

Session 3- Part 1 of 3

DigiSRII: Methodology

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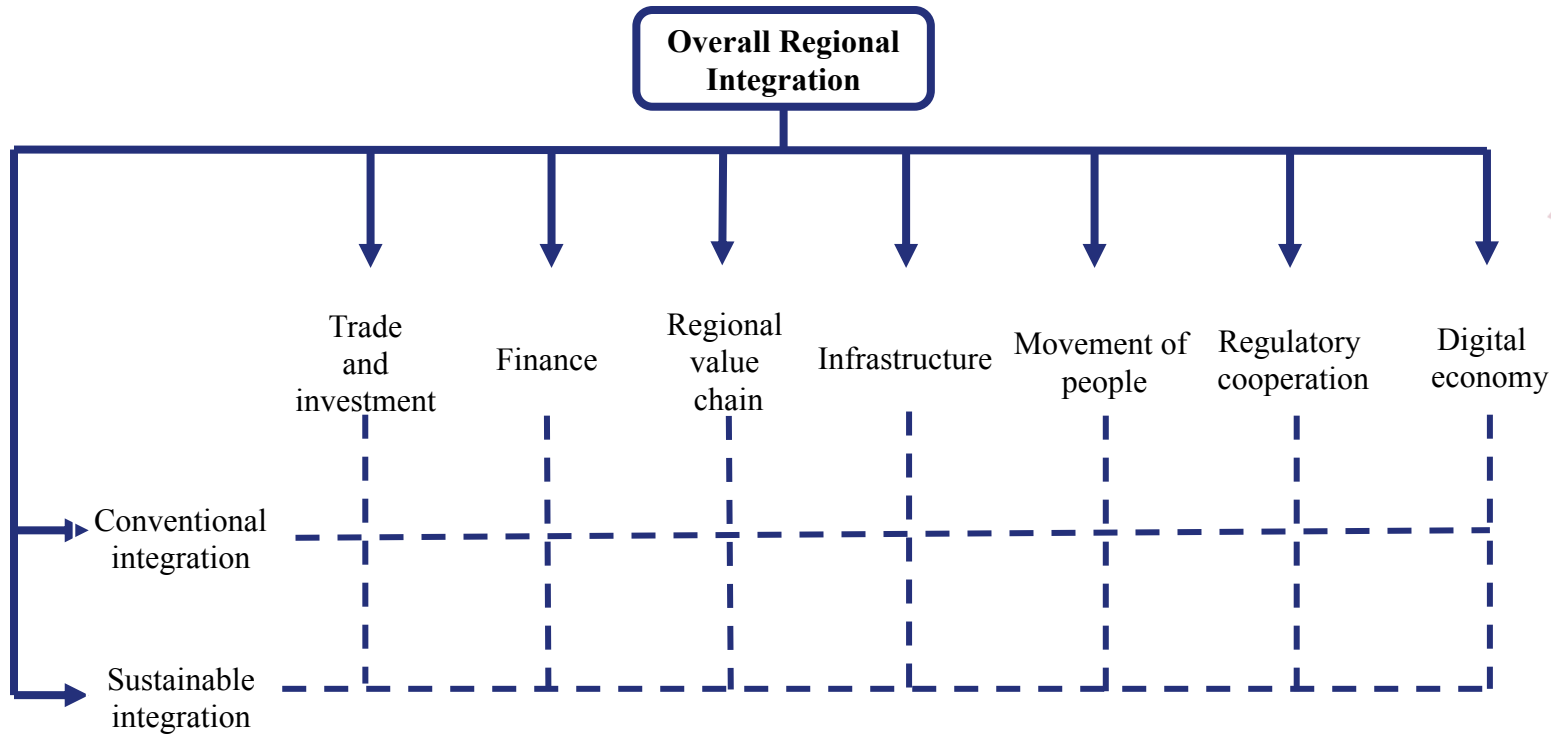
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Structure of DigiSRII



DigiSRII: Dimensions and indicator framework



Two versions of DigiSRII

DigiSRII Simplified

- 24 economies
- 7 dimensions
- Conventional and sustainable integration
- 2010-2017
- 42 indicators

