

International trade analysis: ideas and tools

With a case study of Nepal-Bangladesh trade

Prepared and presented by

Kshitiz Dahal

Senior Research Officer, SAWTEE

Overview

- International trade: concepts and paradigms
- Trade Analysis: tools and tips
- Case study: Nepal-Bangladesh trade

Why should a country prioritize international trade?

- Export allows for the expansion of market—creates employment, increases income.
- Import allows for the sourcing of many items at affordable prices—increases consumer welfare, allows for expanding exports through the import of quality raw materials and intermediate goods.
- Trade enhances economic growth, employment, consumer welfare, and reduces poverty.

The fundamental guiding paradigm of modern international trade post-WTO (mostly)

Non-discrimination

Predictability and transparency

Fair competition

Special and differential treatment for the less developed countries

Proliferation of Trade Agreements: PTAs/RTAs/FTAs

- What are TAs?
- Nepal's FTAs?
- Rules of Origin in FTAs
- Trend towards deeper FTAs

Increasing services trade and digital trade

Modes of cross-border services supply

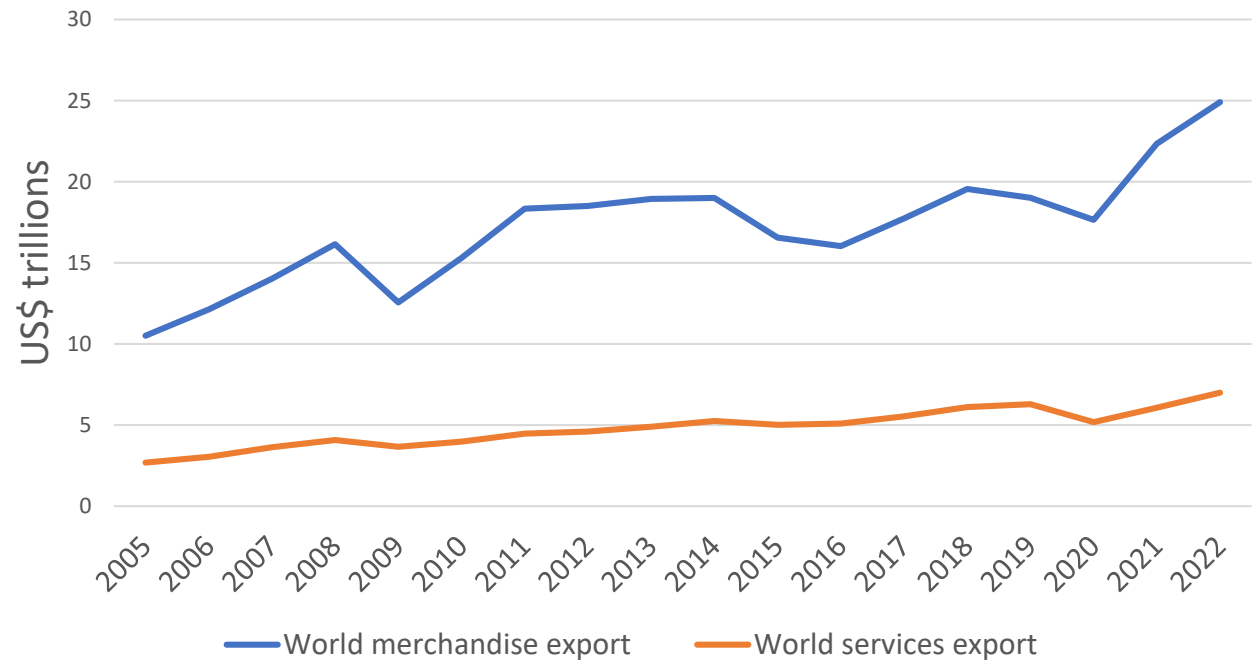
Mode 1: Cross-border

Mode 2: Consumption abroad

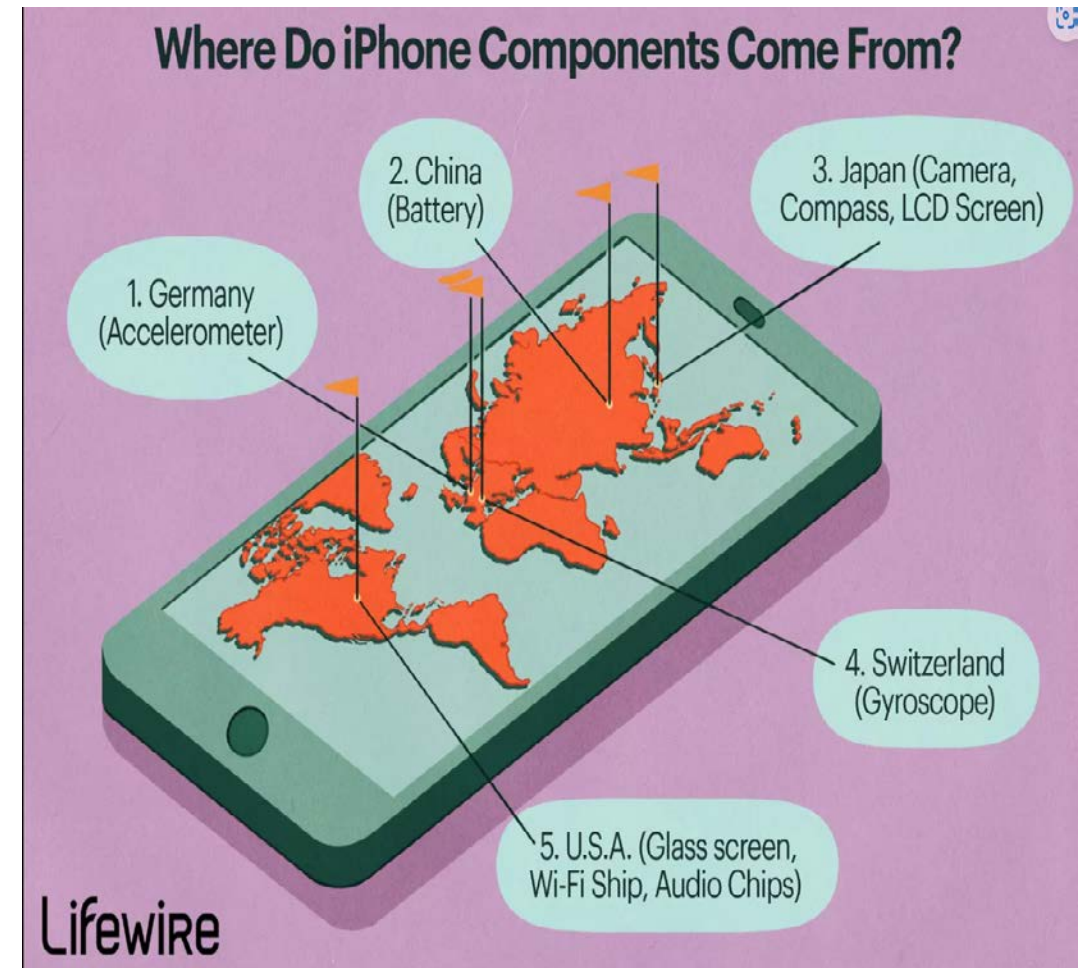
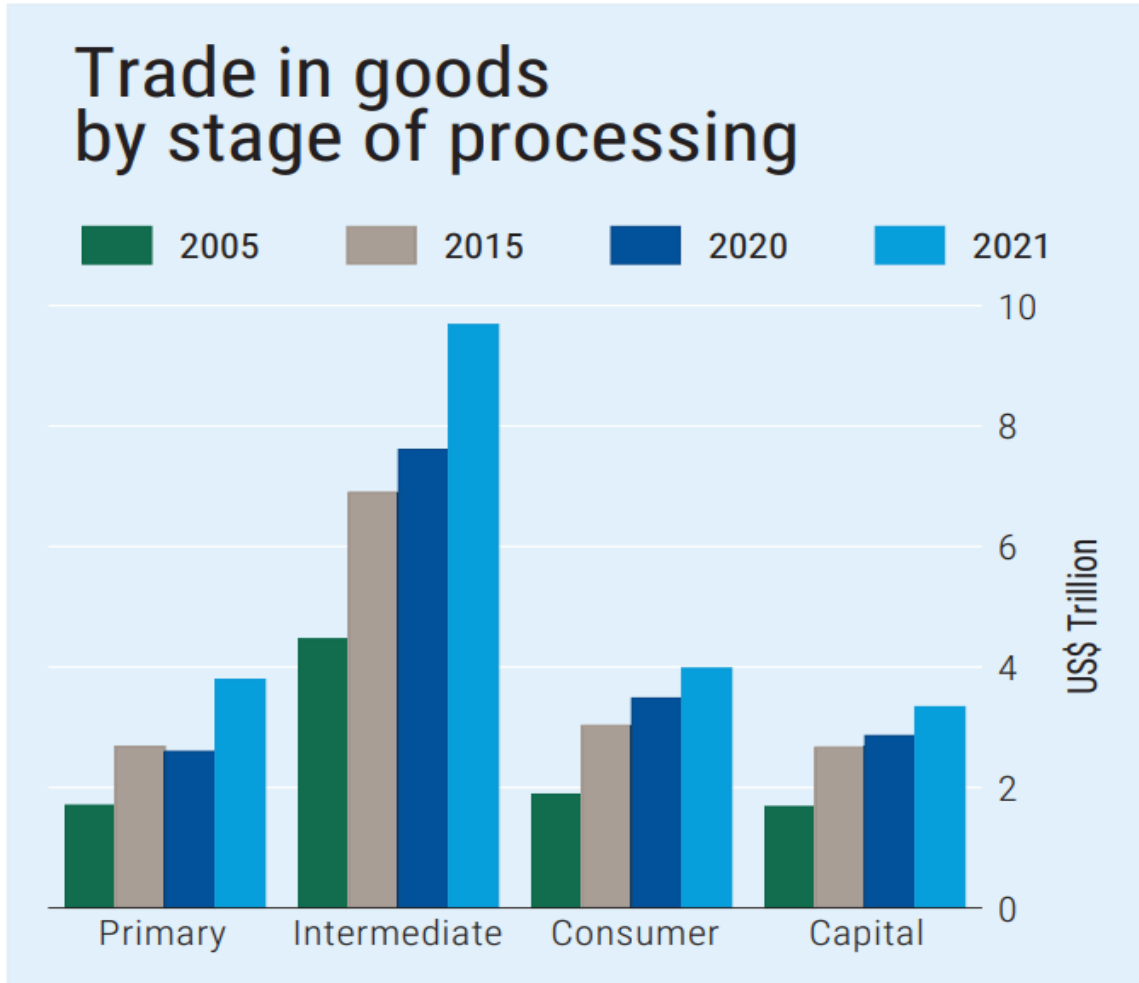
Mode 3: Commercial Presence

