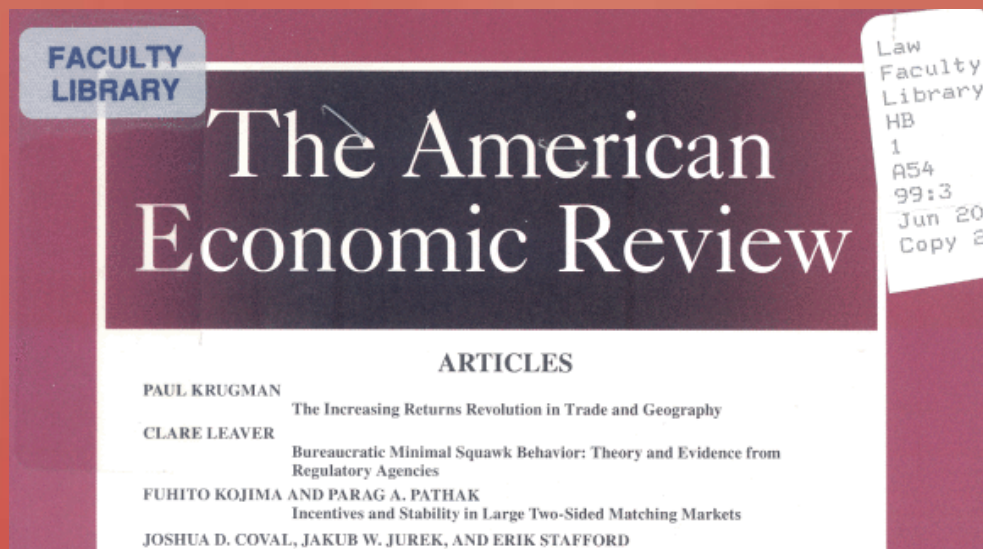


# EDaWaX

European Data Watch Extended



## Facilitating Replication of Research Results in Economics.

Sven Vlaeminck | Leibniz-Information Centre for Economics (ZBW)

2012-12-17/18 | 1. Open Economics International Workshop | Cambridge | UK

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# Background of the Project:

- > Increasing number of empirical publications in economics
- > Often no means to replicate the results of economic research
  - > Incentives for researchers to share their data are missing
  - > Infrequent implementation of data availability policies by economic journals
  - > E-infrastructure for publication-related research data is almost not available

→ **Poor status quo.**

Replication is a cornerstone of the scientific method!

# Project Phases and Outcome

## Project Phase 1: ANALYSIS

- Evaluation of Incentives for Economists to publish Research Data.
- Analysis of Data Policies of 140 Economic Journals.
- Evaluation of Hosting Options in Research Data Centers.

## Project Phase 3: IMPLEMENTATION & EVALUATION

- Implementation of the Pilot-Application.
- Evaluation of Project Results by Editors of Economic Journals and Research Data Centers.
- Adjustments and Evaluation by Authors of „Schmollers Jahrbuch“

## Project Phase 2: CONCEPTION

- Development of a Metadata Schema for Description and Labeling of Research Data
- Generation of functional Requirements for a Pilot-Application based on the Results of Project Phase 1

## Project output:

- > Implementation of a data archive for a scholarly journal.
- > Incentive schema for authors to publish research data.
- > Recommendations for data policies.
- > Recommendation for hosting options for research data.

# Data Availability Policies (DAPs) in Economics Journals

“If the empirical basis for an article [...] cannot be reproduced, of what use to the discipline are its conclusions? What purpose does an article like this serve?”

*(Gary King, 1995)*

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## (Some) Results of our Survey

- > Number of journals with DAPs (29) still is small – but it is slightly rising.
  - > Most of the journals with DAPs are among the top journals in Economics
  - > Policies differ massively in quality and extent - some are merely “window dressing”.
  - > More than  $\frac{1}{3}$  of all journals owning DAPs used the policy of the *American Economic Review (AER)* = a useful, good practise
- ➔ Estimated half of the policies do not permit replications, because the submission of the code of computation is not required!
- > A detailed report of our findings is available on [www.edawax.de](http://www.edawax.de) and [www.openeconomics.net/blog](http://www.openeconomics.net/blog).

# Availability of Research Data in Data Archives of Economics Journals

How do journals prioritise the availability of data and code?

A deeper look into the journals' data archives....

