# Appendices

Appendix A: Meta analysis data: 24 studies

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Author** | **Year** | **Title** | **Published Journal** | **Number of Citations[[1]](#footnote-1)** |
| Kapingura | 2017 | Financial sector development and income inequality in South Africa | [African Journal of Economic and Management Studies](https://www.emerald.com/insight/publication/issn/2040-0705) | 20 |
| Beck et al | 2004 | Finance, Inequality, and Poverty: Cross-Country Evidence | [NBER Working Papers 10979,](https://ideas.repec.org/s/nbr/nberwo.html) | 923 |
| Clarke et al | 2006 | Finance and Income Inequality: What Do the Data Tell Us? | Southern Economic Journal | 770 |
| Liang | 2006 | Financial Development and Income Inequality in Rural China 1991-2000 | UNU-WIDER paper | 8 |
| Prete | 2013 | Economic literacy, inequality, and financial development | Economics Letters | 37 |
| Ali et al | 2021 | Revisiting Financial Inclusion and Income Inequality Nexus: Evidences from Selected Economies in Asia | The Journal of Asian Finance, Economics and Business, | 5 |
| Wahid et al | 2012 | Does Financial Sector Development Increase Income Inequality? Some Econometric Evidence from Bangladesh | Indian Economic Review | 29 |
| Jaumotte et al | 2008 | Rising income inequality: technology, or trade and financial globalization? | IMF Economic review | 865 |
| Seven and Coskun | 2016 | Does financial development reduce income inequality and poverty? Evidence from emerging countries. | Emerging Market Review | 272 |
| Shahbaz and Islam | 2011 | Financial development and income inequality in Pakistan: An application of ARDL approach. | [Journal of Economic Development](https://ideas.repec.org/s/jed/journl.html) | 219 |
| Shahbaz et al | 2014 | Financial development and income inequality: is there any financial Kuznets curve in Iran? | Social Indicators Research | 149 |
| de Haan and Sturm | 2017 | Finance and income inequality: A review and new evidence | [European Journal of Political Economy](https://www.sciencedirect.com/journal/european-journal-of-political-economy) | 465 |
| Kim and Lin | 2011 | Nonlinearity in the financial development–income inequality nexus | Journal of Comparative Economics | 263 |
| Tan and Law | 2011 | Nonlinear dynamics of the finance-inequality nexus in developing countries | The Journal of Economic Inequality | 154 |
| Weychert | 2020 | Financial development and income inequality. | Central European economic Journal | 16 |
| Le and Nguyen | 2019 | Financial development and income inequality in emerging markets: a new approach | Journal of Risk and Financial Management | 32 |
| Olohunlana and Dauda | 2019 | Financial development and economic growth in Africa: Lessons and prospects. | Business and Economic Research, | 38 |
| Nasreddine and Mensi | 2016 | Financial development and income inequality: The linear versus the nonlinear hypothesis. | Economics Bulletin | 16 |
| Majeed ,Tariq | 2013 | Inequality, Financial Development and Government: Evidence from Low-Income Developing Countries. | Munich Personal RePEc Archive | 4 |
| Rosemy and Masih | 2017 | What is the link between financial development and income inequality? evidence from Malaysia. | Munich Personal RePEc Archive | 22 |
| Serafim | 2021 | Financial deepening, stock market, inequality and poverty: some african evidence | REM Working paper; number 0177 – 2021 |  |
| Sugiyanto and Zefania | 2020 | The effect of financial deepening on economic growth, inequality, and poverty: Evidence from 73 Countries. | South East European Journal of Economics and Business | 8 |
| Zhang and Naceur | 2019 | Financial development, inequality, and poverty: Some international evidence | International Review of Economics and Finance | 318 |
| Hsieh et al | 2019 | Financial structure, bank competition and income inequality. | The North American Journal of Economics and Finance | 32 |