Mode 4: Movement of natural persons

Fast growing services trade



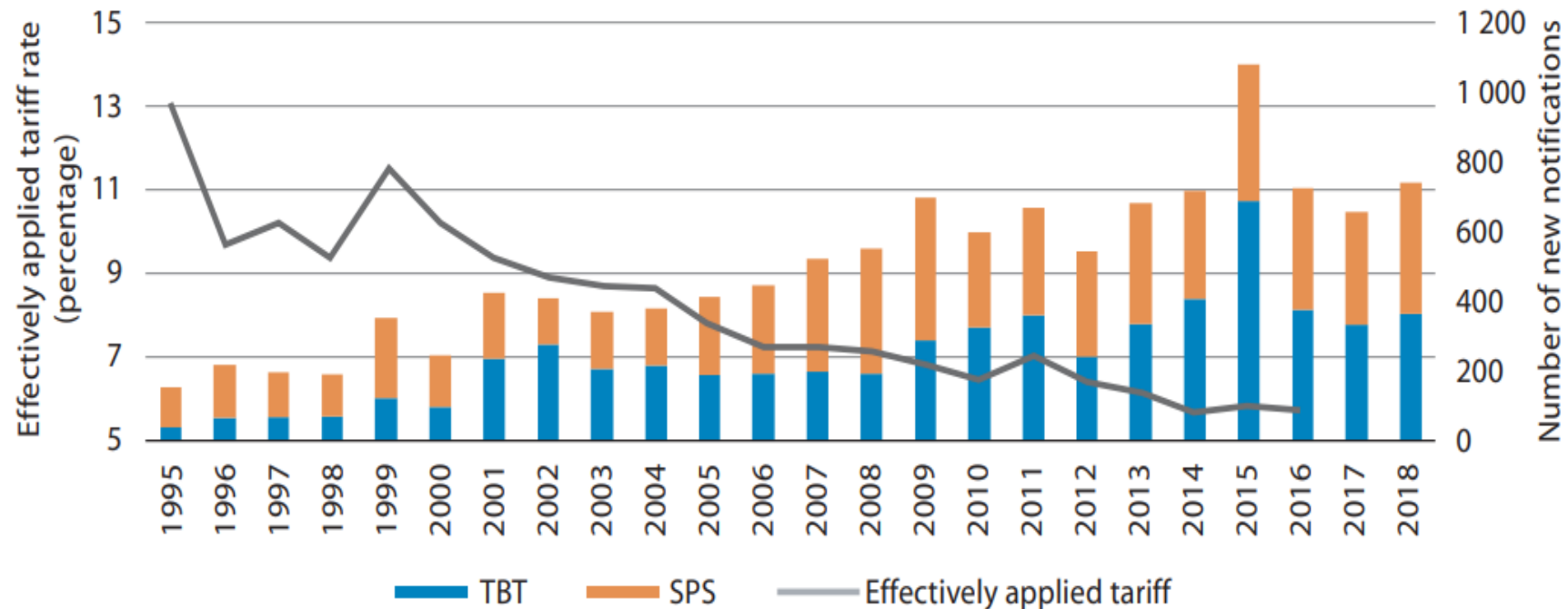
Increasing trade of the intermediate goods and the rise of GVCs



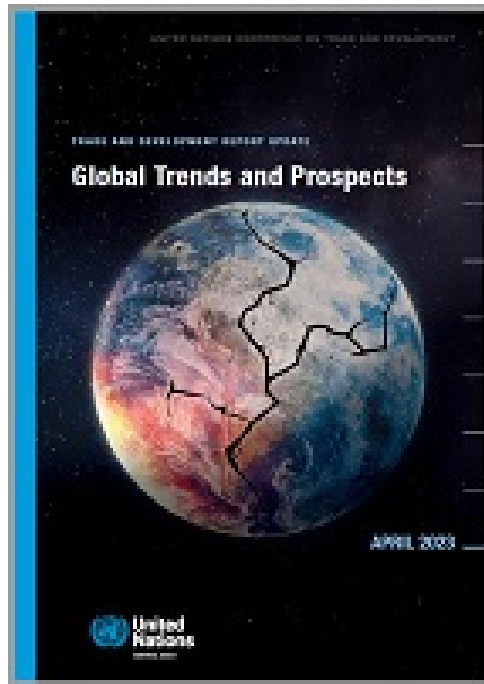
The proliferating role of NTMs



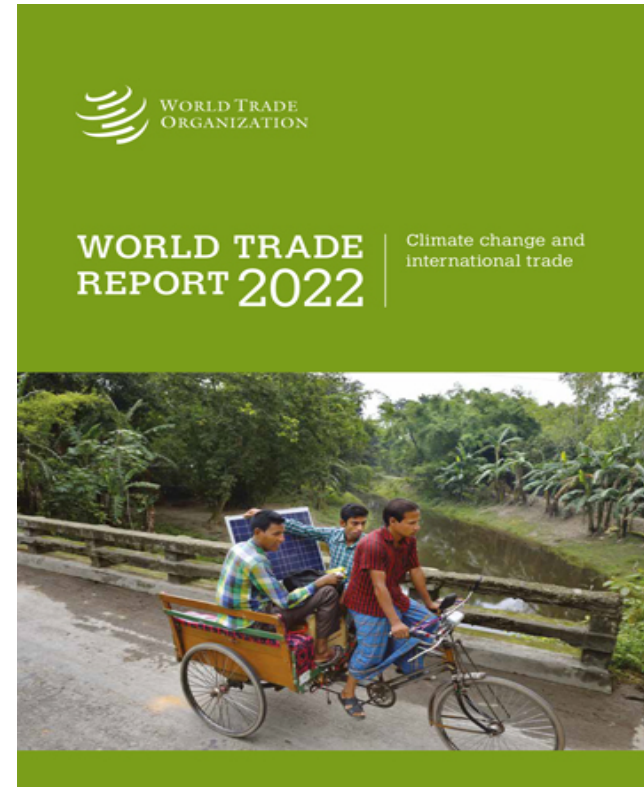
Average applied tariffs and annual new notifications to WTO of SPS and TBT measures in the Asia-Pacific region



International Trade updates



Trade and Development
Report (Annual), UNCTAD



World Trade Report (Annual), WTO

Trade Analysis

1.1 Obtaining and cleaning trade data

Sources

| Nepal's trade data sources | Global trade data sources |
|-----------------------------------|--|
| Department of Customs | UN COMTRADE |
| Trade and Export Promotion Centre | World Integrated Trade Solution (WITS) |
| | ITC Trade Map (also includes mirror trade map) |
| | ITC Market Access Map |
| | IMF Direction of Trade statistics |
| | UNCTAD STAT |
| | BACI (CEPI) |

Example: UN COMTRADE

What are you looking for?

Type of Product

Goods

Services

Frequency

Annual

Monthly

Classifications ⓘ

HS

SITC

BEC

As Reported

Refine your search

HS (as reported) Commodity Codes



TOTAL x



Reporters



Nepal x



Trade Flows



Exports x



Periods (year, month)



Recent periods x



Partners



Bangladesh x



Mode of Transports



TOTAL modes of transport x



2nd Partner



World x



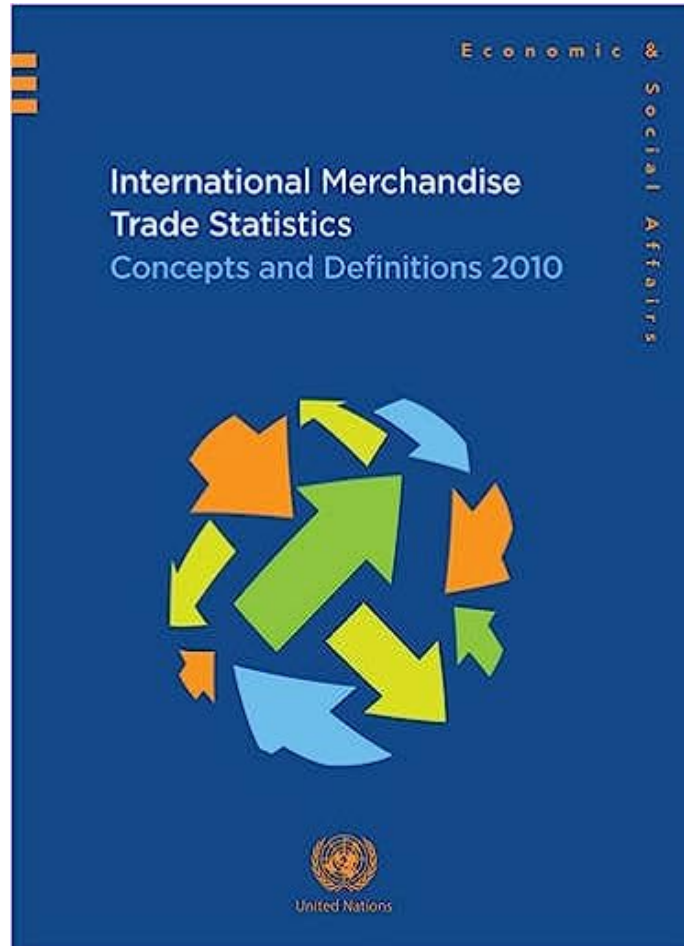
Customs Code



TOTAL customs procedure codes x



More on the nitty-gritty of merchandise trade statistics



Trade Analysis

1.2 Converting raw data into meaningful trade indicators

Trade indicators

1. Trade and economy

Trade dependence (total trade/GDP)

Export propensity (exports/GDP)

Import penetration (total import/domestic demand)

2. Trade Performance

Trade trends

Growth rate of exports

Normalized trade balance (trade balance/total trade)

Export/import coverage (total exports/total imports)

3. Trade share statistics

Trade share in a country/region (e.g. intra-regional trade share)

Trade intensity (e.g. Nepal's trade intensity w/ India)

4. Sectoral analysis

Total exports by category

Competitiveness index (share in world export)

Sectoral Hirschmann

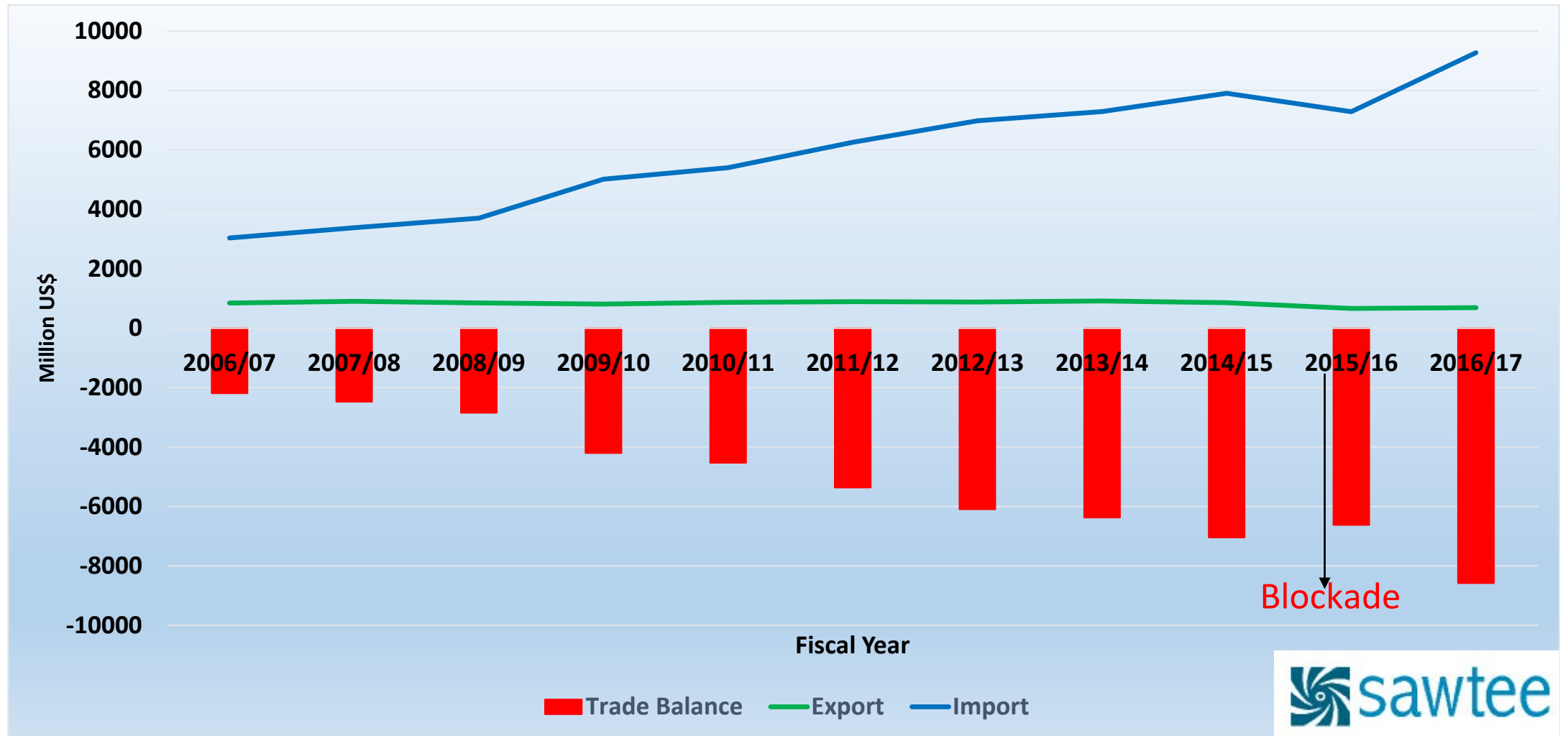
Revealed comparative advantage (RCA)

