses we must beware that we are surrounded by quicksand if we take even our best hypothesis for granted. No matter what, we must avoid presenting both ourselves and our professional body as fortune tellers. The situations have been changing drastically for the last year and a half. As experts, we must acknowledge the contingency of being wrong because of unforeseeable fast-changing circumstances and find ways to mitigate potential consequences.

Great job linking this discussion back to forensic accounting and the cautions surrounding it in light of the pandemic.

24 Aurelien Breeden. “France's New Covid Rules Bring Protests and Record Vaccine Bookings”

25 Alexander Fangmann. “Cuba sees largest protests in decades as economy deteriorates and COVID-19 pandemic worsens”

Good Practice

Even in these unprecedented times, our first rule for good practice should as always remain our professional integrity, namely by following our various professional associations’ ethical guidelines.

But more important than ever, as the legal systems have also been slowed down by the sanitary measures, our professional credibility will be even more exposed. As a matter of fact, the courts - with the glad help of all opposite councils and critiques - will be able to appreciate the care and considerations we will have given *ex ante* to the impacts of the pandemic on our opinions. Knowing very well by then what will have happened one, two or many years in the future, this will provide them a hindsight yet unavailable to us while preparing our reports. This could even create a hindsight bias, an impression that the events were more foreseeable than they possibly were for us. Whether we tend towards the denialists’ side or too much to the apocalyptic scenario, or even plainly ignore the Covid-19 risks involved with our opinions, we may totally lose our expert witness credibility and damage our professional body.

We must also always bear in mind that we are not pandemic experts. Thus, though we must avoid getting involved in the pandemic experts’ battles and speculations, yet we need to inform our opinions’ users that we are aware of it and disclose how it was taken into consideration in our analysis and opinions. This may put us on thin ice in many situations.

In Canada, we can also turn to our *Standard Practices for Investigative and Forensic Accounting Engagements* ²⁶ for guidance as they represent “*the minimum standard practices that should be met*”. Many sections are relevant in regard to our actual concerns, particularly:

400.11 INFORMATION COLLECTION & ANALYSIS - REASONABLE ASSUMPTIONS

WHERE IFA PRACTITIONERS RECEIVE ESTIMATES AND ASSUMPTIONS THAT ARE OUTSIDE OF THEIR COMPETENCE AND EXPERTISE, AND IFA PRACTITIONERS INTEND TO RELY ON SUCH ESTIMATES AND ASSUMPTIONS, THEY SHOULD CONSIDER THE REASONABLENESS OF THOSE ESTIMATES AND ASSUMPTIONS.

400.13 INFORMATION COLLECTION & ANALYSIS - CONFLICTING INFORMATION & ALTERNATIVE THEORIES

IFA PRACTITIONERS SHOULD CONSIDER AND ADDRESS REASONABLE ALTERNATIVE THEORIES, APPROACHES AND METHODOLOGIES THAT MAY BE RELEVANT TO THEIR WORK.

600.08 REPORTING - ALL REPORTS SHOULD INCLUDE THE FOLLOWING INFORMATION:

(G) THE EXTENT OF RELIANCE ON THE WORK OF OTHERS;

(I) ANY UNDERLYING ASSUMPTIONS AND THE REASONS FOR RELYING ON SUCH ASSUMPTIONS;

(M) ANY RESTRICTIONS ON THE USE OF THE REPORT; AND

(N) ANY SCOPE OR OTHER LIMITATIONS AFFECTING THE FINDINGS AND CONCLUSIONS.

600.10 REPORTING - SPECIAL REPORTING CIRCUMSTANCES

WHERE DIFFERENT APPROACHES ADOPTED YIELD DIFFERENT RESULTS, THE REPORT SHOULD INCLUDE THE RANGE OF SUCH RESULTS AND, WHERE POSSIBLE, PROVIDE INFORMATION TO FACILITATE A CONCLUSION.

According to these excerpts, the IFA practitioner is expected to question his own assumptions, question all assumptions based on the work of whatever kind of expert, disclose his reasons for relying on such assumptions, consider alternative theories and disclose any reasonable range of results.

The IFA practitioner can not hide behind any other expert to support an assumption if he is aware of any other theory, other views or any discrepancy or change in the circumstances. As an example, one can't simply use one of the large bank's economists' very honest and valid yearly opinion to forecast any future index. In the current circumstances, extra questioning, possible justifications, and up-to-date comparisons will be mandatory.

In other words, this means we must question the alternative theories to rely on economical parameters and trends, though we are no pandemic not experts nor economists. And this must be done in a way to remain helpful to the decision maker by providing enough information to facilitate a conclusion and all the while, not losing neither our credibility nor our reliability, and maintaining our reports' readability. With Covid-19, we have a lot of extra professional burden.

Though not mandatory, a provision to review and change our own calculations and opinion if new information is made available should be considered. Stated as a restriction on the use of our report both in our engagement letters and in our reports themselves, it is already considered as a good practice in Standard Practices at 600.08 (m), cited before. As the pandemic poses many additional risks and uncertainties, this could allow us to adjust to consider additional perspectives before any critique, used by opposite council or the

adjudicator, discredits our opinion. Given more hindsight, our quantification could aim at being closer to the reality, improve the exactness of our calculations, making it more useful and saving both our credibility and our reputation. But in many cases, we are not offered a second chance, or we need to consider a time frame either too short or too long to be helped by such a delay in time.

Alternatively, we must also consider the difficulties it would pose on triers-of-fact if experts had to constantly update their opinions due to the rapidly changing conditions earlier in the pandemic. This could become unsustainable, possibly curtail our credibility, and would also involve more professional fees. We are always better off doing it right and complete the first time.

Such a restricting provision nonetheless is among the simple safety measures that should be in place, assuming that we are allowed to use and present hindsight evidence in our opinion.

Hindsight, as a Choice or Mandatory

Justice is a search for the truth.

The truth of what would have been but for an event, incident, accident, deed, decision or whatever is in question oftentimes contains a speculative part, a balance of probabilities that is weighted in the application of justice.

Canadian courts and case law recognize that quantification of losses cannot be, nor must it be, proven with absolute precision. The future or what would have been but for any incident is very rarely known or ascertainable as being the truth but only the most probable outcome, given the available and reliable evidence. It remains for the court to decide what is reliable and relevant.

Hindsight evidence is relevant for the adjudicator only when its probative value outweighs the risk of “*unfair prejudice, confusing the issues, misleading the jury, undue delay, wasting time, or needlessly presenting cumulative evidence.*”²⁷

Although hindsight bias or outcome bias can present a risk in the application of justice, hindsight evidence can also significantly improve accuracy in quantifying a just compensation for losses sustained.