**Appendix B: Meta-data**

How to read Appendix B: From 1st row, is study id number 1, a study by Kapingura (2017), from this study I took 3 econometric estimates from table 6: model 1,2 & table 7, model 1. This study used only one method, the ARDL, using time series data from South Africa and used the Gini index as the dependent variable, while study id 2 used the growth of Gini as the dependent variable. Thus, in the multivariate analysis, the transformation done on Gini is also modeled using dummies from the transformed Gini column. Furthermore, footnotes are available at the end of the table with descriptions of the below column headings, allowing the reader to follow through on the analysis done, the data used in this study, and abbreviation used in the methodology column.

|  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| Study\_id [[2]](#footnote-2) | Sample period start -end date of data sample [[3]](#footnote-3) | | Number of regression estimate [[4]](#footnote-4) | Reference for the econometric estimates for each study[[5]](#footnote-5)3 | The methodology used in the econometric models[[6]](#footnote-6) | Data type | Geographic location of the study[[7]](#footnote-7) | Transformation on Gini[[8]](#footnote-8) | Number of control variables in the econometric models[[9]](#footnote-9) |
| 1 | 1990 | 2012 | 3 | Table 6; Model 1, 2 & Table 7 | ARDL | Time series | South Africa | Gini | Yes |
| 2 | 1960 | 1999 | 5 | Table 4, model 1,2,3,4,5 | OLS & IV | Panel | Developed & developing countries | Growth Gini | Yes |
| 3 | 1960 | 1995 | 6 | Table 2, 3, & 4: model 1 & 5 | OLS, 2SLS, RE, &IV | Cross-Sectional Panel | Developed & developing countries | Log Gini | Yes |
| 4 | 1991 | 2000 | 4 | Table 3, Model 1-4 | GMM | Panel | Chine’s province | Log Gini | Yes |
| 5 | 1980 | 2005 | 6 | Table 2, Model 1, -6 | OLS | Panel | Mixed | Growth Gini | Yes |
| 6 | 1997 | 2017 | 1 | Table 3, model F | GMM | Panel | Asian countries | Gini | Yes |
| 7 | 1985 | 2006 | 2 | Table 4 &Table 5 model 1 | ARDL | Time series | Bangladeshi | Gini | Yes |
| 8 | 1981 | 2003 | 6 | Table 1, model 1-6 | SUR & IV | Panel | 20 Developed and 31 developing | Log Gini | Yes |
| 9 | 1987 | 2011 | 7 | Table 2, model 1-7 | OLS & GMM | Panel | Emerging countries | Growth Gini | Yes |
| 10 | 1971 | 2005 | 2 | Table 4 & 5, model 1 | ARDL & ECM | Time series | Pakistan | Log Gini | Yes |
| 11 | 1965 | 2011 | 2 | Table 5 & 6, model 1 | ECM ARDL | Time series | Iran | Log Gini, Change in log of Gini | Yes |
| 12 | 1975 | 2005 | 7 | Table 1, model 2, 4-9 | GMM, FE | Panel | Mixed | Gini | Yes |
| 13 | 1960 | 2005 | 6 | Table 1 & 2, model 1-2 | IV Threshold | Panel | Mixed | Growth Gini | Yes |
| 14 | 1980 | 2000 | 2 | Table 1, model 1 and table 3 model 1 | GMM | Panel | Mixed/ EM | Gini | Yes |
| 15 | 2003 | 2014 | 3 | Table 1, model 1 & 6 | FE | Panel | Mixed | GINI | Yes |
| 16 | 2002 | 2016 | 2 | Table 2, model 1 | GMM | Panel | Vietnam provinces | Gini | Yes |
| 17 | 1996 | 2017 | 2 | Table 6 & 7 | ARDL | Time series | Nigeria | Gini | Yes |
| 18 | 1980 | 2012 | 5 | Table 3, 4,5,6 & 7 model 1 | GLS & RE | Panel | 138 countries grouped by income level | Gini | Yes |
| 19 | 1970 | 2008 | 4 | Table 5.1 model 2,3,4 & 6 | OLS | Panel | Low-income developing countries | Log Gini | Yes |
| 20 | 1970 | 2007 | 2 | Table 4.2 & 4.3, model 1 | ARDL | Time series | Malaysia | Gini | Yes |
| 21 | 1992 | 2018 | 4 | Table 5, model 1, 2, 3 & 4 | PMG-ARDL | Panel | 9 African countries | Gini | Yes |
| 22 | 1991 | 2015 | 1 | Table 4.2, model 1 | FE | Panel | 32 Advanced & 41 EME countries | Gini | Yes |
| 23 | 1961 | 2011 | 3 | Table 4, model 1 & 2, Table 8, model 3 | OLS & IV | Panel | 143 Developing and developed countries | Gini | Yes |
| 24 | 1989 | 2014 | 2 | Table 2, model 1 & 2 | CUP-FM | Panel | 86 Developed and developing countries | Gini | Yes |

