"Why Don't We Have Free Trade in Agriculture?"

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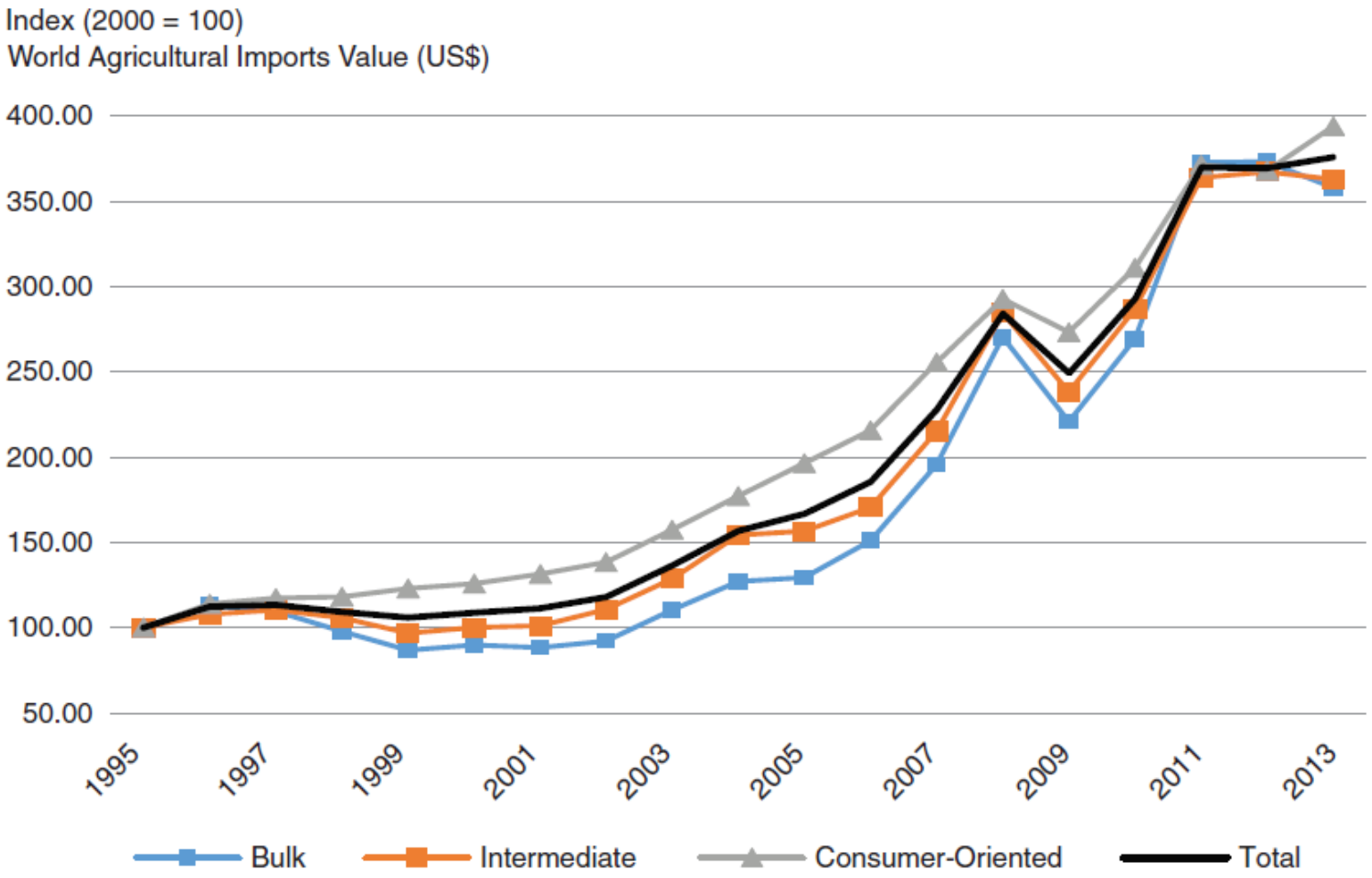
Ian Sheldon (Ohio State University)
sheldon.1@osu.edu