²⁷ Maggie Wittlin. “Hindsight Evidence”

As forensic accountant practitioners in quantification engagements, ignoring the potentially significant impacts of the pandemic in our opinions could be very misleading. Accordingly, the general rule is that hindsight is not only allowed but mandatory for assessing the result, the losses, the economic circumstances after an incident and the probability of potential future actions to establish an objective and precise opinion.²⁸

This is a significant task in the current volatility of the economy due to Covid-19. Industry decline, market crashes, sanitary measures by area, economic indexes such as inflation, supply issues, level of the demand and for how long, are just a few of the questions that the quantifying practitioner must assess, given they would have affected the result even if the incident in question had not occurred.

As all these assessments are established on more numerous assumptions and hypothesis due to the pandemic, they can multiply and develop into notably different results, even considering similar and sound professional judgment and care, when relying on the work of other experts such as economists, market analysts, speculations on political decisions, statistical or actuarial trends or pandemic experts' views, amongst others. This is when our reports risk becoming useless for the adjudicator and all other users, why in these unprecedented times we must display exceptional vigilance in order "*to protect the public interest by ensuring consistency*".²⁹ But how to protect our opinions and their users just is not this simple; it is not as though we were professionally careless before. Yet, a caveat for an extra level of carefulness is to be heard.

28 The Canadian Institute of Chartered Business Valuators, *Litigation II – Advanced Topics*.

29 Chartered Accountants of Canada. "Standard Practices for Investigative and Forensic Accounting Engagements"

New Challenges

When assessing a business loss, we are expected to perform a future projection of its financial performance resulting from an economic analysis of its macroeconomic environment, of the specific industry that the business evolves in, and of the business level environment.³⁰

Excellent job highlighting the new challenges for IFA's here.
This was well thought out and very relevant.

Macroeconomic

Analysis

Macroeconomic analysis implies that we take all applicable parameters into consideration, namely:

- Interest rates;
- Inflation rates;
- Taxation rates and fiscal policies;
- Employment rates;
- Economic growth rates;
- International trade balances;
- Currencies exchange rates;
- Retail sales levels; etc.

As of July 2021, and as previously considered, none of the above parameters remained stable or can be expected to remain so but for the very low interest rates that have generally been observed since before the pandemic. Most of the federal banks, including the Bank of

30 D. Larry Crumbley, Lester E. Heitger, G. Stevenson Smith. *Forensic and Investigative Accounting*, Chapter 10.

Canada³¹, have even reduced their interest rates to support the economy and the financial system in an effort to contain and mitigate the inflationist tendency. The governments of all the wealthiest countries have been spending enormous amounts to maintain their people and businesses afloat, avoiding a possible economical recession and solvency issues.

In a press conference held on July 14, 2021, the Governor of the Bank of Canada announced that the low interest rates policy will be maintained, that economical growth remains lower than he had expected just three months ago due in part to supply issues and numerous fast changing realities in the current pandemic context causing a volatility of all the markets, variable geographically and by industry, and a concerning number of job losses even with the important fiscal incentives. He also expressed a continuous concern for the observed rise of the inflation rate, that he expects to only be temporary as he assumes that Canadians' activities will be able to return to their pre-pandemic levels "*soon*".³²

Summarily, the economic recovery is far from complete as there are still public health concerns. And for as long as these concerns will remain, for as long as we do not have an answer to the how long question, all hypotheses, though supported by the best available channels of information that we can imagine the Governor of the Bank of Canada to access, remains a speculative view. He could very well in another three months announce again that his forecasts did not occur, that this and that changed, that so and so evolved differently than expected, etc. Otherwise stated, we are going through a historical turbulence zone, and we neither know for how long nor how many will experience an air disaster.

31 Bank of Canada. "COVID-19: Actions to Support the Economy and Financial System"

32 Tiff Macklem, Governor of Bank of Canada. "Monetary Policy Report - Press Conference (Webcasts)"

Reliability of Economical Indexes

We are not pandemic experts, nor are we actuaries or economists.

We must avoid using economical indexes turning our opinions into those of fortune tellers. But still, we must refer to many of them and chose from an array of economists' opinions that are changing over time. Who are we to figure out which one predicts the truth? The plain fact is that we can't.

Individually, we can try to keep very informed and perform an approximate average between the various experts' opinions. But the situations are changing faster than the opinions are updated and may very well not all be applicable geographically across the board and in all industries.

We could also consider the use of ranges to express this indecisiveness. If we cover all our uncertainties margins with the use of ranges, this may become too heavy on our reports' readability. Furthermore, multiplying ranges with ranges can mathematically result in a very wide opinion range. Nonetheless, such complete disclosure has the potential merit of illustrating that different quantification experts are closer to meeting in their conclusions, though possibly with a much wider range. This approach is to be considered when possible.

Another option could collectively be used. Like mandated discount rates used in personal injury claims in most of the Canadian provinces ³³ or pre-judgement interest that is a periodically fixed given in Ontario. Macroeconomic indices could be a given by period and by areas, depending on their nature.

³³ Rehanna Moosa. "Discount Rates in Personal Injury Claims"

Though this would reduce the burden on the IFA practitioners, this could also limit the expression of their professional judgment and turn the public perception of their skills into the simplistic performance of a recipe. Yet these suggested indices could be departed from if justified and supported by proper explanations and professional judgment, and yet to be decided upon by the decision makers.

We may wonder who, which organization or governmental entity could be responsible for providing such generally accepted economical indexes. Bank of Canada, Statistics Canada, Canadian Institute of Chartered Public Accountants, Canadian Institute of Actuaries, Canadian Economist Association, etc., or a combination of them.

We used to have the Quebec Order of Chartered Accountants in collaboration with the Canadian Institute of Actuaries state periodically that assumptions for expected return on investments for retirement plans should not be higher than a certain level to remain reasonable for the purpose of auditing retirement plans' financial statements, no matter the rate used by the actuaries of a specific plan. This was a special agreement between the two professional bodies. We no longer have these issues as actuaries already have some standard guidelines when performing their pension plans' evaluations. This is given as an example of a possible solution.

Beyond the serious complications of adherence to such a given array of macroeconomic rates and indexes, and under whose authority and professional abilities, we must face the fact that the pandemic is here, and this contemplated solution just is not available.

Though the Canadian trend is for a single expert appointed jointly by the parties or by the Tribunal, if more than one expert is involved, the experts for each side could agree on certain assumptions. Though this may not bring our opinion closer to the “truth”, this would reduce the list of contentious issues and make our conclusions more comparable for the trier-of-fact. Such an agreement between different experts appointed by different parties would not risk our independence, turning our expert opinions into calculation reports such as if an agreement would have been made between counsel(s) or our calculation based on assumptions given by counsel.³⁴ But for example, if we can agree on an assumed inflation rate with other appointed experts, then focus can be on volume and price forecast. For such an agreement to take place, we must not be a jointly appointed expert, or be alone while possibly expecting a critique letter aftermath. This would leave us with using macroeconomic information to our best knowledge.

