



Quantitative Finance >

Volume 12, 2012 - [Issue 12: Commodities](#)

518 | 9

Views | CrossRef citations to date | 3

Altmetric

Features

# Inconvenience yield, or the theory of normal contango

Ilia Bouchouev

Pages 1773-1777 | Received 01 May 2010, Accepted 22 Aug 2011, Published online: 11 Dec 2012

Cite this article <https://doi.org/10.1080/14697688.2012.723463>

Sample our  
Mathematics & Statistics  
Journals



>> [Sign in here](#) to start your access  
to the latest two volumes for 14 days

Full Article

Figures & data

References

Citations

Metrics

Reprints & Permissions

Read this article

Share



© 2012 iStockphoto LP

## Inconvenience yield, or the theory of normal contango

ILIA BOUCHOUDEV\*

Koch Supply &amp; Trading, L.P., 667 Madison Ave, 22nd Floor, New York, NY 10065, USA

The relative impact of fundamental imbalances and financial flows on oil prices remains the subject of intense debate among market participants, economists, and policy makers. Proponents of traditional fundamental views blame the oil price spike of 2008—when U.S. crude rose to an all-time high of almost \$150 a barrel—primarily on the inability of the global refining industry to cope with the rapid demand growth from emerging markets. Conversely, practitioners tend to point towards additional demand for futures from so-called ‘long-only’ investors, such as pension funds, whose increased allocations to commodities shifted established balances between buyers and sellers. Unfortunately, the economic objectives of financial investments in commodities are often poorly understood, leading to incorrect characterisations of the relevant market participants and misleading conclusions about the impact of their activities on the price dynamics.

This article highlights structural changes in supply and demand for hedging services which are becoming increasingly important factors for determining the price of oil.

Traditionally, there has always been more producer hedging than consumer hedging in oil markets. While investor money used to balance this gap nicely, it now far exceeds it. It is important, though, to realise that the reasons investors are coming to the oil market have changed. With contango being the ‘normal’ oil market structure for the last several years, investors are no longer investing in the front end of the oil market primarily in order to collect a positive risk premium driven by the roll yield. Rather, they are hedging against inflation, U.S. dollar weakness, and possible geopolitical events that could negatively impact the rest of their investment portfolios. As the traditional roles of different players change, so too do the market instruments available to them. This article applies these changes in the behaviour of market participants to the classical Keynes–Hicks theory of normal backwardation, and the Kaldor–Working–Brennan theory of storage, and looks at how calendar spread options (CSOs) are becoming an increasingly popular risk management tool.

Traditional economics postulates that the price of commodities such as oil is determined by the equilibrium between consumer demand for physical barrels and

\*Email: [Ilia.Bouchouev@kochind.com](mailto:Ilia.Bouchouev@kochind.com)

## Acknowledgements

Various aspects of this paper were presented at Global Derivatives (May 2010 and April 2011, Paris), Energy Risk Asia (September 2010, Singapore), and Energy Risk USA (May 2011, Houston). The author thanks participants of these conferences for useful discussions. The information herein is taken from sources the author believes to be reliable. All of the contents are subjective opinions of the author alone.

# Log in via your institution

> [Access through your institution](#)

# Log in to Taylor & Francis Online

> [Log in](#)

# Restore content access

> [Restore content access for purchases made as guest](#)


## Purchase options \*

[Save for later](#)

### PDF download + Online access

- 48 hours access to article PDF & online version
- Article PDF can be downloaded
- Article PDF can be printed


EUR 48.00

 Add to  
cart

### Issue Purchase

- 30 days online access to complete issue
- Article PDFs can be downloaded
- Article PDFs can be printed

EUR 697.00

 Add to  
cart

\* Local tax will be added as applicable

## Related Research

People also read

Recommended articles

Cited by  
9

## Information for

[Authors](#)

[R&D professionals](#)

[Editors](#)

[Librarians](#)

[Societies](#)

## Opportunities

[Reprints and e-prints](#)

[Advertising solutions](#)

[Accelerated publication](#)

[Corporate access solutions](#)

## Open access

[Overview](#)

[Open journals](#)

[Open Select](#)

[Dove Medical Press](#)

[F1000Research](#)

## Help and information

[Help and contact](#)

[Newsroom](#)

[All journals](#)

[Books](#)

## Keep up to date

Register to receive personalised research and resources by email



Sign me up



Copyright © 2025 Informa UK Limited [Privacy policy](#) [Cookies](#) [Terms & conditions](#)

[Accessibility](#)

 Taylor and Francis Group

Registered in England & Wales No. 01072954  
5 Howick Place | London | SW1P 1WG