THE OHIO STATE UNIVERSITY
COLLEGE OF FOOD, AGRICULTURAL, AND ENVIRONMENTAL SCIENCES

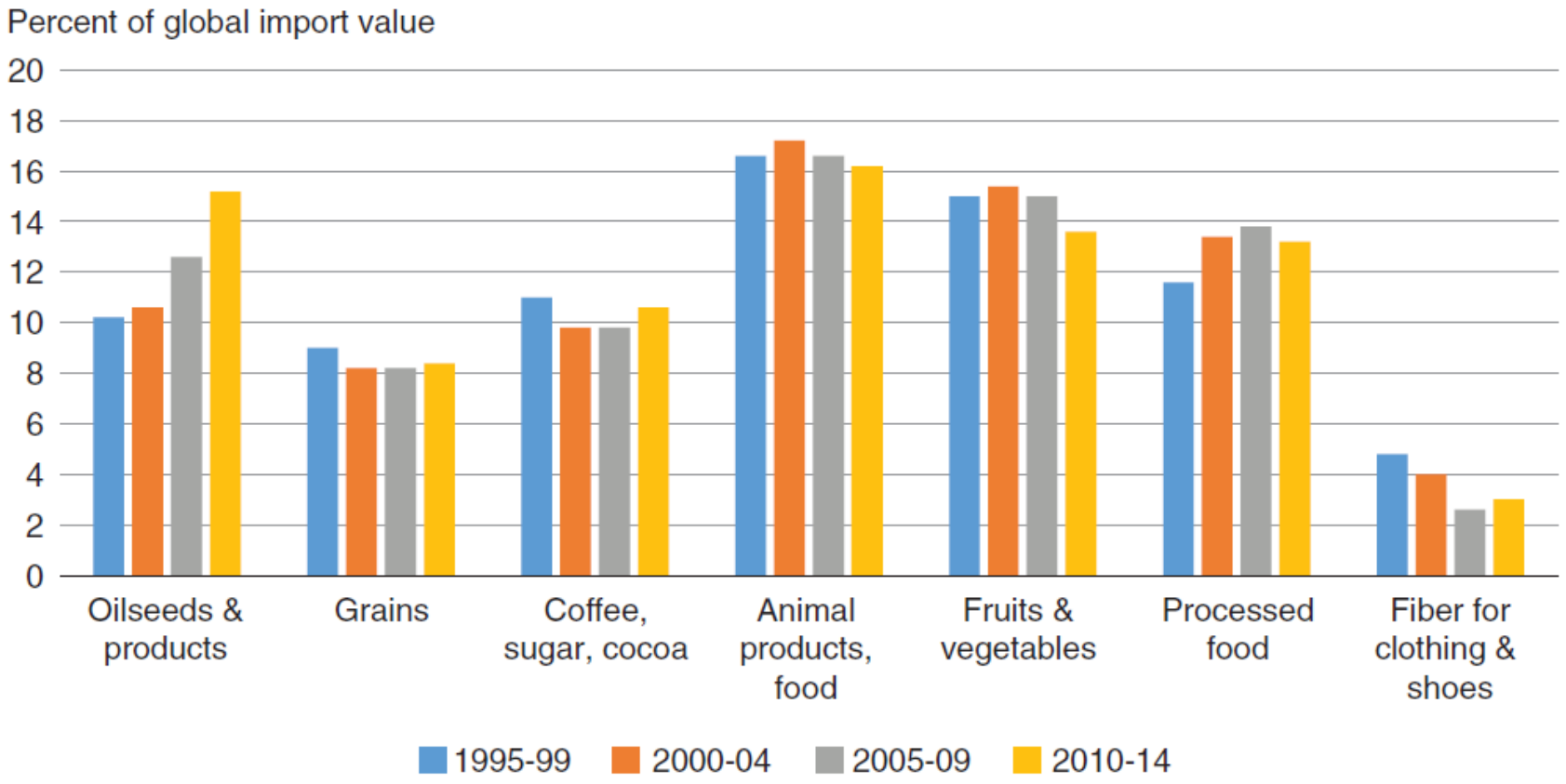
Patterns of Agricultural Trade

Global Agricultural Trade



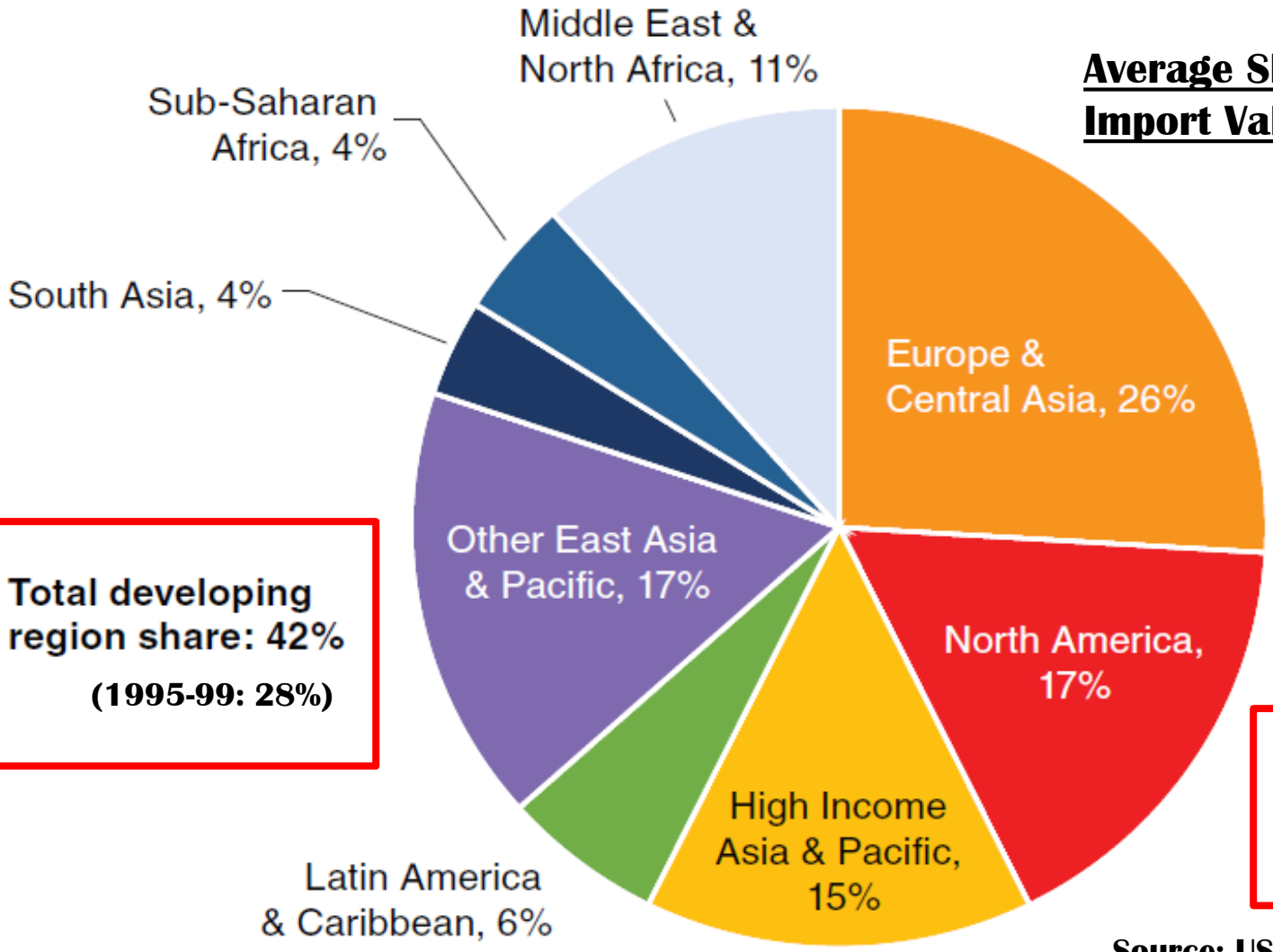
Source: USDA/ERS (2017)

Global Agricultural Trade



Source: USDA/ERS (2017)

