International Trade and Policy

WEEK 10 – Factor Mobility and Global Value Chains / Midterm Exam II

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Midterm Exam II – What to Expect

- **Topics Covered:**
  - ✓International labor mobility & migration
  - ✓Foreign Direct Investment (FDI)
  - ✓Outsourcing vs. Offshoring
  - ✓Fragmentation of production
  - ✓Trade in tasks

Key Concept – Global Value Chains (GVCs)

- **Definition:** Movement of factors of production (labor, capital) across international borders
- **Two types:**
  a) *Labor mobility* – people moving (migration)
  b) *Capital mobility* – FDI (physical capital & technology)
- Why does it matter? → Affects wages, returns to capital, income distribution, and global production efficiency

Key Concept – Global Value Chains (GVCs)

- **Definition:** Full range of activities (design, production, marketing, distribution) across multiple countries
- GVCs rely on *fragmentation* and *trade in tasks*
- **Examples**: **iPhone** (designed in US, components from Korea/Japan, assembled in China)

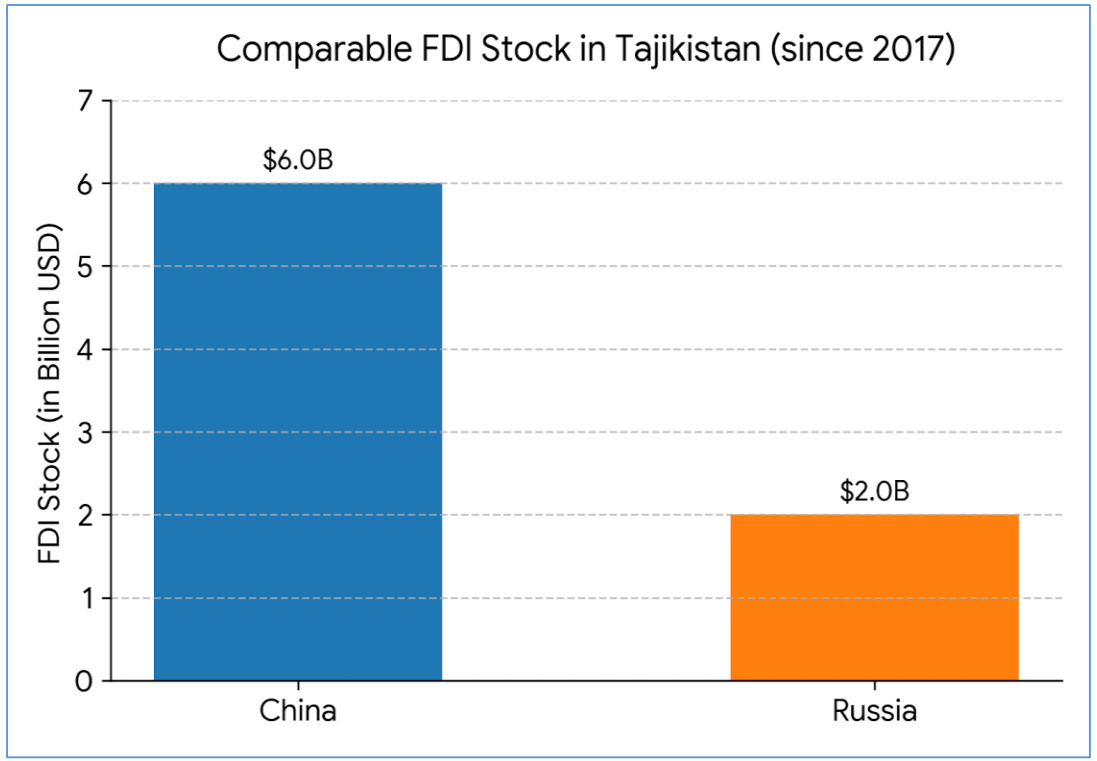
Exam Tip – Connecting Factor Mobility to GVCs

- **Simple logic:** Factor mobility enables GVCs.
  - Labor moves → fills skill gaps abroad
  - Capital (FDI) moves → builds factories near low-cost labor
  - Fragmentation → splits production across borders
  - Trade in tasks → you don’t trade goods, you trade value-added activities

PART II: INTERNATIONAL LABOR MOBILITY & MIGRATION

International Labor Mobility – Basics

Case Study 1 – FDI in Tajikistan: The Rise of China



Source: China and Central Asia Studies Centre, 2025

Driven by a cumulative foreign direct investment stock of nearly **$6** billion since **2017** that heavily eclipses Russia's **$2** billion footprint, China surpassed Russia as Tajikistan's primary trading partner in **2025** for the first time in over two decades, with bilateral trade reaching **$4.3** billion and expanding by 50% year-on-year in the first quarter of **2026**.

