

Measuring economic openness: description of the variables

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September 18, 2020

Below we describe the variables contained in the data set. In case you find any inconsistencies, please let us know. If you use the data set, please cite [Gräßner et al. \(2020\)](#) as well as the original source. You find more information on the [data webpage](#). Information about the own computation steps can also be found in [Gräßner et al. \(2020\)](#).

Variable	Description	Unit	Source
Alcala	Real trade share	% of GDP at PPP	Alcala & Ciccone (2004)
CAPITAL	Text-based index for de jure financial openness.	Index (0-100)	Quinn & Toyoda (2008)
chinn_ito_normed	Chinn-Ito-Index, a table-based AREAER measure (normed to 0-1 range).	Index (0-1)	Chinn & Ito (2008)
ComplexityGroup	Country classification according to the ECI index (Hidalgo & Hausmann, 2009 , see the paper for details).	NA	Gräßner et al. (2020)
CTS	Composite Trade Share.	Index	Squalli & Wilson (2011)
EXP_to_GDP	Exports to GDP	% of GDP	World Bank
Exports_USD_constant	Total exports	Constant USD	World Bank
Exports_USD_current	Total exports	Current USD	World Bank
FIN_CUR	The Financial Current Account, a text-based AREAER measure.	Index (0-100)	Quinn & Toyoda (2008)
FTI_original	Freedom to trade international index, sub-index of the Economic Freedom Index.	Index	Fraser Institute
FTI_original_ipo	Interpolated version of <code>FTI_original</code> .	Index	Own computation
FTI_panel	The FTI index optimized for panel use.	Index	Fraser Institute
FTI_reduced	<code>FTI_original</code> without considering black market exchange rates and capital and people controls.	Index.	Own computation

Variable	Description	Unit	Source
FTI_reduced_ipo	Interpolated version of FTI_reduced	Index.	Own computation
HF_econ	Economic freedom according to the <i>Index of Economic Freedom</i>	Index	Heritage Foundation
HF_fin	Investment freedom according to the <i>Index of Economic Freedom</i>	Index	Heritage Foundation
HF_trade	Trade freedom according to the <i>Index of Economic Freedom</i>	Index	Heritage Foundation
IMP_to_GDP	Imports to GDP.	% of GDP	World Bank
Imports_USD_constant	Total imports	Constant USD	World Bank
Imports_USD_current	Total imports	Current USD	World Bank
IncomeGroup	Income classification of the World Bank.	NA	World Bank
inflation	Inflation	Index	World Bank
inv_share			
KAOPEN	Chinn-Ito-Index, a table-based AREAER measure.	Index (0-1)	Chinn & Ito (2008)
KOF_defacto	De facto component of the KOF Economic Globalization Index (KOFEcGIdf)	Index	KOF Institute, Gygli et al. (2019)
KOF_dejure	De jure component of the KOF Economic Globalization Index (KOFEcGIdj)	Index	KOF Institute, Gygli et al. (2019)
KOF_econ	KOF Economic Globalization Index (KOFEcGI)	Index	KOF Institute, Gygli et al. (2019)
KOF_finance	KOF Financial Globalization Index (KOFFiGi)	Index	KOF Institute, Gygli et al. (2019)
KOF_finance_df			
KOF_finance_df	De facto component of the KOF Financial Globalization Index (KOFFFiGIdf)	Index	KOF Institute, Gygli et al. (2019)
KOF_finance_dj	De jure component of the KOF Financial Globalization Index (KOFFFiGIdj)	Index	KOF Institute, Gygli et al. (2019)
KOF_trade	KOF Trade Globalization Index (KOFTrGI)	Index	KOF Institute, Gygli et al. (2019)
KOF_trade_df	De facto component of the KOF Trade Globalization Index (KOFTrGIdf)	Index	KOF Institute, Gygli et al. (2019)
KOF_trade_dj	De jure component of the KOF Trade Globalization Index (KOFTrGIdj)	Index	KOF Institute, Gygli et al. (2019)