Regional Structure of Imports



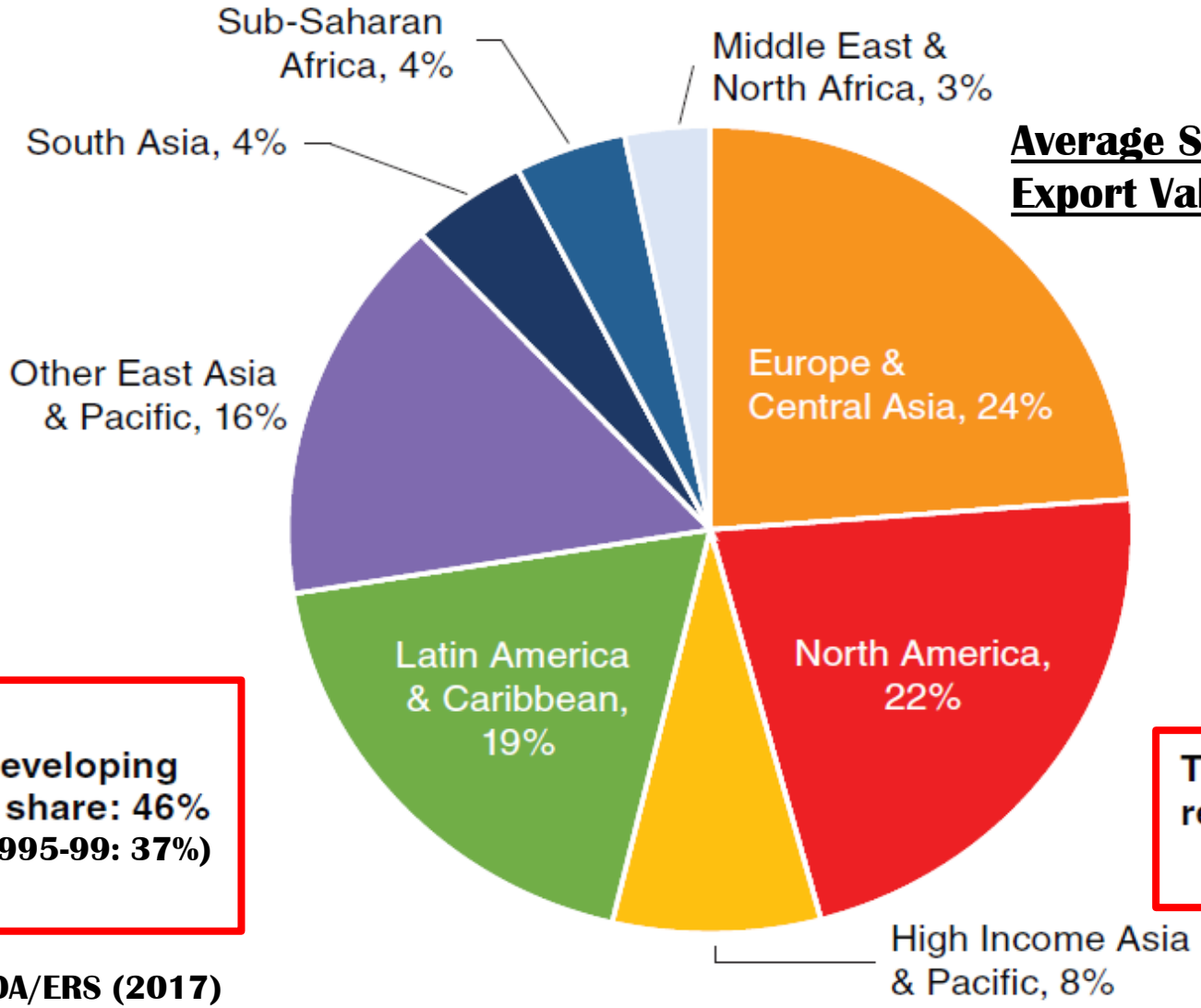
Average Share of Global Import Value: 2010-14

Total developing region share: 42%
(1995-99: 28%)

Total developed region share: 58%
(1995-99: 72%)

Source: USDA/ERS (2017)

Regional Structure of Exports



Average Share of Global Export Value: 2010-14

Total developing region share: 46%
(1995-99: 37%)

Total developed region share: 54%
(1995-99: 63%)

Source: USDA/ERS (2017)

Top-10 Agricultural Importers

Rank	Country	Rank in 1995	Import value, $ billion (U.S.)	
			2012-14	1995
1	European Union	1	133.9	69.13
2	China/Hong Kong	4	132.1	20.05
3	United States	3	110.6	33.63
4	Japan	2	57.9	38.77
5	Russia	5	38.8	10.23
6	Canada	7	34.4	9.06
7	Mexico	10	26.1	5.21
8	Korea	6	24.7	9.19
9	Saudi Arabia	13	20	4.31
10	India	20	19.7	2.06

Source: USDA/ERS (2017)

Top-10 Agricultural Exporters

Rank	Country	Rank in 1995	Export value, $ billion (U.S.)	
			2012-14	1995
1	European Union	1	149.1	59.2
2	United States	2	148.1	57
3	Brazil	3	83.8	13.2
4	China	6	46.8	10.6
5	Canada	5	45.5	12.9
6	Argentina	7	39.5	10.2
7	India	12	39.4	5.3
8	Australia	4	36.8	13
9	Indonesia	14	30.4	3.6
10	Malaysia	9	26.5	6.8

Source: USDA/ERS (2017)

Global Agricultural Markets

What Drives Agricultural Trade?

- Input endowments, i.e., land, capital and labor
  - *Comparative advantage* typically correlated with amount of land relative to labor
  - Extent capital used in agricultural production correlated with amount of capital relative to labor
- Rising incomes and high marginal propensity to consume food in lower-income countries
- Technology and input productivity
- Distortions to agricultural trade

