

# *GVCs and Global Economic Transformation:*

*How GVCs shape international trade  
and the global economy?*

*TPSA Workshop, Jakarta, February 20, 2018*

Jeff Neilson

School of Geosciences (economic geography)

University of Sydney



THE UNIVERSITY OF  
SYDNEY

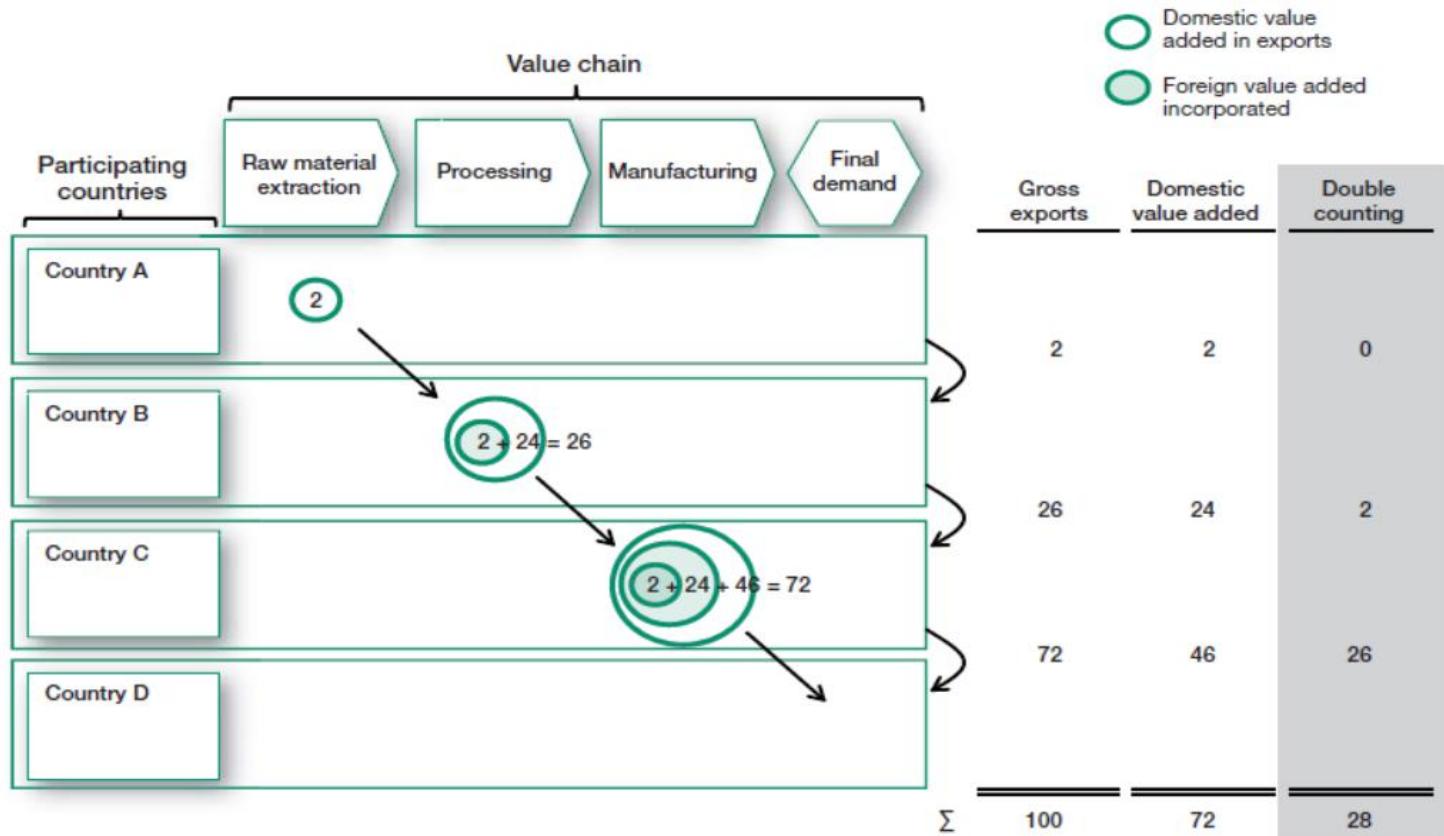
“The chain is conceptualized as a series of nodes, linked by various types of transactions (e.g., sales in a market or intrafirm transfers). Each successive node within a commodity chain involves the acquisition or organization of inputs... At each successive node, the commodity is transformed in some way; value is added to it, and profits are generated.”