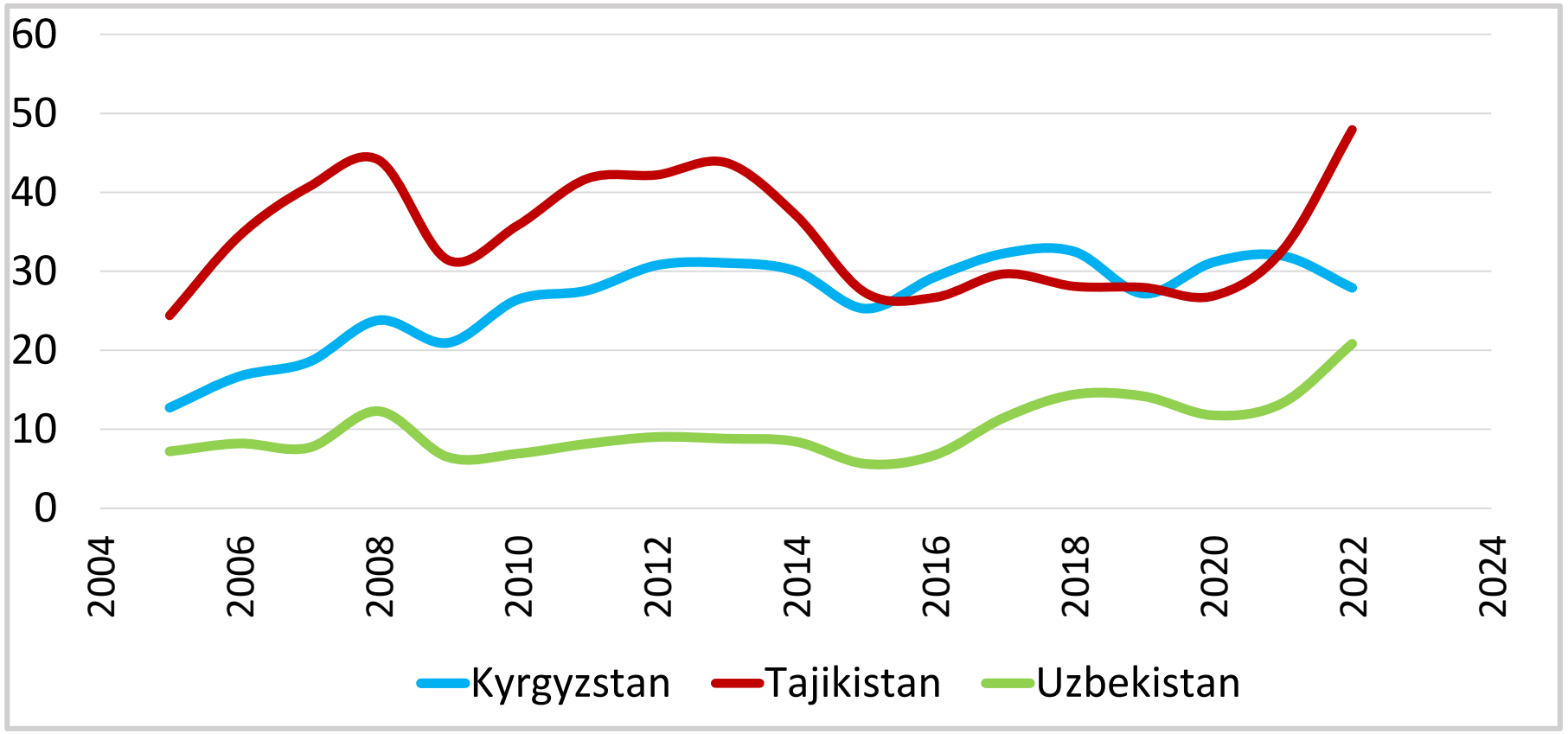
Case Study 1 – FDI in Tajikistan: Sectors & Mechanisms

