

Here we can see several possible network health measures. A combination of them will probably do the job.

1. $n := |\mathcal{V}|$ How many players
2. $e := |\mathcal{E}| - |\{A : DTr_{A \rightarrow A} > 0\}|^1$ How many direct trust lines
3. $\frac{e}{n}$ Mean direct trust lines per player
4. $DTr := \sum_{\substack{A, B \in \mathcal{V} \\ A \neq B}} DTr_{A \rightarrow B}$ How much direct trust in total
5. $\mu := \frac{DTr}{n}$ Mean direct trust per player
6. $Cap := \sum_{A \in \mathcal{V}} DTr_{A \rightarrow A}$ Total capital
7. $\frac{Cap}{n}$ Mean capital per player
8. $\frac{DTr - Cap}{n}$ Mean direct trust minus capital per player
9. $\frac{1}{n} \sum_{A \in \mathcal{V}} \left(\sum_{\substack{B \in \mathcal{V} \\ B \neq A}} DTr_{A \rightarrow B} - \mu \right)^2$ Outgoing direct trust variance
10. $\frac{1}{n} \sum_{B \in \mathcal{V}} \left(\sum_{\substack{A \in \mathcal{V} \\ A \neq B}} DTr_{A \rightarrow B} - \mu \right)^2$ Incoming direct trust variance
11. $\frac{Cap}{DTr}$ Total capital to total direct trust ratio

¹ Maybe it makes sense to include looped direct trusts (Capital) as well.