Michelaye index (alternative RCA)

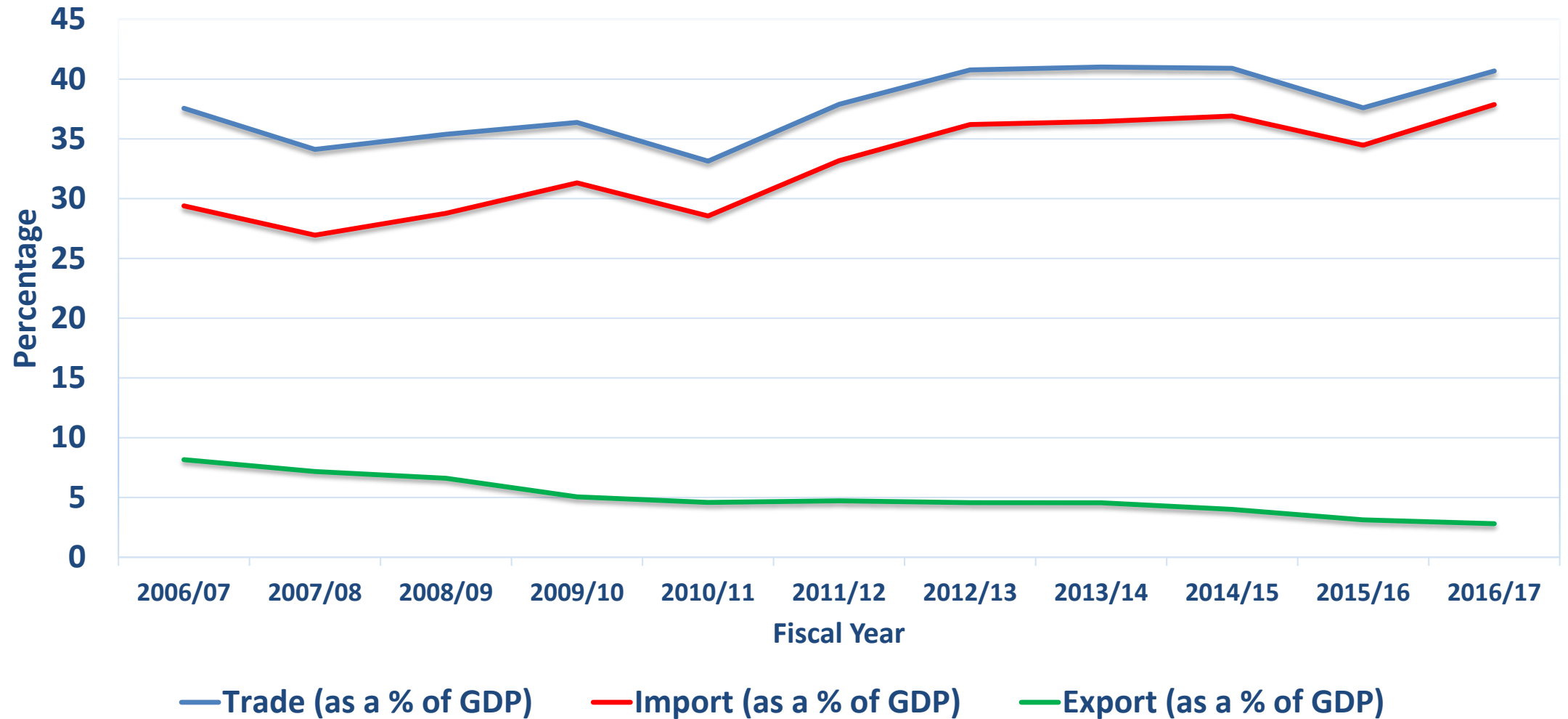
Diversification index

Complementarity index

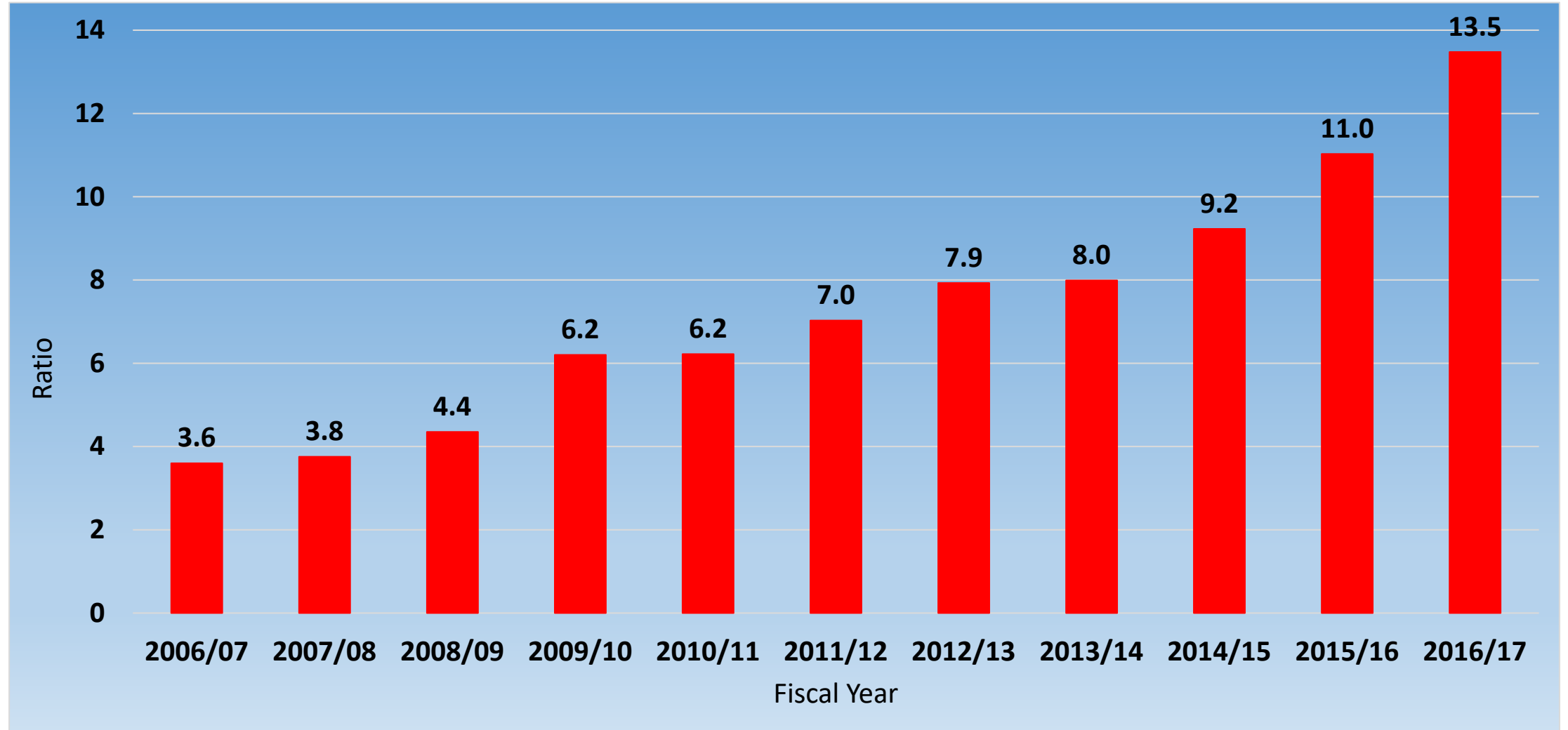
Presenting trade data(1): exports and imports trends



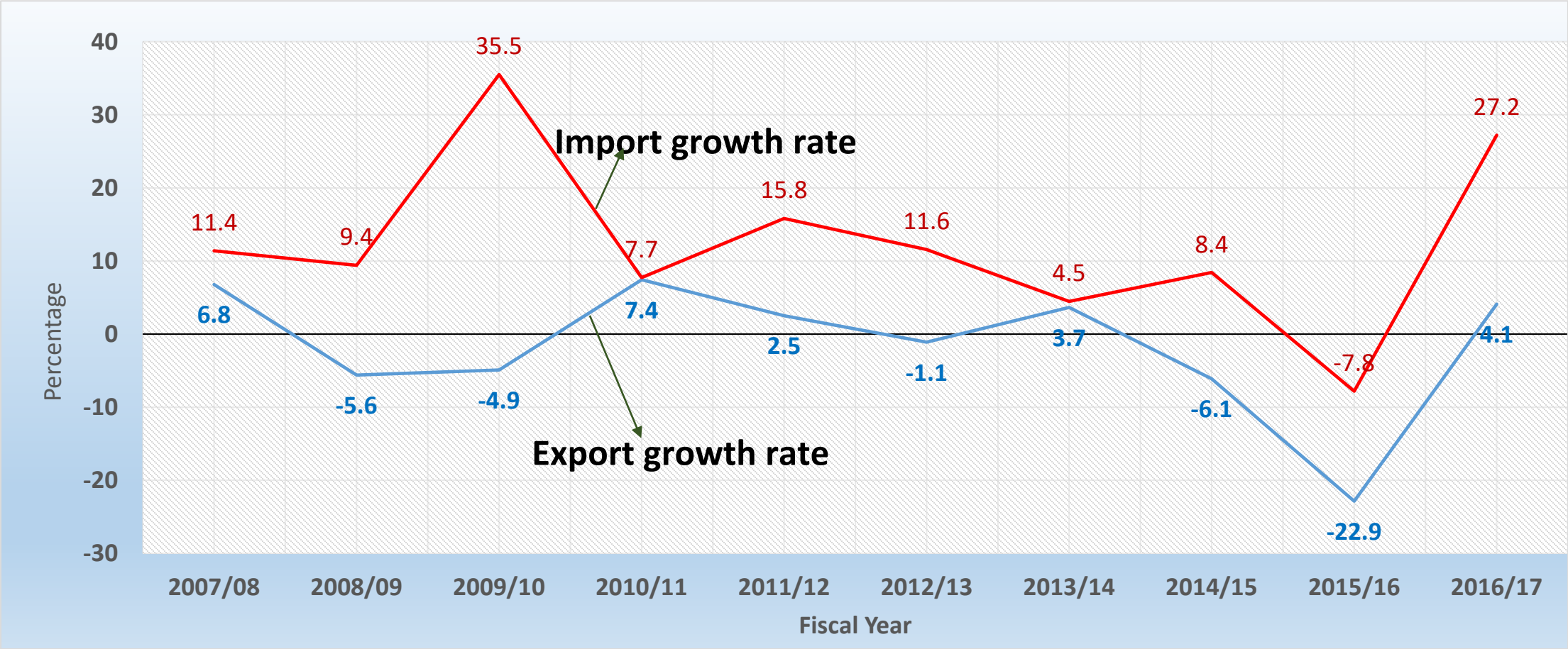
Presenting trade data (2): trade dependence



