The RECORDER approached Peter’s office for an interview, which was sportingly agreed to, but we had to wait for some months as Peter was busy with the Alberta Energy Review Board assignment and with his travels. It was a pleasure engaging him in a chat, and following are excerpts from the interview.

Peter Tertzakian is Chief Energy Economist and Managing Director at ARC Financial Corp., Canada’s largest energy-focused private equity manager.

An accomplished author, Peter’s two best-selling books, A Thousand Barrels a Second (McGraw-Hill, NY 2005) and The End of Energy Obesity (John Wiley & Sons, NY 2009) provide insight into the dynamic world of energy transitions through a thoughtful and highly readable examination of economic, environmental and geopolitical pressures. His books have been translated into several languages including Chinese, Japanese and Arabic.

Peter’s career began as a geophysicist in 1982, and then moved from oil and gas to the finance and economics sector in 1990. This background combined with his entrepreneurial spirit, helped him rise from the trenches of hands-on oil exploration fieldwork to become an internationally recognized expert in energy matters. Peter publishes ARC Energy Charts, a weekly journal of real-time business indicators, and writes a weekly column for Canada’s National Newspaper, The Financial Post.

A collector of energy antiques and antiquarian books, Peter’s passion is studying how society evolves its energy use, and applying the lessons of the past into today’s strategic business issues. His collective knowledge and experience in geophysics, innovation, history and economics allows him to give audiences thought provoking insights into today’s pressing energy issues. Peter is an Adjunct Professor at the University of Calgary and has lectured at many leading universities and conferences around the world.

Peter, let’s begin by asking you about your educational qualifications and work experience.

I have degrees in geophysics and economics, and an MBA. I have worked in the oil and gas industry as a geophysicist, and in the finance industry as an equity analyst. For the last 15 years I have been the Chief Energy Economist and Managing Director at ARC Financial Corp.

How did you decide on moving from the oil and gas, to finance and economics sector?

It has been a progression over many years. I have made decisions at key points in my life which helped facilitate the move from one discipline to another.

Looking back at your career so far, how do you feel? Is it a feeling of satisfaction or something else? Why?

I am very satisfied because I enjoy what I do. My work overlaps with my hobbies, so I find great rewards in both.

How do you balance global events with local (Canadian) events for developing your forecasts on the industry?

I am always following global and Canadian events, and of course events here in Alberta. It is a balance of priorities to ensure an awareness of all factors in the industry. Sometimes the global oil and gas fundamentals are more influential than domestic – which is the case starting to emerge now. Certainly ten or so years ago, it was very much the rise of China, the big global macro founders, but six years ago it was the Financial Crisis. Three to five years ago it was domestically focused, with all the wide differentials and pipeline issues. Of course more recently it has been local with the Alberta Royalty Review. It is a matter of always scanning the environment, looking and determining what the most influential factors are, and focusing on those.

Do you anticipate a recovery in petroleum commodity prices any time soon? Or are we in a new reality?

I do expect a recovery in commodity prices. The question is timing and that depends on a lot of factors. Are we in a new reality? I don’t really think so. The history of oil has always been one of very volatile prices. We have a number of factors that are shaking the business. I called these factors in my first book “Breaking Points.” This time, there are different factors that are contributing to the volatility which are unique, but is it not unique that we have volatility in prices.
How dependent is Alberta’s economy on production from the oil sands and will a recovery in the light end of the oil price restore the provincial economy?

In terms of employment, there are a lot of people employed by the oil sands. In terms of dollars, upwards of 10 to 15 billion dollars a year is invested just to maintain the existing base of production which is close to two-and-a-half million barrels a day. So, yes, the economy is dependent on the oil sands and will continue to be. There is no question that the growth in the oil sands is going to moderate going forward and it is already affecting us as the activity significantly cools down.

Will an oil price recovery in the light end restore the provincial economy? I think it will help. The next phase in the price rise will benefit the light and the shale oils more than the oil sands. Growth is going to shift from oil sands to non-oil sands in the oil and gas industry.