Top FDI Sectors (2024 data):

Sector	Key Features
Critical Minerals	Antimony, gold, lithium, tungsten – clean energy supply chains
Infrastructure	Dushanbe-China highway, border posts, energy projects
Digital/AI	Tajik-China Digital Business Connect – $647 million in deals
Agriculture & Processing	Import substitution, new jobs

Case Study 2 – Migration from Tajikistan: Scale & Dependency

Central Asian Countries personal remittances, received (% of GDP), 2005-2022



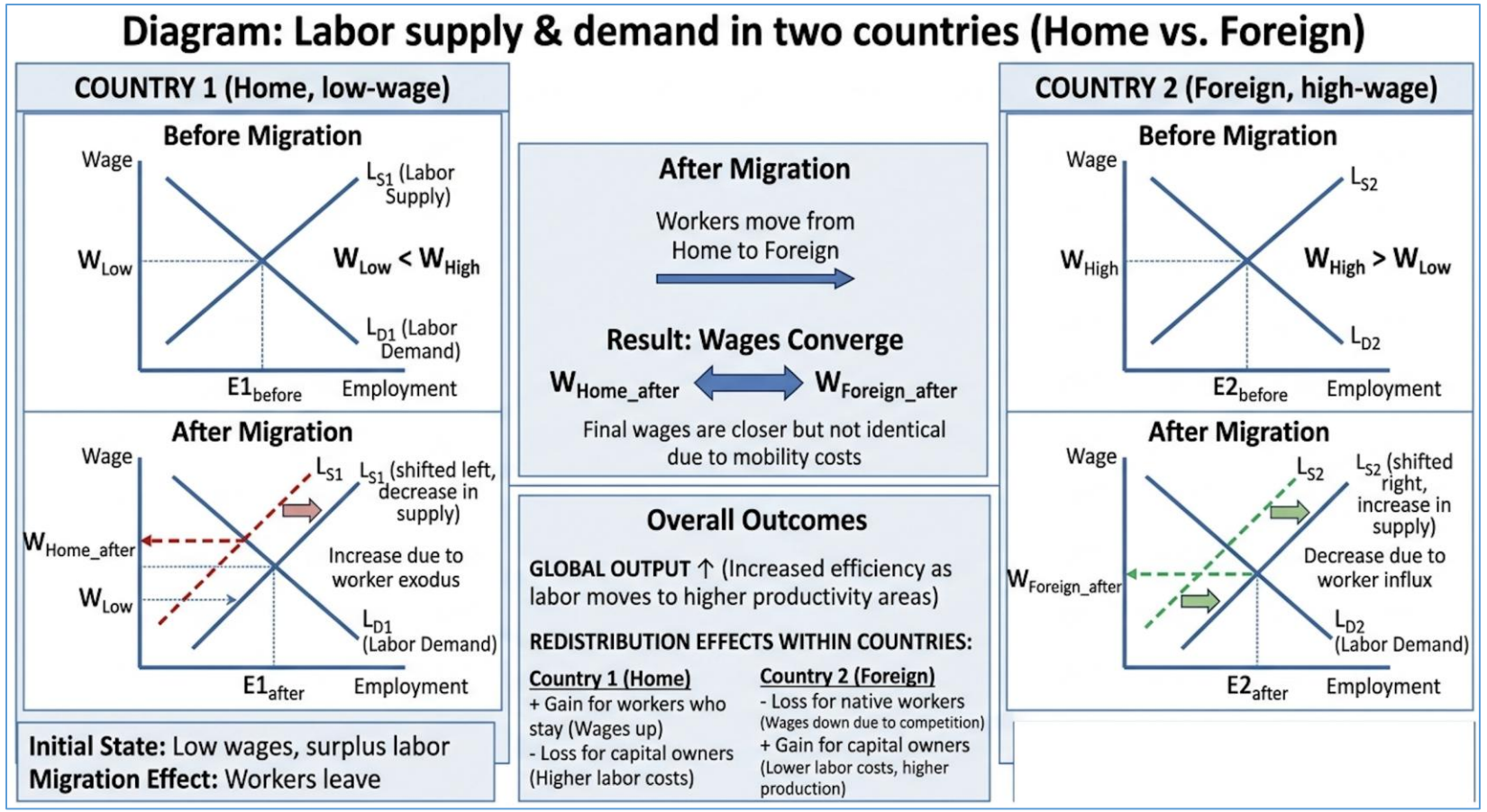
Source: Author calculation based on the World Development Indicator, 2023 data