Presenting trade data (3): Import to exports ratio

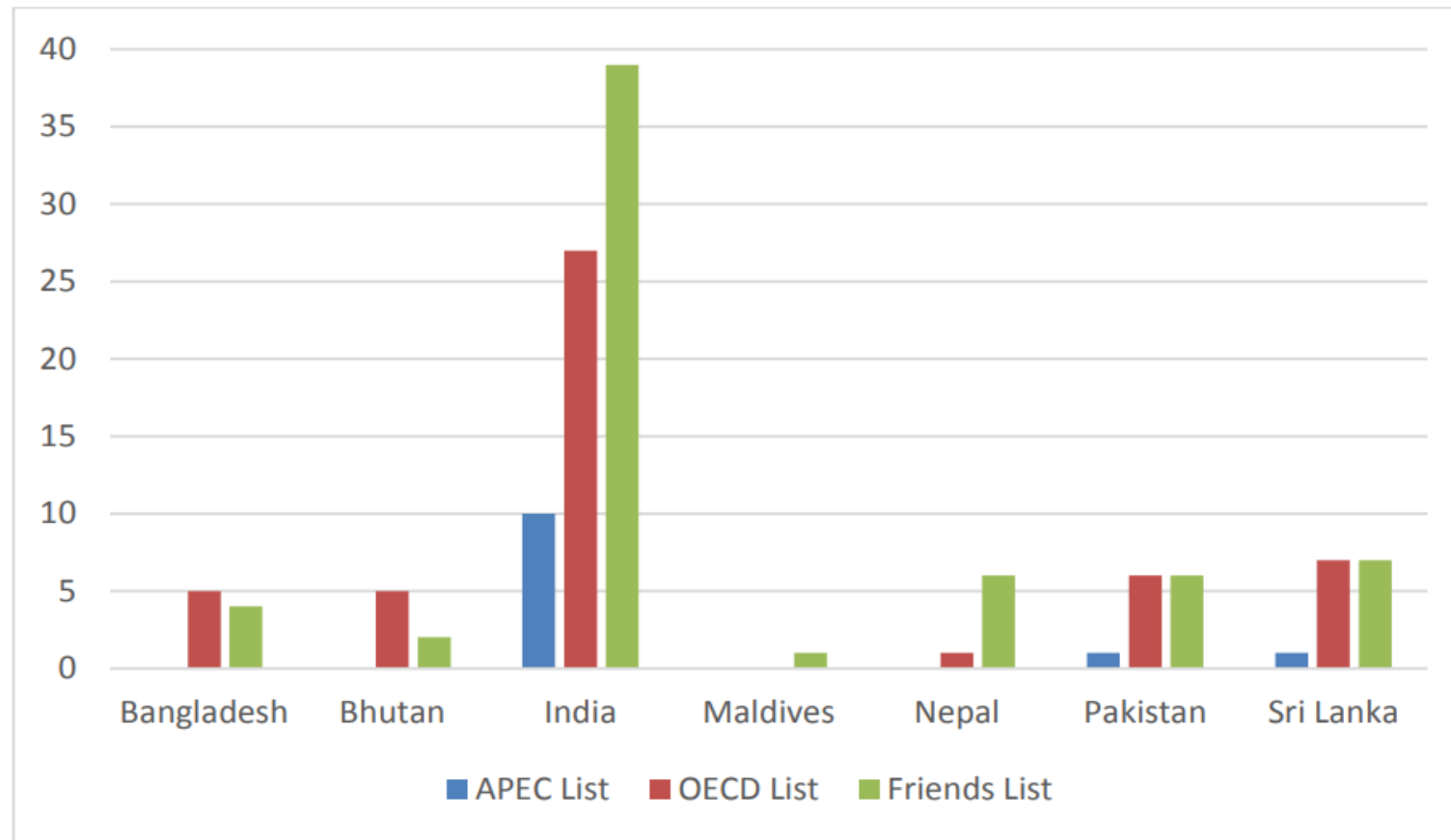


Presenting trade data (4): export and import growth



Presenting trade data (5): RCA

Figure 6: Number of EGs with RCA>1 in South Asian EG exports in 2016

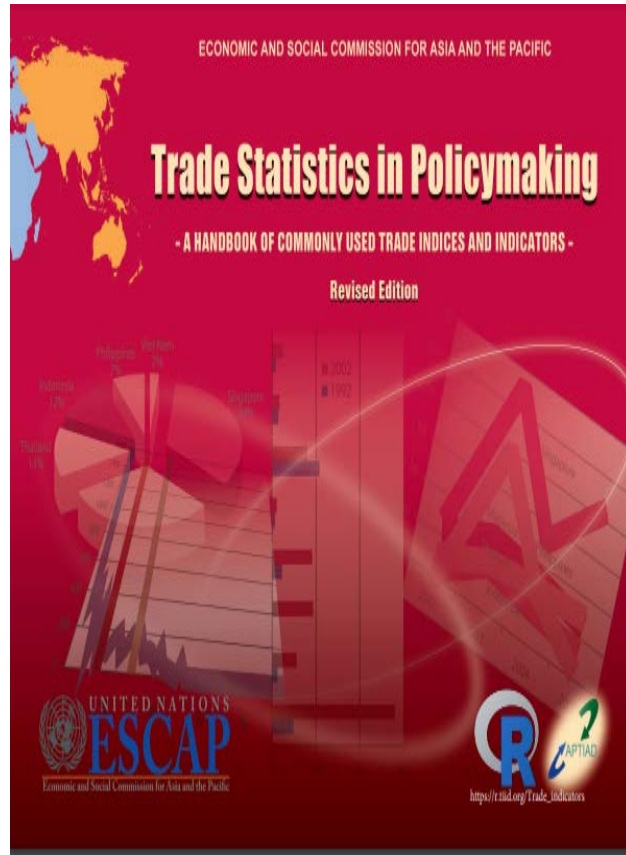


Simple suggestions for reporting

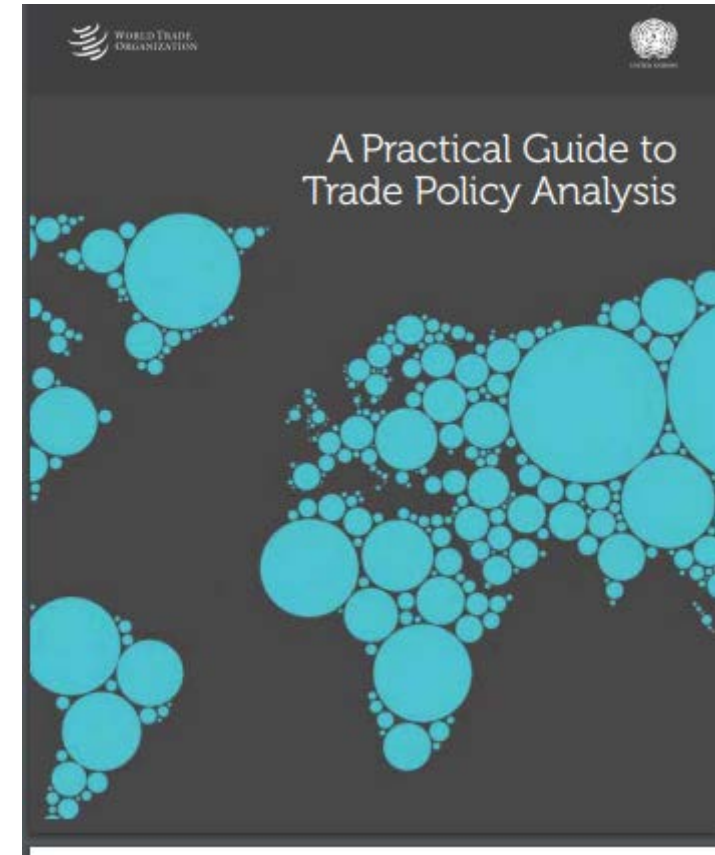
- Simple trade indicators (including graphical representation) instead of trade values

| | |
|---|---|
| The export of commodity X increased from NRs. 50 million to NRs. 60 million. | The export of commodity X increased by 20 percent at the end of the current fiscal year compared to an average annual compounded growth rate of 15 percent over the last five years. |
| Nepal's export is low—it exported goods of NRs 200 billion in FY 2078/79. | Nepal's export, while increased from NRs. 141 billion to NRs. 200 billion in FY 2078/79, is still severely low. Nepal's export to GDP at 4.12% of GDP is one of the lowest in the world. |
| Nepal has a comparative advantage in product X. | Nepal's competitiveness in exporting product X is indicated by its RCA of 5. |

Using data to conduct trade policy analysis



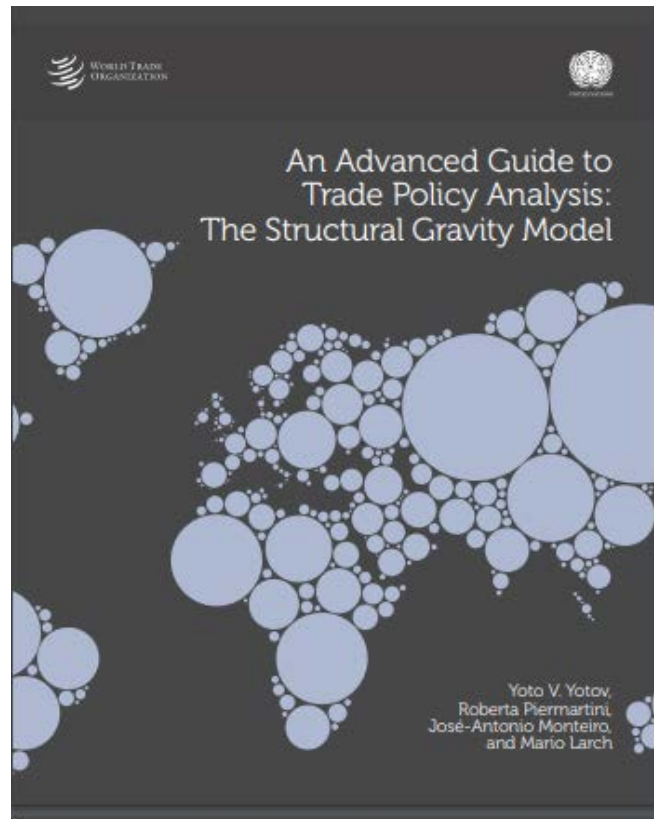
Trade Statistics in Policymaking: A handbook of commonly used trade indices and indicators (UN ESCAP)



A Practical Guide to Trade Policy Analysis (WTO and UNCTAD)

More advanced trade analysis

Gravity models



An Advanced Guide to Trade Policy Analysis
(UNCTAD and WTO)

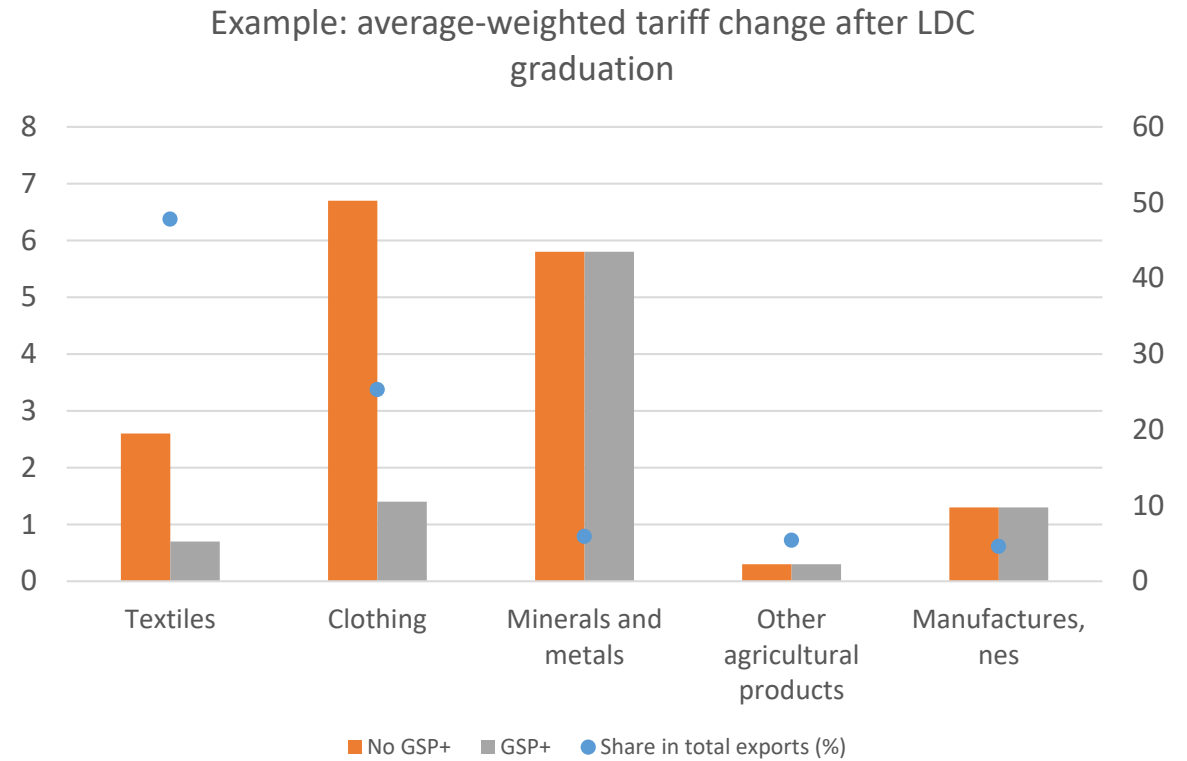
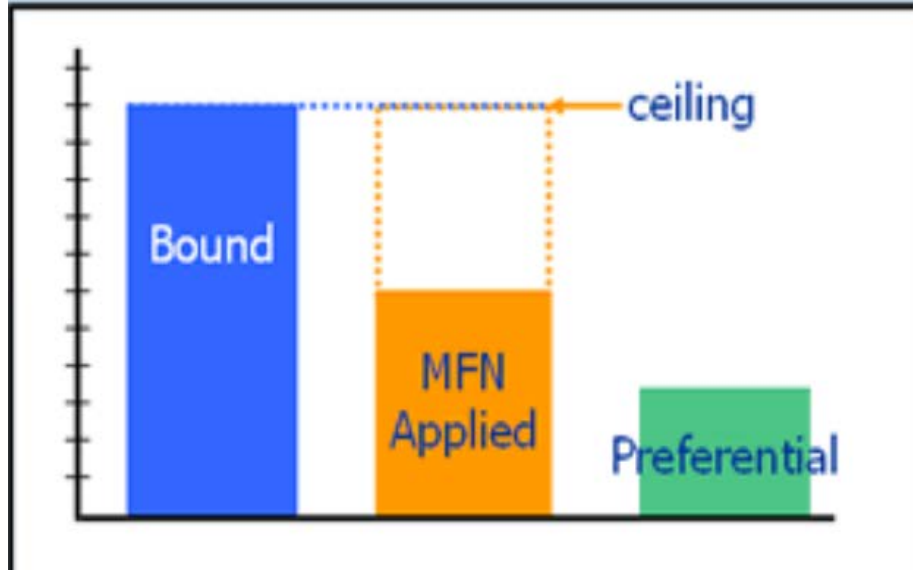
Computable General Equilibrium (CGE) models