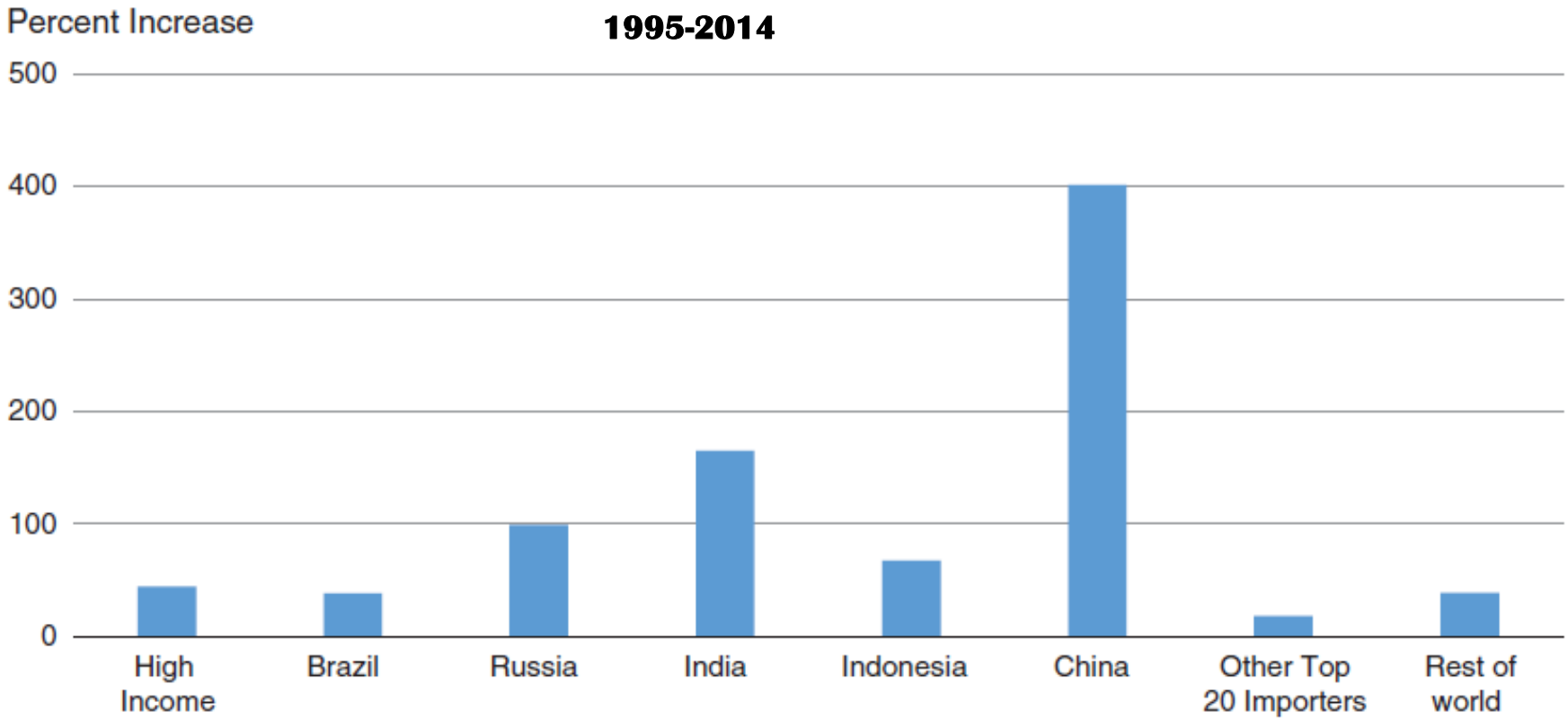
Input Endowments

	Arable Land/Capita (ha* – 2018)	Fresh Water/Capita (000 m^3 – 2017)	GDP/Capita (000 – 2019)	Agriculture's Share of GDP (% - 2019)
World	0.18	5.7	11.4	3.3
HICs	0.28 US = 0.48 Canada = 1.04	8.6	44.6 US = 65.3 EU = 34.9	1.3 US = 0.9 EU = 1.6
LMCs	0.17	5.1	5.1	8.2
East Asia	0.10	4.4	11.5	4.5
South Asia	0.11	1.1	1.9	16.3
Russia	0.84	29.8	11.6	3.4
Ukraine	0.74	1.2	3.7	9.0
Middle East/ North Africa	0.12	0.5	7.9	5.8
Sub-Saharan Africa	0.20	3.6	1.6	14.0
Latin America	0.24 Brazil = 0.27 Argentina = 0.88	21.8	8.9	4.7

*1 hectare is 2.47 acres

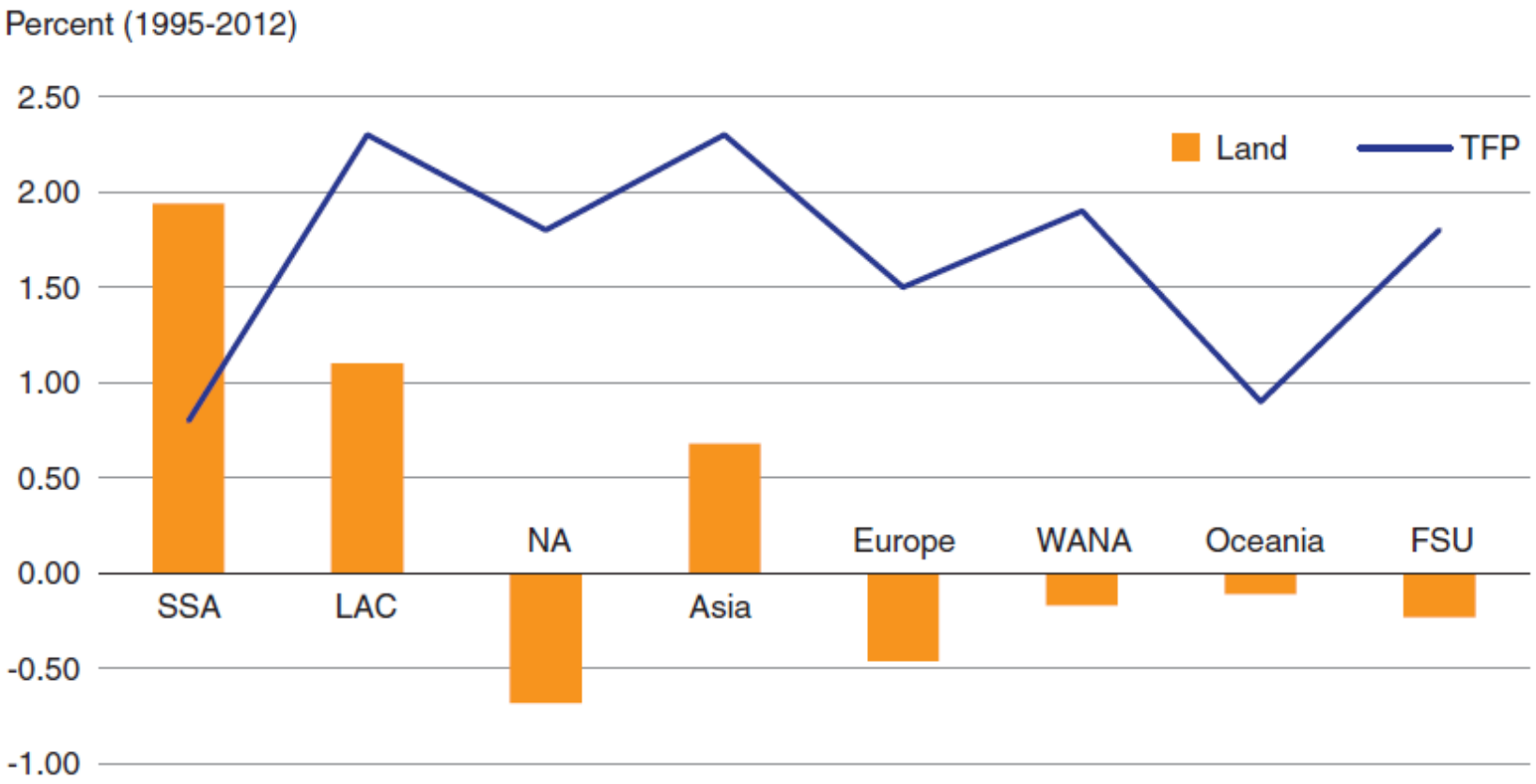
World Bank Development Indicators

Average Real GDP/Capita



Source: USDA/ERS (2017)

