

## Econ 2203 | International Trade and Policy in Agriculture

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Department of Development Economics

## What this course is about

- The economics of trade between nations — with a focus on **agricultural commodities**
- Why countries trade, who gains, who loses, and what policy should do about it
- India's position in global agricultural trade and key policy instruments

## Learning objectives

- Master classical and modern theories of trade
- Analyse India's agricultural trade flows and policy environment
- Evaluate trade policy tools: tariffs, quotas, subsidies, SPS measures
- Apply WTO frameworks to real agricultural trade disputes

**Assessment:** Mid-semester exam (30%) · End-semester exam (40%) · Term paper (20%) · Participation (10%)

## Course Roadmap: Lectures 1–9

Lec	Topic	Date
1	Introduction to International Trade	Apr 28
2	Features & Internal vs International Trade	May 5
3	Theories I – Mercantilism & Absolute Advantage	May 12
4	Theories II – Comparative Advantage	May 19
5	Theories III – Factor Endowments (H-O Model)	May 26
6	New Trade Theory & Intra-Industry Trade	Jun 2
7	Terms of Trade & Trade Gains	Jun 9
8	Trade Policy: Tariffs	Jun 16
9	Trade Policy: Non-Tariff Barriers	Jun 23

## Course Roadmap: Lectures 10–18

Lec	Topic	Date
10	Balance of Payments & Exchange Rates	Jun 30
11	WTO Framework & Agreements	Jul 7
12	Agreement on Agriculture (AoA)	Jul 14
13	SPS & TBT Measures in Agriculture	Jul 21
14	India's Foreign Trade Policy	Jul 28
15	Regional Trade Agreements – ASEAN, SAFTA	Aug 4
16	Agricultural Price Policy & Trade	Aug 11
17	Food Security and Trade Nexus	Aug 18
18	Contemporary Issues & Revision	Aug 25

# What is International Trade?

## Definition

*International trade is the **cross-border exchange** of goods, services, and capital between residents of different countries.*

## Three dimensions of trade

- **Merchandise trade** — physical goods: rice, wheat, machinery, petroleum
- **Services trade** — IT services, tourism, financial services, education
- **Capital flows** — foreign direct investment, portfolio investment, remittances

## Why it matters for agricultural economists

- India earns ~₹3.6 lakh crore from agricultural exports annually
- Global price signals directly affect domestic farm prices
- WTO rules constrain domestic agricultural support policies

**Core insight:** Trade is fundamentally about countries doing what they are relatively better at, and exchanging the surplus — creating gains for all participants.

## Supply-side reasons

- **Resource endowments** — India has fertile Indo-Gangetic plains; Brazil has Amazon basin → different agricultural outputs
- **Technology differences** — Netherlands uses precision horticulture; India relies on labour-intensive methods
- **Specialization gains** — Focusing on fewer products reduces unit cost
- **Economies of scale** — Large production runs lower average cost (e.g., Thai rice mills)

## Demand-side reasons

- **Product variety** — Consumers want Darjeeling tea *and* Colombian coffee
- **Seasonal complementarity** — Southern hemisphere harvests when Northern hemisphere is off-season

## Global merchandise trade (2023)

- Total value: ~\$25 trillion (WTO, 2024)
- Services trade: ~\$7 trillion
- Combined: ~\$32 trillion — roughly 30% of world GDP

Rank	Country/Bloc	Share	Year	Value (USD trillion)
1	China	14.2%	1950	0.06
2	United States	11.3%	1990	3.5
3	European Union	14.8%	2010	15.3
—	—	—	2023	25.0

**Factoid:** Global merchandise trade contracted only twice since 1950 — during the 2008–09 financial crisis and the 2020 COVID shock.

## India's trade position (FY2024)

Indicator	Value
Merchandise exports	\$437 billion
Merchandise imports	\$678 billion
Merchandise trade deficit	-\$241 billion
Services exports	~\$340 billion
Services surplus	+\$160 billion
<b>Total merchandise trade</b>	<b>\$1.18 trillion</b>

**Global rank:** 18th in merchandise exports (WTO 2023)

# India's Trade: The Big Picture

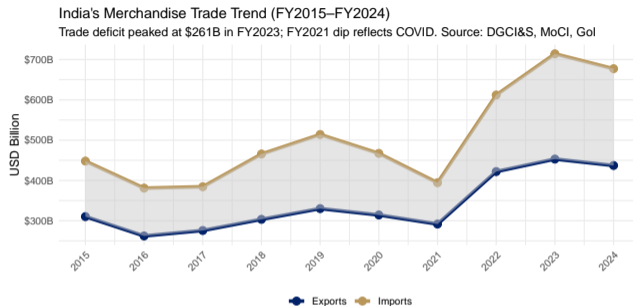


Figure 1: India's Merchandise Trade (FY2015–FY2024, USD billion) Source: DGCI&S / Ministry of Commerce and Industry (GoI).

