EE562 Selected Topics in Development Economics 2

(Topic: A Global Perspective and Empirical Evidence in Thailand)

Faculty of Economics

Thammasat University

Summer Session 2017 (2560)

Time: Wednesdays and Fridays, 9AM – noon

Trade and Globalization

Dr. Chamadanai Marknual

Venue: Room 302, Faculty of Economics, Thammasat University (Tha Prachan)

Course Conveners: Dr. Arnunchanog Sakondhavat and Dr.Chamadanai Marknual

Office of the National Economic and Social Development Board (NESDB)

Outline

Section I

Globalization

Section II

Trade and Growth

Section III

Globalization and Inequality

Section IV

Trade-related Policy for Inclusive Growth

Section I

Globalization

The Open Economy

International linkages pervasive:

- Trade in goods and services.
  - Final goods.
  - Intermediate goods
- Capital flows
  - Foreign portfolio investment.
  - Foreign direct investment (FDI).
- People flows - migration
- Transfer of technology

Measuring openness

A closed economy: Autarky

Different degrees of openness:

- Free ***trade***
- Restricted ***migration*** (most countries)

  Immigrant share of population (2013):
  Norway 13.8%, U.S. 14.3%, Canada 20.7%,
  New Zealand 25.1%, Switzerland 28.9%
- Restricted ***capital flows*** (some countries).

Measuring openness

Two common ways of measuring trade openness:

- Trade relative to GDP.
  - *Small vs large countries.*
- Relative prices
  - If free trade, then ***law of one price*** should hold.