The study id in Appendix B corresponds with the study id in Appendix A. 24 studies were used for the meta-analysis and meta-variate analysis.

These two columns show the sample period for the respective study used in the analysis.

3 In running the meta-analysis, I used coefficients from 87 estimates. This column shows how many regression coefficients were taken from each study. While the next column gives the reader a reference to the taken econometric estimates from the respective papers. Thus, allowing readers to identify exactly which models were taken from which tables.

4 Different methodologies are applied in the analysis of financial depth and income inequality. Thus, I create dummies for this column and model them in the multivariate analysis. The methodology used in the collected studies are: ARDL: Autoregressive distributed lag, GMM: Generalized Method of Moments, OLS: Ordinary Least Squares; IV: Instrumented Variable model; RE: Random Effect model, FE: Fixed Effect model, 2SLS: Two-stage least-squares regression uses instrumental variables; SUR: Seemingly Unrelated Regressions, ECM: Error Correction Model; GLS: Generalized Least Squares; PMG: Pooled Mean Group

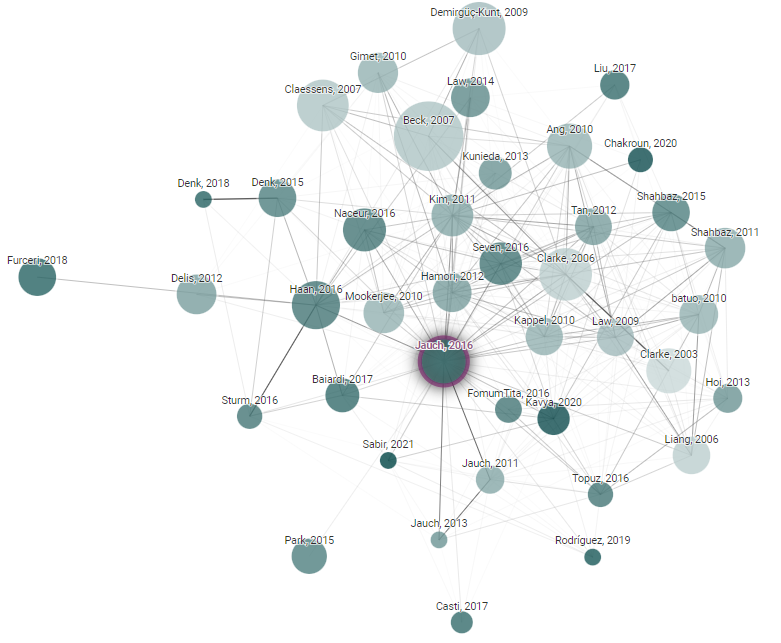
5 For time series studies we have a clear geographic point of the county of analysis in the study. While other studies took homogenous countries in terms of development levels or income levels others used a mix of heterogeneous countries.

6 Gini is the dependent variable in all the chosen 87 econometric models, but some studies used the Gini index as it is and others used transformed Gini index to logs or growth rates.

7 In each model, the number of control variables ranges from 2 to 7. So, dummies are created from the number of control variables in each of the 87 estimates and used for the multivariate meta-regression analysis in section 5. Readers wishing to read more / replicate or expand the data/ this study are encouraged to download the full data set and Stata codes used in the analysis from the author's GitHub, under the meta-analysis folder.