## Top agricultural exports and imports

Commodity (Exports)	Value (USD bn)	Commodity (Imports)	Value (USD bn)
Rice (Basmati + Non-Basmati)	10.4	Edible oils (palm, soy)	14.2
Marine products	7.4	Pulses	3.0
Spices	4.0	Cashew (raw)	1.8
Buffalo meat	3.5	Fresh fruits	1.5
Sugar	2.1	Spices (select)	0.8
<b>Total agri exports</b>	<b>~43.7</b>	<b>Total agri imports</b>	<b>~28.2</b>

**Agricultural trade surplus:** ~\$15.5 billion

*Source: APEDA / DGCI&S, 2024*

# India's Agricultural Trade Profile

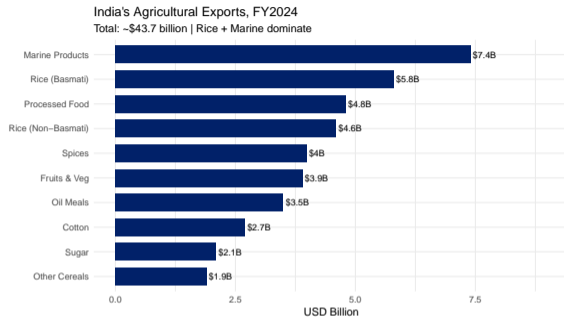


Figure 2: India's Agricultural Exports by Commodity, FY2024 (USD billion) Source: APEDA Annual Report 2023-24.

## Export side

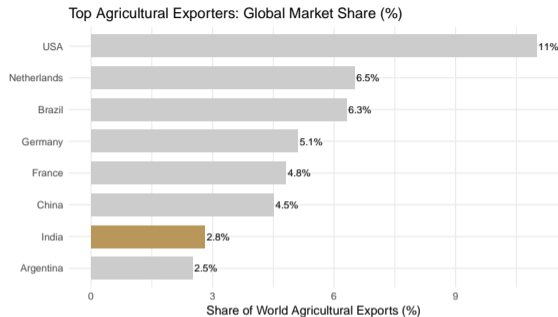
- Agriculture: ~10% of total merchandise exports (\$43.7B of \$437B)
- Engineering goods: ~26% | Petroleum products: ~17% | Gems & jewellery: ~10%
- Agriculture is **India's second-largest net foreign exchange earner** after services
- **India's strengths:** rice, spices, marine products, cotton — all labour-intensive, climate-favoured commodities

## Import side

- Edible oils: India imports **60–65%** of its edible oil requirement (palm, soybean, sunflower)
- Pulses: Canada, Australia, Myanmar — ~25% of domestic requirement imported

**Vulnerability:** India's dependence on imported edible oils (~\$14B/yr) exposes food inflation to global price shocks, as seen in 2021–22 when palm oil prices spiked 50%.

# India's Position in Global Agricultural Trade



**Figure 3:** Major Agricultural Exporters: Global Market Share (2023) Source: WTO, World Agricultural Trade Statistics 2024.

## Classical trade theory

- **Comparative advantage** — trade based on *relative*, not absolute, efficiency (Ricardo)
- **Factor endowments** — land, labour, capital abundance shapes what countries export (Heckscher-Ohlin)
- **Terms of trade** — ratio of export prices to import prices; determines gains from trade
- **Intra-industry trade** — two-way trade in similar products (India exports basmati, imports parboiled rice)

## Trade policy instruments

- **Tariff** — tax on imports; raises domestic price above world price
- **Non-Tariff Barrier (NTB)** — quotas, SPS standards, licensing
- **Balance of Payments (BoP)** — accounting of all international transactions
- **Exchange rate** — price of one currency in terms of another; stronger rupee makes exports costlier

## Policy relevance for India

- **Foreign Trade Policy 2023–28** targets \$2 trillion in merchandise + services exports by 2030
- **WTO commitments** constrain India's ability to protect domestic agriculture (AMS limits; tariff bindings)
- **Farmer income** — ~50% of India's workforce in agriculture; export markets expand income
- **Food security** — import policy on pulses and oilseeds directly affects 1.4 billion people

# What Makes Agricultural Trade Special?

## Biological & physical features

- **Perishability** — fresh produce, milk, meat have short shelf-lives → need cold chains, quick clearance
- **Seasonality** — harvests are discrete events; supply is lumpy
- **Bulkiness** — grain, sugar, cotton: high weight-to-value ratio → high freight costs
- **Sanitary risks** — food-borne pathogens cross borders with commodities → SPS measures justified

## Economic & political features

- **Food security concern** — governments intervene to ensure domestic supply; export bans, import duty waivers are common
- **WTO special treatment** — Agreement on Agriculture has Special and Differential Treatment for developing countries

## Top merchandise export destinations

Rank	Country	Share of exports	Key agri exports
1	United States	~18%	Marine, spices
2	UAE	~6.5%	Rice, meat, fruits
3	Netherlands	~4.2%	Spices, cotton
4	China	~3.8%	Cotton, castor oil
5	Bangladesh	~3.5%	Rice, onion, sugar

