



Financial Conditions Indicators (FCIs)

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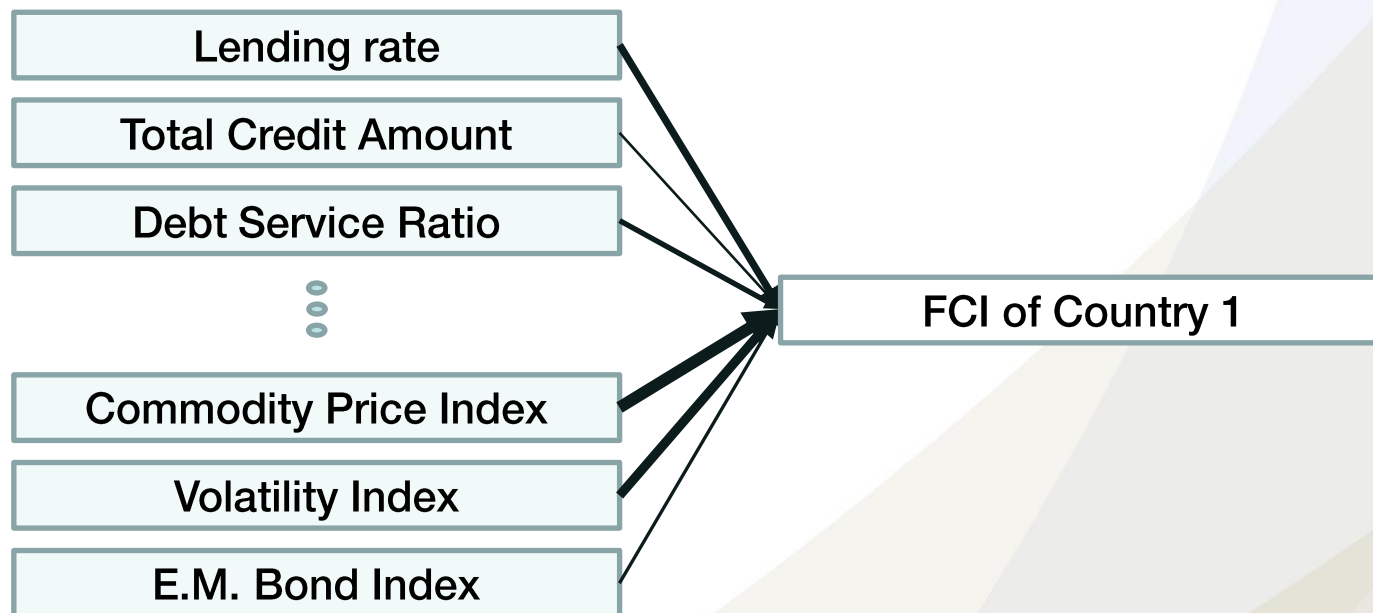
A Two-Stages Approach for Estimating Regional Indicators

We provide a general framework and accompanying tool for computing the country-level and regional, or group-level FCIs, following a **two-stages** approach:

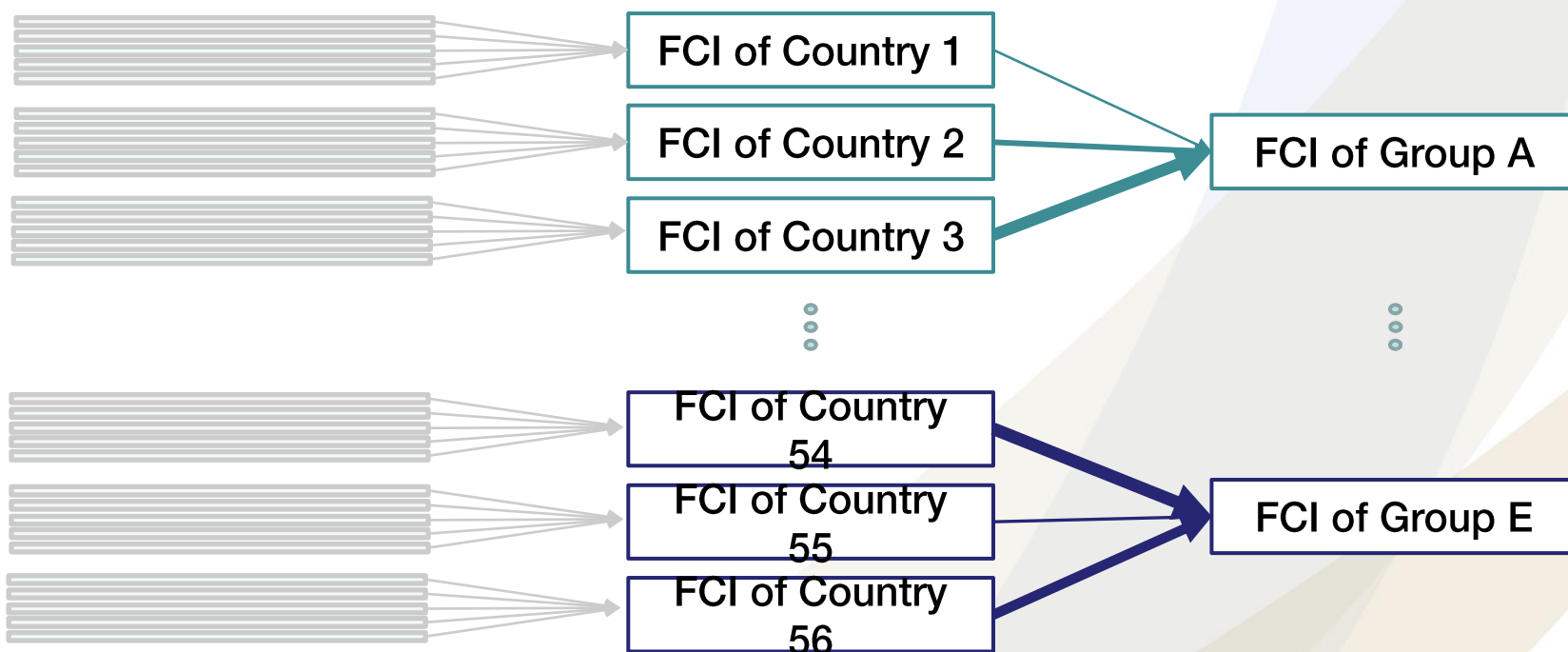
1. In the first stage, we extract the country FCIs.
2. In the second stage, the countries are grouped, and for each group, we extract the group FCI as the regional indicator.

First Stage: Computing the Country-level FCIs

Financial Variables for Country A (examples)



Second Stage: Computing the Group-level FCIs



Group Formation

- ***Ex Ante grouping***: the group-level FCIs are extracted given a grouping provided by the analyst.
- ***Ex Post clustering***: the group memberships and the group-level FCIs are determined simultaneously from the data. The goal is to find the grouping that maximizes the magnitude of the group loadings across all groups.
- *Ex Ante* grouping cannot result in a better statistical fit than *Ex Post* clustering.

The Tool

- Implementation in the R software for statistics and computing.
- The tool is not so much a predictive tool, rather an exploratory one: it can be used to better understand the financial conditions of a given country (provided they have sufficient data), and give an objective measure of the similarity to the other countries in our panel, in terms of the evolution of their financial condition and exposure to the global economy.
- Any grouping can easily be performed with our tool, as we now quickly demonstrate.

Future Outlook

- **Create a predictive model of future financial conditions**
 - If country A and B are similar, data from country A can help predict the financial condition of country B, even before the data from country B is available.
 - A time-series forecasting model can easily be implemented to predict short-term fluctuations of the financial conditions.
- **Create a Dashboard for ease of use to the analyst and to facilitate the sharing of information and insights.**