But specific attention must be given to the full and detailed disclosure of all the assumptions made and the expression of suitable caveats regarding our use of all macroeconomics in our reports in response to the actual fast changing circumstances. We must make sure that any potential user of our opinion could only consider our conclusions in the perspective that we had. This would possibly allow for easier and understandable comparisons between experts’ differing opinions, enable the user to acknowledge any necessary adjustment accordingly, while maintaining the usefulness of our opinion and preserving our professional credibility. If this is an extra responsibility on us, it will also be more demanding for the users of our opinions.

34 Danielle Martens. “Errors Expert Witness Make by Adopting Assumptions Given by Counsel”

Industry Analysis

As examined before, thus far in the actual crisis, some industries thrived while some others literally collapsed. The industry trend observed may not be an indicative for future performance. As the gymnasiums were closed because of social distancing, the only business concern for the physical training equipment retailers was their own supply. This may forecast future decline in their sales once the gymnasiums reopen. Furthermore, there could be a larger availability of second-hand equipment for sale once the gymnasiums reopen that could compete with their own future sales, merchandise availability and prices.

To perform industry analysis in pandemic times, we will have to assess how its growth and sales trends were impacted by the pandemic, as well as how they are expected to perform in the stabilization of the sanitary crisis but also beyond it. Maybe the physical training addicts all rushed to acquire all the equipment they needed during the first few months of the sanitary measures and then the training equipment demand returned to its normal level even if the pandemic was not over. Maybe most of them will have preferred training at home, will not return to the gymnasiums and the second-hand offer will not impact the post-pandemic sales at all.

Furthermore, the industry growth and sale trends may not have been impacted in the same manner nor to the same level geographically. If you consider a chain of restaurants, you will have the extra task of charting which establishments were closed or not, the possible reduced opening business hours, and the duration of the closing period that may be different as well. The various government sanitary responses impacted differently as well.

Many factors will also influence the growth or decline of some industries. Though the gymnasium industry may have remained stable for years, maybe a large proportion of customers will not return after the pandemic because they now have the equipment at home, because the second-hand equipment offered post-pandemic made it affordable, because they alternatively started training for marathons and enjoyed it so much, because they will remain afraid to return in a closed environment for years or simply because they quit.

Consumers' behaviour can be unpredictable, and we have no modern commercial experience of a pandemic to refer to. The multitude of unforeseeable factors that can arise is overwhelming and will require skepticism, expert additional questioning, and the vigilant use of our professional judgment. And each economic shock has a unique impact on the consumer's behaviour.

Different industries did not face the same employment concerns. Those involving non-essential closer contact were generally much more affected. Employees tried to escape from jobs that could not provide foreseeable financial stability, like restaurants, tourism and showbusiness. This will impact these industries when they try to reorganize their activities. Accordingly, we may expect some more significant increase in labour costs in some industries.

The government employment support programs will also have to be taken into consideration regarding actual activities and actual cost of labour but for this financial support.

Industry statistics will have to be used with extra care in the circumstances as a specific business may not correlate with its industry but only for a period and exactly because of the pandemic. While restaurants suffered the social distancing and confinement, I have seen restaurants performing beyond their wildest dreams as their take-out menus became huge sales success and their costs plunged as no service was offered. There are many Covid-based situations where resorting to statistics can be misleading. Still more care and use of professional judgment is to be provided by the forensic accountant.

When considering entries or barriers to entry, we will probably have to return to the actual macroeconomic situation. We can generally expect more barriers to entry than normal. But again, this may not be the case; just look at the amazing number of entities that organized to produce and supply masks, medical protection gear and disinfectants in the heart of the most uncertain times. Entrepreneurs are a class apart!

But the current fast changing times will make it mandatory for the forensic accounting experts to do a complete review of the industries, namely a basic internet search. There was a case in Canada following the 2008 economic downturns, where a practitioner did not perform any such research. The expert appointed by the defending party provided plenty of internet articles about the industry decline, including one from the other expert's accounting firm. The expert appointed by the demanding party only then updated his report, but he had already impaired his credibility and reputation, being blamed for not abiding to his Rules of professional conduct and not properly assisting the trier-of-fact.³⁵

³⁵ Danielle Martens. "Errors Expert Witness Make by Adopting Assumptions Given by Counsel", pp 40-43.

Such industry quick and consequential changes may become more commonplace with the Covid-19 pandemic. And internet's almost "live" references have become much more prevalent than they were back in 2008. The forensic accounting experts can no longer ignore the importance of this overwhelming flow of information made available. Though the reliability of many sources can be questionable, it has the undeniable advantage to enable us to assess the trends just as they occur.

Business Specific Analysis

A general financial health analysis of a business is generally the most significant influence to project its future results. Normally, the best source of financial information are the financial statements and their supporting documentation.

Now and for many years to come, we will have to detect and cut off all that is not what it should have been but for the pandemic, whether positive or negative. This means some periods would not be relevant, as well as some specific income or expenses, such as salary paid to employees while not working during confinement as well as any financial assistance received.

A business' performance trend before the harmful event that we are quantifying normally is one of the indicators for future performance. But with the insight of the pandemic, that future performance possibly requires significant modulation.

On the other hand, if we are assessing this trend in the middle of the pandemic, some periods may not be relevant. For the last two years, swimming pools businesses sold all the pools they could manage to procure as the demand was so overwhelming that builders

working around the clock could not respond to all the orders. Pricing was not an issue as people could not go on vacation. Projecting this performance in the future would seem to be unrealistic but it remains hypothetical to which level and until when.

Like the restaurants doing amazingly well with their take-out menus, a business' performance trend can be out of the macroeconomic and industry trends. This would normally allow us to assess the quality of a business' management and justify how well it could adapt to future challenges. The level of correlation between the business, its industry and the economic situation during the pandemic could have been mere luck. Some retailers with overstock that could have put them out of business in normal circumstances may have turned out to sell it all at their highest price ever. Business performance trend will have to be questioned with skepticism and adjusted to the actual context.

We are challenged by many limitations of our generally accepted assumptions and methods when performing future projections. Historical trends and ratios like gross margin may not be relevant for future projections for cost of labour, cost of goods and general expenses. Though still speculative, we saw that insurance premiums are generally expected to increase, as well as possibly the taxation regulations. As we know business owners are concerned about the return of their customers, we may expect a special marketing effort to be required in some cases, though it is not our expertise to quantify such campaigns. Clearly, we will not simply apply future inflation forecast to assess future expected expenses. Our projections performance will seem more like a zero-based budgeting process. More assessments and assumptions will be required than ever before, making our projections more speculative as well as more questionable.

