Meta-analysis data for the literature on dividend smoothing

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A R T I C L E   I N F O

Article history:
Received 3 December 2018
Received in revised form
26 December 2018
Accepted 2 January 2019
Available online 6 January 2019

A B S T R A C T

The dataset presented in this data article was compiled from 100 published and unpublished empirical studies that employed Lintner’s dividend payout model or related extensions over the period 1957–2016. Besides the reported degree of dividend smoothing and its estimation precision the data include a wide set of underlying study design characteristics such as the time period of analysis, the type of firms investigated or the econometric estimator employed. The data are related to the research article “What drives dividend smoothing? A meta-regression analysis of the Lintner model” (Fernau and Hirsch, 2018).

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Specifications table

| Subject area            | Economics |
|-------------------------|-----------|
| More specific subject area | Financial economics |
| Type of data           | Table, excel file |
| How data were acquired | Survey of the literature on dividend smoothing based on the Lintner model and extensions |
| Data format            | Raw |

DOI of original article: https://doi.org/10.1016/j.irfa.2018.11.011

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https://doi.org/10.1016/j.dib.2019.01.002
2352-3409/© 2019 The Authors. Published by Elsevier Inc. This is an open access article under the CC BY license (http://creativecommons.org/licenses/by/4.0/).
Experimental factors Dataset including information on study design and results from primary studies focusing on firm dividend smoothing between 1957–2016

Experimental features Dataset comprises 998 dividend smoothing regression coefficients and underlying study design characteristics from 100 empirical studies

Data source location Scientific literature on dividend smoothing published in EU, US, and developing countries

Data accessibility With this article

Related research article Fernau, E. and Hirsch, S. What drives dividend smoothing? A meta-regression analysis of the Lintner model. International Review of Financial Analysis, https://doi.org/10.1016/j.irfa.2018.11.011 [1].

Value of the data

- The dataset provides an extensive overview of the empirical literature on dividend smoothing.
- Researchers can gain holistic insights on dividend smoothing and the factors that drive its degree.
- The importance of research design characteristics for the resulting degree of dividend smoothing can be evaluated using this dataset.
- The dataset can serve to detect publication biases across the empirical literature on dividend smoothing.
- The dataset can provide a useful benchmark and/or starting point for meta-analysis based on further issues of payout policy such as stock repurchases.

1. Data

Our dataset comprises 998 estimated dividend smoothing coefficients derived from 100 published and unpublished empirical studies that employed Lintner’s dividend payout model or related extensions over the period 1957–2016. For each dividend smoothing coefficient, the standard error is included as a measure of estimation precision and a wide set of underlying study design characteristics such as the type of publication, the econometric specification used to generate the coefficient as well as the analyzed period, sector and region are added. Table 1 provides an overview of study design characteristics of the empirical studies included in the dataset.

2. Experimental design, materials and methods

This dataset was compiled based on a survey of the literature that focuses on the empirical estimation of Lintner’s dividend payout model or related extensions. The literature search followed the Meta-Analysis of Economics Research Reporting Guidelines provided by [2]. Using these guidelines, we conducted the following steps to derive the final dataset. First, we screened the databases Econstor, Google Scholar, SSRN, Jstor, Wiley, Business Source Premier EBSCOhost, NBER, Econ papers using reasonable combinations of key terms related to Lintner’s dividend payout model (“dividends”, “payouts”, “Lintner model”, “dividend smoothing”,“target payout”, and “speed of adjustment”). Second, we used snowballing techniques to search for publications that were not detected through the key term search. Third, we screened the resulting set of potentially relevant published and unpublished research papers to only include articles that conducted a quantitative empirical estimation of Lintner’s dividend payout model or a related extension and that have not been published in “predatory journals” according to “Beall’s List of Predatory Journals and Publishers”. Finally, all specifications derived from working paper versions of later published articles were excluded to avoid duplicative observations.