PART IV: INTERNATIONAL LABOR MOBILITY & MIGRATION

International Labor Mobility – Basics

- Movement of workers from home country (source) to host country (destination)
- Push factors: low wages, unemployment, political instability
- Pull factors: higher wages, better opportunities, family networks

Figure. 1: Economic Effects – A Simple Model



Source: Created by the author

Winners and Losers from Migration

- **Host country:**
  - ✓Winners: Firms (lower labor costs), complementary workers
  - ✓Losers: Competing domestic workers (wage ↓)
- **Source country:**
  - ✓Winners: Remittances, returning migrants with skills
  - ✓Losers: Labor shortage, brain drain

Brain-drain vs. Brain-gain

- **Brain drain:** Loss of skilled workers (doctors, engineers) from poor countries
- **Brain gain:** Diaspora networks send back knowledge, investment, and trade links

- **Exam focus:** The “new economics of migration” – remittances reduce poverty more than aid

Policy & Restrictions

- Immigration quotas, skill-based points systems (Canada, Australia)
- Guest worker programs (Gulf States, EU Blue Card)
- **Economic impact of restrictions:** Creates inefficiency, underground labor markets, misallocation of talent

Exam Questions – Labor Mobility

1. Show wage convergence using supply-demand graphs.
2. Explain why migration benefits global GDP but creates winners/losers.
3. Define brain drain and give one real-world example.

PART III: FOREIGN DIRECT INVESTMENT (FDI)
FDI vs. Portfolio Investment

- **FDI:** Investment to acquire lasting interest (≥10% ownership) and control in a foreign firm
    a) *Greenfield* – build new factory
    b) *Brownfield* – acquire or merge with existing firm
- **Portfolio investment:** Purchase of stocks/bonds without control

Motivations for FDI

Market-seeking – access large consumer markets (avoid tariffs)

Resource-seeking – natural resources, cheap labor

Efficiency-seeking – reduce costs by locating production optimally

Strategic asset-seeking – technology, brands, R&D

Horizontal vs. Vertical FDI

- **Horizontal FDI:** Same production activities in multiple countries (e.g., Toyota makes cars in US & Japan) – *market seeking*

- **Vertical FDI:** Different stages of production across countries (e.g., US designs chips, Taiwan fabricates) – *efficiency seeking*

OLI Eclectic Paradigm (Dunning) – Exam Favorite

- **O**wnership advantage (firm-specific asset: tech, brand)
- **L**ocation advantage (host country: labor, infrastructure, policy)
- **Internalisation** advantage (keep within the firm rather than license)
- **FDI occurs only when O + L + I are present.**

Effects of FDI on Host & Home Countries

Country Type	Core Benefits (Pros)	Core Costs (Cons)
Host Country (Recipient)	• Technology & Capital Inflow • Job Creation • Spillover Efficiency	• Crowding out local firms • Profit repatriation outflow • Potential loss of sovereignty
Home Country (Investor)	• Profit & Dividend Repatriation • Lower-cost inputs • Reverse technology learning	• Short-term capital outflow • Domestic job displacement • Forgone domestic investment

Exam Questions – FDI

1. Distinguish horizontal vs. vertical FDI with an example.
2. Apply OLI framework to explain why **Tesla** builds a factory in Germany.
3. Discuss one positive and one negative effect of FDI for a developing country.

PART IV: OUTSOURCING, OFFSHORING & FRAGMENTATION

Key Definitions – Don't Confuse!