Personal Losses

When assessing personal losses, some of the previous business analyses may not be relevant, depending on the individual's occupation, whether an entrepreneur or employed.

Covid-19 brought extra parameters of volatility in the field of personal injury as well. Employment rate has been fluctuating and there were some very specific occupational impacts with the pandemic; nurses were much more in demand than commercial aircraft pilots, for example.

According to statistics published on July 21, 2021, by the American Center for Disease Control and Prevention, life expectancy of the American general population was reduced by 18 months for 2020. Their announcement also indicates that this regression is 90% explained by Covid-19 casualties, as 11% of all American deaths in 2020 were caused by the virus. The 18 months reduction was the overall average; life expectancy of Afro-Americans dropped by 2.9 years and it was reduced by 3 years for Hispanic-Americans.^{36, 37}

Though we do not yet know the full impact of the current pandemic, it appears that life expectancy could have to be adjusted in some personal injury claim calculations.

It also implies that we can expect future life insurance premiums to reflect the insurers' accrued exposedness.

³⁶ Agence France-Presse. "L'espérance de vie des américains a chuté de 18 mois"

³⁷ American Center for Disease Control and Prevention. "The 2020 Decline in Life Expectancy"

In case of personal injury, the cost of care may also have to be reviewed in consideration of the general labour market but also specifically with the increased demand of caretakers, given the pandemic and people trying to avoid hospitals and residences for the elderly. Generally, inflation in cost of care in cases of personal injury claims is already recognized as different from general inflation. They bear specific reasons for increase which may not correlate with the variation of the lost income over time. This also explains why there is a mandated discount rate for cost of care and another one for loss of income in some Canadian provinces.³⁸

As I suggested some advantages in the use of generally accepted given economical indexes in the above analysis Reliability of Economical Indexes, this brings me to the practice of discounting in personal injury claims. There is a very abundant professional documentation on this topic, mostly all about which indicator is the best, whether taxes impact should be considered or not, etc. The idea is if you offer an injured person a lump amount to replace his prolonged loss, what rate of investment income is to be expected over the years and at what rate would his earnings have otherwise increased throughout the years, considered as inflation. Same logic is applied for the cost of care with investment income rate and future raise of the cost of care, also considered as an inflation parameter.

Simply presented, the application of this concept becomes a discount rate, representing the difference between the rate of investment income that will be generated by the paid lump sum, less the rate at which the injured person's income would have increased over the contemplated years. And it is called a discount rate because it is always presumed that the

³⁸ Rehanna Moosa. "Discount Rates in Personal Injury Claims"

investment income rate will be higher than inflation. It is then understood that return on investment will partly cover for the yearly loss over the years. The mandated discount rates for personal injury claim in Canada range from 2% to 3.5%, depending on the province.³⁹ This implies that return on investment must be 2% to 3.5% higher than inflation, and by contemplating guaranteed investments as an injured person should not have to go and gamble with his lifeline investments.

In Canada, the inflation rate based on Canada consumer price index has been at 3.4% in April, 3.6% in May and 3.1% in June of 2021, while it was at 5.4% in the USA.⁴⁰ During the same period, Canada's risk-free rate (CORRA) has never been beyond 0.2%.⁴¹

In the present circumstances, an injured person who would not use a single dollar from the lump sum he was awarded is poorer by an average of 3.1% after a year while he was expected to be wealthier by 2% to 3.5%, according to the Canadian mandated discount rates. As experts argue over very thin percentage margins in their computing approaches and as expert publication is so abundant about it, a discrepancy between 5.1% and 6.6% is simply huge.

Of course, the theory also implies average rates over many years. But the guaranteed interest rates have not reached more than 2%⁴¹ for many years already, while inflation maintained average levels of approximately 2% since 2017⁴⁰, representing a zero net impact and not justifying the application of any discount rate for some five years already.

39 Rehanna Moosa. "Discount Rates in Personal Injury Claims", p.7-8.

40 RI Rate Inflation. "Canada Inflation Rate | Inflation Rate and Consumer Price Index"

41 Bank of Canada. "Interest Rates - Bank of Canada"

In Canada, some provincial legislation “*still allow judges to use their discretion in determining the discount rate, if the circumstances of the case warrant a deviation from the rates legislated by law (...) Due to the uncertainty regarding the future, judges favour the historical approach based on the concept that the average real interest rates that have occurred in the past will continue to exist into the future.*”⁴²

Given the rates observed over the last few years, the economical impacts of the current pandemic and the blurred foreseeability of the economy over the next few years, I submit that discount rates should not be stated by legislation nor assessed by triers-of-fact but agreed between experts of that complex and specific field and reviewed on a regular basis. And the same should go for many other macroeconomic indexes.

We will face an astounding array of challenges in conducting quantification engagements whether for businesses or personal injuries for many years to come. In this context, the complete disclosure of all our assumptions will be more important than ever.

Excellent discussion here, Doris. Very practical and relevant to IFA's given the uncertain landscape of the pandemic and its fall out.

⁴² Rehanna Moosa. “Discount Rates in Personal Injury Claims”, p.51,58.

Impact of SARS-CoV-2 on our Required Skill Sets and Activities

Considering all what is possibly changing socially and economically, it should probably first trigger a new attitude, more humbleness in our approach to all projections and assessments.

Given all the possible additional requirements previously examined, we can expect almost all our quantification engagements to call for extra care, more preponderance of peer review and thus, we must plan for more resources, skills, and time.

We must be aware, and constantly keep informed. More than ever, our fast-changing environment does not allow us to work in isolation. Knowing how business is conducted, understanding the information sources and flows and our investigative mindset currently may no longer be enough; we must maintain general interest and up-to-date information about what is happening socially and businesswise. This will be mandatory to detect new difficulties, trend changes, understand the new challenges of the economy. Though this will not make us economists or statisticians, this will be required to identify possible shortcomings in our own justifications, support our assumptions, and apply a sound skepticism as now, more than ever, analysing the past offers no guarantees for the future. Peer review will likely and more than ever raise a lot of discussions.

This situation may last for many years ahead, and beyond the pandemic. For as long as we will not be able to return to a long enough stable period. Unfortunately, this situation will inevitably translate into higher professional fees and a harsher access to justice.

Then What?

In the last year only, there have been many catastrophes attributed to the Earth warming. Global warming is suspected to be causing the increased number and severity of hurricanes, tornadoes, heat waves, rise of the oceans' levels, huge fires in Australia, California and Canada, severe weather and flash floods in Japan, Germany, Belgium, England, Netherlands, etc. Will this cause never-seen-before regulations, social unrest, and large migrations? Where will this lead us and the world economy? Is this movement already in action? Could all this hit even before we are out of the pandemic?