## Top merchandise import sources

Rank	Country	Share of imports	Key agri imports
1	China	~15%	Electronics, chemicals
2	UAE	~7.5%	Crude oil, gold
3	USA	~6.2%	Pulses, capital goods
4	Russia	~5.8%	Crude oil, fertilisers
5	Saudi Arabia	~5.4%	Crude oil, edible oils

# Composition of India's Merchandise Exports

## Major export categories (FY2024, approx.)

Category	Value (USD bn)	Share
Engineering goods	112	25.6%
Petroleum products	78	17.8%
Gems & jewellery	44	10.1%
Chemicals	36	8.2%
<b>Agriculture &amp; allied</b>	<b>44</b>	<b>10.1%</b>
Textiles & apparel	35	8.0%
Electronic goods	29	6.6%

- Engineering goods grew from 12% (2000) to 26 (2024)
- Agriculture has held a **stable ~10–12%** share for two decades

## Foreign Trade Policy (FTP) 2023–28: Key pillars

1. **Export target:** \$2 trillion merchandise + services exports by 2030
2. **Districts as Export Hubs (DEH):** Identify 1 product per district with export potential; provide targeted support
3. **ECGC coverage:** Expanded Export Credit Guarantee Corporation cover to de-risk exporters, especially MSMEs
4. **Remission of Duties and Taxes on Exported Products (RoDTEP):** Replace old MEIS; neutralise embedded taxes
5. **E-commerce exports:** Dedicated policy for cross-border e-commerce; target \$200–300B by 2030

### Agricultural trade-specific provisions

- Agri-specific chapters supporting APEDA-registered exporters
- GI tag promotion (Darjeeling tea, Alphonso mangoes, Basmati rice)
- Simplification of phytosanitary certification processes

FTP 2023–28 is notably continuity-oriented – it builds on previous policy architecture rather than a radical overhaul, reflecting India’s cautious approach to trade liberalisation.

### PPF — conceptual preview

#### Without trade (autarky)

- A country produces *and* consumes on its PPF
- The slope of the PPF = the domestic relative price
- Example: India producing only rice and wheat — the trade-off is fixed by domestic technology

### With trade (open economy)

- World price ratio differs from domestic price ratio
- Country specialises in the good where it has comparative advantage
- Consumption point can now lie **outside** the PPF — *both* countries gain

## Trade flows

- **Exports** — goods/services sold to foreign residents; flow of goods out, money in
- **Imports** — goods/services bought from foreign residents; flow of goods in, money out
- **Trade balance** = Exports - Imports (positive → surplus; negative → deficit)
- **Visible trade** — physical merchandise (rice, cars, oil)
- **Invisible trade** — services, remittances, investment income

### Balance of Payments

- **Current account** — trade in goods + services + remittances + investment income
- **Capital account** — financial flows: FDI, portfolio investment, loans
- **BoP identity:** Current account + Capital account = 0 (approximately)

### Exchange rate

- **Nominal exchange rate** — ₹/USD; e.g., ₹83 = \$1
- **Real exchange rate** — adjusts for price level differences; determines *actual* competitiveness

### Four reasons international trade is essential for India

1. **Growth engine:** Trade has been central to every development success story — Japan, South Korea, China, and now India's IT sector
2. **Consumer welfare:** Trade gives 1.4 billion Indians access to goods they cannot produce cheaply at home
3. **Farmer incomes:** Export markets for rice, spices, and marine products support millions of rural households
4. **Policy discipline:** WTO commitments create external pressure for domestic policy reform

## What we covered today

- International trade = cross-border exchange of goods, services, and capital
- Global merchandise trade: **~\$25 trillion (2023)**; services: **~\$7 trillion**
- India ranks **18th** in merchandise exports; total trade **~\$1.18 trillion (FY2024)**
- Agricultural exports: **\$43.7 billion (FY2024)** — rice, marine, spices, cotton dominate
- India has a **structural agricultural trade surplus** (**~\$15.5B**) that helps offset the merchandise deficit

## Questions to think about before next lecture:

1. Why does India ban rice exports during domestic inflation? Who benefits, who loses?
2. If India has absolute advantage in producing rice, why does Bangladesh also export rice?

### Features of International Trade (*May 5, 2026*)

We will cover:

- **Salient features** of international trade that distinguish it from domestic trade
- **Immobility of factors** – why labour and capital don't flow freely across borders
- **Currency and exchange risk** – how rupee movements affect export competitiveness
- **Internal vs international trade** – a systematic comparison
- **The gravity model** – intuition and India examples

## Further Reading

- *International Economics* — Salvatore (Ch. 1)
- *International Economics* — Appleyard & Field (Ch. 1)
- RBI/DGCI&S/APEDA databases for latest data

## Key Data Sources

- DGCI&S: India's merchandise trade
- RBI: Balance of payments data
- APEDA: Agricultural export statistics
- WTO: Tariff and trade databases