

Financial Analysts Journal >

Volume 46, 1990 - [Issue 6](#)

56 Views | 68 CrossRef citations to date | 3 Altmetric

Research Articles

Understanding and Assessing Financial Risk Tolerance: A Biological Perspective

W.V. Harlow & Keith C. Brown

Pages 50-62 | Published online: 31 Dec 2018

“ Cite this article <https://doi.org/10.2469/faj.v46.n6.50>

 CFA Institute members: [sign in to access the Financial Analysts Journal](#).

Sample our
Economics, Finance,
Business & Industry Journals
>> [Sign in here](#) to start your access
to the latest two volumes for 14 days

“ Citations

 Metrics

 Reprints & Permissions

[Read this article](#)

 Share

Understanding and Assessing Financial Risk Tolerance: A Biological Perspective

At some level, all asset allocation techniques require a consideration of variables involving both capital market expectations and an individual's tolerance for risk. Although the latter information is as important as the former, an evaluation of investor-specific risk aversion is typically done in an ad hoc fashion. Our understanding of financial risk tolerance can be extended by investigating the role of certain biological and psychological traits in the formation of economic preferences.

Specifically, a series of economic, psychological and biochemical tests were designed to establish individual-specific profiles. Risk-aversion estimates were obtained experimentally from observations of bidding behavior in computerized auctions using newly developed theoretical models. These measures were then compared with a psychometric assessment of "sensation-seeking" personality traits and with measures of neurochemical activity that have previously been found to be significantly related to human behavior. Individuals with neurochemical activity characterized by lower levels of the enzyme monoamine oxidase and with a higher degree of sensation-seeking are more willing to accept economic risk.

These results offer a theoretical link between risk tolerance and behavioral traits that is consistent with intuitions regarding economic preferences. They also provide quantitative support for some of the assessment practices currently in use. More importantly, a behavioral foundation for an individual's tolerance for financial risk offers hope that future risk-assessment procedures can be extended in a way that broadens the set of tools available to the portfolio manager.

THE MOST PRUDENT approach to allocating financial assets requires that a money manager be able to assess and integrate two distinct sets of economic data. First, the manager must evaluate a collection of capital market variables across the available set of securities so that expectations about future performance can be formed. Second, once the array of feasible portfolio choices has been assembled, the manager can make an optimal selection only after assessing the investor's attitudes toward risk. Although few would argue that this latter task is in any way the less important of the two, the evaluation of risk tolerance has received far less attention from

practitioners and academics alike. The primary reason for this deficiency appears to be a general lack of understanding of the determinants of risk aversion in the investing public.

This is not to say that investment managers don't make an attempt to assess risk tolerance. What it does imply is that there is currently little theoretical basis for preferring one approach over another. In practice, we see an array of techniques, ranging from *ad hoc* questionnaires seeking information on specific personality characteristics to quantitative inferences based on actual asset holdings. The diversity of approaches highlights the uniquely personal nature of risk aversion and suggests that its assess-

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 136.00

 Add to
cart

* Local tax will be added as applicable

Related Research

People also read

Recommended articles

Cited by
68

[The Interplay Between Financial Literacy, Financial Risk Tolerance, and Financial Behaviour: The Moderator Effect of Emotional Intelligence >](#)

Cui Ling Song et al.

Psychology Research and Behavior Management

Published online: 23 Feb 2023



[Misclassifications in financial risk tolerance >](#)

Caterina Lucarelli et al.

Journal of Risk Research

Published online: 1 May 2014

[Risk SCreening on the Financial Market \(RISC-FM\): A tool to assess investors' financial risk tolerance >](#)

Ingrid Wahl et al.

[View more](#)

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 © 2026 Informa UK Limited [Privacy policy](#)

[Cookies](#) [Terms & conditions](#) [Accessibility](#)

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



Taylor & Francis
by **informa**•••