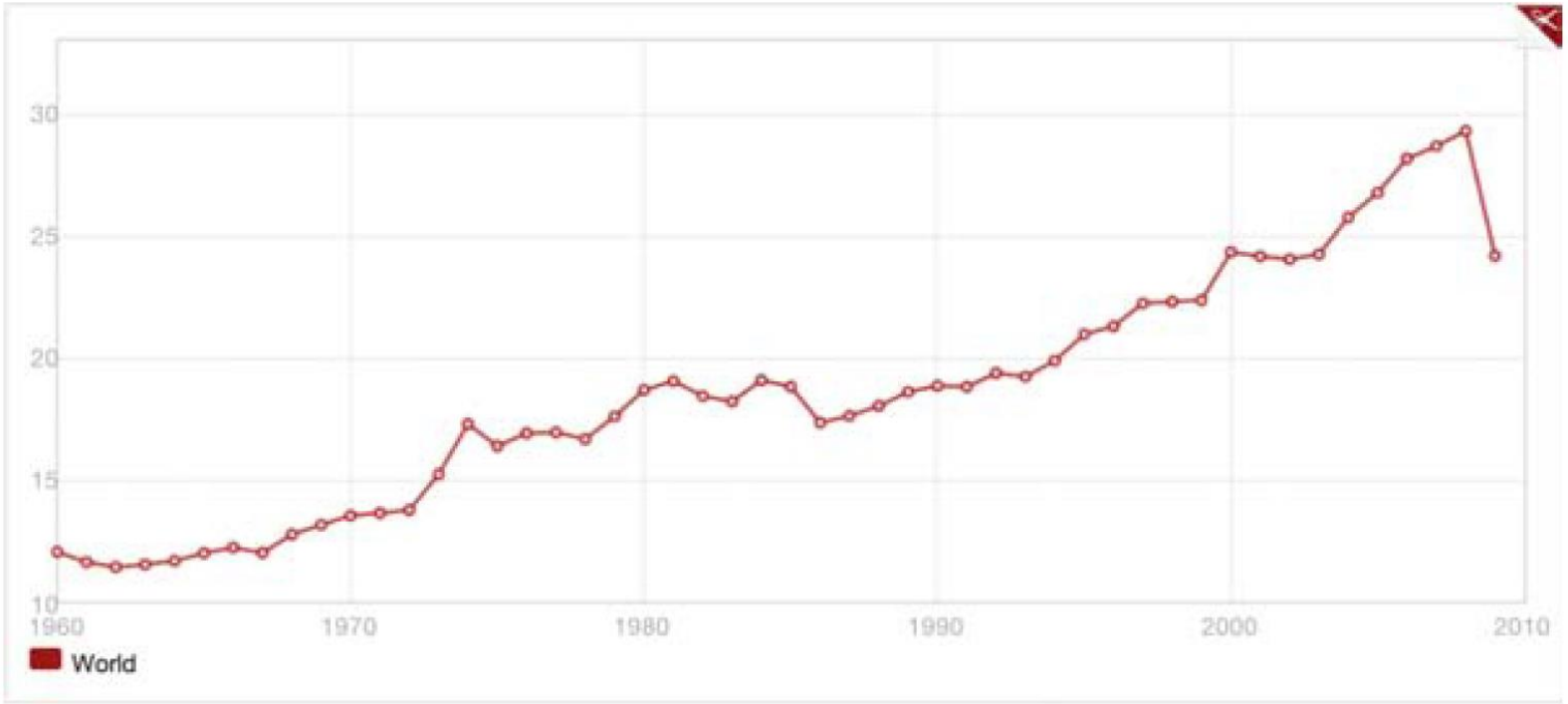
Globalization

- **Globalization** represents the *increased openness* of economies to
  - *international* ***trade***,
  - *financial* ***flows***, *and*
  - *foreign direct* ***investment***.

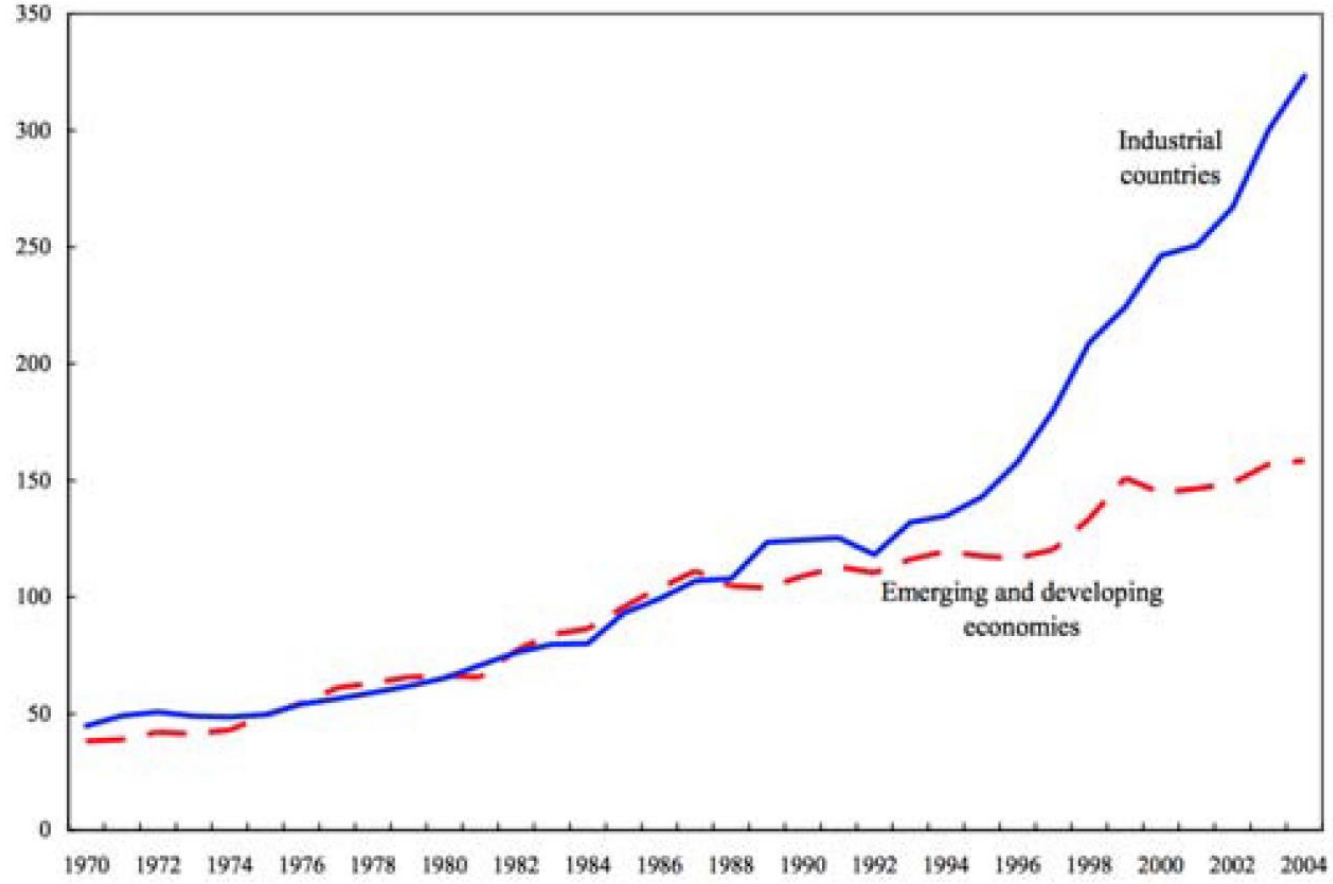
How Can ***Globalization*** Be Measured?