Appendix C: Studies on financial sector development and income inequality

The figure presented in this appendix is from connected papers, derived by searching the topic: financial sector development and income inequality. This study only focused on one measure of financial sector development (FSD) namely depth (domestic credit). As a results, not to all the studies in the diagram below were selected for the analysis mainly because the measurements for financial sector depth and income inequality. However, almost half of the studies in this diagram are included in this meta-analysis study.



Appendix D: Coefficients on the impact of financial institution depth on income inequality

|  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **Author** | **Year** | **Study\_id** | **i\_regression\_estimate** | **Coefficient** | **Sample\_size** | **No\_countries** | **Data\_type** | **Geographic** | **Methodology** | **Dependent\_Var** |
| Kapingura | 2017 | 1 | 1 | -0.0012 | 22 | 1 | Time series | South Africa | ARDL | Gini |
|  |  | 1 | 2 | -0.11 | 44 | 2 | Time series | South Africa | ARDL | Gini |
|  |  | 1 | 3 | -0.007 | 66 | 3 | Time series | South Africa | ECM | Change Gini |
| Beck et al | 2004 | 2 | 1 | -0.004 | 52 | 52 | Panel | Developed & developing countries | OLS | Growth Gini |
|  |  | 2 | 2 | -0.015 | 52 | 52 | Panel | Developed & developing countries | IV | Growth Gini |
|  |  | 2 | 3 | -0.013 | 52 | 52 | Panel | Developed & developing countries | IV | Growth Gini |
|  |  | 2 | 4 | -0.013 | 52 | 52 | Panel | Developed & developing countries | IV | Growth Gini |
|  |  | 2 | 5 | -0.015 | 48 | **48** | Panel | Developed & developing countries | IV | Growth Gini |
| Clarke et al | 2006 | 3 | 1 | -0.053 | 83 | 83 | Cross-Sectional | Developed & developing countries | OLS | Log Gini |
|  |  | 3 | 2 | -0.3133 | 83 | 83 | Cross-Sectional | Developed & developing countries | 2SLS | Log Gini |
|  |  | 3 | 3 | -0.0456 | 83 | 83 | Cross-Sectional | Developed & developing countries | OLS | Log Gini |
|  |  | 3 | 4 | -0.266 | 83 | 83 | Cross-Sectional | Developed & developing countries | 2SLS | Log Gini |
|  |  | 3 | 5 | 0.0291 | 205 | 83 | Panel | Developed & developing countries | RE | Log Gini |
|  |  | 3 | 6 | -0.114 | 205 | 83 | Panel | Developed & developing countries | IV RE | Log Gini |
| Liang | 2006 | 4 | 1 | -0.0383 | 168 | 21 | Panel | Chines province | GMM | Log Gini |
|  |  | 4 | 2 | -0.0358 | 168 | 21 | Panel | Chines province | GMM | Log Gini |
|  |  | 4 | 3 | -0.0309 | 168 | 21 | Panel | Chines province | GMM | Log Gini |
|  |  | 4 | 4 | -0.0315 | 168 | 21 | Panel | Chines province | GMM | Log Gini |
| Prete | 2013 | 5 | 1 | -0.006 | 30 | 30 | Panel | Mixed | OLS | Growth Gini |
|  |  | 5 | 2 | -0.005 | 30 | 30 | Panel | Mixed | OLS | Growth Gini |
|  |  | 5 | 3 | -0.003 | 30 | 30 | Panel | Mixed | OLS | Growth Gini |
|  |  | 5 | 4 | -0.002 | 30 | 30 | Panel | Mixed | OLS | Growth Gini |