Talbot, J. (1997) “Where does your coffee dollar go? The division of income and surplus along the coffee commodity chain” *Studies in Comparative International Development*, 32(1), p57.

# The New International Trade Order

- › Trade is no longer dominated by products, but in tasks and components.
- › According to UNCTAD, 60% of global trade is in intermediate goods and services.
- › Share of foreign value-added in global exports is 28%

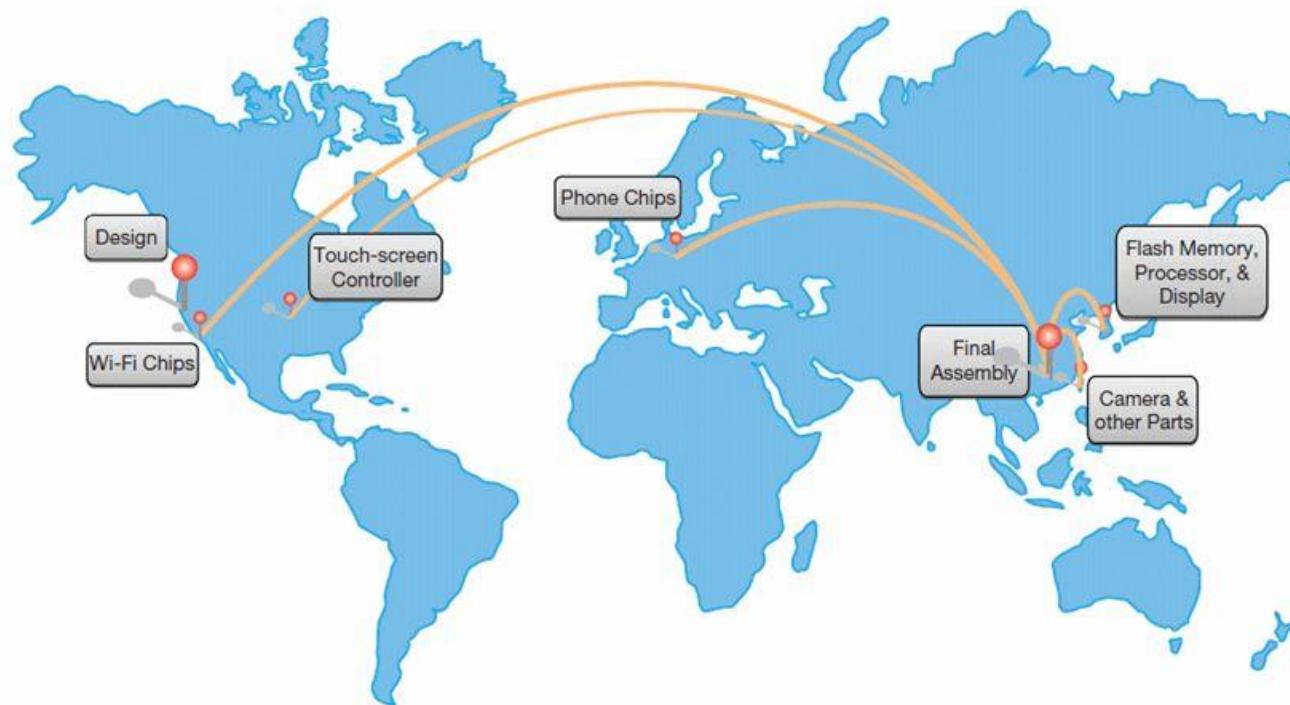
Figure IV.1. Value added trade: how it works