- **Trade flows:** exports and imports of goods
- **Trade in services:** transportation, healthcare, telecommunications, business services (consulting, IT, back-office, call center)
- **Foreign asset ownership**
- **Immigration**
- **Price convergence**

Measure1: World Exports Relative to World GDP

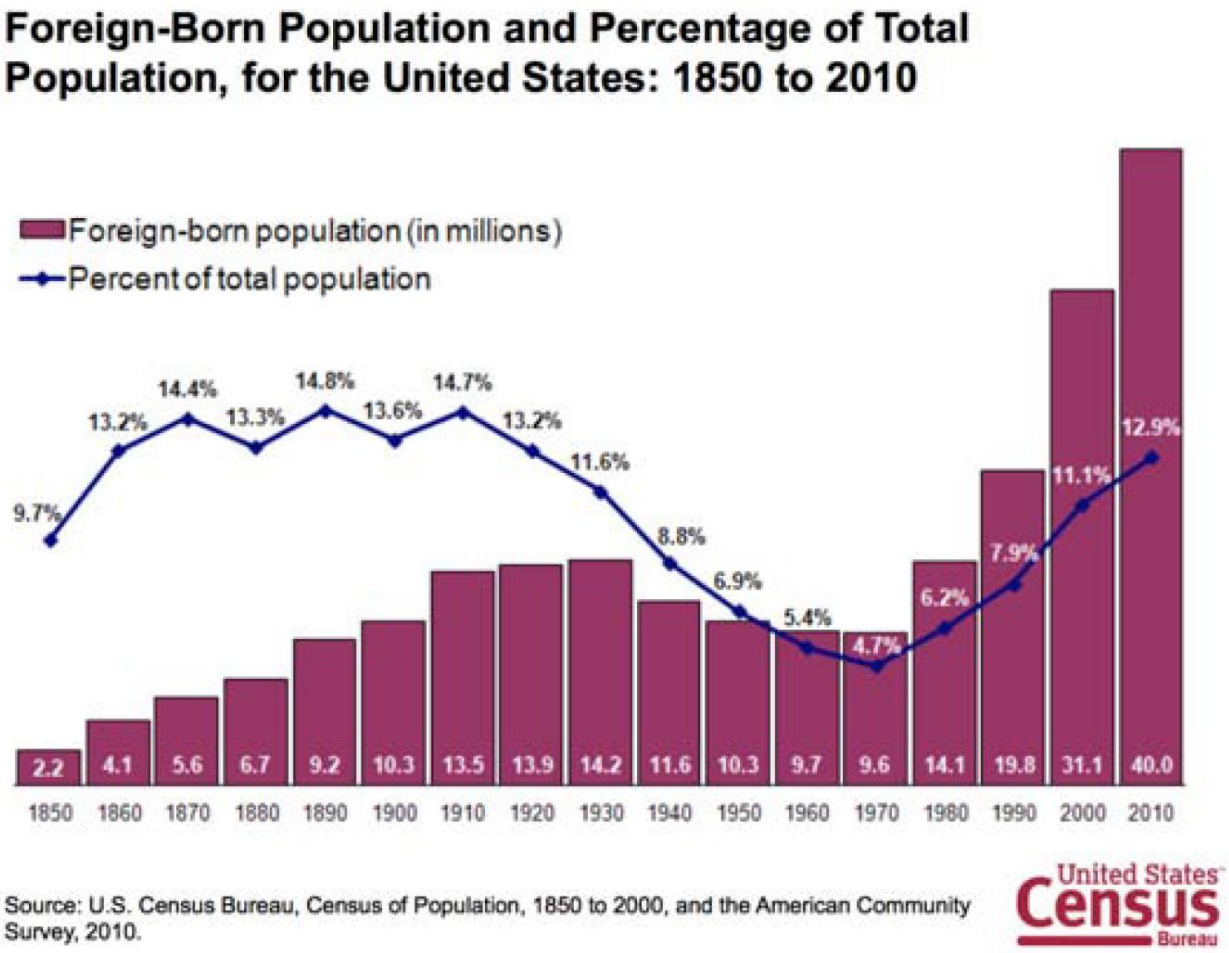


Measure 2: Foreign Asset Ownership



Note: Ratio of sum of foreign assets and liabilities to GDP, 1970-2004.