It certainly is too early, almost a year and a half after World Health Organisation declared that the outbreak of Covid-19 was a pandemic, to affirm that the world is over with the SARS-Cov-2 virus.

Although the near-miracle achievement of finding effective vaccines in less than a year, the vaccination rates worldwide remain too low for herd immunity, suggested to be between 85% and 90%⁴³ due to the aggravated contagion of the Delta variant. With global traveling, the pandemic spread rapidly with little time to prepare a public health response. And this keeps happening over and over with the Covid-19 variants.

As of July 24, 2021, it is estimated that 27.3% of the world population has received at least one dose of a Covid-19 vaccine, while only 13.8% of the world population is estimated to be fully vaccinated.⁴⁴

43 Amanda Pfeffer. "Officials say 90% of population needs vaccine to reach herd immunity | CBC News"

44 Hannah Ritchie, Esteban Ortiz-Ospina, Diana Beltekian, Edouard Mathieu, Joe Hasell, Bobbie Macdonald, Charlie Giattino, Cameron Appel, Lucas Rodés-Guirao and Max Roser. "Coronavirus Pandemic (COVID-19)"

At this pace, and notwithstanding the possible complications due to the anti-vax movement, the 85% to 90% safety threshold would most likely still require years.

We know that a new variant can develop every time a new contagion occurs. More contagions statistically mean a greater risk of mutations that could be more lethal or vaccine resistant. According to Worldometers ⁴⁵, during Tuesday July 27, 2021, there has been 578,981 new Covid-19 cases and 9,473 associated deaths. Overall, since the appearance of the virus, there has been a total of 196,230,957 people infected and 4,197,319 casualties throughout 220 countries and territories.

These possible new Covid-19 variants remain a threat to the public health and the worldwide economic stability for as long as herd immunity is not achieved worldwide. If it ever is achieved.

First there was the Severe Acute Respiratory Syndrome ⁴⁶, SARS coronavirus that appeared in China in February 2003 and affected 4 countries according to World Health Organization, among which Canada. SARS spread in the Toronto area with 375 cases and 44 casualties between March and June 2003. Its contamination appears to have been eradicated from human race.

Then there was the Middle East Respiratory Syndrome ⁴⁷, MERS coronavirus that spread in 27 countries since 2012, when it was first identified. It is estimated that 35% of patients with MERS-CoV have died. It presumably originated in bats and was later transmitted to

⁴⁵ Worldometers. "COVID Live Update: 196,230,957 Cases and 4,197,319 Deaths from the Coronavirus"

⁴⁶ World Health Organization, "Severe Acute Respiratory Syndrome (SARS)"

⁴⁷ World Health Organization, "Middle East respiratory syndrome coronavirus (MERS-CoV)"

camels and dromedaries. As opposed to SARS, MERS is still mainly spread by dromedaries and transmitted between humans through close contacts like in health care settings. It is not eradicated.

Between January 1 and March 11 of 2011, WHO reported seven laboratory-confirmed additional cases from Saudi Arabia only, including three associated deaths. Until March 11, 2011, WHO reported a total of 2574 confirmed MERS cases and 886 deaths. The figures may not be complete though as WHO also states that with the current Covid-19 pandemic, most of the MERS testing resources have been redirected to the Covid-19 efforts in many countries and as MERS symptoms are non-specific.⁴⁸ This means that just like Covid-19, MERS can be taken for a simple flu or as Covid-19 and evolve in the population, especially in Covid-19 fully vaccinated populations no longer maintaining social distance protocols.

For years we have been hearing warnings about the threat of zoonotic influenza, also known as type-A influenza, swine virus, bird flu, avian influenza, H5N1, H5N6, H5N8, H7N7, H7N9, H9N2, or H10N3, etc. It has numerous variants, rather called *influenza concerning strains*.⁴⁹

So many conspiracy theories were drawn around the influenza threat, along with Bill Gate's philanthropic initiatives to spy on all of us and the 5G worldwide-super-control that the danger of such a pandemic that could result into tens of millions of deaths has somehow sadly evolved into a running gag.

48 World Health Organization, "Middle East respiratory syndrome coronavirus (MERS-CoV) - Saudi Arabia"

49 World Health Organization, "Influenza (Avian and other zoonotic)"

Occasionally though, we also hear about tens and even hundreds of thousands of farm birds in Asia being culled because of yet another avian flu outbreak. Killing so many poultries along with all their eggs surely must be justified. Sporadically, we even hear about a few cases, restrained outbreaks of human zoonotic influenza. So far, there has been millions of poultry infections and several hundreds of human cases and many human deaths. We know there is constant worldwide surveillance. It always seems under control, not a serious threat. Just something happening somewhere far, far away... An exotic place, just like Wuhan...

In January 2021, there was such a mass bird cull in India.⁵⁰ Then on July 12, an eleven years old boy died of a confirmed H5 strain avian flu in India. No direct link with the sick birds has yet been found, nor any other cases confirmed.⁵¹

The risks for human health are countless. Their probability of occurrence is much less predictable than inflation. The last two years have shown us that they are not impossible, though. Ecologists warn us about the possibility of deadly contagious diseases frozen latent in fast melting polar glaciers or affecting other wildlife's habitat penetrated by humankind.

Considering our collective unpreparedness when faced with Covid-19, on March 30, 2021, worldwide political leaders announced a call for an international pandemic treaty. Among them, Boris Johnson, Prime Minister of the United Kingdom, Emmanuel Macron, President of France, Angela Merkel, Chancellor of Germany, Dr Ghebreyesus, Director-General of the World Health Organization, and of course many others.

⁵⁰ Rhea Mogul, Swati Gupta. "India begins mass bird cull in response to avian flu outbreak"

⁵¹ University of Minnesota, Center for Infectious Disease Research and Policy, "H5 avian flu case in India - India reports its first human avian flu case"

These were not teenagers playing a trick, nor enlightened people writing an internet blog from their home basement. They are wise, well intended, and highly credible world leaders with vast information resources. Their signed statement said: *“There will be other pandemics and other major health emergencies. (...) The question is not if, but when. (...) The Covid-19 pandemic has been a stark and painful reminder that nobody is safe until everyone is safe.”*⁵²

⁵² World Health Organization, “Global leaders unite in urgent call for international pandemic treaty”

Up Until the Next

I recognize that I presented many worst-case scenarios. And I do hope they never occur. But the seriousness of the present situation needs to be contemplated. Awareness is one of the keys to prepare an adequate response and it appears that this new reality will not only be a short, momentary phenomenon.

Novelty

This pandemic is a modern première. When I started researching forensic journals, previous academic research reports, or any available professional publications I was surprised that I could hardly find references that previously addressed similar topics, and very few remotely addressing the questions associated with serious economical disturbances.