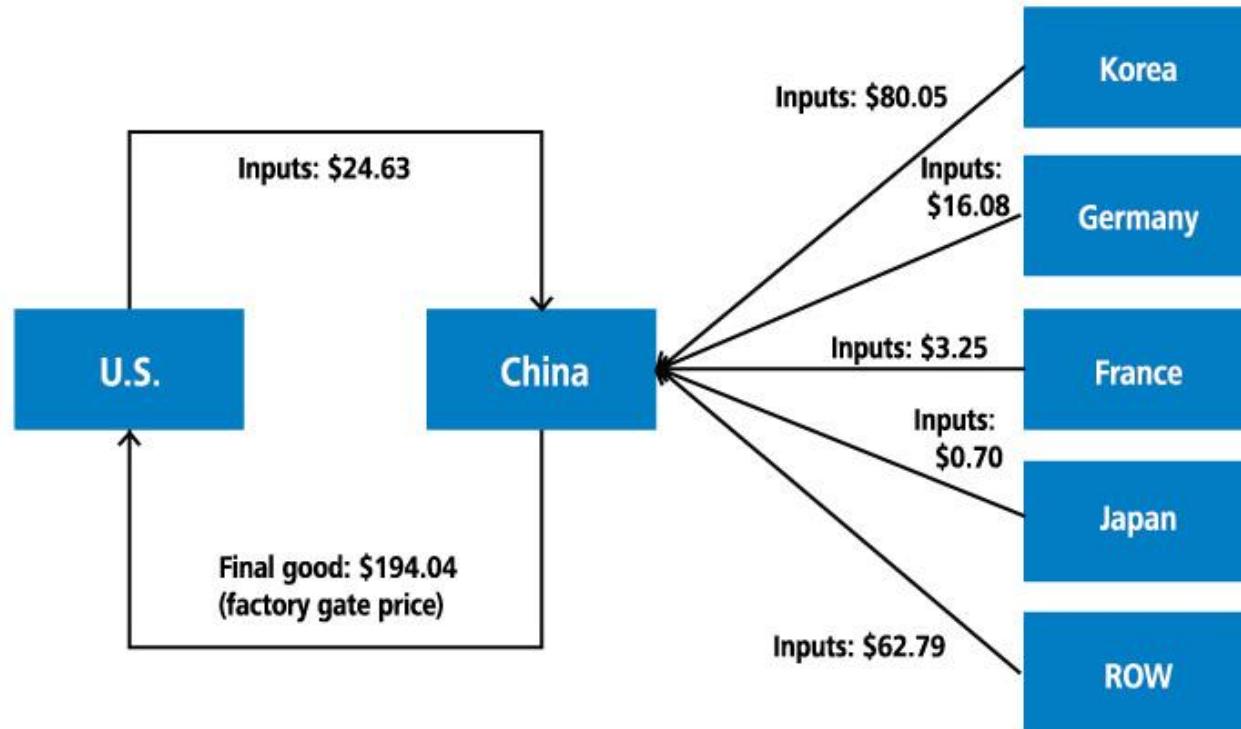
## Supply Chain for Apple's iPhone

The iPhone is assembled in China from globally sourced components.





# Calculating value-added for an iPhone (2009 data)



Us trade balance with	China	Korea	Germany	France	Japan	Rest of world	World Total
Gross	-\$169.41	0	0	0	0	0	-\$169.41
Value added	-\$6.54	-\$80.05	-\$16.08	-\$3.25	-\$0.70	-\$62.79	-\$169.41



# Features of contemporary GVCs

1. Production is geographically fragmented at a global scale
2. Countries are often importing and exporting intermediate products
3. Conventional tools for national accounting and understanding trade relationships are misleading
4. Traditional definitions of discrete industries is becoming less useful
5. Production is often coordinated (governed) by a TNC (a lead firm), so their strategic practices become important
6. Economic power exists beyond market transactions
7. Economic development is often accelerated by participating in GVCs