Measure 3: Immigration



Measure 4: Price Convergence

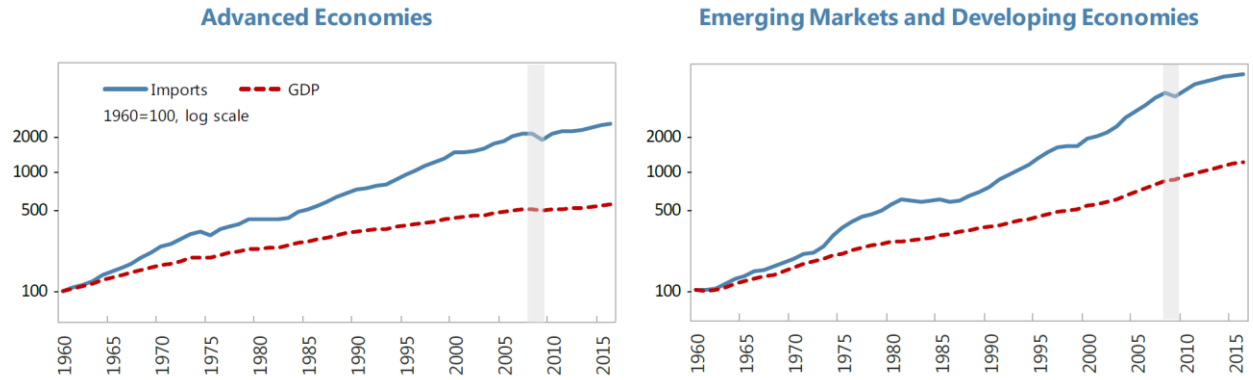
- **Fall in transportation costs** in 19th century led to much greater price convergence than has been observed at any time since WW2
- Similarly, there was substantially more **real wage convergence** in the 19th century than since WW2

Section II

Trade and Growth

Trade and Growth

FIGURE 1. Real Trade and Real GDP, 1960–2016

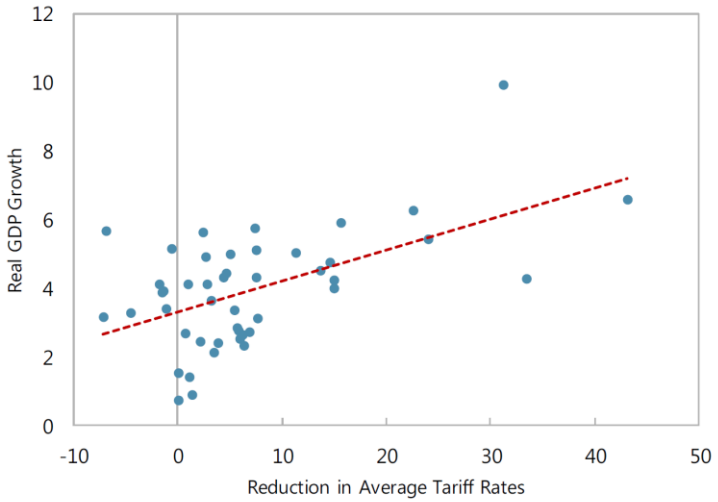


Source: IMF staff calculations.

- From 1960 to the eve of the global financial crisis (GFC) in 2007, **global trade in goods and services grew** at rate of about 6 percent a year, about **twice that of real GDP growth** during the same period.
- This expansion was supported by ***reductions in trade costs*** — through *changes in policy (such as tariffs) and technology*
- *Reductions in trade costs* have facilitated **the expansion of global value chains (GVCs)**, which have become a *strong driver of productivity* and *manufacturing exports*