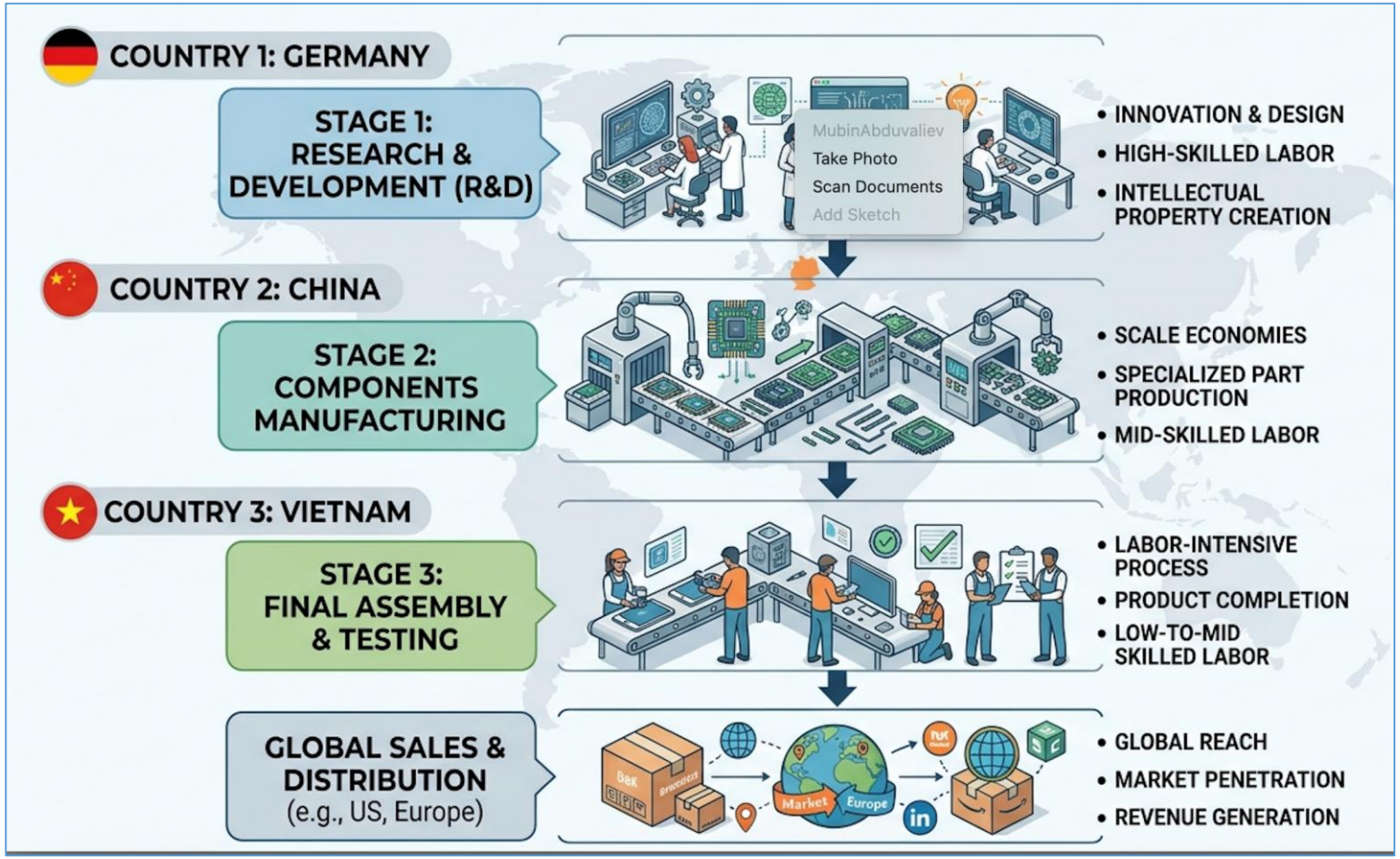
- **Outsourcing:** Contracting tasks to an *external* firm (domestic or foreign)
- **Offshoring:** Moving activities *abroad* (can be in-house subsidiary or outsourced)
- **Key point:** Outsourcing = make-or-buy decision; Offshoring = location decision

The Offshoring Decision – Cost vs. Risk

- Benefits: Lower wages, taxes, regulations
- Costs: Coordination, transport, intellectual property risk, political risk
- **Trade-off:** Cheaper labor vs. longer supply chains

Fragmentation of Production

Figure 2. Global value chains: Deconstructed production process



Source: Created by the author

Why Fragmentation Happens

1. Technological progress (ICT, container shipping)
2. Liberal trade & investment policies
3. Wage differentials across countries
4. Modular design (products easily split into tasks)

Trade in Tasks (Richard Baldwin, Grossman & Rossi-Hansberg)

Old view: Countries trade goods.