To ensure a consistent and uniform interpretation of dividend smoothing across the dataset we converted all speed of adjustment coefficients to dividend smoothing coefficients as defined in [3].
| Study ID | No. of years | Post 1998 | Working paper | Econometric approaches | Control variables | Cash-flow | Countries | Industries |
|----------|--------------|-----------|---------------|------------------------|-------------------|-----------|-----------|------------|
| 1        | 2            | 1         | 0             | OLS                    | Ownership         | 0         | Developing country | Service & consumer |
| 2        | 14           | 0         | 0             | OLS                    | No controls       | 1         | Developing country | |
| 3        | 6            | 1         | 1             | OLS, GMM, FE, other methods | Size             | 0         | Developing country | |
| 4        | 6            | 1         | 0             | OLS, GMM, FE, other methods | Debt, Ownership, Size, other controls | 0         | Developing country | |
| 5        | 19           | 0         | 0             | FE                     | Size              | 0         | US         | |
| 6        | 10           | 1         | 0             | OLS                    | Other controls    | 0         | Other countries | Financial firms |
| 7        | 6            | 1         | 0             | OLS                    | Other controls    | 0         | Developing country | |
| 8        | 10           | 1         | 0             | OLS, FE, other methods | Other controls    | 0         | Other countries | |
| 9        | 10           | 1         | 0             | OLS                    | Size              | 0         | Developing country | |
| 10       | 17           | 1         | 0             | GMM, FE, other methods | Size              | 1         | UK         | |
| 11       | 16           | 0         | 0             | Other methods          | No controls       | 0         | Other countries | |
| 12       | 16           | 0         | 0             | Other methods          | No controls       | 0         | Other countries | Financial firms |
| 13       | 8            | 1         | 1             | GMM, FE                | Size, other controls | 0         | Other countries | Manufacturing firms |
| 14       | 11           | 1         | 0             | OLS                    | No controls       | 0         | Developing country | |
| 15       | 11           | 1         | 0             | OLS                    | No controls       | 0         | Developing country | Financial firms |
| 16       | 22           | 0         | 0             | OLS, GMM, FE           | Size              | 0         | EU         | |
| 17       | 22           | 0         | 0             | OLS, GMM               | Ownership, other controls | 1         | EU         | |
| 18       | 21           | 1         | 0             | OLS, GMM, FE           | Size              | 0         | EU         | |
| 19       | 11           | 1         | 0             | OLS                    | Other controls    | 0         | Developing country | |
| 20       | 10           | 1         | 0             | GMM                    | No controls       | 0         | Other countries | Financial firms |
| 21       | 14           | 0         | 0             | GMM                    | Debt, other controls | 0         | Other countries | |
| 22       | 10           | 1         | 1             | OLS                    | No controls       | 0         | US         | |
| 23       | 7            | 1         | 0             | OLS                    | No controls       | 0         | Other countries | Manufacturing firms |
| 24       | 5            | 1         | 0             | OLS, FE                | Size, other controls | 0         | Developing country | Other countries |
| 25       | 27           | 0         | 0             | OLS                    | No controls       | 0         | EU         | Financial firms, Manufacturing firms |
| 26       | 19           | 1         | 0             | OLS                    | Other controls    | 0         | Developing country | |
| 27       | 5            | 1         | 1             | OLS, FE                | Size, other controls | 0         | EU         | UK         |
| 28       | 13           | 0         | 1             | Other methods          | No controls       | 0         | EU         | |
| 29       | 11           | 1         | 0             | OLS                    | No controls       | 0         | Developing country | Financial firms |
| 30       | 9            | 1         | 0             | OLS, GMM               | Other controls    | 0         | Developing country | |
| 31       | 25           | 1         | 0             | OLS, GMM, FE           | Ownership, Size, other controls | 0         | EU         | Manufacturing firms |
| 32       | 41           | 0         | 0             | OLS                    | No controls       | 0         | US         | |
| 33       | 87           | 0         | 0             | OLS                    | No controls       | 0         | US         | |
| 34       | 19           | 0         | 0             | OLS                    | No controls       | 0         | US other countries | |
| 35       | 6            | 1         | 0             | OLS                    | Ownership         | 0         | US         | |
| 36       | 10           | 0         | 0             | Other methods          | Other controls    | 0         | EU         | |
| 37       | 26           | 0         | 0             | OLS                    | Other controls    | 0         | US         | |
| 38       | 22           | 0         | 0             | Other methods          | No controls       | 0         | US         | |