Land Use and Input Productivity



Source: USDA/ERS (2017)

Agricultural Trade and Protection

Industrial vs. Agricultural Tariffs

- For developed countries, tariffs on non-agricultural products successively reduced post-1945
- Tariff rates average 2.5 to 4% on non-agricultural imports into US, European Union (EU), and Japan
- Average tariff rates higher for most developing countries, e.g., China's average tariff on non-agricultural imports is 10%
- Tariff rates on agricultural imports still high, with average rates of 25% (North America), 20% (EU), 34% (Asia-Pacific), and 39% (South America)

Tariff Reductions Under GATT

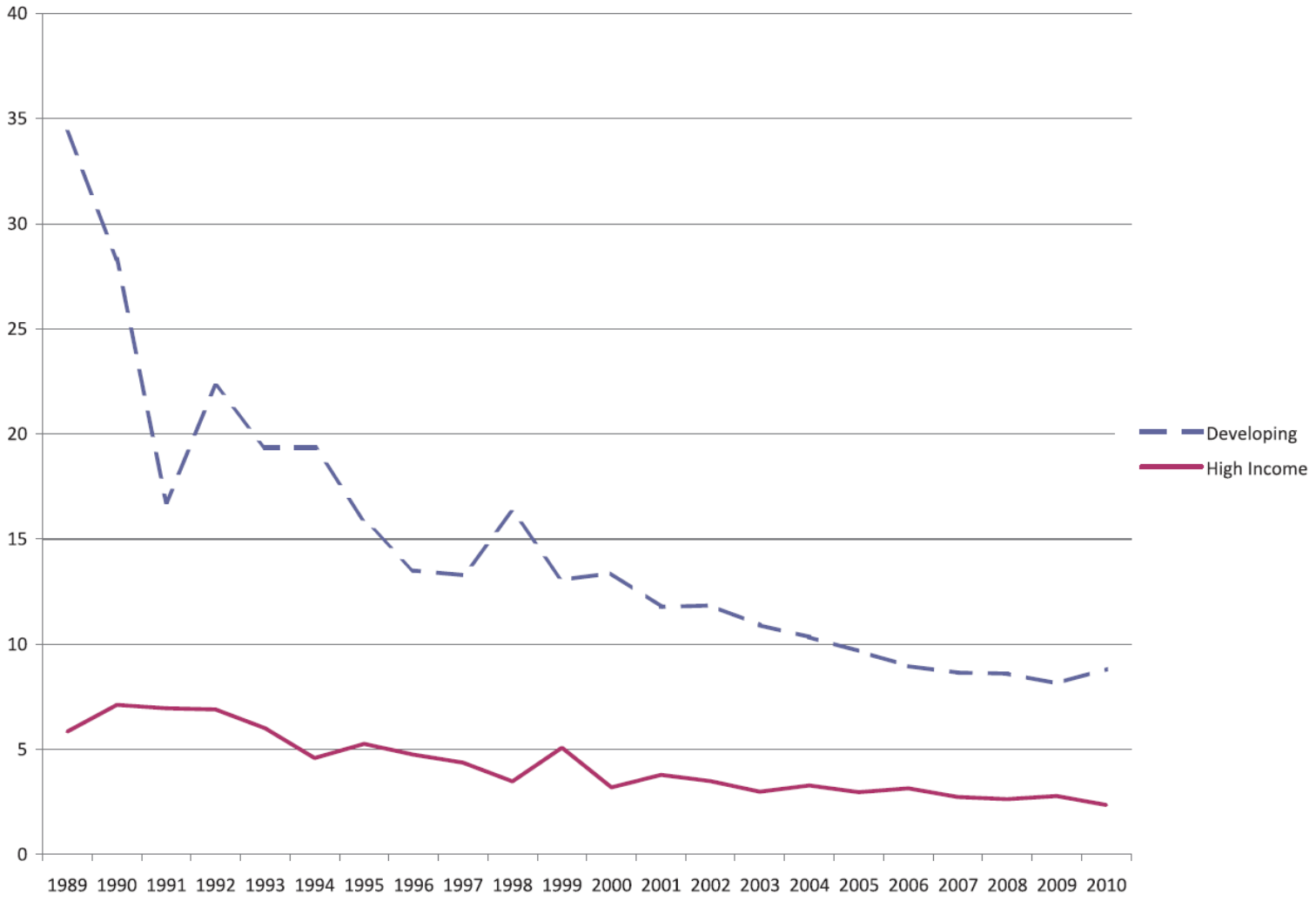
GATT/WTO – 60 years of tariff reductions

(MFN tariff reduction of industrial countries for industrial products (excl. petroleum))

Implementation Period	Round covered	Weighted tariff reduction
1948	Geneva (1947)	-26
1950	Annecy (1949)	-3
1952	Torquay (1950-51)	-4
1956-58	Geneva (1955-56)	-3
1962-64	Dillon Round (1961-62)	-4
1968-72	Kennedy Round (1964-67)	-38
1980-87	Tokyo Round (1973-79)	-33
1995-99	Uruguay Round (1986-94)	-38

Source: WTO World Trade Report (2007)

Average Industrial Tariffs



Source: LaBorde and Martin (2010)

