



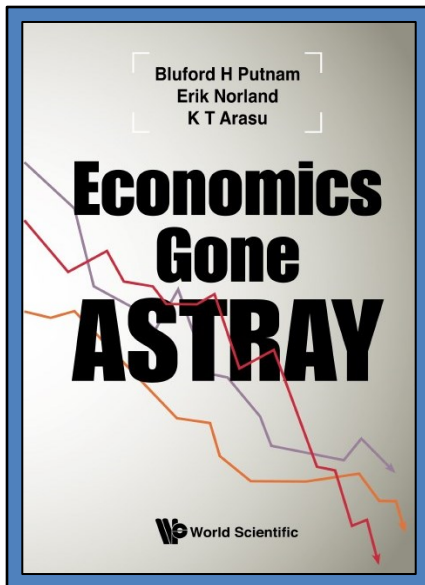
## Book Review: Economics Gone Astray

**Tina Marie Reine**

Commodity Markets Consultant

Rarely can I read a book on the dismal science of economics without getting frustrated or bored or both. Frustration comes from the dependence on mathematics, which I view as a crutch. Boredom comes from the lack of applicability to reality I observe every day in the commodity markets with which I am involved. I am happy to report that Economics Gone Astray, written by Blu Putnam and Erik Norland, and edited by KT Arasu, is a great read and helped me to appreciate why I have become so cynical about modern economics as taught in university and often practiced in policymaking or in financial forecasting.

Economics Gone Astray is destined to become a classic, as a supplemental text for basic economics as well as graduate level courses in macroeconomics. It is written in clear English, without equations, and with plenty of charts to ground one's understanding in the real world. The theme that drives the analysis is that many economists, certainly not all, make the same mistakes over and over again. If you only read the "Introduction," you will gain an appreciation of the authors' perspective on their



profession and it will fundamentally change how you view economic analysis. And, the "Introduction" prepares one for a set of informative case studies on such timely topics as the lack of inflation pressure, the growth implications of tax cuts, the demographic challenges to growth, why machine learning will have some hard challenges as a tool for portfolio management, why quantitative easing did not create growth or inflation, and much more.

So, let's cut to the heart of why economics has gone astray. Blu Putnam and Erik Norland argue that economists often make three mistakes.

First, economists rely heavily on simplified mathematics that embed highly unrealistic assumptions about which they completely forget when they apply the models to policymaking or to financial forecasting. The problem is not the use of mathematics, which can go a long way to tighten one's logic. The problem is ignoring the simplifying assumptions when making real world applications. Take the famous Black-Scholes options pricing model. It assumes we live in a world of no taxes and unlimited borrowing. But those two heroic assumptions do not cause most of the problems when applying the model. The challenges and real-world mistakes often can be traced back to the assumption that there are no price gaps or breaks in markets – that is, when a surprise hits a market and the price instantly moves with a big gap either higher or lower. If risk managers look at implied volatility based on Black-Scholes they may misestimate future volatility and ignore the big risks associated with price breaks. This happens with event risk, such as Brexit. Before the event, the market prices two divergent scenarios, and then once the outcome is known the market moves instantly to reflect the new reality. Price gaps can destroy an options delta-hedging strategy and hugely impact vega



(volatility shifts) risk management approaches. One needs to remember that most implied volatility calculations totally ignore price gaps and give very misleading signals.

Second, economists often live in a linear world and arguably are guilty of flat-earth thinking. Virtually nothing in markets or economies moves in a straight line. One of the favorite statistical tools of economists is linear regression, which embeds the assumption that the estimated parameters are fixed for the duration of the period under observation. Unfortunately, in this dynamic world of ours, this assumption that critical parameters in one's economic model are fixed over time can lead to disaster. Take the estimation of oil production based on the number of rigs. Shale oil wells using hydraulic fracturing are way more productive than older traditional wells. And, while some folks like to think of the fracking revolution as a one-time shift of technology, nothing could be further from reality. Shale oil and natural gas burst on the U.S. scene over ten years ago, and each year the technology has become more efficient and cost effective. It is not just that shale wells produce more oil than traditional wells, they produce more oil for less cost than a shale well of only a few years vintage. Linear extrapolation is embedded in the economists' toolkit and biases the profession way too much toward simple answers that ignore behavioral feedback loops, time lags, technological change, and indirect effects that make this a very hard-to-forecast non-linear world.

Third, the authors argue that economists often fail to appreciate how the overall environment or context can change dramatically over time. For the U.S. and many industrial countries, we live in an aging society with very little labor force growth. Real GDP potential is simply not going to be what it once was when populations were growing much faster, and no amount of fiscal or monetary stimulus is going to create the long-passed era of higher economic growth rates. For financial analysts, the regulatory shifts brought by the Dodd-Frank legislation changed the nature of how banks could or could not earn money in trading financial instruments. From demographics, to regulation, to technology, the world is a dynamic place and its ever-changing context matters in terms of how and when to apply economic models.

In sum, Blu Putnam and Erik Norland make a compelling case that economists need to take their simplifying assumptions more seriously, to embrace statistical techniques that can track dynamic markets with time-varying parameters, and to always be aware of the importance of shifts in the underlying context. And now I know why my Economics 101 course bored me to death and seemed so irrelevant to what was happening in the real world. Thanks Blu, Erik, and KT!

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## Endnotes

[Economics Gone Astray](#) is available on Amazon and directly from the publisher, World Scientific (WS) Professional.

Dr. Bluford Putnam is a member of both the Advisory Council and the Research Council of the J.P. Morgan Center for Commodities at the University of Colorado Denver Business School. He is also a [regular contributor to the GCARD](#) in its "Economist's Edge" section.



## **Author Biography**

**TINA MARIE REINE**

**Commodity Markets Consultant**

Tina Reine is an Environmental Commodities Trader. She held senior level positions in carbon markets at J.P. Morgan in New York City, Cantor Fitzgerald in London, and at NextEra Energy where she received the Innovation Award for creating a new financial product. She has an M.B.A. from Columbia Business School.