| 39       | 16           | 0         | 0             | OLS, FE, other methods | Size, other controls | 0         | US         | |
| Study ID | No. of years | Post 1998 | Working paper | Econometric approaches | Control variables | Cash-flow | Countries | Industries |
|----------|--------------|-----------|---------------|------------------------|------------------|-----------|-----------|------------|
| 40       | 3            | 0         | 0             | OLS                    | No controls      | 0         | US        | Financial firms |
| 41       | 8            | 0         | 0             | GMM                    | Debt, other controls | 0         | Other countries | |
| 42       | 12           | 0         | 0             | OLS, other methods     | Other controls   | 0         | UK        | |
| 43       | 133          | 0         | 0             | OLS                    | No controls      | 0         | Other countries | Financial firms |
| 44       | 122          | 0         | 0             | Other methods          | No controls      | 0         | US        | |
| 45       | 10           | 0         | 0             | OLS, GMM, FE, other methods | Size | 1         | EU        | |
| 46       | 4            | 1         | 0             | OLS                    | Debt, other controls | 0         | Other countries | |
| 47       | 7            | 0         | 0             | FE                     | Size              | 0         | EU        | |
| 48       | 5            | 1         | 0             | GMM                    | Debt, Ownership  | 0         | Developing country | Developing country |
| 49       | 7            | 1         | 0             | OLS, GMM               | Other controls   | 0         | Developing country | Developing country |
| 50       | 3            | 1         | 0             | OLS                    | Debt, other controls | 1         | Developing country | Service & consumer, Manufacturing firms |
| 51       | 12           | 0         | 0             | OLS, other methods     | Debt, other controls | 0         | UK        | Financial firms |
| 52       | 21           | 0         | 0             | OLS, FE, other methods | Debt, Ownership, Size, other controls | 0         | US        | |
| 53       | 6            | 0         | 0             | OLS                    | Size, other controls | 0         | US        | |
| 54       | 17           | 1         | 0             | FE, other methods      | Ownership, Size, other controls | 1         | Other countries | |
| 55       | 10           | 1         | 0             | FE                     | Debt, Size       | 0         | Developing country | Financial firms |
| 56       | 16           | 1         | 0             | GMM                    | Other controls   | 0         | Developing country | Developing country |
| 57       | 37           | 0         | 0             | GMM                    | Other controls   | 0         | Developing country | Developing country |
| 58       | 6            | 1         | 0             | OLS                    | No controls      | 0         | Developing country | Developing country |
| 59       | 3            | 0         | 0             | FE, other methods      | Ownership, Size  | 0         | EU        | |
| 60       | 13           | 0         | 0             | OLS, GMM               | Debt, Ownership  | 0         | UK        | Other countries |
| 61       | 11           | 1         | 0             | OLS, FE, other methods | Size, other controls | 0         | Other countries | |
| 62       | 5            | 1         | 1             | OLS                    | Debt, other controls | 0         | Other countries | Financial firms |
| 63       | 4            | 1         | 0             | OLS, FE, other methods | Debt, Ownership, Size, other controls | 0         | EU        | |
| 64       | 7            | 0         | 0             | OLS, FE                | Debt, Ownership, Size, other controls | 0         | Developing country | |
| 65       | 5            | 1         | 0             | OLS                    | Other controls   | 1         | Other countries | Service & consumer |
| 66       | 2            | 0         | 0             | OLS                    | Other controls   | 0         | EU        | |
| 67       | 20           | 0         | 1             | FE                     | Size              | 0         | Other countries | |
| 68       | 9            | 1         | 1             | GMM, FE, other methods | Size, other controls | 0         | Developing country | |
| 69       | 16           | 0         | 0             | OLS                    | No controls      | 0         | Developing country | |
| 70       | 32           | 0         | 0             | Other methods          | Other controls   | 0         | Developing country | |
| 71       | 4            | 0         | 0             | OLS, other methods     | Other controls   | 0         | US        | |
| 72       | 7            | 1         | 0             | OLS, GMM, FE, other methods | Debt, Size, other controls | 0         | Developing country | |
| 73       | 7            | 1         | 0             | OLS, GMM, FE, other methods | Ownership, Size, other controls | 0         | Developing country | Financial firms |
| 74       | 18           | 0         | 0             | OLS                    | No controls      | 0         | Other countries | |
The final dataset comprises 100 studies on dividend smoothing that were published between 1957 and 2016 leading to 998 dividend smoothing coefficients. As a measure of precision with which the dividend smoothing coefficients have been estimated their standard errors are included. In cases where only $p$- or $t$-values were reported those were converted to standard errors.

