



Download This Paper (Delivery.cfm/SSRN_ID1442568_code484814.pdf?abstractid=1344133&mirid=1)

Open PDF in Browser (Delivery.cfm/SSRN_ID1442568_code484814.pdf?abstractid=1344133&mirid=1&type=2)



Add Paper to My Library

Share:    

Long Term Performance of Leveraged ETFs

31 Pages

Posted: 20 Feb 2009

Last revised: 2 Aug 2009

Lei Lu (https://papers.ssrn.com/sol3/cf_dev/AbsByAuth.cfm?per_id=1603116)

University of Manitoba

Jun Wang (https://papers.ssrn.com/sol3/cf_dev/AbsByAuth.cfm?per_id=354470)

City University of New York, Baruch College - Zicklin School of Business - Department of Economics and Finance

Ge Zhang (https://papers.ssrn.com/sol3/cf_dev/AbsByAuth.cfm?per_id=1087368)

Long Island University

Date Written: August 1, 2009

Abstract

In this paper, we study leveraged ETFs, in particular, Ultra ETFs and UltraShort ETFs from the ProShares family. These Ultra (UltraShort) ETFs are designed to provide twice (twice the opposite) of the performance of the benchmark on a daily basis. We focus on the relation between long term performance of leveraged ETFs and benchmarks. Our results show that over holding periods no greater than one month, an investor can safely assume that the Ultra (UltraShort) ETF would provide twice the return (twice the negative return) of the underlying benchmark. Over the holding period of one quarter, the UltraShort ETFs can deviate from twice the negative returns of the benchmark. For Ultra ETFs, this deviation occurs when the holding period is one year. Finally, we show that the long term performance of the leveraged ETFs is negatively impacted by the quadratic variation and the auto-variation during the period, with auto-variation being the more dominant factor.

[Suggested Citation](#) >[Show Contact Information](#) >

Download This Paper (Delivery.cfm/SSRN_ID1442568_code484814.pdf?abstractid=1344133&mirid=1)

Open PDF in Browser (Delivery.cfm/SSRN_ID1442568_code484814.pdf?abstractid=1344133&mirid=1&type=2)

0 References

Fetch References



0 Citations

Fetch Citations

Do you have negative results from your research you'd like to share?

[Submit Negative Results \(https://www.ssrn.com/index.cfm/en/Negative-Results/\)](https://www.ssrn.com/index.cfm/en/Negative-Results/)

We use cookies that are necessary to make our site work. We may also use additional cookies to analyze, improve, and personalize our content and your digital experience. For more information, see our [Cookie](#)

Paper statistics [elsevier.com/legal/cookie-notice](https://www.elsevier.com/legal/cookie-notice)

[Cookie Settings](#)

Accept all cookies

28 Citations

9 References

PlumX Metrics



(https://plu.mx/ssrn/a/?ssrn_id=1344133)

Related journals

Behavioral & Experimental Finance eJournal (https://papers.ssrn.com/sol3/JELJOUR_Results.cfm?form_name=journalBrowse&journal_id=1504395)

[Follow](#)

Derivatives eJournal (https://papers.ssrn.com/sol3/JELJOUR_Results.cfm?form_name=journalBrowse&journal_id=1504400)

[Follow](#)

Recommended Papers

Path-Dependence of Leveraged ETF Returns (https://papers.ssrn.com/sol3/papers.cfm?abstract_id=1404708&rec=1&srcabs=1344133&pos=1)

By Marco Avellaneda (https://papers.ssrn.com/sol3/cf_dev/AbsByAuth.cfm?per_id=649) and Stanley Jian Zhang (https://papers.ssrn.com/sol3/cf_dev/AbsByAuth.cfm?per_id=1255620)

A Dynamic Model for Hard-to-Borrow Stocks (https://papers.ssrn.com/sol3/papers.cfm?abstract_id=1357069&rec=1&srcabs=1344133&pos=2)

By Mike Lipkin (https://papers.ssrn.com/sol3/cf_dev/AbsByAuth.cfm?per_id=353763) and Marco Avellaneda (https://papers.ssrn.com/sol3/cf_dev/AbsByAuth.cfm?per_id=649)

Consistent Pricing of Options on Leveraged ETFs (https://papers.ssrn.com/sol3/papers.cfm?abstract_id=2149736&rec=1&srcabs=1344133&pos=3)

By Andrew Ahn (https://papers.ssrn.com/sol3/cf_dev/AbsByAuth.cfm?per_id=1899878), Martin B. Haugh (https://papers.ssrn.com/sol3/cf_dev/AbsByAuth.cfm?per_id=1370243), ...

[View more >](#)[Feedback](#) [Submit a Paper > \(<https://hq.ssrn.com/submissions/CreateNewAbstract.cfm>\)](#)[SSRN Quick Links](#)[SSRN Rankings](#)[About SSRN](#)[f \(<https://www.facebook.com/SSRNcommunity/>\)](https://www.facebook.com/SSRNcommunity/)[in \(\[https://www.linkedin.com/company/493409?\]\(https://www.linkedin.com/company/493409?trk=tyah&trkInfo=clickedVertical%3Acompany%2CentityType%3AentityHistoryName%2CclickedEntityId%3Acompany_493409%2Cidx%3A0\)](https://www.linkedin.com/company/493409?trk=tyah&trkInfo=clickedVertical%3Acompany%2CentityType%3AentityHistoryName%2CclickedEntityId%3Acompany_493409%2Cidx%3A0)[🐦 \(<https://twitter.com/SSRN>\)](https://twitter.com/SSRN)[\(http://www.elsevier.com/\)](http://www.elsevier.com/)[Copyright \(<https://www.ssrn.com/index.cfm/en/dmca-notice-policy/>\)](https://www.ssrn.com/index.cfm/en/dmca-notice-policy/)[Terms and Conditions \(<https://www.ssrn.com/index.cfm/en/terms-of-use/>\)](https://www.ssrn.com/index.cfm/en/terms-of-use/)[Privacy Policy \(<https://www.elsevier.com/legal/privacy-policy/>\)](https://www.elsevier.com/legal/privacy-policy/)

All content on this site: Copyright © 2023 Elsevier Inc., its licensors, and contributors. All rights are reserved, including those for text and data mining, AI training, and similar technologies. For all open access content, the Creative Commons licensing terms apply.

We use cookies to help provide and enhance our service and tailor content.

To learn more, visit [Cookie Settings](#).



(<http://www.relx.com/>)

(<https://papers.ssrn.com/sol3/updateInformationLog.cfm?process=true>)