Trade Analysis

1.3 Barriers to trade

Tariff

- Bound vs MFN vs Effectively Applied



- Data Sources: WTO Integrated Database, WTO Tariff Download Facility, MarketAccess Map, WITS, etc.

Para-tariff

- “Charges on imports that act as a tariff but are not included in country's tariff schedule. Examples include a statistical tax, stamp fees, etc.” (WITS)
- “[Para-tariffs](#) means border charges and fees, other than "tariffs", on foreign trade transactions of a tariff-like effect which are levied solely on imports, but not those indirect taxes and charges, which are levied in the same manner on like domestic products. Import charges corresponding to specific services rendered are not considered as para-tariff measures.” (Law Insider)

Non-tariff measures

“NTMs are policy measures other than ordinary customs tariffs **that can potentially have an economic effect** on international trade in goods, changing quantities traded, or prices or both”—UNCTAD

| | | |
|------------|--|----|
| Chapter A. | Sanitary and phytosanitary measures | 1 |
| Chapter B. | Technical barriers to trade | 10 |
| Chapter C. | Pre-shipment inspection and other formalities | 17 |
| Chapter D. | Contingent trade-protective measures | 18 |
| Chapter E. | Non-automatic import licensing, quotas, prohibitions, quantity-control measures and other restrictions not including sanitary and phytosanitary measures or measures relating to technical barriers to trade | 23 |
| Chapter F. | Price-control measures, including additional taxes and charges..... | 32 |
| Chapter G. | Finance measures..... | 36 |
| Chapter H. | Measures affecting competition..... | 39 |
| Chapter I. | Trade-related investment measures | 41 |
| Chapter J. | Distribution restrictions | 42 |
| Chapter K. | Restrictions on post-sales services..... | 45 |
| Chapter L. | Subsidies and other forms of support..... | 46 |
| Chapter M. | Government procurement restrictions | 52 |
| Chapter N. | Intellectual property | 65 |
| Chapter O. | Rules of origin | 70 |
| Chapter P. | Export-related measures | 80 |

Non-tariff barriers and non-tariff measures

Not all NTMs are NTBs!

Are these NTMs NTBs?

The use of polyvinyl chloride films for food packaging is restricted

Maximum limit for pesticides residue in vegetables

A test on a sample of vegetable imports is required to check against the maximum residue level of pesticides

Commodity X need to be cleared at a designated customs office for inspection

Obtaining NTM data

Regulatory requirements ^①

For product 09083110 – Cardamoms, neither crushed nor ground : Wrapped/canned upto 2.5 kg

Exported from **Nepal** to **Bangladesh**

HS revision: **HS Rev.2012**

NTM Classification: **NTM rev. 2012**

NTM year: **2019**

Source: **ITC (Market Access Map)**

| Import requirements applied to this product | Total measures 20 ^ |
|---|---------------------|
| A140 - Special Authorization requirement for SPS reasons ^① | 2 ▼ |
| A150 - Registration requirements for importers ^① | 1 ▼ |
| A190 - Prohibitions/restrictions of importsfor SPS reasons not elsewhere specified. ^① | 1 ▼ |
| A210 - Tolerance limits for residues of or contamination by certain (non-microbiological) substances ^① | 2 ▼ |
| A310 - Labelling requirements ^① | 2 ▼ |
| A410 - Microbiological criteria of the final product ^① | 1 ▼ |
| A420 - Hygienic practices during production ^① | 1 ▼ |
| A820 - Testing requirement ^① | 2 ▼ |
| A830 - Certification requirement ^① | 2 ▼ |
| A840 - Inspection requirement ^① | 1 ▼ |
| B310 - Labelling requirements ^① | 2 ▼ |
| B852 - Processing history ^① | 1 ▼ |

Market Access Map

NTM usage by country

NEPAL ▼

Nepal

Frequency Index 22%

Coverage Ratio 44%

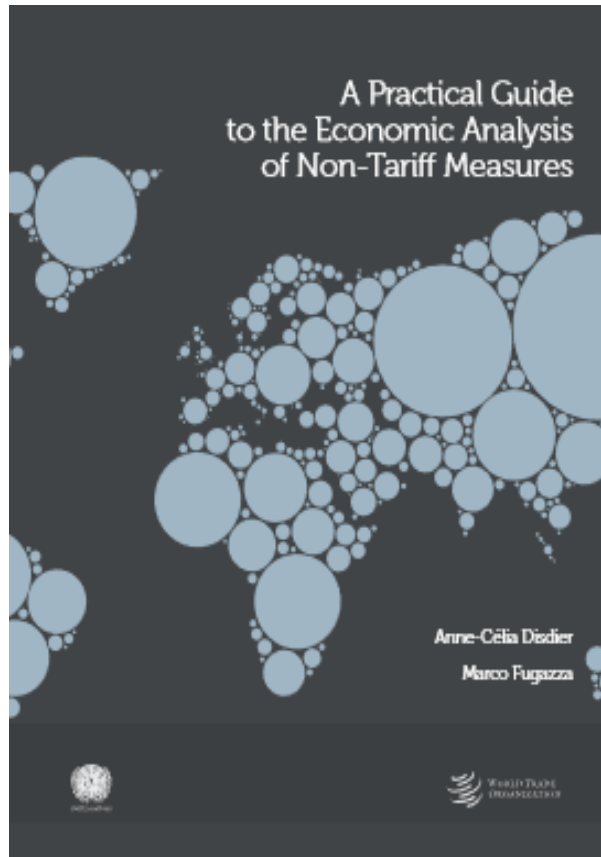
Prevalence Score 0.4

BY SECTOR

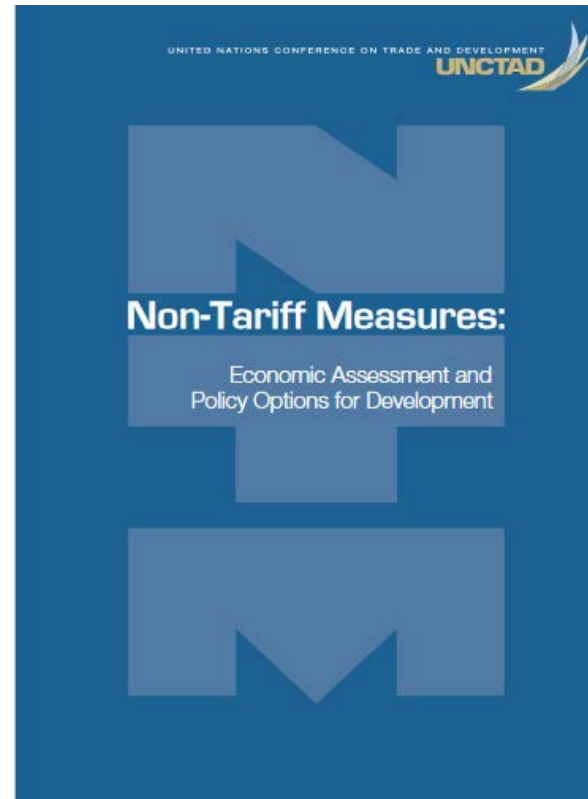
BY MEASURE

UNCTAD

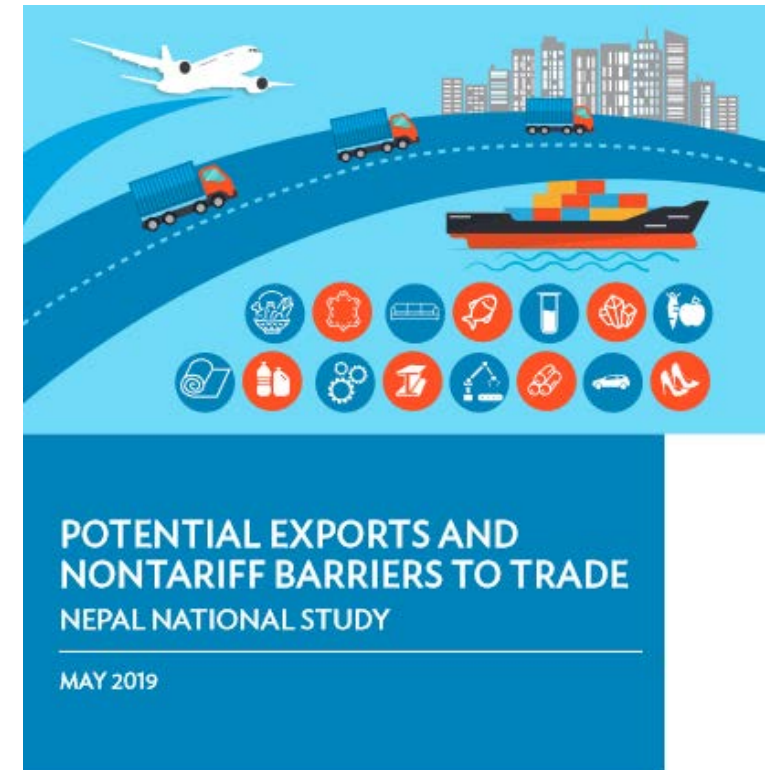
Deeper analysis of NTMs



A Practical Guide to the Economic Analysis of Non-Tariff Measures (UNCTAD and WTO)



Non-Tariff Measures: Economic Assessment and Policy Options for Development (UNCTAD)



Potential Exports and Nontariff Barriers to Trade: Nepal National Study (ADB)