Each dividend smoothing coefficient relates to a unique combination of underlying study design characteristics. The dataset therefore also comprises an extensive set of variables that were selected to reflect in a best possible way the set of study design characteristics used to generate each smoothing coefficient. Table 1 depicts the study design characteristics by Study ID as included in the Excel file. These characteristics are described in the following. “No. of years” indicates the length of

| Study ID | No. of years | Post 1998 | Working paper | Econometric approaches | Control variables | Cash-flow | Countries | Industries |
|----------|--------------|-----------|---------------|------------------------|------------------|-----------|-----------|------------|
| 75       | 23           | 0         | 0             | OLS                    | No controls      | 0         | US        |            |
| 76       | 15           | 0         | 0             | OLS, FE, other methods | Size             | 0         | Developing country |            |
| 77       | 2            | 1         | 0             | OLS                    | Debt, other controls | 0         | Developing country |            |
| 78       | 9            | 0         | 0             | GMM                    | Other controls   | 0         | Developing country |            |
| 79       | 8            | 0         | 0             | FE                     | Size             | 0         | Developing country |            |
| 80       | 20           | 0         | 0             | FE                     | Size, other controls | 0         | US        |            |
| 81       | 7            | 1         | 0             | FE                     | Size             | 0         | EU        | Service & consumer, Manufacturing firms |
| 82       | 11           | 1         | 0             | GMM                    | Debt, Ownership, other controls | 0         | EU        |            |
| 83       | 70           | 0         | 1             | OLS                    | No controls      | 0         | US        |            |
| 84       | 8            | 0         | 1             | OLS                    | Ownership, other controls | 0         | other countries |            |
| 85       | 6            | 1         | 0             | OLS                    | Debt, Ownership, other controls | 0         | Developing country |            |
| 86       | 9            | 1         | 0             | GMM                    | Debt, Ownership, other controls | 1         | EU        |            |
| 87       | 7            | 0         | 0             | GMM                    | Debt, Ownership, other controls | 0         | UK        |            |
| 88       | 27           | 0         | 0             | OLS, other methods     | Other controls   | 1         | EU        |            |
| 89       | 11           | 1         | 0             | FE                     | Debt, Ownership, Size, other controls | 0         | Other countries |            |
| 90       | 5            | 0         | 0             | OLS                    | Ownership        | 0         | UK        |            |
| 91       | 10           | 1         | 0             | FE                     | Debt, Size, other controls | 0         | Developing country | Financial firms |
| 92       | 11           | 1         | 0             | OLS                    | Other controls   | 1         | Developing country | Financial firms |
| 93       | 2            | 0         | 0             | OLS                    | Other controls   | 0         | Other countries | Developing country | Financial firms |
| 94       | 6            | 1         | 0             | FE                     | Size             | 0         | Other countries | Developing country | Financial firms |
| 95       | 7            | 0         | 0             | GMM                    | Debt, Ownership, other controls | 0         | UK        |            |
| 96       | 15           | 0         | 0             | OLS                    | Other controls   | 0         | US        |            |
| 97       | 6            | 1         | 0             | OLS, FE                | Size             | 0         | EU        |            |
| 98       | 11           | 1         | 0             | OLS, other methods     | Debt, Ownership  | 0         | Other countries |            |
| 99       | 9            | 1         | 0             | FE, other methods      | Size             | 0         | Other countries | Manufacturing firms |
| 100      | 7            | 1         | 0             | OLS                    | Debt, Ownership  | 0         | Developing country | Financial firms |

Notes: A value of 1 for the characteristics “Post 1998”, “Working paper” and “Cash-Flow” indicates presence of the characteristic in the respective study.
the time series dimension of the analyzed panel. “Post 1998” indicates whether the mean year of the analyzed sample is post 1998. 1998 was chosen to reflect that at the end of the 1990s significant levels of stock repurchases served as an additional payout option in a large number of countries covered by studies in our dataset. “Working paper” classifies articles as working papers if they have been finalized more than five years ago (i.e. pre 2012) and not been published since then [4]. The econometric approaches used to estimate the dividend smoothing coefficients are classified as OLS, GMM, fixed effects and other estimators, where the latter includes Probit, Tobit, Logit or Random Effects estimations. It is also captured whether a dividend smoothing coefficient was estimated based on an extension of the “classical” Lintner model [3] that includes additional explanatory variables. Among those variables are the firms’ level of debt, size, ownership structure or other firm-specific characteristics that due to their heterogeneity across literature are grouped as a joint set of ‘other’ explanatory variables. Moreover, “Cash-flow” indicates whether cash-flow was used as an alternative earnings measure. Finally, smoothing coefficients are classified based on the countries and industries in which the analyzed firms operate. In case of an industry focus of the specific study, we distinguish between the service and consumer goods, financial, and manufacturing sector. As regards countries we differentiate between the US, the UK, other EU countries, and developing countries (classified based on the definition of the World Bank) while “other countries” captures the remaining set of countries (e.g. Canada, China, or Russia) that given its heterogeneity is included in a single dummy variable.

Acknowledgments

This work was supported by the German Research Foundation (DFG) and the Technical University of Munich within the funding programme Open Access Publishing.

Transparency document. Supporting information

Transparency document associated with this article can be found in the online version at https://doi.org/10.1016/j.dib.2019.01.002.

Appendix A. Supporting information

Supplementary data associated with this article can be found in the online version at https://doi.org/10.1016/j.dib.2019.01.002.

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