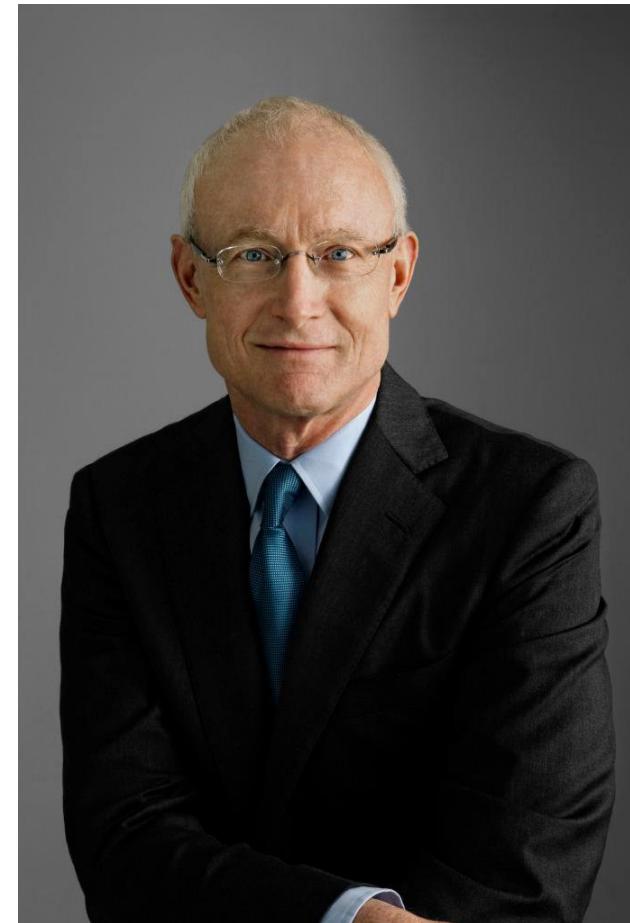
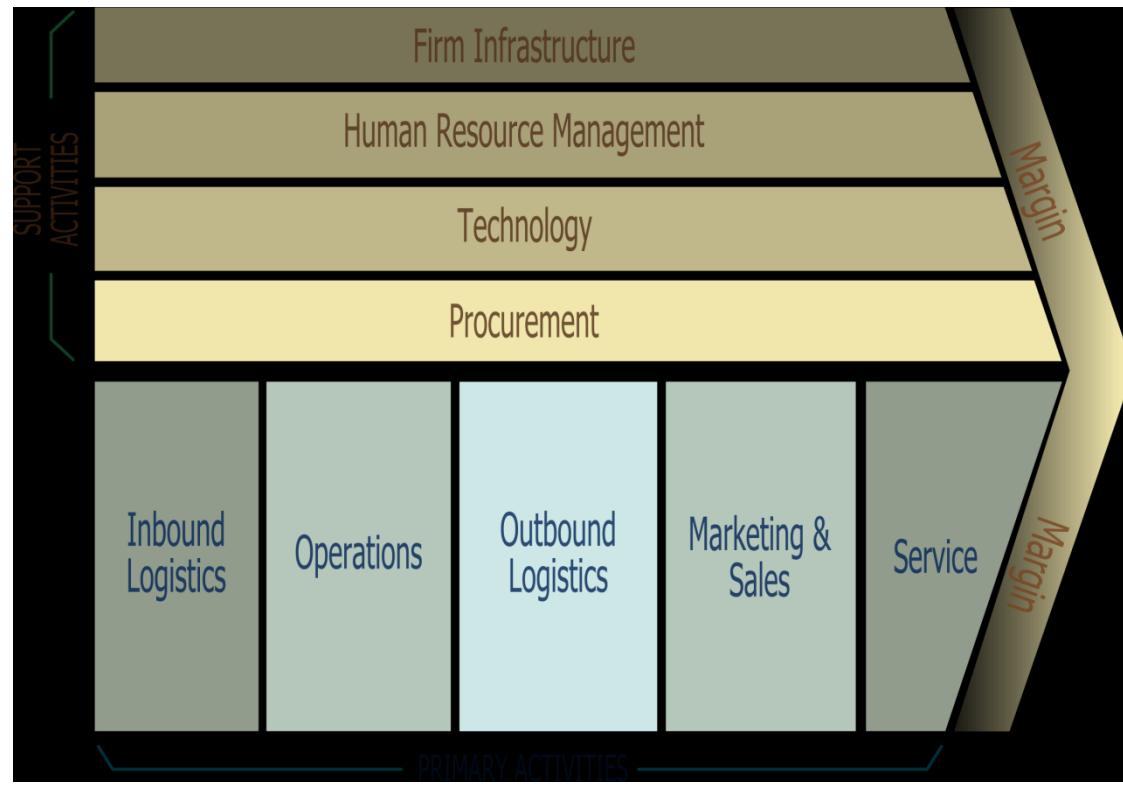
## Why should we care about GVCs

- › From a management perspective, there are always issues connected with the efficient and timely distribution of goods that flow across supply chains.
- › From an industry perspective, there are questions about how the industry is organized in terms of the size and ownership of major manufacturers and their suppliers, and where these companies are located.
- › From a national competitiveness perspective, countries are concerned about whether they can gain and maintain the production, sales and research capabilities needed to develop and make low-cost, high-quality or high-tech products.
- › From a development perspective, the ability of countries to prosper depends on their participation in the global economy, which is largely a story about their role in global supply chains.