Procedural obstacles

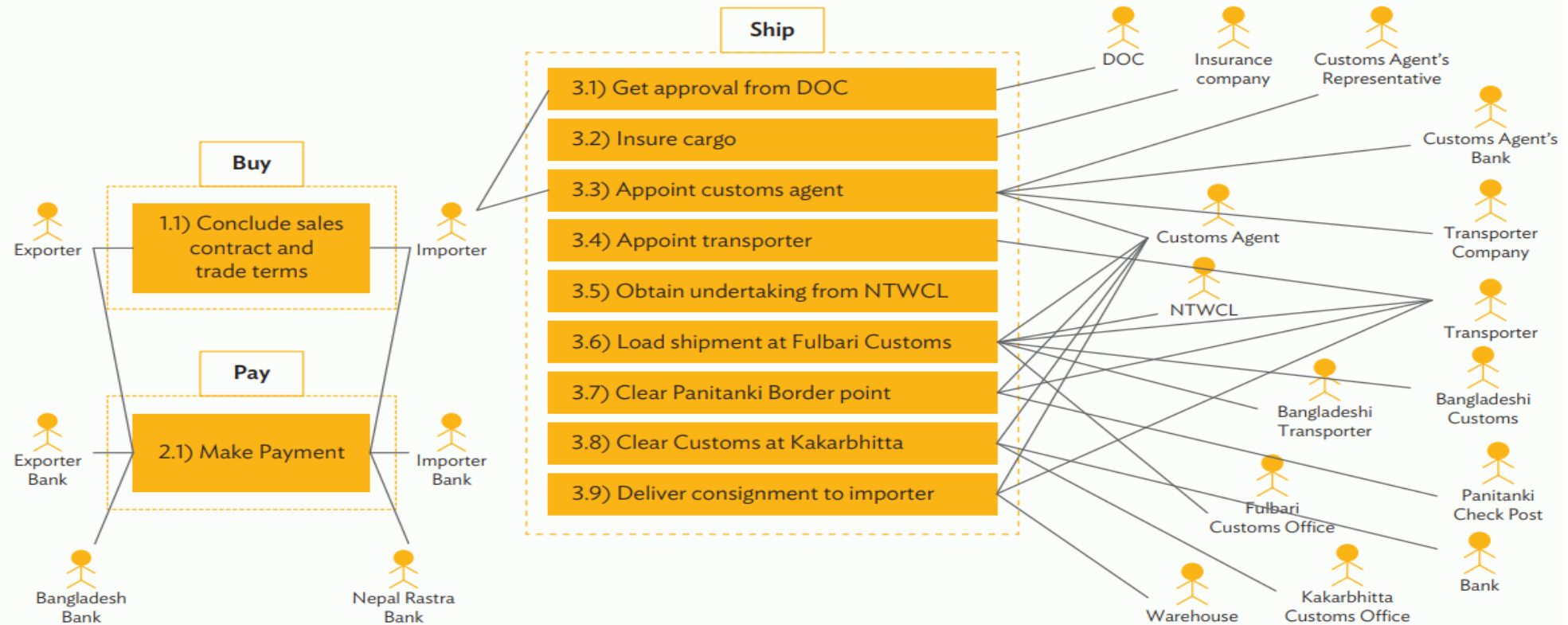
- Closely related to NTMs and NTMs
- High time and cost involved in obtaining test certificates
- Cumbersome documentation requirements
- Arbitrary implementation of rules

Trade Facilitation (or lack thereof)

“When policymakers talk about “trade facilitation”, they are referring to a specific set of measures that streamline and simplify the technical and legal procedures for products entering or leaving a country to be traded internationally. Trade facilitation covers the full spectrum of border procedures, from the electronic exchange of data about a shipment, to the simplification and harmonisation of trade documents, to the possibility to appeal administrative decisions by border agencies” (OECD).

Business Process Analytics

Figure 4.12: Use Case Diagram for Import of Fabrics



DOC = Department of Commerce, NTWCL = Nepal Transit and Warehousing Company Limited.

Source: Prepared by the project team.

Trade Analysis

Nepal-Bangladesh Trade

Nepal-Bangladesh trade

Features of Nepal-Bangladesh Trade

Proximity: Kakarvitta (Nepal)-Panitanki (India)-Fulbari (India)-Banglabandha (Bangladesh)

A long history of cooperation: seventh to recognize Bangladesh as an independent country; diplomatic relations started formally on 8 April 1972; Trade and Payments Agreement, 1976 and Transit Agreement, 1976

Parties to a FTA: SAFTA (since 2006)

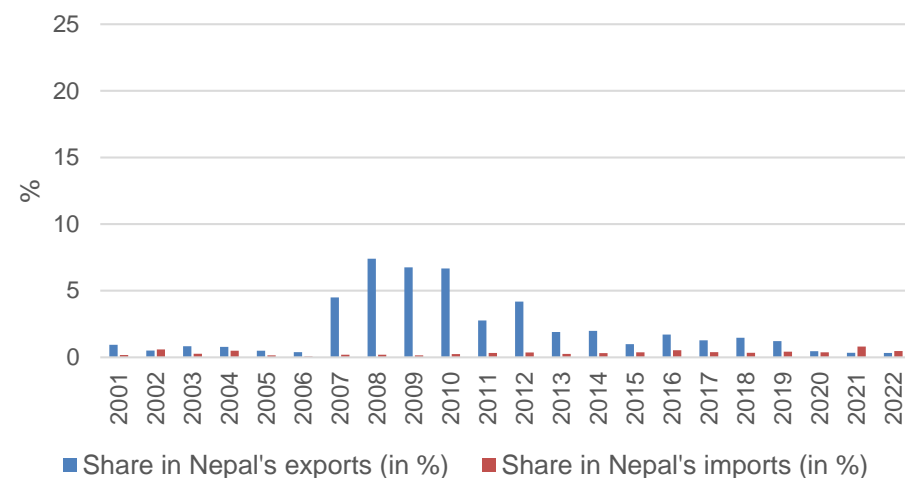
Partners in regional cooperation initiatives: SAARC, BIMSTEC, BBIN

But, trade potential vastly unrealized

Nepal-Bangladesh trade trends



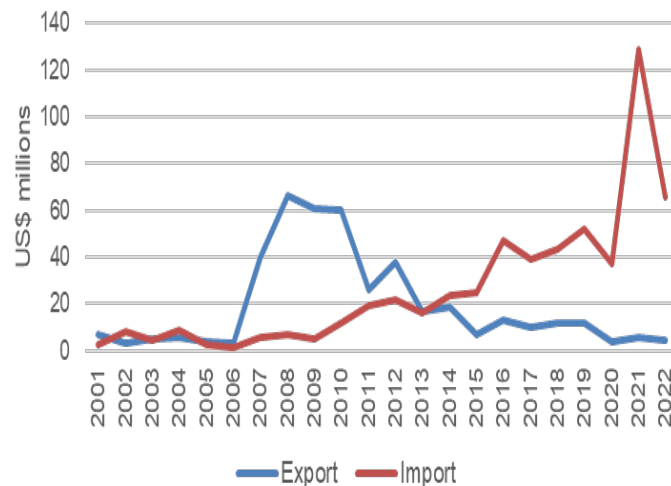
Bangladesh's share in Nepal's total trade



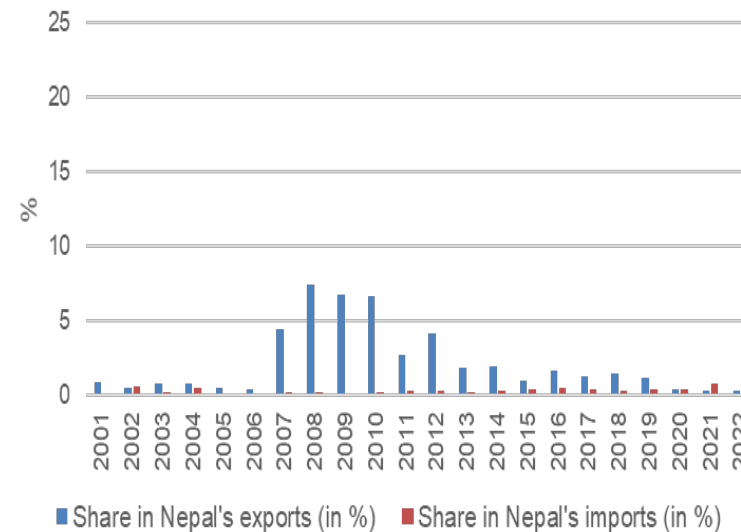
Why enhance Nepal-Bangladesh trade?

- Features of Nepal-Bangladesh trade: proximity, free trade agreement, long history of cooperation and engagement
- Unrealized trade/export potential: declining exports, low volume, non-diversification

Nepal-Bangladesh trade trends



Bangladesh's share in Nepal's total trade

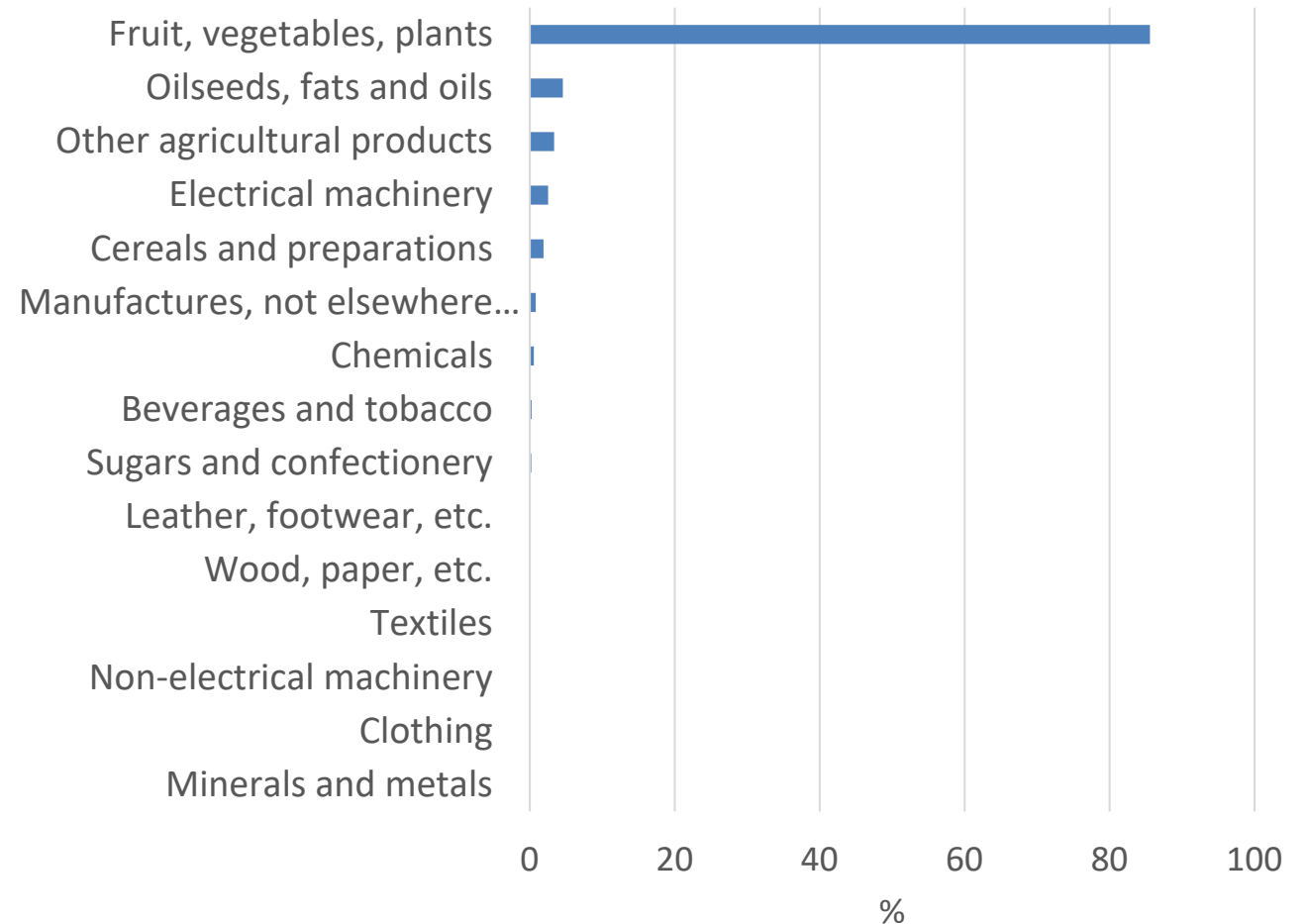


Why enhance Nepal-Bangladesh trade? (contd.)

