

Intelligent transaction tax could help reduce systemic risk in financial networks

April 11 2016

A new IIASA study proposes a solution for mitigating the increasingly risky nature of financial markets, based on an analysis of systemic risk in financial networks.

A tax on individual transactions between [financial institutions](#)—based on the level of [systemic risk](#) that each transaction adds to the system—could essentially eliminate the risk of future collapse of the financial system, according to a new study recently published in the journal *Quantitative Finance*.

It relies on an analysis of the networks of the banking system, using central bank data from Austria. "When banks collapse, it costs a lot to bail them out, and that money usually comes from the public, from taxpayers" explains IIASA researcher Stefan Thurner, who coauthored the study with IIASA researcher Sebastian Poledna. The proposed tax would go into a government fund which could be used to bail out a struggling bank, for example. "You could also consider it a form of systemic risk insurance," says Thurner.

Financial institutions are linked by multiple types of transactions, which Thurner and Poledna have modeled in a detailed network analysis. These transactions include deposits and loans between financial institutions. The study is the first to quantify the systemic risk that individual transactions add to the system.

"Since the international financial crisis in 2007 and 2008, policymakers

have been discussing new ways to regulate the system in order to help avoid a repeat scenario. The new study provides just that," says Poledna. While introducing such a tax would require some work, the researchers argue that the data are there and the technical effort required for implementation is not overwhelming. Thurner has already presented the work to interested policymakers, supervisors, and central banks in the EU and Mexico.

"There's currently a lot of discussion about a Tobin tax in the European Union, but the version they are proposing would tax every transaction at a flat rate. The [tax](#) we are proposing would not have to be large, in order to act as an incentive scheme for avoiding transactions that would be the most harmful for the system—banks would try to avoid [transactions](#) that generate that risk," says Thurner.

More information: Poledna S, Thurner S (2016). Elimination of systemic risk in financial networks by means of a systemic risk transaction tax. *Quantitative Finance* doi: [www.tandfonline.com/doi/abs/10 ... 697688.2016.1156146?](http://www.tandfonline.com/doi/abs/10.1080/14747480.2016.1156146)

Provided by International Institute for Applied Systems Analysis

Citation: Intelligent transaction tax could help reduce systemic risk in financial networks (2016, April 11) retrieved 25 April 2024 from <https://phys.org/news/2016-04-intelligent-transaction-tax-financial-networks.html>

<p>This document is subject to copyright. Apart from any fair dealing for the purpose of private study or research, no part may be reproduced without the written permission. The content is provided for information purposes only.</p>
--