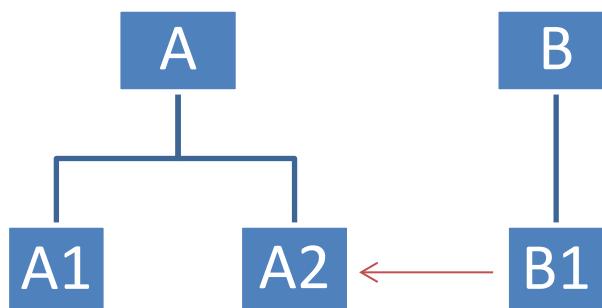


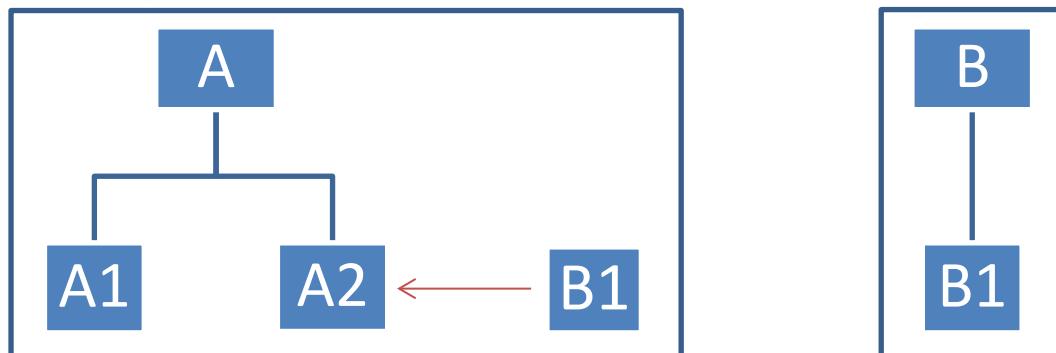
## **Relation between interconnectedness through control and interconnectedness through economic dependency and illustration of grouping requirements**

Following examples provide illustrations for formulation of groups in case of one-way dependency and two-way dependencies.

- a) For example, consider A controls A1 and A2, and B controls B1, and B1 is economically dependent on A2 (one-way dependency only i.e. financial difficulties at A2 could impact B1 but not vice versa). In this case, B1 should be part of two separate groups of A and B.

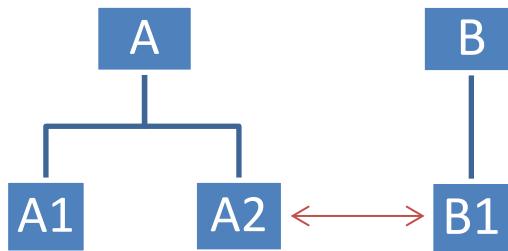


Grouping requirements:

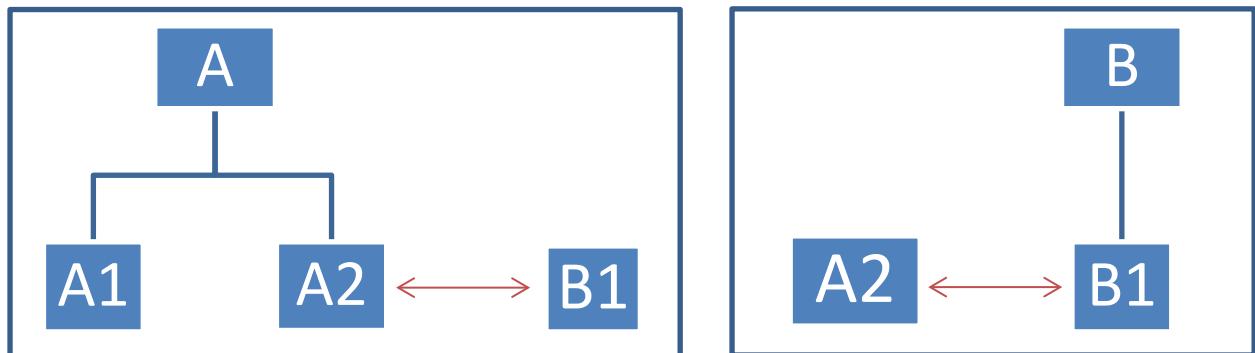


Three different groups of i) A, A1, A2, ii) B, B1, iii) A2, B1, may not be sufficient as financial difficulties of A2 is likely to cause difficulties for B1 also which is economically dependent on A2 (which in turn is dependent on A).

- b) In above example, consider that A2 and B1 have two-way economic dependency i.e. both are economically dependent on each other, which means that financial difficulty at either entity could impact the other entity.