Gereffi and Lee (2012). "Why the World Suddenly Cares about Global Supply Chains". *Journal of Supply Chain Management*. 48 (3). 24-32

# The Management perspective: Michael Porter and *Competitive Advantage*

## Commodity Chains, Supply Chains and Value chains



Images: [http://en.wikipedia.org/wiki/Michael\\_Porter](http://en.wikipedia.org/wiki/Michael_Porter)

# Gary Gereffi and the governance of ‘Global Commodity Chains’

- › The key concept for GCCs and GVCs is the “governance” of global value chains, which focuses mainly on lead firms and the organization of global industries
- › Gereffi, G., and Korzeniewicz M. (1990) Commodity chains and footwear exports in the semi-periphery, pp. 45–68 in Martin, W.G. (ed) *Semiperipheral States in the World-Economy*, Greenwood Press, Westport CT.
- › Gereffi, G. and Korzeniewicz, M. (eds) (1994) *Commodity Chains and Global Capitalism*, Greenwood Press, Westport (CT).
- › Gereffi, G. (1996) Global commodity chains: new forms of coordination and control among nations and firms in international industries, *Competition & Change*, 1(4), pp. 427–439



Image source:  
[www.soc.duke.edu](http://www.soc.duke.edu)

# Economic Development and Upgrading in GVCs

- › GVC theory, moreover, provides a clear analytical framework that describes, based on empirical evidence, the organizational processes through which **upgrading** takes place.

Gereffi (1999: 39) explains:

“Participation in global commodity chains is a necessary step for industrial upgrading because it puts firms and economies on potentially dynamic learning curves.”

“Upgrading” focuses on the strategies used by countries, regions and other economic stakeholders to maintain or improve their positions in the global economy.

# Types of Upgrading in GVCs

- › Within the GVC framework, four types of upgrading have been identified (Humphrey and Schmitz, 2002):
  1. Product upgrading, or moving into more sophisticated and higher quality product lines;
  2. Process upgrading, which transforms inputs into outputs more efficiently by reorganizing the production system or introducing superior technology;
  3. Functional upgrading (*hilirisasi?*), which entails acquiring new functions (or abandoning existing functions) to increase the overall skill content of the activities; and
  4. Inter-chain upgrading, in which firms move into new but often related industries.

# Why are Global Value Chains important to development?

- › Industrial organisation (and economic opportunities for participation) is increasingly shaped by the actor practices of globally coordinated lead firms,
- › “There is a positive correlation between participation in GVCs and growth rates of GDP per capita. GVCs have a direct economic impact on value added, jobs and income.”
- › “They can also be an important avenue for developing countries to build productive capacity, including through technology dissemination and skill building, thus opening up opportunities for longer-term industrial upgrading.”

*(UNCTAD 2013 World Investment Report on Global Value Chains)*



# Involvement in GVCs reflected in foreign value-added

Country	Foreign value-added content of exports
Korea	44
Malaysia	42
Mexico	32
Thailand	30
China	30
Indonesia	9

Source: UNCTAD, 2013

	1995	2000	2005	2010
<b>Indonesia</b>				
(1) All sectors	0.13	0.19	0.17	0.15
(2) Manufacturing	0.18	0.24	0.21	0.23
(3) Food products	0.05	0.09	0.07	0.04
<b>Malaysia</b>	1991	2000	2005	2010
(1) All sectors	0.38	0.52	n.a	0.41
(2) Manufacturing	0.47	0.59	n.a	0.48
(3) Food products	0.20	0.26	n.a	0.23
<b>Taiwan</b>	1996	2001	2006	2011
(1) All sectors	0.36	0.40	0.50	0.52
(2) Manufacturing	0.40	0.45	0.55	0.57
(3) Food products	0.26	0.28	0.33	0.35

Source: Calculated from the official input–output (IO) tables from each country

Neilson et al (2017)

## Does participation in GVCs have a “dark side”?

- › Participation in a GVC does not guarantee good quality jobs or improved livelihoods, when regions compete in a “race to the bottom”,
- › The question then becomes under what conditions can participation in GVCs be harnessed to encourage regional development and improved livelihoods?
- › Economic geographers working in the closely related GPN (Global Production Network) framework refer to this process as “strategic coupling” (SC),
- › SC occurs when institutional settings are aligned with the needs of global lead firms, and can enable “value capture” and broad-ranging distribution of this value within a country or region.

- › Gereffi and Lee (2012). “Why the World Suddenly Cares about Global Supply Chains”. *Journal of Supply Chain Management*. 48 (3). 24-32
- › Summarised at: [http://reports.weforum.org/manufacturing-growth/why-the-world-suddenly-cares-about-global-supply-chains/?doing\\_wp\\_cron=1517880019.7199990749359130859375#view/fn-1](http://reports.weforum.org/manufacturing-growth/why-the-world-suddenly-cares-about-global-supply-chains/?doing_wp_cron=1517880019.7199990749359130859375#view/fn-1)