Global Value Chain

Global Value Chains

- Global Value Chains (GVCs) is a phenomenon where the making of a product is spread across countries, regions and continents benefiting from comparative local cost advantages to become globally competitive.
- GVCs are value chains, which are activities that companies engage in to bring a product from development all the way to the final consumer, and that are global in a way that are spread over several countries (Gereffi and Fernandez-Stark, 2011).

- Global value chains (GVCs) break up the production process so at different steps can be carried out in different countries.
- Many smart phones and televisions, for example, are designed in the United States or Japan. They have sophisticated inputs, such as semiconductors and processors, which are produced in the Republic of Korea or Chinese Taipei.
- And they are assembled in China. They are then marketed and receive after-sale servicing in Europe and the United States.
- These complex global production arrangements have transformed the nature of trade. But their complexity has also created difficulties in understanding trade and in formulating policies that allow firms and governments to capitalize on GVCs and to mitigate negative side effects.

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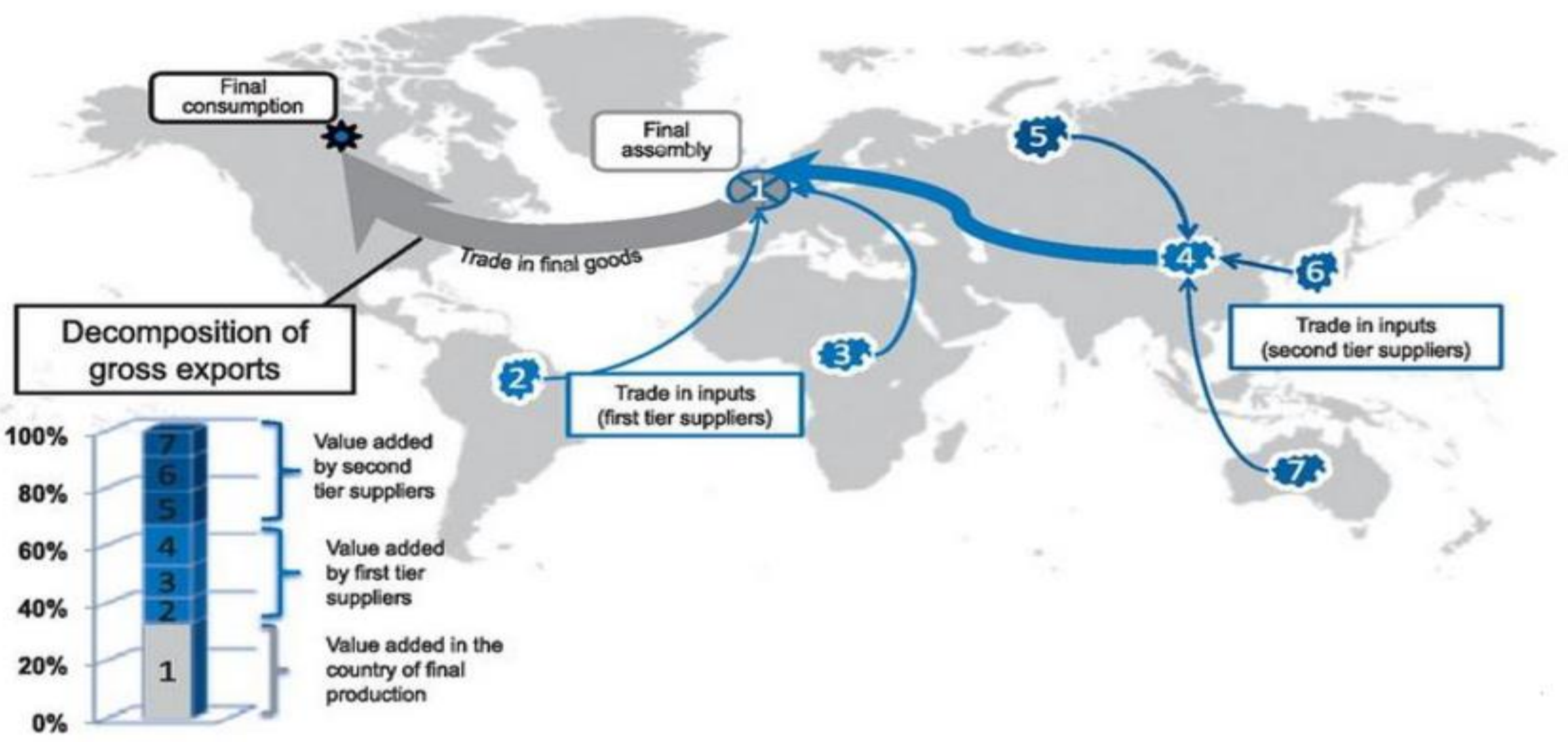
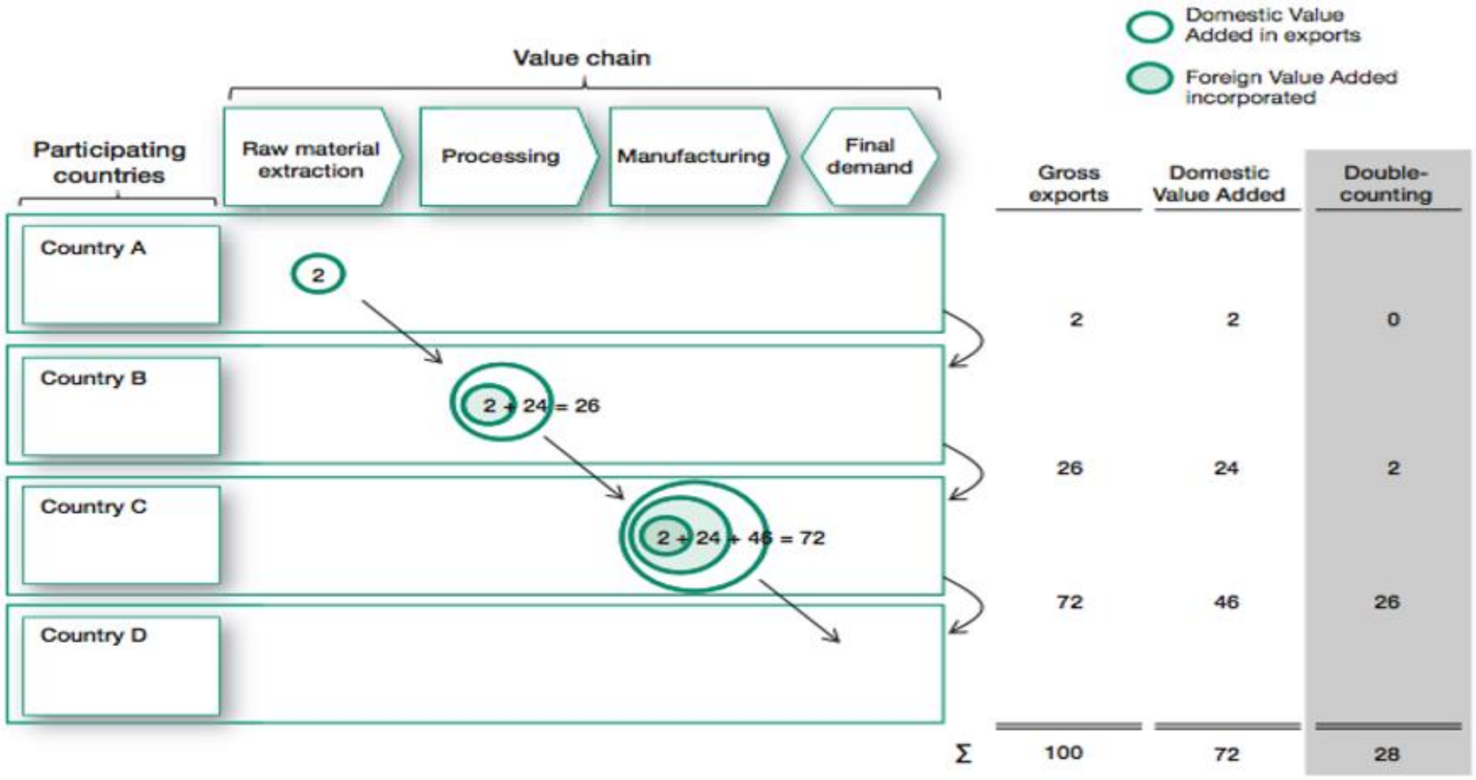
Figure 1: An illustration of a GVC