My quest for major economical concerns took me back to references to the 1980's recession and the 2008 market crash, whose disturbance was much shorter and not as widespread. Though "*forensic accounting*" designation started in the 1930's, during the 1980's crisis, the practice of forensic accounting was not as organized and even merely recognized. Past economical disturbances probably were not relevant to research and write about in our professional perspective in the aftermath. The vast majority of the publications on macroeconomics revolves around which rate would be the best to use among Base, Treasury Bills, Bond Yields, Money Market, all possible rates, and considering a simple offset with inflation. Forensic accounting experts did not see financial disturbances coming and, if they did, they always expect it to remain a short-term concern, having a somehow limited impact on future projections and their discounting into eventual present lump sum damage awards.

But there is more to the present situation: social media.

To forecast the growth or recession of the economy, economists must assess the global spending of households, businesses, and public entities. The governments, through their many public entities, rely on their purchases and infrastructure expenditures to stimulate their country's economy during uncertain times. They use their spending power to favourably impact their Market Economy. Households and business managers, on the other hand, do all that they can to take their money and run. They delay investment, repair instead of replace, decide not to change their car, postpone their vacations, buy a cheaper alternative, and put all their savings in guaranteed financial investments. Spending is the result of consumers' confidence in the economy; trust that they will still have a job next month, that they will not lose their savings, that they will still be able to afford both the rent and the grocery, that there will be bread on their table.

The social novelty we are now facing is where the people take their confidence from. People used to listen to the priest's sermon, read the paper or watch the daily TV news bulletin. Nowadays, a substantial proportion of the population is strictly informed through social media, where information can become viral and spread like wildfire. Where a business' reputation can either quickly go down the drain or become a success story overnight. And where confidence, as well as doubt and suspicion, can be promoted through false news or totally subjective information. It has the power to make people run to the grocery to buy toilet paper, flour, and hand sanitizer, to the extent of creating an artificial but nonetheless very real shortage, and further creating a panic.

Confidence is not an objective parameter. As we could observe with the real example of toilet paper, simple things can trigger doubt, become so desirable as to cause panic and even social disturbances and unrest.

Social media plays a key role in the population's perceptions. Companies pay influencers outstanding fees. Because they have an impact. They are the new reality. And they can make trends shift in the blink of an eye.

Social media makes people's behaviour and spending even less predictable than they ever were.

What we can do

We can all go home and say: Nah! I can't quantify anymore!

This would leave the decision makers in front of nothing. Though facing unprecedented challenges, hopefully, we can still provide services and opinions that are useful to the public.

Here is a summary of the things I found that can help us maintain our high standards, respect our professional rules and good practice, reduce potential gap between expert's opinions and help the triers-of-fact understand, compare, and decide.

I think many have felt totally exasperated by the pandemic. I appreciate your thoughtful consideration here and how you are tying things back to IFA Standards directly.

They are all time-consuming and often an additional burden. Some do not apply in all circumstances, and

some are easier to put in place. Our credibility depends on us answering this pandemic challenge, individually and as a Body of highly skilled experts.

As our professional response should be adding extra care whereas the pandemic has placed new pitfalls for us, I tried to draw my recommendations by linking them to our general guidance, the *Standard Practices for IFA Engagements*.⁵³

100.07 INTRODUCTION

... REQUIRES THE REPEATED APPLICATION OF PROFESSIONAL JUDGMENT IN THE DETERMINATION OF WHAT CONSTITUTES GOOD PRACTICE IN A PARTICULAR CASE.

- Awareness

To maintain a sound professional judgment, we must be aware and keep informed. We are expected to know what is happening businesswise. It is our job to notice, be interested, to search and to know. Being aware allows us to apply an informed professional judgment at all levels but also namely to determine if we are still performing within our standards of good practice.

In the current pandemic-era, we must stay alert about the pandemic development worldwide as we are all interdependent, like the car sales plunging worldwide because of the car-chip shortage in Asia.

We must organize to be kept informed about all the economical news and changing provisions, as well as new regulations including taxes and various incentives. This is better achieved through a professional network as a lot of information is required.

100.11 DEFINITION OF IFA ENGAGEMENTS

IFA ENGAGEMENTS ARE THOSE THAT (...) REQUIRE THE APPLICATION OF AN INVESTIGATIVE MINDSET. AN “INVESTIGATIVE MINDSET” REQUIRES A SCEPTICAL ATTITUDE IN THE IDENTIFICATION, PURSUIT, ANALYSIS AND EVALUATION OF INFORMATION RELEVANT TO EACH ENGAGEMENT, CONTEMPLATING THAT IT MAY BE BIASED, FALSE AND/OR INCOMPLETE. THIS IS APPLICABLE IN IDENTIFYING AND ASSESSING RELEVANT ISSUES, ASSESSING THE PLAUSIBILITY OF THE UNDERLYING ASSUMPTIONS, ASSESSING SUBSTANCE OVER FORM, AND DEVELOPING HYPOTHESES FOR THE PURPOSE OF ADDRESSING THE ISSUES UNDER INVESTIGATION.

- Attitude

Humbleness will be mandatory. Exceptional vigilance and probably more collaboration between experts could enable us to focus on the real questions, just like reaching consensus on more parameters to be used.

- Scepticism

An extra layer of scepticism will be required to identify situations where past will offer no guarantee of the future, as we can expect that Covid-19 will provide us with more such cases. Our investigative mindset will find more expression than before towards all financial projections and their underlying assumptions.

200.04 ENGAGEMENT ACCEPTANCE - GENERAL

IFA PRACTITIONERS SHOULD HAVE REASONABLE ASSURANCE THAT THE IFA ENGAGEMENT TEAM COLLECTIVELY HAS THE NECESSARY EXPERTISE, COMPETENCIES, RESOURCES AND TIME TO PERFORM THE ENGAGEMENT.

THE IFA ENGAGEMENT WORK SHOULD BE ADEQUATELY PLANNED. (...) SUFFICIENT UNDERSTANDING OF THE CONTEXT (...) EVALUATING THE RESOURCES NECESSARY (...) DEVELOPING HYPOTHESES (...) STRATEGY TO ACQUIRE FINANCIAL INFORMATION (...) DETERMINING THE IMPACT OF THE NATURE AND TIMING OF ANY REPORTING REQUIREMENTS.

- Expertise, knowledge, researching and time

Before accepting an engagement, an initial planning must be drafted.

We will have to question more closely with all the Covid-19 impacts, if we have the knowledge, the expertise and the resources required. As an example, if the engagement is about a pan-Canadian chain of restaurants, we may need to provide the knowledge and time to figure out the map and calendar of the pandemic, the government financial assistance programs by province, the various sanitary measures applied geographically, the industry trends observed, etc. Different skills, more time and resources will be required. This should already be part of our staff assignments and well taken into consideration in our estimates of professional fees.