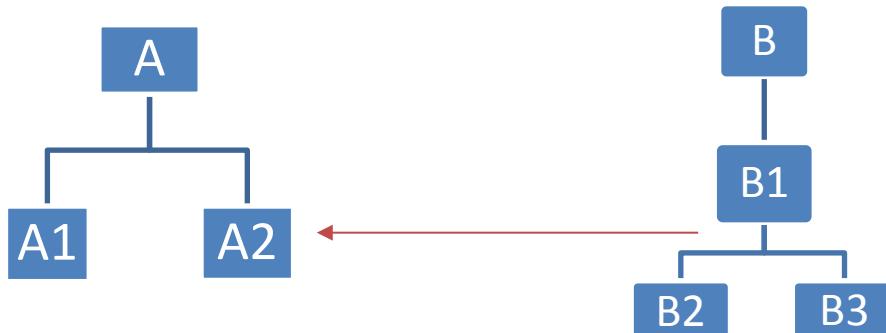
Grouping requirements:



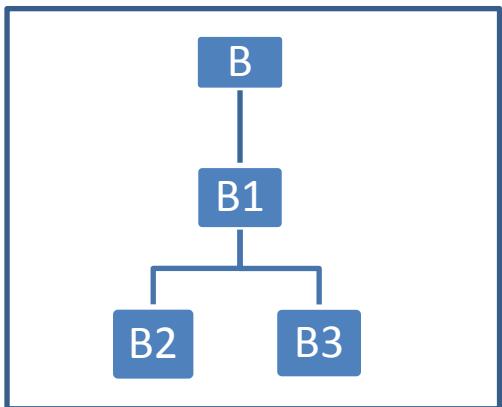
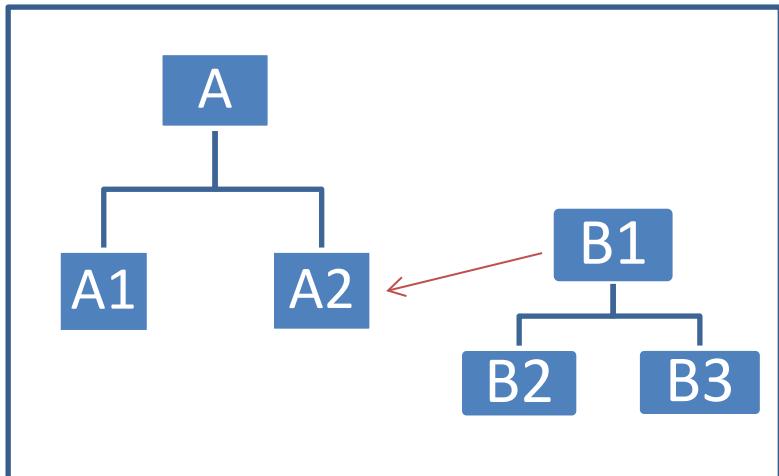
### Downstream Contagion

Downstream contagion should be assumed when an entity is economically dependent on another entity and is itself the head of a 'control group'. If the other entity is part of a group of connected clients, the control group of the economically dependent entity should then be included in the group of connected counterparties to which the economic dependency relationship exists. To overcome its own pending payment difficulties, the economically dependent entity is likely to withdraw resources from controlled entities, thus extending the risk of contagion downstream.

- a) For example, consider A controls A1 and A2, and B controls B1, and B1 controls B2 and B3. Further, consider B1 has one-way economic dependency on A2. If A2 faces financial difficulty, it may impact B1 adversely, which then is likely to withdraw resources from its controlled entities B2 and B3.



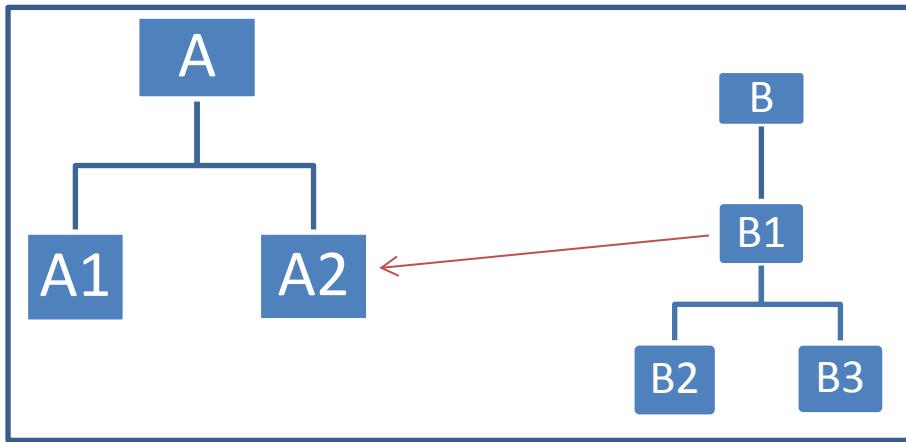
Grouping requirements:



### Upstream Contagion

On the other hand, upstream contagion of entities that control the economically dependent entity should be assumed only when the controlling entity is also economically dependent on the entity that constitutes the economic link between the two controlling groups.

- For instance, in the above example of downstream contagion, if B1 is so important to B that in a sense B is also dependent on B1, then contagion at A could also spread to B, through  $A \rightarrow A2 \rightarrow B1 \rightarrow B$  and all these entities would form a single group.



### **Limitations in formulating groups of connected counterparties**

If a bank is not having exposure to all the entities, it may be difficult to accurately form group of connected counterparties. Such groups shall be formed on best efforts basis and banks should take reasonable steps to collect and use relevant information; this includes publicly available information (e.g. annual financial statements), information beyond institutions' clients and also soft information that typically exists at the level of individual loan officers and relationship managers. If there are interconnections among entities that are not clients of the bank, it may be difficult for the bank to formulate correct groupings. However, the bank should incorporate any information that may be available to it publicly or through other clients or entities outside its clientele.

- a) For instance, in illustration shown below, if bank has exposure to A and B5 only, then it may be difficult to formulate correct groupings.

