Overview

• Why measuring trade in value-added matters
• Drivers of change in supply chains
• Supply chain typology
• Value-added attribution
• The role of services
• Where does policy fit in?
Why measure trade in terms of value-added?

- Value-added versus gross measures of trade
  - A different view on bilateral trade balances
  - A different view on the technology content of trade
  - A different view on the true nature of interdependency through trade
  - The context for understanding supply chains
  - A better understanding of the interface with policy

- Import content of exports is rising globally (i.e. more intermediates in total merchandise trade: 50-65%), emphasizing the growing role of supply chain production in the world economy
United States-China trade balance
Traditional vs VA measure (billion US$)

Sources: UN Comtrade Database, IDE-JETRO AIO table and WTO estimates
Drivers of Change

• Shifting patterns of demand
• Consumer expectations
• New perceptions of risk
• Challenges of sustainability
  – Environmental
  – Social
• Advances in technology
Shifting patterns of demand

• Rising incomes in emerging markets
• Increasing consumption
• Emerging markets as significant sources of growth for the foreseeable future
• Changing production costs also shift supply chains
• These changes the shape of and direction of global supply chains, carrying implications for the attribution of value-added
Changing consumer expectations

• Communication and information technology has made consumers more demanding
• In a number of product areas, consumers’ access to information and expectations increasingly influence production decisions
• We see new value-based product preferences
• Speed in production and delivery assume a new urgency
New perceptions of risk

• The millennium bug, 9/11, Fukushima, Thai floods – all disruptors of supply chains
• New attitudes towards managing risk, the development of ‘plan B’
• Drawing supply chains less tightly – a potential trade-off with speed and efficiency
• New risk on the consumption side because of rising consumer expectations
Challenges of sustainability

• Environmental sustainability
  – Environmental quality considerations, CO2 emission levels and increasing resource scarcity all constrain the Asian growth model compared to the way the West grew

• Social sustainability
  – The Foxconn effect: wage levels, working conditions
  – A lack of social legitimacy can become a major disruptor
  – The role of consumers in this context
Advances in technology

• New technologies can disrupt supply chains over time

• Examples:
  – The digital revolution has expanded locational choice, emphasizing the distinction between trading in goods and trading in tasks – a kind of disembodiment that emphasizes services
  – 3D printing or additive manufacturing can disrupt large parts of the supply chain, both upstream and downstream
A Typology of Supply Chains

• **Resource-Based:** Demand-driven; location-determined; mining, extracting, growing, harvesting; varying technological components; issue of where value is added

• **Cost Minimization:** buyer-driven, high volume of consumer goods/commodities, low technology, low margins, cost/price competition and speed oriented, many firms, SME involvement

• **Mass Customization:** buyer-driven, high volume but higher margins, cost/price competition but elements of market segmentation (branding, trademarks) higher technology, speed oriented, multi-firm but some market dominance, SME involvement

• **Product Differentiation:** producer-driven, lower volume, higher margins, speed less important, technology and proprietary knowledge matters and is key to market segmentation, fewer firms, perhaps only one
Value-added attribution

• Understanding the predominant role of services in supply chain production

• Breaking down the sources of value-added

• Who acquires the value-added – climbing up the value chain
The Role of Services

Cost Breakdown by Country

- Manufacturing: 86%
- China: 5%
- Japan: 4%
- Hong Kong: 4%
- South Korea: 1%

Manufacturing Costs and Invisible Assets

- Manufacturing
- Invisible Assets
  - Services (retail, logistics, banking, etc.)
  - Intellectual Property
  - Profits
  - Other Unknowns
V-A Attribution: Smiley Face

(Source: Stan Shih, Business Week International online extra, 16/5/2005)
Some Questions for WTO (and PTAs)

• The multiplicative effects of policy intervention
• Is our frame of thinking about trade policy adequate in the contemporary global economy?
  – Design of regimes for goods, services and investment
  – Design (existence) of rules of origin
  – Treatment of NTMs
  – Standards: harmonization versus mutual recognition
  – Competition
  – Contingency trade policy
  – Institutionalized mechanisms for managing uncertainty/unpredictability in trade policy
Thank you