Measuring Financial Regulatory Transparency

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Abstract

Early working draft. Comments welcome.

For financial supervision to be effective, regulators need have accurate information about financial sector activities. For the public to be able to hold supervisors accountable then need access to the information financial supervisors have about the health of the banking system. In this paper we use Bayesian item response theory techniques to create a global and comparable Financial Regulatory Transparency Index.

[INTRODUCTION]

In previous research we have found that even within the relatively homogeneous European Union with supranational authorities tasked with gathering and reporting aggregate financial data from member states there is considerable variation in what is actually reported (see Gandrud and Hallerberg, 2014).

1 Creating the FRT Index

We treat financial regulatory transparency as an unobserved latent variable that effectively summarizes countries likelihood of reporting yearly data that is included in the World Bank's Global Financial Development data set first created by Čihák et al. (2012).[1]

*Friedrichstraße 180. 10117 Berlin, Germany. Contact email: gandrud@hertie-school.org. All material for replicating the FRT Index and the analysis in this paper can be found at: https://github.com/FGCH/FRTIndex.

[1] Access to the most updated version of the data set is available through http://data.worldbank.org/data-catalog/global-financial-development Accessed February 2014.

1.1 Included indicators

To measure financial supervisory transparency we first gathered data on whether or governments reported data on a number of indicators included in the World Bank's Global Financial Development data set. For a full list of the indicators included, please see the Supplementary Materials. We followed Hollyer et al.'s (forthcoming) criteria for inclusion of variables and countries. First, we only include indicators that are reported by at least one country for each year in the period 1998-2011. This gave us the greatest coverage of indicators that are comparable across countries. Second, we excluded all indicators that were explicitly gathered for only a subset of countries. As such we avoided including data where the primary source was the Bank for International Settlements. Third, we did not include any indicator that was primarily from a non-governmental source. This included both indicators from World Bank Sponsored surveys, such as the Global Financial Inclusion Survey and the Enterprise Survey. It also included data primarily derived from sources such as Swiss Re's Sigma Reports, Standard & Poor, Bankscope, and Bloomberg. Fourth, we did not include variables that are linear combinations of other variables. Fifth, we did not include variables that were simply references to the same quantity in different units. [CHECK TO SEE IF 4 AND 5 ARE RELEVANT] Sixth, we excluded small countries with populations less than 500,000. [Is this appropriate? Maybe this excludes some offshore centers?]

In addition we did not include countries with gross domestic products per capita of less than 200 US dollars.[2] Countries with levels of income this low likely do not have financial systems sophisticated enough to have the quantities reported in the indicators.

References

Čihák, Martin, Asli Demirgüç, Erik Feyen and Ross Levine. 2012. "Benchmarking Financial Systems Around the World." *World Bank Policy Research Working Paper* (6175). Available at: http://www-wds.worldbank.org/external/default/WDSContentServer/IW3P/IB/2012/08/31/000158349_20120831220007/Rendered/PDF/wps6175.pdf. Accessed February 2014.

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Hollyer, James R., B. Peter Rosendorff and James Raymond Vreeland. forthcoming. "Measuring Transparency." *Political Analysis* .

World Bank. 2014. "World Bank Development Indicators.".
URL: *http://data.worldbank.org/indicator*

[2]The population and GDP per capita data was gathered from the World Bank's development indicators (2014)

Supplementary Materials

Table 1: Indicators included in the FRT Index from the World Bank's Global Financial Development data set

SeriesCode	Indicator.Name	Source	Periodicity
GFDD.DI.01	Private credit by deposit money banks to GDP (%)	IFS/IMF	1961-2011
GFDD.DI.02	Deposit money banks' assets to GDP (%)	IFS/IMF	1961-2011
GFDD.DI.03	Nonbank financial institutions assets to GDP (%)	IFS/IMF	1961-2011
GFDD.DI.04	Deposit money bank assets to deposit money bank assets and central bank assets (%)	IFS/IMF	1960-2011
GFDD.DI.05	Liquid liabilities to GDP (%)	IFS/IMF	1961-2011
GFDD.DI.06	Central bank assets to GDP (%)	IFS/IMF	1961-2011
GFDD.DI.07	Mutual fund assets to GDP (%)	World Bank	1980-2011
GFDD.DI.08	Financial system deposits to GDP (%)	IFS/IMF	1961-2011
GFDD.DI.11	Insurance company assets to GDP (%)	World Bank	1980-2011
GFDD.DI.12	Private credit by deposit money banks and other financial institutions to GDP (%)	IFS/IMF	1961-2011
GFDD.DI.13	Pension fund assets to GDP (%)	World Bank	1990-2011
GFDD.DI.14	Domestic credit to private sector (% of GDP)	World Bank	Annual:
GFDD.EI.02	Bank lending-deposit spread	IFS/IMF	1980-2011
GFDD.EI.08	Credit to government and state owned enterprises to GDP (%)	IFS/IMF	1980-2011
GFDD.OI.02	Bank deposits to GDP (%)	IFS/IMF	1961-2011
GFDD.OI.07	Liquid liabilities in millions USD (2000 constant)	IFS/IMF	1960-2011
GFDD.OI.13	Remittance inflows to GDP (%)	World Bank	1970-2011
GFDD.SI.02	Bank nonperforming loans to gross loans (%)	IFSI/IMF	1998-2011
GFDD.SI.03	Bank capital to total assets (%)	IFSI/IMF	1998-2011
GFDD.SI.04	Bank credit to bank deposits (%)	IFS/IMF	1960-2011
GFDD.SI.05	Bank regulatory capital to risk-weighted assets (%)	IFSI/IMF	1998-2011
GFDD.SI.07	Provisions to nonperforming loans (%)	IFSI/IMF	1998-2011