New view: Countries trade tasks (value chain stages).

Example: Call centers, software coding, design, assembly – each "task" is traded globally

Implication: Tasks, not industries, define competitiveness

Real-World Examples of Fragmentation

- **Electronics:** Apple – design CA, chips Taiwan, assembly China, final sales global

- **Automotive:** BMW – engines Germany, wiring Poland, assembly US & China

- **Clothing:** Design Italy, fabric China, sewing Bangladesh, labels Portugal

Risks of Fragmented GVCs

- Supply chain disruptions (**COVID-19, Suez Canal blockage**)
- Geopolitical tensions (**US-China decoupling**)
- Loss of domestic industrial base
- **Response:** Reshoring, nearshoring, friend-shoring

Exam Questions – Outsourcing & Fragmentation

1. Differentiate offshoring from outsourcing using real firms.
2. Explain how fragmentation changes the pattern of trade.
3. Draw a fragmented production chain and label each country’s task.

PART V: SYNTHESIS & EXAM PREPARATION
Connecting All Concepts – The Big Picture

- Labor mobility supplies workers to GVC nodes
- FDI provides capital & control to build offshore facilities
- Outsourcing/offshoring operationalize fragmentation
- Trade in tasks is the *unit of analysis* for

Review Table – Key Terms

Term	Definition	Example
Labor mobility	Workers cross borders	Mexican farmworkers in US
FDI	Control investment abroad	Toyota plant in Kentucky
Offshoring	Move activity abroad	Call center to India
Fragmentation	Split production stages	iPhone supply chain
Trade in tasks	Buy/sell value chain steps	US design, China assembly

Possible Diagrams for Exam (Draw These!)

1. **Labor migration:** Two-country wage convergence graph
2. **FDI:** OLI triangle (Ownership, Location, Internalization)
3. **Fragmentation:** Smiley curve (value added per stage)
4. **Trade in tasks:** Task trade vs. goods trade comparison table

Sample Short Answer Question 1

Question: “Using the OLI paradigm, explain why a pharmaceutical company from Switzerland opens an R&D center in the US and a manufacturing plant in Vietnam.”

Model answer structure:

O: proprietary drug patents

L (US): skilled scientists, IP protection

L (Vietnam): low-cost labor, less regulation

I: internalize to protect formula

Sample Short Answer Question 2

- **Question:** “How does fragmentation of production affect the demand for high-skilled vs. low-skilled labor in developed countries?”

- **Model answer:**

➢ High-skilled: gains (design, marketing, logistics stay home)

➢ Low-skilled: losses (assembly tasks move abroad)

➢ Implication: Wage inequality rises unless retraining occurs

Sample Essay Outline (Exam)

Topic: “Global value chains have made factor mobility more important than ever.” **Agree or disagree**?

- Intro – define GVCs & factor mobility
- Body para 1 – Labor mobility supplies workers to GVC hubs
- Body para 2 – FDI funds fragmentation
- Body para 3 – Offshoring depends on capital/labor movement
- Counterargument – Digital tasks need less physical mobility
- Conclusion – Agree, but digital GVCs reduce labor mobility need

Common Mistakes to Avoid (Exam)

1. Confusing outsourcing (external) with offshoring (abroad)
2. Forgetting that FDI implies control (≠ portfolio investment)
3. Thinking migration only harms host countries (ignores complementarity)
4. Treating trade in tasks as same as trade in goods – different value drivers

Study Tips for Midterm II

- **Draw diagrams** for labor mobility & FDI at least 3 times each
- **Memorize OLI** + one example per letter
- **Learn one real GVC** (Apple, Toyota, Zara) inside out
- **Practice defining** key terms in one sentence each

Practice Multiple-Choice Questions

Which is an example of horizontal FDI?

a) US firm mines copper in Chile
b) German carmaker builds same model in China
c) UK bank hires Indian call center
d) France buys bonds in Japan

Answer: B

Fragmentation of production is most directly enabled by:

a) High trade tariffs
b) Falling communication costs
c) Labor unions
d) Currency controls

Answer: B

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Good luck on Midterm Exam II!