Variable	Description	Unit	Source
<code>Lietal</code>	Adjusted trade share, modification of Frankel (2000) suggested by Li <i>et al.</i> (2004).	% of GDP (adjusted)	World Bank, own computation
<code>LMF_EQ</code>	Total foreign assets and liabilities (stocks).	% GDP	Lane & Milesi-Ferretti (2017)
<code>LMF_FDI_total_stocks_GDP</code>	Sum of inward and outward FDI stocks.	% GDP	Lane & Milesi-Ferretti (2017)
<code>LMF_open</code>	Portfolio equity assets and liabilities (stocks).	% GDP	Lane & Milesi-Ferretti (2017)
<code>LMF_open_pv</code>	Private Financial Openness Index: subtracting official development aid (DA) from foreign liabilities (FL) and international reserves (IR) from foreign assets (FA).	% GDP	Lane & Milesi-Ferretti (2017)
<code>Penn_GDP_PPP</code>	Per capita GDP in PPP (<code>rgdpo</code> / [<code>population</code> · 1000])	PPP per person	Feenstra <i>et al.</i> (2015)
<code>period</code>	Helper to compute 5-year averages.		
<code>pop_growth</code>	Growth of <code>population</code>	Growth	Own computation
<code>pop_log</code>	Log of <code>population</code>	Log	Own computation
<code>population</code>	Total population.	1000 people	World Bank
<code>rgdpo</code>	Output-side real GDP.	Chained PPPs (in mil. 2011 USD)	Feenstra <i>et al.</i> (2015)
<code>Tariff_RES</code>	100 minus the tariff rate, which is based upon the average of (1) the effective (i.e. tariff revenue divided by import value) and (2) the unweighted tariff rates.	Index (0-100)	Jaumotte <i>et al.</i> (2013)
<code>Tariff_WITS</code>	100 Mean of Effectively Applied (AHS) and Most-Favored Nation (MFN) weighted average tariff rates.	Index (0-100)	Gräßner <i>et al.</i> (2020)
<code>Tariff_WITS_ipo</code>	Interpolation of <code>Tariff_WITS</code> .	Index (0-100)	Gräßner <i>et al.</i> (2020)
<code>Trade_to_GDP</code>	Total imports and exports	% GDP	World Bank
<code>UNC_FDI_in_stock_GDP</code>	Stock of inward FDI.	% of GDP	UNCTAD
<code>UNC_FDI_out_stock_GDP</code>	Stock of outward FDI.	% of GDP	UNCTAD
<code>UNC_FDI_total_stocks_GDP</code>	Stock of total FDI.	% of GDP	UNCTAD

References

- Alcala, F. & Ciccone, A. (2004). Trade and Productivity. *The Quarterly Journal of Economics*, 119(2), 613–646. doi: [10.1162/0033553041382139](https://doi.org/10.1162/0033553041382139).
- Chinn, M. D. & Ito, H. (2008). A New Measure of Financial Openness. *Journal of Comparative Policy Analysis: Research and Practice*, 10(3), 309–322. doi: [10.1080/13876980802231123](https://doi.org/10.1080/13876980802231123).
- Feenstra, R. C., Inklaar, R., & Timmer, M. P. (2015). The Next Generation of the Penn World Table. *American Economic Review*, 105(10), 3150–3182. doi: [10.1257/aer.20130954](https://doi.org/10.1257/aer.20130954).
- Frankel, J. A. (2000). Assessing the Efficiency Gains From Further Liberalization. *KSG Faculty Working Paper*, (RWP01-030).
- Gräßner, C., Heimberger, P., Kapeller, J., & Springholz, F. (2020). Understanding economic openness: a review of existing measures. *Review of World Economics*, pp. 1–34. doi: [10.1007/s10290-020-00391-1](https://doi.org/10.1007/s10290-020-00391-1).
- Gygli, S., Haelg, F., Potrafke, N., & Sturm, J. E. (2019). The KOF Globalisation Index revisited. *The Review of International Organizations*, 18(2), 266. doi: [10.1007/s11558-019-09344-2](https://doi.org/10.1007/s11558-019-09344-2).
- Hidalgo, C. A. & Hausmann, R. (2009). The building blocks of economic complexity. *Proceedings of the National Academy of Sciences*, 106(26), 10570–10575. doi: [10.1073/pnas.0900943106](https://doi.org/10.1073/pnas.0900943106).
- Jaumotte, F., Lall, S., & Papageorgiou, C. (2013). Rising Income Inequality: Technology, or Trade and Financial Globalization? *IMF Economic Review*, 61(2), 271–309. doi: [10.1057/imfer.2013.7](https://doi.org/10.1057/imfer.2013.7).
- Lane, P. R. & Milesi-Ferretti, G. M. (2017). International Financial Integration in the Aftermath of the Global Financial Crisis. *IMF Working Paper*.
- Li, K., Morck, R., Yang, F., & Yeung, B. (2004). Firm-Specific Variation and Openness in Emerging Markets. *The Review of Economics and Statistics*, 86(3), 658–669. doi: [10.1162/0034653041811789](https://doi.org/10.1162/0034653041811789).
- Quinn, D. P. & Toyoda, A. M. (2008). Does Capital Account Liberalization Lead to Growth? *Review of Financial Studies*, 21(3), 1403–1449. doi: [10.1093/rfs/hhn034](https://doi.org/10.1093/rfs/hhn034).
- Squalli, J. & Wilson, K. (2011). A New Measure of Trade Openness. *The World Economy*, 34(10), 1745–1770. doi: [10.1111/j.1467-9701.2011.01404.x](https://doi.org/10.1111/j.1467-9701.2011.01404.x).