Source: UNCTAD, 2013a.

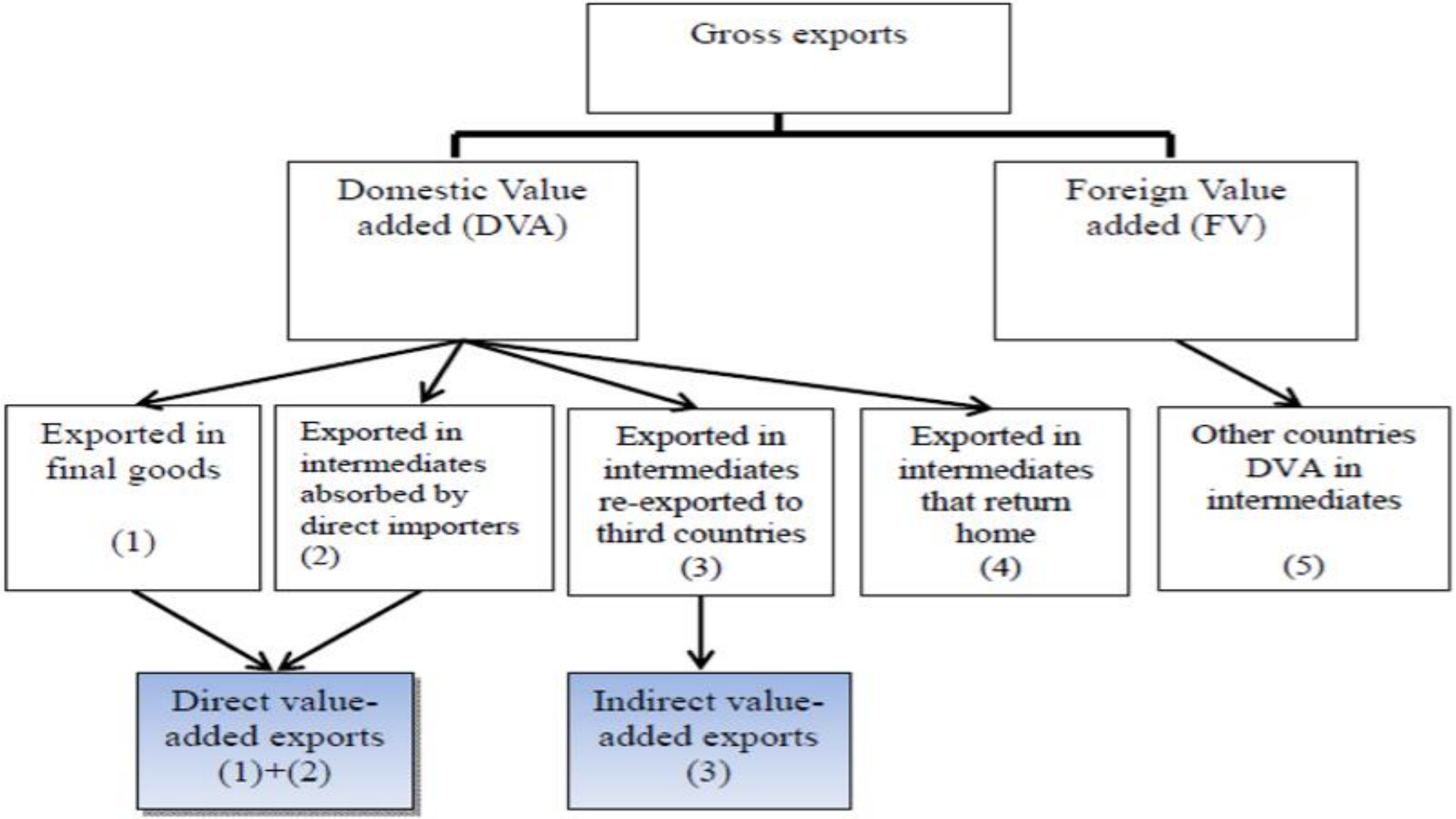
Domestic value added (DVA)

- Domestic value added embodied in gross exports (DVA): refers to the value added generated by the domestic economy in the production (direct and indirect) of goods and services for export. It includes the value added embodied in all exported goods and services produced by national industries, including the domestic value added that was previously exported and the re-imported to be used in production of intermediates

Foreign value added (FVA)

- Foreign value added embodied in gross exports (FVA): refers to the value added of foreign goods and services that are used as intermediates to produce goods and services for export. FVA is usually analysed by the country of origin.

Decomposition of gross exports: concepts



Source: Koopman et al, 2010.

GVC participation

- We can analyse the countries’ and industries’ participation in GVCs from two different perspectives:

    1. Forward linkages or downstream participation
    2. Backward linkages or upstream participation

Downstream participation

- Forward linkages or downstream participation: is created between a supplying industry and a purchasing industry that uses the supplier’s output as input. Internationally, it can be understood as the linkages between an exporting economy and an importing economy whose industries use the exports (supply) as inputs to generate output for exports. In other words, the industries of the exporting country provide inputs into exports of the industries in the importing country

Upstream participation

- Backward linkages or upstream participation: is created between a purchasing industry and a supplying industry. Internationally, it can be understood as the linkages between an importing country and an exporting country. In other words, the industries in the importing country import intermediate products to be used in its exports.

- The concepts (DVA & FVA) will allow us to measure the GVC participation, which indicates a country's integration into the GVCs. It is calculated by adding the foreign value added in the county's exports (FVA) – backward linkage – and the domestic value added embedded in exports of other counties (DVX) – forward linkage. Consequently, the GVC participation index is the sum of the forward linkage (downstream participation, DVX) and the backward linkage (upstream participation, DVA) divided by total gross exports (GE), as proposed by Koopman et al (2010)

$$\mathrm{GVC}_{\mathrm{Participation}} = \frac{\mathrm{DVX}+\mathrm{FVA}}{\mathrm{GE}} \qquad (1)$$