- Peer review

As we can most likely expect our opinions to rely on more assumptions and hypotheses in this time of economic instability, it becomes even more important to put our reasonings to the test. Though this good practice is already broadly used, it should nonetheless be used more thoroughly. Not only mere checks for spelling and calculations. Question hypotheses in depth. Consider alternatives. Maybe also

require an additional peer review by a practitioner with expertise in a specific field or industry, for example, to validate specific assumptions.

Deeper or additional peer review require finding the right IFA practitioners and planning both their availability and extra professional fees.

400.04 INFORMATION COLLECTION & ANALYSIS – GENERAL

IFA PRACTITIONERS SHOULD CONSIDER THE RELEVANCE OF ALL INFORMATION THAT ARISES DURING THE COURSE OF AN IFA ENGAGEMENT.

400. INFORMATION COLLECTION & ANALYSIS - REASONABLE ASSUMPTIONS

.10 IFA PRACTITIONERS SHOULD EVALUATE THE REASONABLENESS AND CONSISTENCY OF ALL ESTIMATES AND ASSUMPTIONS HAVING REGARD TO THE IFA PRACTITIONERS' COMPETENCE AND OTHER AVAILABLE RELEVANT INFORMATION.

.11 WHERE IFA PRACTITIONERS RECEIVE ESTIMATES AND ASSUMPTIONS THAT ARE OUTSIDE OF THEIR COMPETENCE AND EXPERTISE, AND IFA PRACTITIONERS INTEND TO RELY ON SUCH ESTIMATES AND ASSUMPTIONS, THEY SHOULD CONSIDER THE REASONABLENESS OF THOSE ESTIMATES AND ASSUMPTIONS.

400 INFORMATION COLLECTION & ANALYSIS - CONFLICTING INFORMATION & ALTERNATIVE THEORIES

.12 IFA PRACTITIONERS SHOULD REVIEW ALL INFORMATION RECEIVED DURING AN IFA ENGAGEMENT, AND CONSIDER ITS RELEVANCE, RELIABILITY, REASONABLENESS, COMPLETENESS AND CONSISTENCY WITH OTHER KNOWN ENGAGEMENT INFORMATION.

.13 IFA PRACTITIONERS SHOULD CONSIDER AND ADDRESS REASONABLE ALTERNATIVE THEORIES, APPROACHES AND METHODOLOGIES THAT MAY BE RELEVANT TO THEIR WORK.

- Research

The one thing that is available more than ever is information, namely because of internet. We must use it like we never have before, become fluent in the use of

these innumerable sources of information. Though this was already true before, the currently fast-changing environment is forcing us to dig deeper into our search for information. For if we do not, others may and torn down our opinions.

Research industries. Covid-19 and sanitary measures impacted on a multitude of realities. Find out what is happening. Identify what are their supply, labour, and other specific challenges. Find out how their market and prices are evolving.

Research correlation of industry trends at business level and explain differences. Question whether it can or not be sustained. Some businesses found ways to depart from their industry's performance, but that performance may not be maintained. We must get a good understanding of what is really happening. This most precious information will not be found in the financial statements or in any financial data base but only through an organized research.

- Scepticism

Yes, extra-scepticism is required again; we must take nothing for granted, stay alert if any information is conflicting and question all, geographically, by industry, the impact of rules and policies. Think outside the box by applying our extensive business knowledge and professional judgment to assess the comprehensive impacts of the new situations that may arise from the sanitary crisis.

- Skill sets

If the pandemic evolves into a longer period, there will no doubt be even more significant impact on the economic situation of even more people, businesses, governments, and entities. If this should happen, a wider range of alternative views would be possible about their future financial positions. This requires more hypotheses and assumptions to choose from. More justifications would be required, more explanations to be provided to follow the logic of the reasoning towards our opinions. In that perspective, no reasonableness can be assessed in a vacuum. Interdependence of parameters will require a broad knowledge and strong analytical reasoning.

- Detailed justification of all financial appreciations

Unstable financial performances will call for more adjustments in our loss assessment opinions. Since we may have to depart significantly from business past performances in establishing future projections, more explanations and justifications will be required to support our opinion and its logical development. This may make our reports heavier and make them harder to follow. Though some triers-of-fact are very business cognizant, others are not. As seen with the study on how the judges generally do not like to depart from solid past evidence in establishing discount rates and tend to favour the historical approach ⁵⁴, it is expected that more evidence will be required. Just as an example, again, insurances and publicity are suddenly increasing for 2021, 2022 while they were always stable before. This may be questioned. Though we may expect more

significant examples to arise, we are to expect more questioning and having to provide more justifications and explanations in support of our estimates.

54 Rehanna Moosa. “Discount Rates in Personal Injury Claims” p.51.

400.15 INFORMATION COLLECTION & ANALYSIS – RELIANCE ON THE WORK OF OTHERS

IFA PRACTITIONERS SHOULD EVALUATE THE NATURE AND LEVEL OF INTENDED RELIANCE ON THE WORK AND/OR INFORMATION OF OTHERS. THE RESULTS OF THIS EVALUATION WILL IMPACT THE EXTENT TO WHICH THE FOLLOWING FACTORS NEED TO BE ASSESSED: (...) THE OVERALL REASONABLENESS OF THEIR ASSUMPTIONS, METHODOLOGIES, FINDINGS AND CONCLUSIONS (...)

IF THIS EVALUATION IDENTIFIES INADEQUACIES OR A HIGH LEVEL OF RISK, IFA PRACTITIONERS SHOULD PERFORM ADDITIONAL PROCEDURES TO ADDRESS OR RESOLVE SUCH FACTORS. IF IFA PRACTITIONERS ARE NOT SATISFIED WITH REGARD TO THESE FACTORS, THEY SHOULD EITHER NOT RELY ON THE WORK OF THE INDIVIDUAL(S) CONCERNED OR DISCLOSE THEIR CONCERNS.

- Scepticism, staying informed, research and complete disclosure

It is human nature to repeat the same old winning recipe. With the pandemic, many usual recipes may no longer be appropriate. No matter the field of the expert we would need to rely on, he may not display proper awareness of the circumstances or even dare thinking “outside the box”. We must apply our professional scepticism to their work as well. Has the appraiser taken the actual supply issues into consideration? Did he consider that there is zero vacancy, etc.? We may have to question more, adjust some conclusions, find alternatives to obtain the required information and disclose our concerns if departing from the work of others.

.03 PRIOR TO THE ISSUANCE OF THE REPORT, IFA PRACTITIONERS SHOULD BE SATISFIED THAT THERE IS SUFFICIENT SUPPORT FOR THE CONTENT OF THE REPORT, INCLUDING ANY FINDINGS AND CONCLUSIONS REACHED.