With shale oil production in the US increasing over the last five years, it has helped the country on its path to self-sufficiency. Do you think Energy-East is the only plan B for Alberta? Is the BC pipeline dead?

It would be desirable to have Energy-East and the B.C. pipeline to diversify further, but there are other options. Over the last five years the industry has been able to significantly diversify its transportation through railroads and by upgrading existing pipelines. A lot is happening in the United States – such as Line 9 and others. We have to recognize that we are part of a North American infrastructure grid that is providing many outlets for our energy commodities.

The low price of oil has benefitted the petrochemical industry worldwide, but these benefits will erode when the oil price starts improving. There are discussions to begin a petrochemical industry in the province. Does this make sense, or is Alberta crude doomed to be bottlenecked by downstream processes?

As long as Alberta crude is able to be produced competitively with other crudes in North America and the rest of the world then it will always have a down-stream market. So I wouldn’t say its “doomed”. The petrochemical industry is such that if the input cost of oil rises, then the output product price rises too, and is passed onto the consumer. The petrochemical industry in the province can be diversified further but it would not be inhibited by rising oil prices – petrochemical prices go up if the input prices go up. So the rate is always the spread between the two.

Relying on ‘one quantity to one market at one price,’ brings us to the state we are in. Boom time brings wealth bust times bring frustration and deficit. What is your take on this? Is there a need to diversify the economy?

A boom and bust cycle is frustrating. I have said many times in the past that there is a need to diversify the economy.

There is a large school of thought that says do what you are good at. We are good at what we do, and we have some of the best resources in the world. I don’t necessarily want to fault ourselves for being too involved in the oil and gas industry it’s just that we should have more industries in parallel with all of the expertise here. I don’t think we need to lessen our exposure to oil and gas, rather we need to increase our exposure to other areas.

I heard on the radio that oil sands electricians are hoping the government will find a way to re-train them to install solar panels. Would you consider that diversification?

In part yes, and it is also substitution. Diversification lasts for decades and beyond, having a broad impact on other areas of society like health care or telecommunication. Offering retraining will assist people with employment and diversifying our economy.

In Alberta, a few earthquakes of magnitude 4 and above were recorded in the last little while, with the most recent one in the Fox Creek area in January 2016. What are your views on this? Is shale resource production fraught with problems?

I would argue that every energy source is fraught with problems. It doesn’t matter what type of source it is. For example, if we look at wind power, it requires the use of arable land. Every type of energy source has its issues, and society will need to make trade-offs.

With fracking, we know in Oklahoma and in certain localized areas like the Fox Creek area, there has been seismic activity associated with fracking. However, there have been hundreds of thousands of wells that have been fracked over the course of the last one hundred years, with no reports of earthquakes. Isolated incident?

Well, it is a consequence that is worth noting. And as previously mentioned every energy source whether it is wind, solar or nuclear, has its own issues. The only way we will overcome these issues is by trying to learn to use less energy rather than drawing more.

Tell us about the ‘existential challenge’ you mentioned in your Alberta Royalty Review Report.

We know that the advance of horizontal drilling, multistage fracking technologies have led to a tremendous surge in production from the United States – Texas, North Dakota, and Oklahoma. This poses a major competitive thrust. Our biggest customer the USA is now becoming our biggest competitor. If we don’t compete, or get into a competitive mindset then it becomes an existential challenge for the companies. In other words, you go out of business if you can’t compete.

I am hopeful that we can overcome this challenge. However, policy has to innovate in tandem with the industry if we are to effectively compete as a major energy industry going forward. The royalty review was a great example of policy innovation led by our government.

You also mention that Alberta’s royalty structure was outdated and inefficient. Could you please elaborate on these aspects for the benefit of our readers?