|  |  | 5 | 5 | 0.011 | 30 | 30 | Panel | Mixed | OLS | Growth Gini |
|  |  | 5 | 6 | 0.011 | 30 | 30 | Panel | Mixed | OLS | Growth Gini |
| Ali et al | 2021 | 6 | 1 | 0.12 | 378 | 18 | Panel | Asian countries | GMM | Gini |
| Wahid et al | 2012 | 7 | 1 | 0.171 | 21 | 1 | Time series | Bangladeshi | ARDL | Gini |
|  |  | 7 | 2 | 0.2073 | 21 | 1 | Time series | Bangladeshi | ARDL | Change Gini |
| Jaumotte et al | 2008 | 8 | 1 | 0.063 | 292 | 51 | Panel | 20 Developed and 31 developing | SURE | Log Gini |
|  |  | 8 | 2 | 0.052 | 288 | 51 | Panel | 20 Developed and 31 developing | SURE | Log Gini |
|  |  | 8 | 3 | 0.054 | 292 | 51 | Panel | 20 Developed and 31 developing | SURE | Log Gini |
|  |  | 8 | 4 | 0.053 | 288 | 51 | Panel | 20 Developed and 31 developing | SURE | Log Gini |
|  |  | 8 | 5 | 0.05 | 283 | 51 | Panel | 20 Developed and 31 developing | SURE | Log Gini |
|  |  | 8 | 6 | 0.068 | 284 | 51 | Panel | 20 Developed and 31 developing | IV | Log Gini |
| Seven and Coskun | 2016 | 9 | 1 | -0.001 | 181 | 45 | Panel | Emerging countries | OLS | Growth Gini |
|  |  | 9 | 2 | 0.006 | 169 | 45 | Panel | Emerging countries | OLS | Growth Gini |
|  |  | 9 | 3 | 0.007 | 168 | 45 | Panel | Emerging countries | OLS | Growth Gini |
|  |  | 9 | 4 | 0.003 | 168 | 45 | Panel | Emerging countries | OLS | Growth Gini |
|  |  | 9 | 5 | 0.231 | 181 | 45 | Panel | Emerging countries | GMM | Growth Gini |
|  |  | 9 | 6 | 0.389 | 169 | 45 | Panel | Emerging countries | GMM | Growth Gini |
|  |  | 9 | 7 | 0.0617 | 168 | 45 | Panel | Emerging countries | GMM | Growth Gini |
| Shahbaz and Islam | 2011 | 10 | 1 | -0.1221 | 34 | 1 | Time series | Pakistan | ARDL | Log Gini |
|  |  | 10 | 2 | -0.0167 | 34 | 1 | Time series | Pakistan | ECM ARDL | Change log Gini |
| Shahbaz et al | 2014 | 11 | 1 | -0.2529 | 46 | 1 | Time series | Iran | ARDL | Log Gini |
|  |  | 11 | 2 | -0.0975 | 46 | 1 | Time series | Iran | ECM ARDL | Change log Gini |
| de Haan and Sturm | 2017 | 12 | 1 | 0.0652 | 426 | 121 | Panel | Mixed | GMM | Gini |
|  |  | 12 | 2 | 0.0518 | 426 | 121 | Panel | Mixed | FE | Gini |
|  |  | 12 | 3 | -0.0168 | 426 | 121 | Panel | Mixed | FE | Gini |
|  |  | 12 | 4 | 0.0349 | 426 | 121 | Panel | Mixed | FE | Gini |
|  |  | 12 | 5 | 0.0297 | 345 | 121 | Panel | Mixed | FE | Gini |
|  |  | 12 | 6 | 0.0464 | 345 | 121 | Panel | Mixed | FE | Gini |
|  |  | 12 | 7 | 0.0247 | 338 | 121 | Panel | Mixed | FE | Gini |
| Kim and Lin | 2011 | 13 | 1 | 0.2901 | 27 | 60 | Panel | Mixed | IV Threshold | Growth Gini |
|  |  | 13 | 2 | -0.695 | 36 | 60 | Panel | Mixed | IV Threshold | Growth Gini |
|  |  | 13 | 3 | 0.4139 | 63 | 63 | Panel | Mixed | IV Threshold | Growth Gini |
|  |  | 13 | 4 | 1.0979 | 27 | 27 | Panel | Mixed | IV Threshold | Growth Gini |
|  |  | 13 | 5 | -0.6382 | 36 | 36 | Panel | Mixed | IV Threshold | Growth Gini |
|  |  | 13 | 6 | 0.4297 | 63 | 63 | Panel | Mixed | IV Threshold | Growth Gini |