.06 IFA PRACTITIONERS SHOULD CONSIDER ALL RELEVANT INFORMATION THAT COULD IMPACT THEIR FINDINGS AND CONCLUSIONS.

- Methods and extra tasks

“All relevant information that could impact our findings and conclusions” is extremely broad. This translates into extra research of information as the circumstances are evolving very fast with the pandemic.

But above all, in time of economic turbulence, as analysis of the past offers no guarantee for the future, we must apply our investigative mindset and leave no rock unturned. Possibly consider applying different methods too.

Business ratios and margins may not be relevant for simple extrapolation. Find and consider all alternatives.

Contemplate all the likely Covid-19 related extra expenditures such as insurance, set-up cost of sanitary measures, or marketing expenses even if they were not necessary before for the success of that business.

Remove all pandemic impact from the financial information provided if we must rely on an impacted period. This means we must be aware of all financial assistance programs that applied, confinement periods, reduced hours of business,

sanitary measures extra costs, salaries paid to non-working employees, etc., and by location because sanitary measures did not apply identically everywhere.

.07 IF IFA PRACTITIONERS BECOME AWARE OF THEIR NAMES BEING ASSOCIATED WITH FALSE OR MISLEADING INFORMATION (...) THEY SHOULD REQUEST THAT SUCH INFORMATION BE CORRECTED (...) OR THAT APPROPRIATE ACTION BE TAKEN TO CORRECT THE MISINFORMATION.

and

600.08 (M) ALL REPORTS SHOULD INCLUDE ...ANY RESTRICTIONS ON THE USE OF THE REPORT.

- Provision to review our opinion if new information is made available

Such a restriction in the use of our reports is a good practice and allows us to adjust our opinion given that something unforeseeable came up.

This is not a forensic accounting practitioners' emergency exit for having carelessly issued a "bad" opinion. We could not constantly update our opinions due to the rapidly changing conditions earlier in the pandemic considering all the legal procedures possibly involved, costs, and the probable credibility concerns that could arise in the triers-of-fact's view.

600.08 REPORTING - ALL REPORTS SHOULD INCLUDE THE FOLLOWING INFORMATION:

(G) THE EXTENT OF RELIANCE ON THE WORK OF OTHERS;

(I) ANY UNDERLYING ASSUMPTIONS AND THE REASONS FOR RELYING ON SUCH ASSUMPTIONS;

(L) SUFFICIENT INFORMATION TO ENABLE THE USER TO RELATE TO THE FINDINGS AND CONCLUSIONS TO THE SUPPORTING ANALYSES, INFORMATION AND DOCUMENTS;

(N) ANY SCOPE OR OTHER LIMITATIONS AFFECTING THE FINDINGS AND CONCLUSIONS.

- Complete disclosure of concerns and assumptions

Economical instability results in more concerns and less foreseeability. Complete disclosure may result in longer reports but will also allow our readers to take our assumptions and hypotheses for what they are, and that only. Justification of our assumptions will enable the triers-of-fact to follow our logic and not perceive us as fortune tellers. This will also allow comparisons and a better use of our abilities.

Transparency will be necessary; if we do not know, we just do not know. Complete disclosure goes along with the expression of suitable caveats regarding our use of parameters or all macroeconomics in our reports, in response to the actual fast changing circumstances. Where an assumption is an assumption, and though we may strongly believe in it and explain it thoroughly, it must still be taken for what it is. As the story fits, our reader can follow our ideas, sources of information and explanations. As we may have to issue opinions significantly departing from the financial history, transparency and the careful application of informed professional judgment will be the safeguard of our credibility and usefulness for the triers-of-fact.

600.10 REPORTING - SPECIAL REPORTING CIRCUMSTANCES

WHERE DIFFERENT APPROACHES ADOPTED YIELD DIFFERENT RESULTS, THE REPORT SHOULD INCLUDE THE RANGE OF SUCH RESULTS AND, WHERE POSSIBLE, PROVIDE INFORMATION TO FACILITATE A CONCLUSION.

Economical parameters

Considering my previous concerns about them, for as long as economy is not stabilized, I submit that it would not be appropriate to use a rate only justified by a note, stating “*as per Bank of Canada*”.

Because of Covid-19 induced volatility, comparable values from alternative sources and other values such as averages or median should be considered. We should also explain why we selected a specific one, from where, and when. And disclose why we change it, or not, in our projections over a certain period of time in our analysis.

- A given

Like we have for pre-judgment interest or mandated discount rates for personal injury claims, a more comprehensive set of given parameters could be organized. But this most likely will not be for the Covid-19 pandemic.

- Agreement on economical parameters, and more

Collaboration between experts, whenever possible, is always the best option. As we may expect a larger gap in IFA practitioners’ opinions due to the economical situation, agreement between experts from each side on as many assumptions as possible, including economical parameters, is one of the most effective solutions. It also allows reducing the list of contentious issues and makes the conclusions more comparable for the users.

- Use of ranges

In case of uncertainties, the use of range is among the very good practices, but it cannot be overused or the experts' opinions risk becoming very wide. [1%;1.3%] of [2.6M\$;3M\$] becomes [2.6M\$; 3.9M\$]. Every time a range is applied in calculations, the range mathematically expands.

Though a conclusion stating a possible range value may be quite valid, I suggest that the use of ranges could be replaced or combined with the use of averages or median values when we are facing multiple intervals in our calculations. This allows to keep our calculations clearer and reduce our final resulting range, when too many of the parameters we are using are blurred.

- Multiple values

Multiple values are similar to the range in logic but differently applied. Multiple values allow us to state an array of different scenarios that would trigger different results that the trier-of-fact will more likely be able to select when he has additional evidence as opposed to the available information at hand when we issued our opinion. If inflation is 1%, then it is 1M\$. If inflation is 2%, then it would be 1,1M\$, and so on.

Excellent discussion here, Doris. You have provided solid, real-world takeaways for IFA's to consider. Well done.

Conclusion

I think I have illustrated that forensic accounting practitioners, especially those working in the loss quantification field, are already likely facing an important professional challenge resulting from the economical disturbances induced by the Covid-19 pandemic, and that it could become worse.

I tried to demonstrate that many efficient avenues are available to help us maintain our high standards of reliability in these demanding circumstances. It is my opinion that the key element is awareness. It leads to alertness towards new information, care, and preparedness.

During the few months I spent facing my own professional challenges with the pandemic while forming my ideas and preparing this research, I had discussions with many people about the pandemic and the economy. No matter whether I was speaking with a doctor, an engineer, or a mechanics, I was amazed with how little people generally knew, how little people paid attention to the news, how little they were aware of what was happening, and not to say worldwide.

I certainly hope that forensic accounting practitioners are by their professional requirements more inclined towards information and thus, more aware. This would prevent us from seeing too many of us walk directly into pitfalls during the next few years of our professional practice.

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