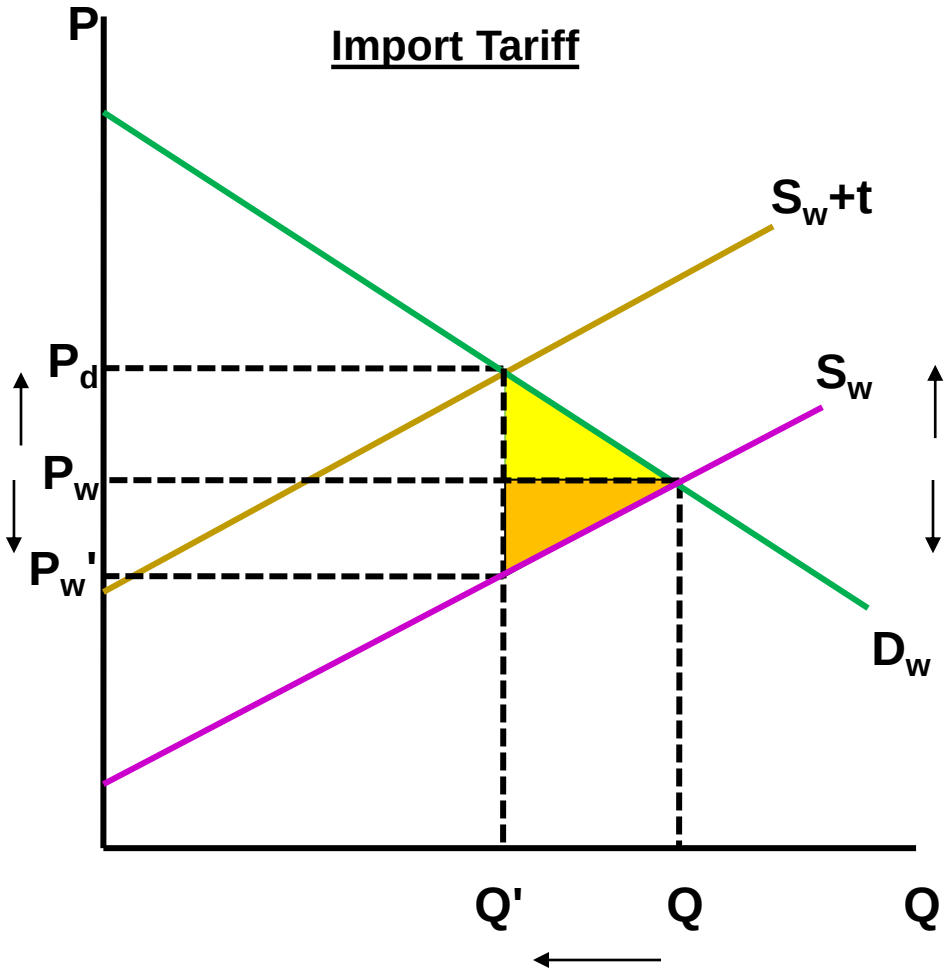
Why Agricultural Protection?

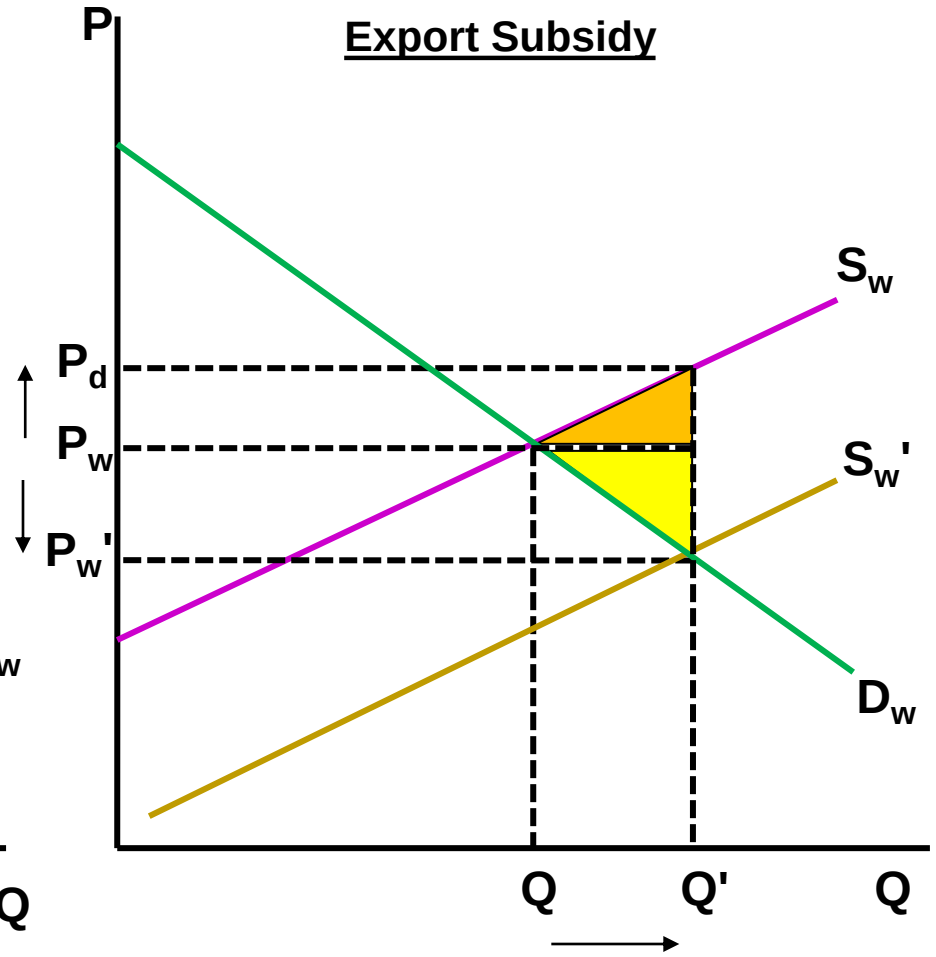
- Agriculture vulnerable to market fluctuations – short-run agricultural supply "inelastic" (Schultz, 1945)
- With declining share of agriculture in economy farmers more effective at lobbying (Olson, 1985)
- Protection related to development (Hayami, 1990):
  - Agriculture taxed initially to promote industrial sector, i.e., lower food prices ⟶ lower wages
  - With development, food's share of consumer budgets falls, reducing opposition to protection
  - Lower costs/taxpayer of transfers to farmers

The GATT and Agricultural Trade

- Post-1945, developed and developing countries used trade and farm policy to stabilize domestic markets
- Over-production in high-income countries (HICs) and under-production in developing countries
- Situation acute in 1980s when EU and US engaged in export subsidy war, driving down world prices
- Over 1980s, net costs to HICs (EU, US, and Japan) rose by $30 bn, and global costs rose by $34 bn (Tyers and Anderson, 1992)
- The Uruguay Round (1986-94) first GATT trade negotiations to include agriculture