Top 10 exports from Nepal to Bangladesh
(3-year average)

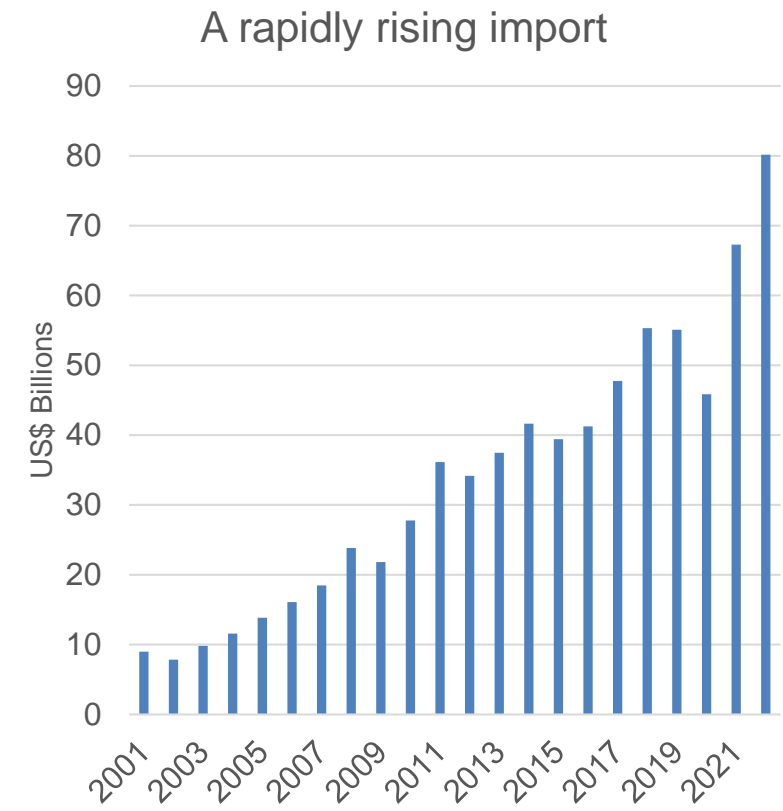
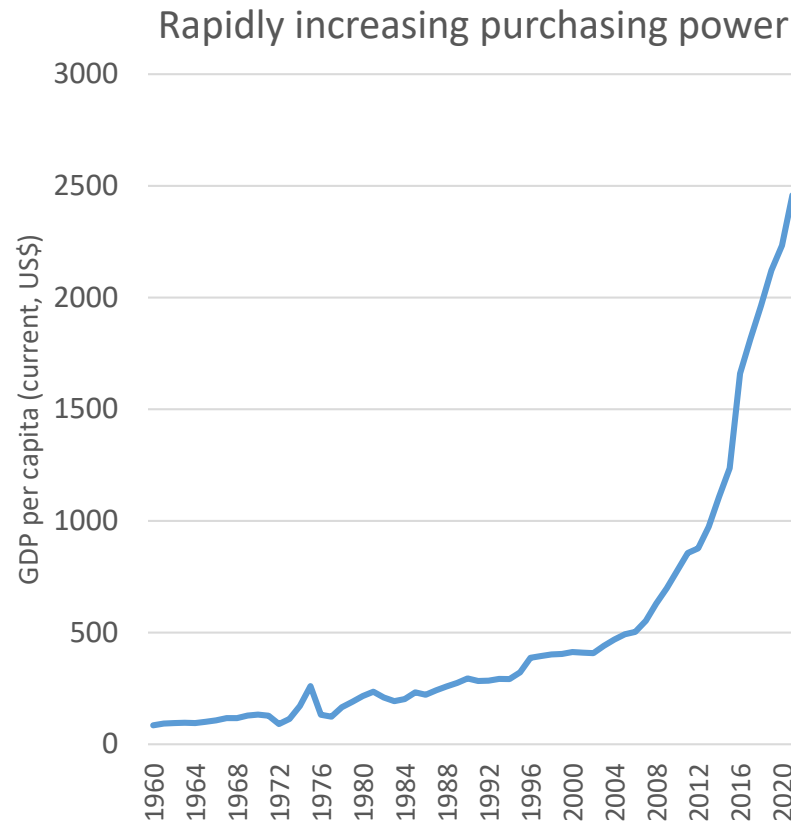
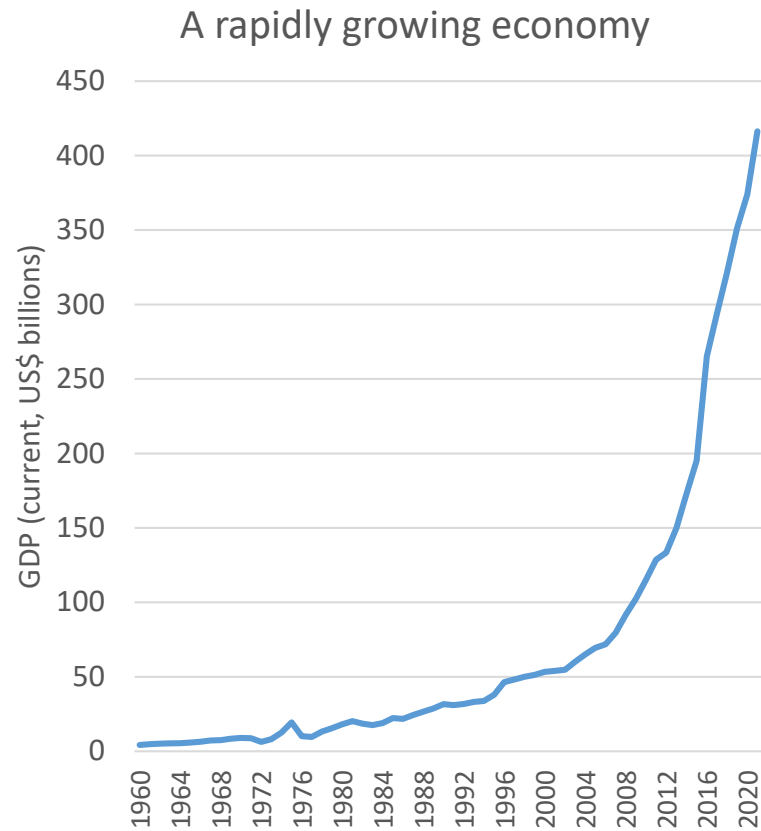
| HS6 | Description | Average export (US\$ million) | Share in total average export (%) |
|--------|--|-------------------------------|-----------------------------------|
| 071340 | Lentils | 3.32 | 83.4 |
| 230690 | Oil-cake (pina) | 0.18 | 4.4 |
| 050690 | Animal products--bones and horn-cores | 0.08 | 2.0 |
| 210690 | Food Preparations, n.e.c | 0.08 | 1.9 |
| 121190 | Plants or parts,of a kind used in perfumery, pharmacy etc, nes | 0.07 | 1.7 |
| 091011 | Ginger (sutho) | 0.02 | 0.6 |
| 320190 | --- Other tanning extracts of vegetable or gin nes. | 0.02 | 0.5 |
| 140490 | Broom grass (Amriso) | 0.02 | 0.5 |
| 050100 | Human hair and waste, unworked | 0.02 | 0.4 |
| 670420 | Wigs, false beards, eyebrows, etc and arti les, nes, of human hair | 0.01 | 0.3 |

Nepal's export to Bangladesh by MTN Category



Why enhance Nepal-Bangladesh Trade (contd.)

A rapidly growing dynamic market  A high capacity to absorb imports



Major pillars for analyzing Nepal-Bangladesh trade

- Identification of potential products
- Assessment of barriers
- How to enhance Nepal-Bangladesh trade
 - Solutions to non-tariff barriers
 - Solutions to tariffs/para-tariffs (PTA?)

Identification of potential products

- 1) Compile trade data for a period of five years**
- 2) Remove products that are flukes or outliers**
- 3) Select products that have major commercial potential:** Retain products that Nepal is exporting significantly at the global level (average value of export greater than US\$50000) which are also being imported by Bangladesh in a significant amount (average value of import greater than US\$100000)
- 4) Remove products that have declining imports in Bangladesh**
- 5) Include products identified by government, exporters and other important stakeholders**

Also include products recommended by exporters and relevant associations during consultations

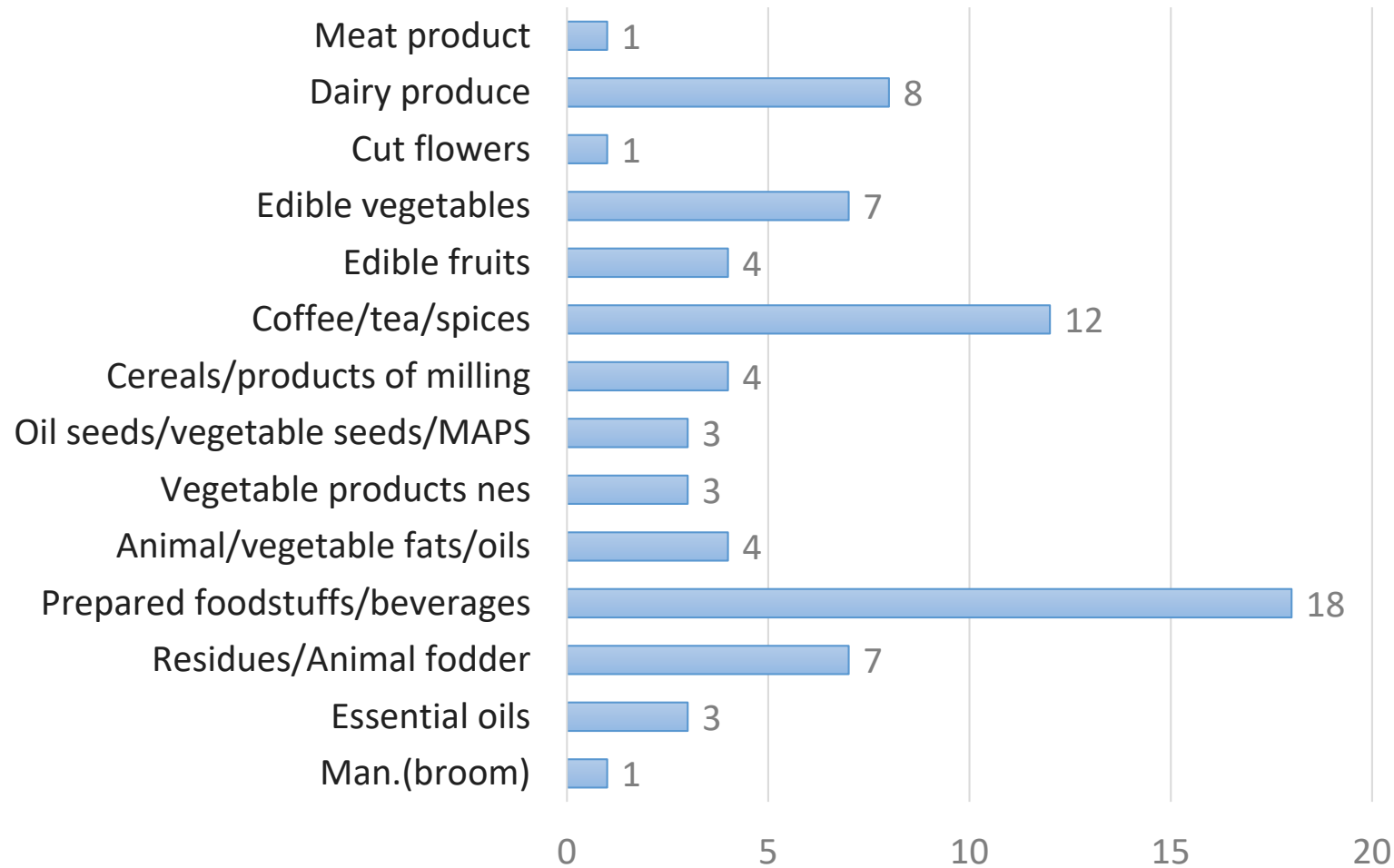
- Dairy products (incl. paneer, ghee, yogurt, buttermilk)
- Fresh vegetables (incl. cabbage, tomato, chayote (iskus), etc.)
- Fruits (incl. kiwi fruit, avocado, oranges)
- Prepared foodstuff (papad, bhujia, wheat flour, miscellaneous food products, etc.)
- Spices
- Ginger
- Other: Chiraito, Lentils, animal feed, maize, wheat, wheat bran