A lot of people at the beginning of the royalty review, argued that the
existing regime for the non-oil sands side should not be changed, and that the programs that were in place were working. But as we examined it we saw that the royalty framework that had evolved over the past 80 years since its introduction had become what I call a ‘patchwork quilt of formulas and programs.’ They were not cohesive and had become quite inefficient. The system created uncertainty and risk into how companies drill. For example, there were different royalty structures and formulas for oil and natural gas, so you did not know what your royalty rate was going to be until you discovered what you hit.

The royalty system was too complicated for the competitiveness and existential challenge going forward. It needed to be modified. Parallel to that we received a lot of requests from industry associations to improve the system. The only way to improve it was to essentially revamp it completely. That’s really the genesis of these comments.

Even when the price of crude oil starts coming up, it may not get up to where it started sliding from 20 months ago. With Alberta already running a deficit, don’t you think there is some urgency in terms of a plan B for generating revenue? Or do you think the golden days for Alberta are behind us?

I am an optimist. I can make an argument that oil will go back up to $80, but I can also argue that it will come down again. As I said before, it is going to be volatile. The industry and the province need to prepare for this volatility. We included information on this in the Royalty Review Report. Given this expected volatility we do need to diversify and think about how stable revenues can be generated from the economy.

US light tight oil will not last forever as it is a finite resource. If we couple this with the fact that the decline rates for shale oil wells are faster than traditional wells, then more wells will be required to maintain production, making light tight oil more expensive to produce than traditional oil. Advanced technology and innovation have reduced the cost of production, but it still cannot match the low cost of production for unconventional oil. In this scenario, if the price per barrel goes up to $50, the production from shale formations will begin again. Going forward would you agree that $50 per barrel will be a sustainable price?

I think that we forget that living in North America we are very influenced by our local circumstances. Shale oil makeups only about 4% of the world’s oil production. At these low prices every jurisdiction in the world is now showing production declines. U.S. shale oil isn’t going to backfill all the declines that are occurring and also meet new demand growth, which is still pretty strong over the next several years. So yes, if the price goes to $50 or $60 the rigs will come back out and that will serve to dampen the price but at some point the market will realize, that $50 or $60 per barrel is not enough to build big projects, like offshore platforms or oil sands projects that are the true backbone of oil supply. Therefore it is a bit narrow just to focus in on shale oil.

You have a good point there, Peter. Now, let’s get away from the technical side. Can you describe for me a day in the life of Peter Tertzakian?

I wouldn’t say there is a typical day for me. Maybe it is just controlled chaos. It normally involves multitasking of different priorities. Whether it’s working with my colleagues to make better investment decisions, working with ARC’s companies so that they understand the risks and returns of the business, or working with our investors and answering increasingly big questions which are not dissimilar to the questions you have been asking today.

I also like to branch out and give lectures and presentations to broader audiences. I do this because it allows me to get a pulse of what is going on, and it allows me to think about the questions that are going to be needed to be answered tomorrow. My days are filled with a constant cycle of inquiry, analysis, and communication.

Very interesting. What do you think is your most important contribution that people will remember you for?

My first book was probably, my most important piece of work and one I will remember. It is about oil, but it is mostly about understanding how energy systems change over time as a consequence of the forces that are coming – environmental forces, technological forces, and demographic changes. It really puts a framework of understanding on how those changes happen, just like in my book that followed. The first book was mostly about the supply side. The second book was mainly about demand, and adaptation to the notion I call the “Breaking Point.” Several of my predictions are coming true today. Thus in some way the books were ahead of their time, I hope to be remembered for that.

What other interests do you have apart from the work that you do at ARC?

Collecting energy antiques books, photography, and traveling are my passions.

One last question. What will be your message for young geoscientists entering your profession?

If I reflect on the things that have influenced me and brought me to where I am, I would say – work hard, be passionate and on top of that, be creative, think outside of the box, as they say. Differentiate yourself from others who are doing the same thing. It is also important to communicate well. It is not good enough to just be in your office, working on great things, you have to be able to communicate your work to others. Work hard, be passionate, be creative, and communicate well. If you do all of those things, good things will come.

Wonderful, thank you very much. It has been a pleasure talking to you.