Impact of Trade Policies

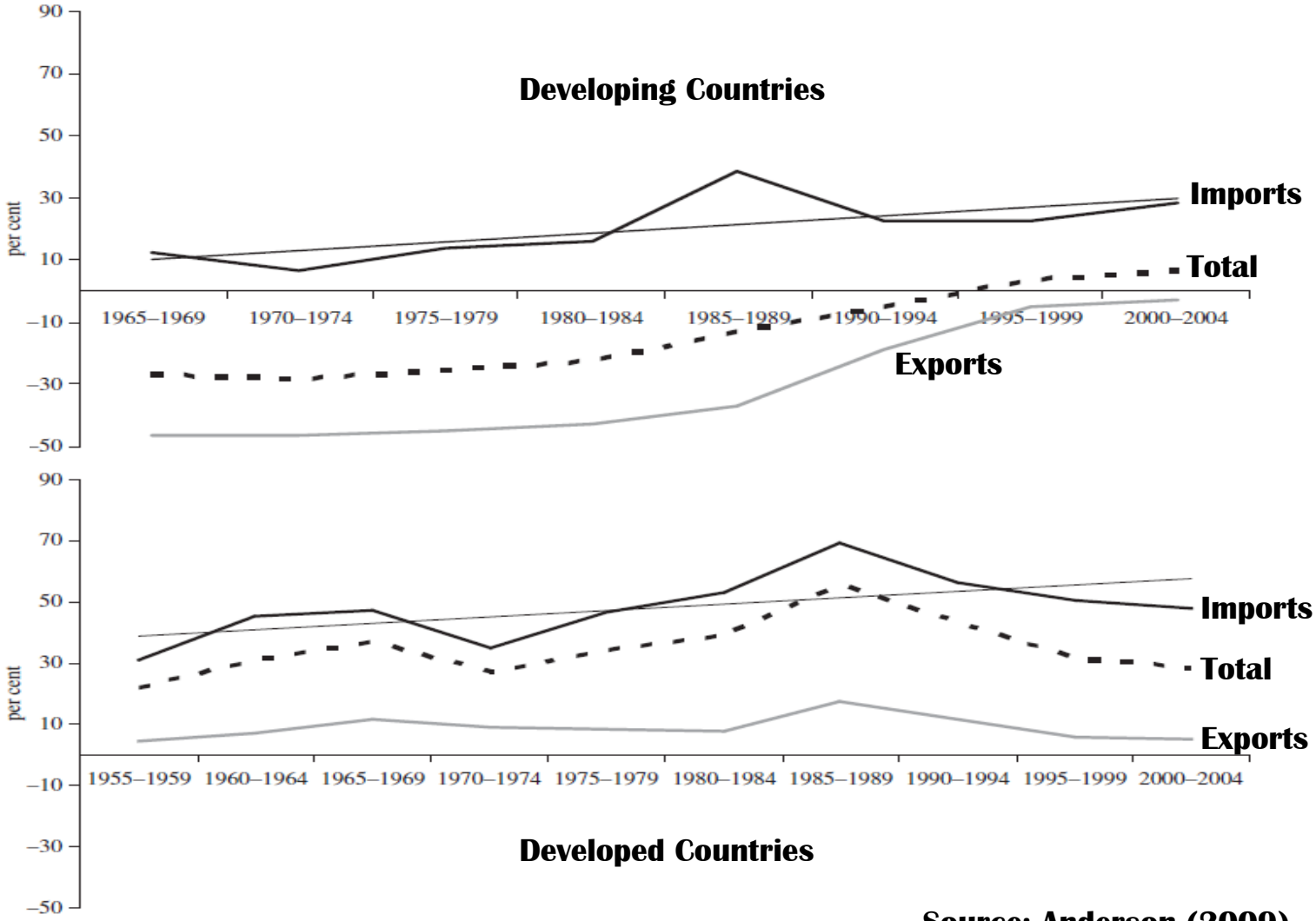




WTO/GATT and Agricultural Trade

- Multilateral discipline brought to bear on: market access, farm policies, and export subsidies
- By 2004 protection declining in developed countries, and increasing in developing countries (Anderson, 2009)
- World Bank (2009) found that by 2004:
  - Developing countries' share of primary agricultural exports and production had increased
  - Developing country net farm income had risen
  - 70% of future gains from trade liberalization ($118 bn) estimated to come from agriculture

Nominal Rates of Assistance



Source: Anderson (2009)

Current Levels of Protection

Average WTO Bound Tariffs

Tariff percentage						
100 or more	50-100	40-50	30-40	20-30	10-20	0-10
Bangladesh	Egypt	Indonesia	Thailand	Chile	Vietnam	New Zealand
Nigeria	Congo (Kinshasa)	Switzerland	Brazil	UAE	Japan	United States
India	Pakistan	Mexico	Philippines	Singapore	Taiwan	Australia
	Malaysia	South Africa	Argentina		Canada	
	Turkey				China	
	Korea				Saudi Arabia	
					EU	
					Russia	
					Ukraine	

Source: USDA/ERS (2017)

Tariff-Rate Quotas

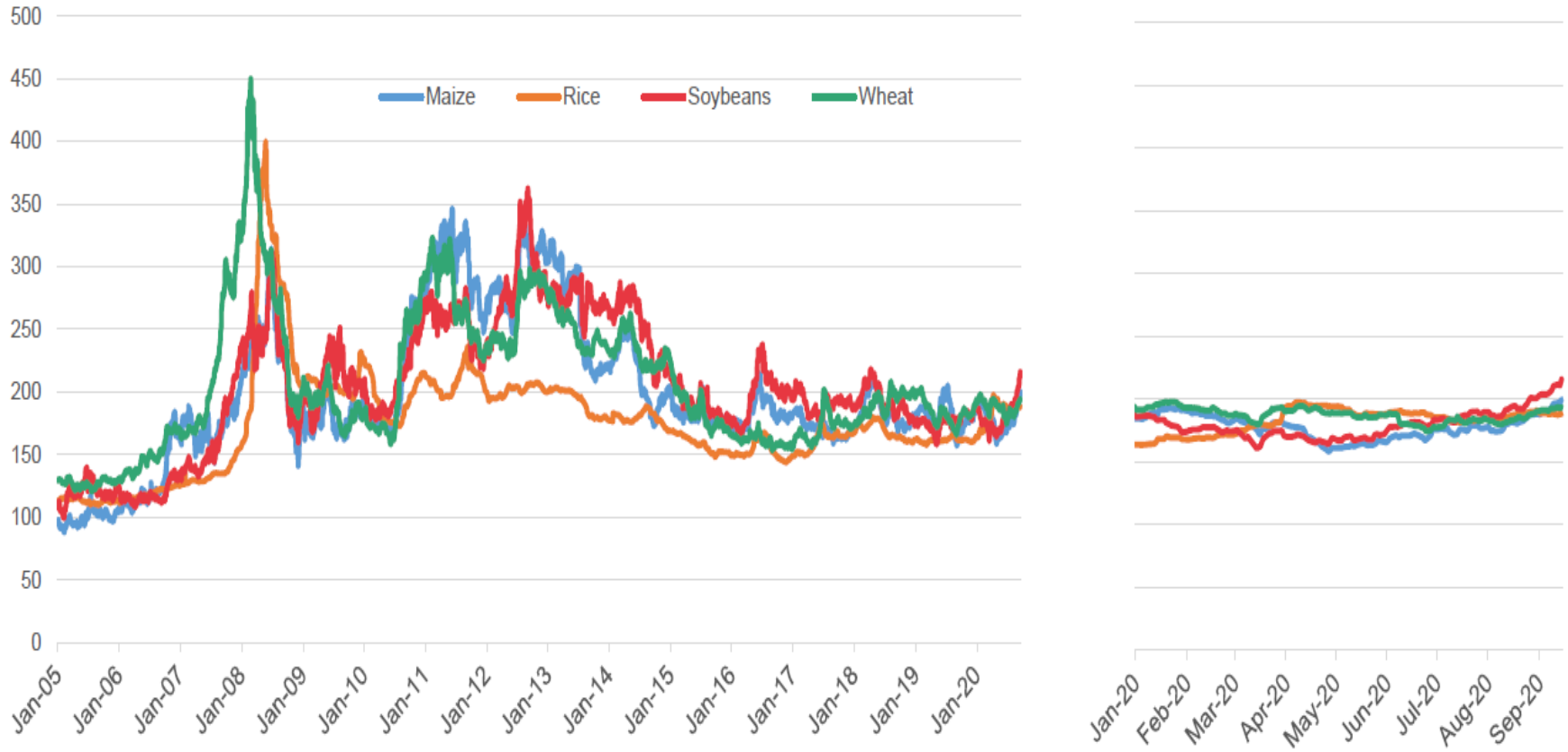
- Since 1995, 1,425 tariff-rate (TRQs) introduced by 43 WTO members – Chile (1), Japan (20), Canada (21), US (54), EU (87), up to Norway (232)
- Consist of quota, in-quota tariff (average of 30%) and over-quota tariffs (average of 135%)
- Variation across countries/commodities:
  - average over-quota tariffs for US 33 percent vs. 286 percent for South Korea
  - in/over-quota tariffs, e.g., Japan rice (22,258), Mexico poultry (50,235), Norway beef (239,369), US sugar (6, 32)