Include potential export products identified by the government

- NTIS 2016 products
 - Tea, Ginger, Cardamom, Medicinal and Aromatic plants (MAPS)
- Ministry of Industry, Commerce and Supplies (MoICS) list:
 - Large cardamom, Ginger, Tea, MAPS, Coffee, Vegetables; Vegetable Seeds; Fruits; Juices; Honey; Instant Noodles; Flowers; Lentils; Himalayan Dog Chew (Chhurpi)

Identification of potential export products

Potential Agricultural Export Products to Bangladesh



Nepal's exports to Bangladesh

TRADE BARRIERS

Tariff barriers are trade impeding

- Tariffs on several products not conducive for exports (tariff of 25 percent on most of the products)
- 42 products qualify for reduced tariff/preferential treatment under SAFTA; 34 do not qualify; 23 products are in Bangladesh's SAFTA sensitive list for LDC
- Negative preferences due to Bhutan's duty-free plus para-tariff free access on 18 products (including agricultural products of export interest to Nepal, e.g. large cardamoms, ginger, vegetables, fruits and juice, etc.) through Bangladesh-Bhutan bilateral trade agreement
- High tariffs (and charges) identified by exporters/associations as one of the most export-impeding factor

Examples of high tariffs

| Product | HS | MFN Tariff | Tariff for Nepal |
|--|--------|---------------|------------------|
| Fats and oils derived from milk | 040590 | 25 | 25 |
| Potatoes, fresh or chilled | 070190 | 25 | 25 |
| Tomatoes, fresh or chilled | 070200 | 25 | 25 |
| Black tea not exceeding 3kg. | 090230 | 25 | 25 |
| Black tea fermented | 090240 | 25 | 25 |
| Cinnamon and cinnamon tree flowers | 090611 | 25 | 25 |
| | | | |
| Sugar confectionery not containing cocoa | 170490 | 25 | 25 |
| Uncooked pasta | 190219 | 25 | 25 |
| Mixture of juices | 200990 | 25 | 25 |
| | | | |
| Dalmott, papad, salted bhujia, chamana, etc. | 210690 | 25 | 25 |
| Brooms and brushes | 960310 | 25 | 25 |

High para-tariffs in Bangladesh

- In addition to custom duties, various combination of charges in the form of Regulatory Duty (RD), Supplementary Duty (SD), Value Added Tax (VAT), Advance Income Tax (AIT), and Advance Trade VAT (AVAT) are collected at the Customs point;
- Some charges such as regulatory duty (of mostly 3%) apply exclusively for imports and even apparently trade-neutral SD and VAT are para-tariffs in disguise as exemptions are granted for some domestic products (World Bank 2018).
- With the inclusion of para-tariffs, the simple average tariff (FY2016/17) almost doubles, from 13.3% to 25.6% (World Bank 2018)

Para-tariffs in Bangladesh

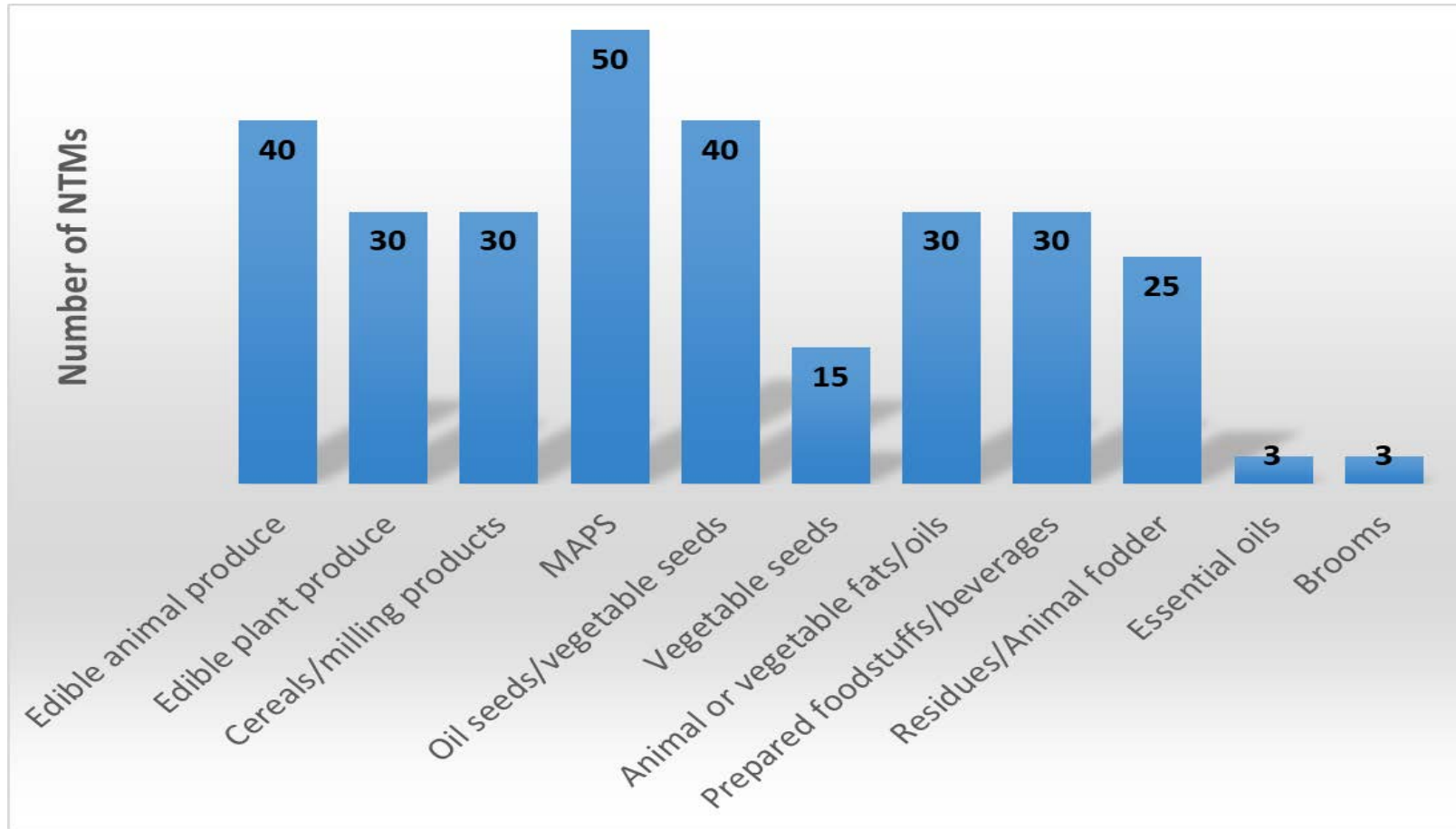
| | Tariff lines affected (%) | Rates, percent of affected tariff lines |
|--------------------|----------------------------------|--|
| Regulatory Duty | 45 | 3(99%), 15, 20 |
| Supplementary Duty | 22.6 | 20(61%), 45 (21%), 30(5%), 10(4%), 60(4%), and six other rates between 100% and 500%(5%) |
| Value added tax | 10.8 | 15 |
| Advance Income Tax | . | 5 |
| Advance tread VAT | . | 5 |

Source: World Bank (2018) for RD, SD, and VAT and Bangladesh duty calculator for AIT and ATV other compilations

Examples of para-tariffs in action

| Product | HS | Customs Duty | SD | VAT | AIT | RD | ATV | Total Tax Incidence (%) |
|---|---------|--------------|----|-----|-----|----|-----|-------------------------|
| Fats and oils derived from milk | 40590 | 25 | 20 | 15 | 5 | 3 | 5 | 91.37 |
| Potatoes, fresh or chilled | 70190.1 | 25 | 0 | 15 | 5 | 3 | 5 | 60.31 |
| Tomatoes, fresh or chilled | 70200.1 | 25 | 20 | 15 | 5 | 3 | 5 | 91.37 |
| Black tea (fermented) and partly fermented tea, | 90230 | 25 | 20 | 15 | 5 | 3 | 5 | 91.37 |
| Sugar confectionery not containing cocoa | 170490 | 25 | 45 | 15 | 5 | 3 | 5 | 130.19 |
| Other food preparations, n.e.s. (Dalmott, papad, salted bhujiya, chamena, etc.) | 210691 | 25 | 20 | 15 | 5 | 3 | 5 | 91.37 |

High number of NTMs



However, most of the NTMs haven't transformed into non-tariff barriers (NTBs) according to traders/clearing agents.

Examples of some agricultural NTMs in Bangladesh

- **Radioactivity levels** : majority of food products
- **Free of Melamine**: dairy products
- **Free of certain antibiotic**- meat, meat products, and animal feed
- **Hormonal Treatment**- Cows/ buffaloes should not be treated with Estrogenic Hormones and Hormone Growth Promotants (HGPs)
- **Mandatory certification marks scheme**: BSTI standard mark mandatory for butter oil and ghee; honey; turmeric powder; curry powder; cumin powder; fruit juices; wheat atta; noodles; water; chewing gum; wheat bran
- **Authorization/registration requirement** for importers of animal, plant, and food products

Some NTM related issues

- Although not a major issue while clearing customs, products like lentils encounter delay because of radioactivity reports, certification of fumigation.
- Quality issues and other requirement(truck operator approved by Nepal Bank's Association and original railway receipt of marked freight prepaid consigned to bank's name) used by importers to make negotiating documents discrepant and hence delay L/C payments and renegotiate payments
- Need to overvalue customs valuation for certain goods at Bangladesh customs (E.g. Ginger valued by exporters at \$225 per tonne overvalued at \$900 per tonne; chiraito valued by exporters at \$1250 per tonne overvalued at \$1600 per tonne).

Procedural barriers

- Harassment at Indian border
- Informal payments in both Bangladesh customs and Indian customs
- Although cited by reports and studies, traders and clearing agents do not feel documentation procedure is cumbersome.

Payment issues

- Bangladesh doesn't allow their importers to send advance payment to Nepal [Nepal Rastra Bank allows Nepali importers to do so upto certain amount]
- Delays in releasing L/C payments citing quality discrepancies and documentation issues; sometimes reneging on agreed upon payments to obtain reduced price
- Mistrust of Bangladeshi importers because of incidence of payment frauds, payment delays, and payment renegotiations.

Other issues raised

- Sub-optimal customs infrastructure: Sub-optimal warehousing facilities, customs infrastructure, and parking at Bangladesh customs
- Lack of information regarding SAFTA tariff concessions (e.g. large cardamoms, chirauti) and procedural requirements to export under SAFTA concessions, for e.g. how to obtain SAFTA COO). Goods that have reduced SAFTA duty being exported under MFN duty.
- Bangladesh offering duty free access to 18 Bhutanese products (including agricultural products such as large cardamoms, ginger, vegetables, fruits and juice, etc.) through Bangladesh-Bhutan bilateral trade agreement.
- Business visa to Bangladesh needs to be issued in Kathmandu and traders feel the visa duration is not sufficient and procedure is cumbersome.
- Export levy on some products (e.g. NPR 1 per kg of lentil) and NTWC charge of 0.4% on export valuation is exorbitant according to traders.

Addressing issues to enhance Nepal-Bangladesh trade

- **Addressing tariff/para-tariff barriers:** Preferential Trade Agreement (PTA) that reduces/eliminates tariffs, inclusive of para-tariffs; better dissemination of information regarding SAFTA concessions and certificate of origin
- **Addressing NTBs and procedural obstacles:** Proactive engagement with Bangladeshi counterparts for better trade facilitation, elimination of NTBS, etc. (operationalization of BBIN MVA)

Summary

- International trade: some stylized facts
- Analyzing international trade: tools and tips (future sessions for simple data cleaning and analysis exercises)
- Walking through the Nepal-Bangladesh trade study to provide idea about conducting trade analysis as well as to disseminate preliminary findings

Thank you!

For queries:

sawtee@sawtee.org

Kshitiz.dahal@sawtee.org

www.sawtee.org