| Tan and Law | 2011 | 14 | 1 | -0.0055 | 700 | 35 | Panel | Mixed/ EM | GMM | Gini |
|  |  | 14 | 2 | -0.0051 | 520 | 33 | Panel | Mixed/ EM | GMM | Gini |
| Weychert | 2020 | 15 | 1 | 0.02 | 186 | 53 | Panel | Mixed | FE | GINI |
|  |  | 15 | 2 | 0.03 | 165 | 53 | Panel | Mixed | FE | GINI |
|  |  | 15 | 3 | 0.03 | 169 | 53 | Panel | Mixed | FE | GINI |
| Le and Nguyen | 2019 | 16 | 1 | 0.0023 | 415 | 60 | Panel | Vietnam provinces | GMM | Gini |
|  |  | 16 | 2 | 0.0022 | 415 | 60 | Panel | Vietnam provinces | GMM | Gini |
| Olohunlana and Dauda | 2019 | 17 | 1 | -0.059534 | 21 | 1 | Time series | Nigeria | ARDL | Gini |
|  |  | 17 | 2 | 0.016704 | 21 | 1 | Time series | Nigeria | ARDL | Gini |
| Nasreddine and Mensi | 2016 | 18 | 1 | -0.25 | 2184 | 138 | Panel | 138 Countries with Heterogenous GDP levels/ Clasiffied groups into 4 income levels | GLS | Gini |
|  |  | 18 | 2 | 0.04 | 200 | 138 | Panel | Low Income countries | RE | Gini |
|  |  | 18 | 3 | 0.004 | 405 | 138 | Panel | Average Income countries | RE | Gini |
|  |  | 18 | 4 | 0.00002 | 529 | 138 | Panel | Upper-Middle income | FE | Gini |
|  |  | 18 | 5 | -0.01 | 1005 | 138 | Panel | High income countries | GLS | Gini |
| Tariq | 2013 | 19 | 1 | -0.01 | 223 | 50 | Panel | Low-income developing countries | OLS | Log Gini |
|  |  | 19 | 2 | -0.06 | 187 | 50 | Panel | Low-income developing countries | OLS | Log Gini |
|  |  | 19 | 3 | -0.05 | 187 | 50 | Panel | Low-income developing countries | OLS | Log Gini |
|  |  | 19 | 4 | -0.05 | 187 | 50 | Panel | Low-income developing countries | OLS | Log Gini |
| Rosemy and Masih | 2017 | 20 | 1 | 0.08 | 37 | 1 | Time series | Malaysia | ARDL | Gini |
|  |  | 20 | 2 | 0.018 | 36 | 1 | Time series | Malaysia | ARDL | Gini |
| Serafim | 2021 | 21 | 1 | -0.168 | 234 | 9 | Panel | 9 African countries | PMG-ARDL | Gini |
|  |  | 21 | 2 | -0.202 | 234 | 9 | Panel | 9 African countries | PMG-ARDL | Gini |
|  |  | 21 | 3 | -0.285 | 234 | 9 | Panel | 9 African countries | PMG-ARDL | Gini |
|  |  | 21 | 4 | -0.0004 | 234 | 9 | Panel | 9 African countries | PMG-ARDL | Gini |
| Sugiyanto and Zefania | 2020 | 22 | 1 | 0.006 | 1386 | 73 | Panel | 32 Advanced economies and 41 EMDE | FE | Gini |
| Zhang and Naceur | 2019 | 23 | 1 | -0.045 | 1393 | 143 | Panel | 143 Developing and developed countries | OLS | Gini |
|  |  | 23 | 2 | -0.041 | 1328 | 143 | Panel | 143 Developing and developed countries | IV | Gini |
|  |  | 23 | 3 | -0.059 | 1364 | 143 | Panel | 143 Developing and developed countries | IV | Gini |
| Hsieh et al | 2019 | 24 | 1 | 0.027 | 2236 | 83 | Panel | 86 Developed and developing countries | CUP-FM | Gini |
|  |  | 24 | 2 | 0.027 | 2236 | 83 | Panel | 86 Developed and developing countries | CUP-FM | Gini |

1. Citation based on google scholar. [↑](#footnote-ref-1)
2. [↑](#footnote-ref-2)
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