DigiSRII Comprehensive

- 13 economies
- 7 dimensions
- Conventional and sustainable integration
- 2010-2017
- 53 indicators



| <i>Dimension</i> | <i>Conventional indicators</i> | <i>Sustainable indicators</i> |
|---|---|--|
| <i>A. Trade and investment integration</i> | Intra-regional goods exports to GDP | Environmental goods exports in intra-regional exports |
| | Intra-regional goods imports to GDP | Environmental goods imports in intra-regional imports |
| | Tariff on intra-regional imports | Tariff on intra-regional imports of environmental goods |
| | Stock of intra-regional FDI inflows to GDP | Employment created by DVA in exports to regional economies |
| | Stock of intra-regional FDI outflows to GDP | |

| <i>Dimension</i> | <i>Conventional indicators</i> | <i>Sustainable indicators</i> |
|--|---|---|
| <i>B. Financial integration</i> | Intra-regional cross-border portfolio liabilities and assets | Intra-regional real exchange rate volatility |
| | Pair-wise dispersion of deposit rate averaged regionally | Average intra-regional financial development index score |
| | Pair-wise correlation of share price index averaged regionally* | Volatility weighted pair-wise correlation of share price index averaged regionally* |

| <i>Dimension</i> | <i>Conventional indicators</i> | <i>Sustainable indicators</i> |
|---|--|--|
| <i>C. Regional value chain integration</i> | Regional export complementarity index | Regional environmental good export complementarity index |
| | RVC participation index | Sustainable RVC participation index |
| | Intra-regional intermediate goods exports to total intra-regional regional goods exports | Intra-regional exports of intermediates per unit of CO ₂ emissions* |
| | Intra-regional intermediate goods imports to total intra-regional regional goods imports | |

| <i>Dimension</i> | <i>Conventional indicators</i> | <i>Sustainable indicators</i> |
|---|--|--|
| <i>D. Infrastructure integration</i> | Intra-regional liner shipping connectivity index | Average intra-regional rural access to electricity |
| | Intra-regional trade facilitation implementation | Intra-regional sustainable trade facilitation implementation |
| | Average intra-regional internet quality | Average intra-regional share of internet users in population |
| | Intra-regional average trade cost* | |

| <i>Dimension</i> | <i>Conventional indicators</i> | <i>Sustainable indicators</i> |
|------------------------------|---|--|
| <i>E. Movement of people</i> | Stock of intra-regional emigrants per capita | Average outward remittances per regional immigrant |
| | Stock of intra-regional immigrants per capita | Average inward remittances per regional emigrant |
| | Intra-regional outflow of remittances to GDP | |
| | Intra-regional inflow of remittances to GDP | |

| <i>Dimension</i> | <i>Conventional indicators</i> | <i>Sustainable indicators</i> |
|---|---|---|
| <i>F. Regulatory cooperation</i> | Number of regional economies that have signed FTAs with the economy | Sustainable regional FTA score |
| | Number of regional economies that have signed IIAs with the economy | Sustainable regional IIA score |
| | Number of economies that have an embassy in the economy | Average intra-regional rule of law index score |
| | Trade regulatory distance from regional partners* | SDG trade regulatory distance from regional partners* |

| <i>Dimension</i> | <i>Conventional indicators</i> | <i>Sustainable indicators</i> |
|--|--|---|
| <i>G. Digital economy integration</i> | Share of ICT goods exports in intra-regional exports | Average intra-regional secure internet servers |
| | Share ICT goods imports in intra-regional imports | Average intra-regional proportion of households with internet access |
| | Average tariff on intra-regional imports of ICT goods | Average intra-regional share of female population with financial institution or mobile money account* |
| | Average intra-regional share of population with financial institution or mobile money account* | Average intra-regional share of female population that use internet for online purchase* |
| | Average intra-regional share of population that use internet for online purchase* | |
| | Digital trade regulatory similarity with regional partners* | |

DigiSRII: Methodological considerations



Normalisation

DigiSRII uses panel min-max normalisation.

- The minimum and maximum values for each indicator are calculated across all economies and time periods.
- Higher values indicate a higher level of integration.



Weighting

DigiSRII is calculated using equal weights.

- Equal weights for all indicators within any given dimension.
- Equal weights for all 14 dimensions that comprise the composite index.



Treatment of missing data

- Missing observations at the beginning or the end the sample period, i.e. 2010-2017, are filled in with the closest available observation .
- Missing data between 2010 and 2017 are linearly interpolated.
- Mirror data is used to fill in missing bilateral data.



Thank you and see you back in part 2