Stalemate in Doha Round of WTO

The Doha Round and Agriculture

- Key players had quite different emphases: EU focused on farm subsidies, US on market access
- Lack of focus on policies designed to insulate domestic prices from change in world prices:
  - Poor countries' use of such policies reflects sensitivity to domestic price of staples, e.g., maize, wheat and rice
  - In seeking to protect the poor, border policies increase volatility of world prices – see late-2000s
- Negotiations failed to pay attention to objectives and needs of countries adopting price insulation policies, i.e., they lack other means of insurance

Agricultural Commodity Prices



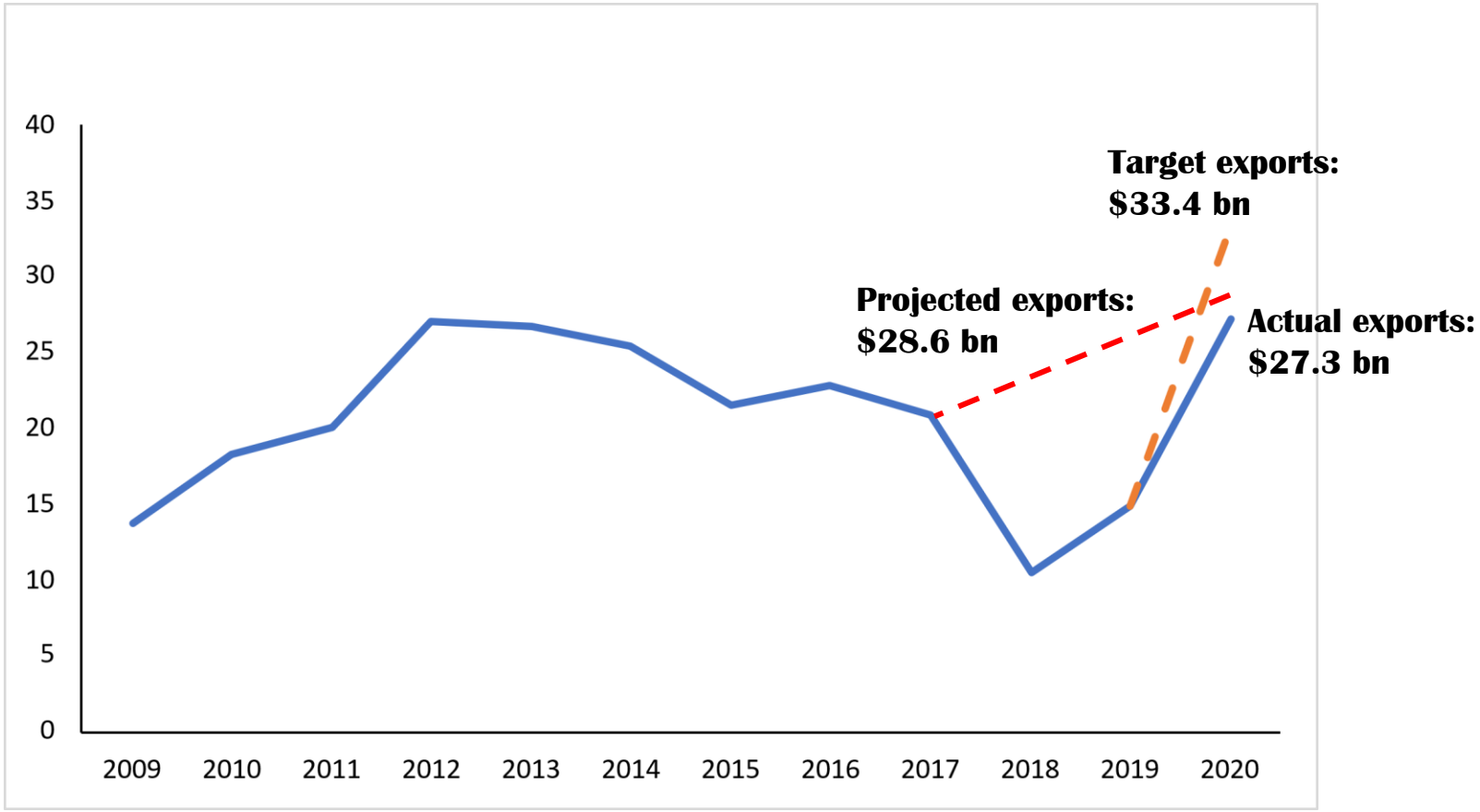
Source: International Grains Council (2020)

Agriculture and the Trade War

US - China Trade War

- US decision to target China with tariffs in 2018 had nothing to do with agricultural trade
- China retaliated with tariffs of 25% against key imports from US, notably soybeans
- Phase 1 Trade Agreement between US and China, plus China rebuilding its hog production capacity, has resulted in US regaining market share
- Net result: agricultural exports to China back to where they were forecast to be in absence of trade war – at significant cost to US taxpayer through use of farm subsidies - $24.5 bn (MFP Program)

US Agricultural Exports to China



Source: Bown (2021)