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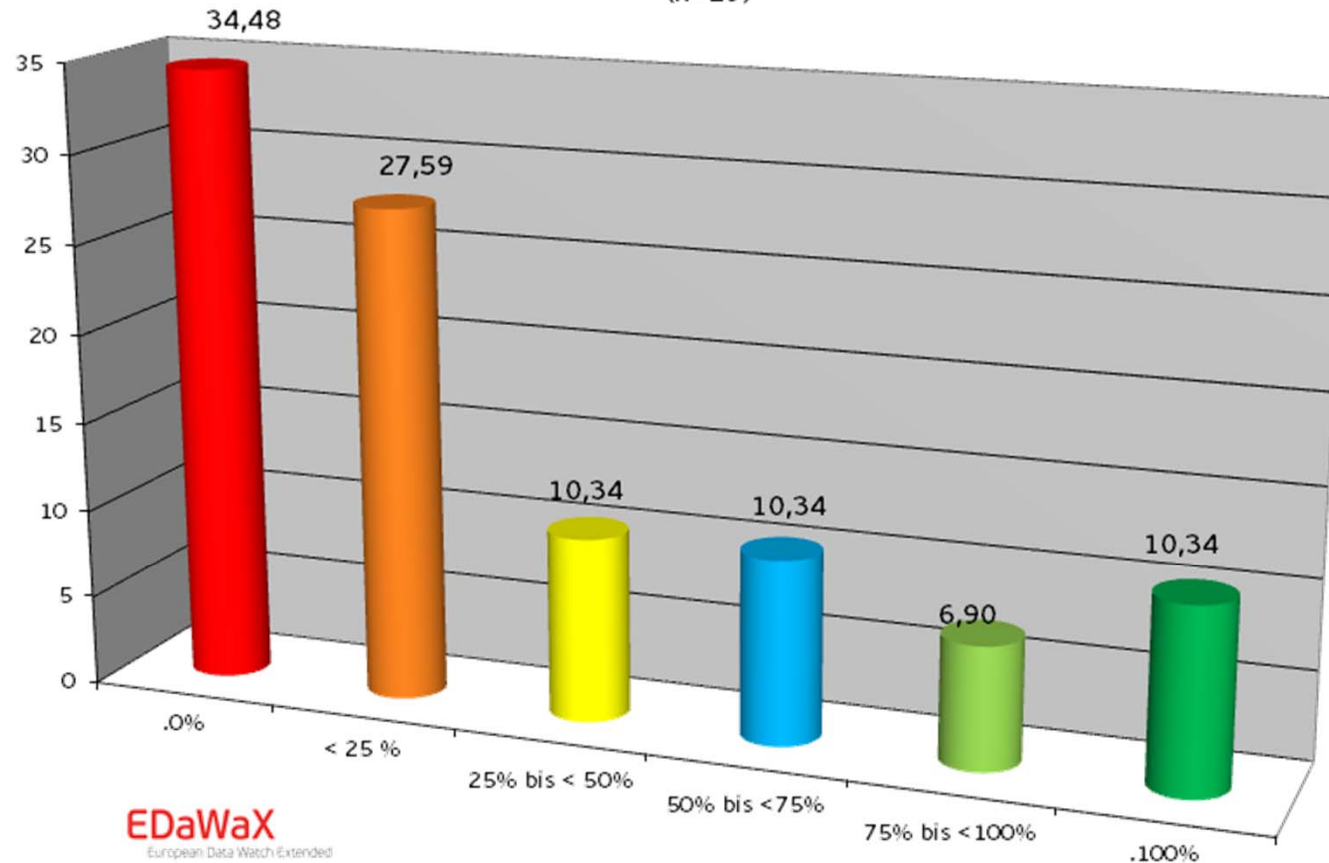
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# Do Journals enforce data availability?

Percentage of Articles with publication-related Research Data  
in Data Archive (2 issues have been checked)  
(n=29)



# Conclusion & Gaps

- > Beyond functional DAPs (& forced data availability!) we need...
  - Incentives for researcher to provide their data = Rewards for data sharing in terms of scientific appreciation.
    - ➔ A ‚cultural change‘ in Economics: Replications and the provision of data are crucial for the progress of science.
  - Standards - what data has to be provided in which granularity to enable replications?
  - An improved e-infrastructure that allows searching, citing, finding and reusing publication-related research data.



# Thank you very much!

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