Trade and Growth

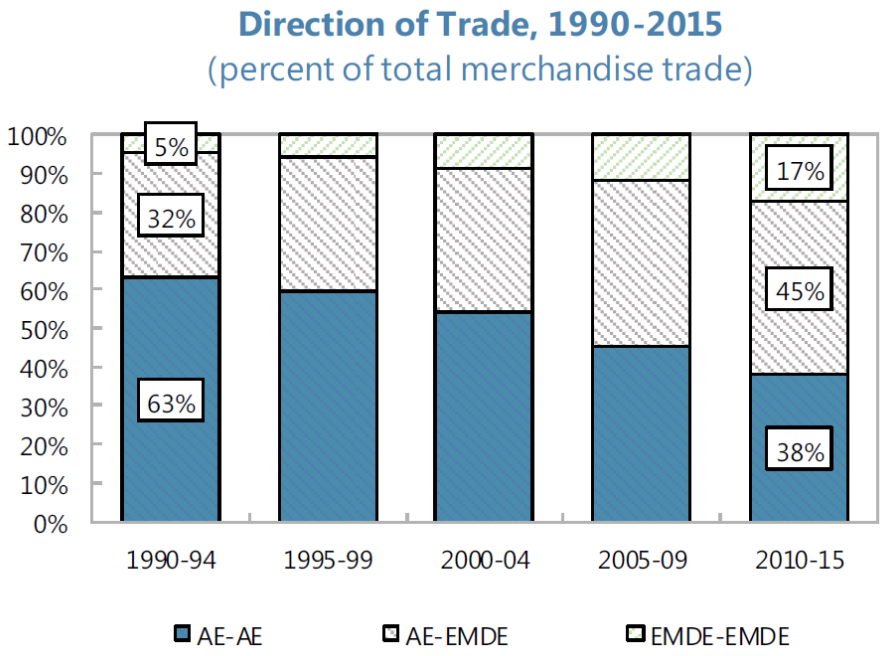
FIGURE 2. Changes in Average Tariff and Annual GDP Growth, 1990–2015
(percentage points)



Sources: Tariff data are from UNCTAD TRAINS and WTO Tariff Download Facility; GDP data are from IMF WEO database; and IMF staff calculations.

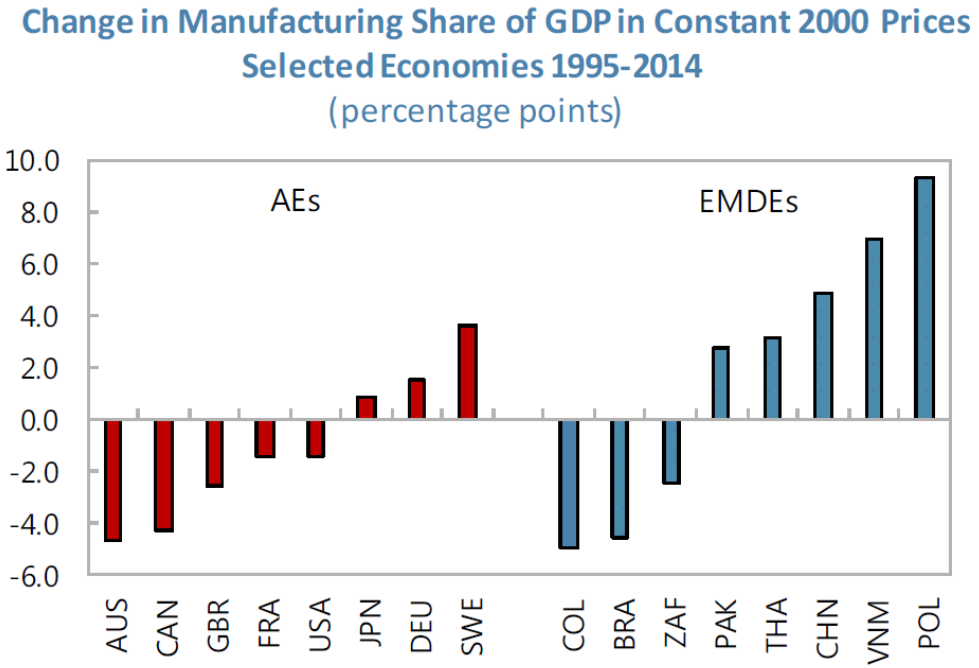
- **Trade integration** has brought greater prosperity, the extent to which it *has powered economic growth*.
- It also links ***trade reform*** (proxied as reductions in tariffs) to higher rates of ***productivity*** and ***income growth***.

Trade integration



- Merchandise trade among *advanced economies: AEs*, as a share of total world trade, from about 70 percent in the early 1980s to ***less than 40 percent by the early 2010s***, as trade involving *emerging markets and developing economies:* ***EMDEs grew rapidly***.

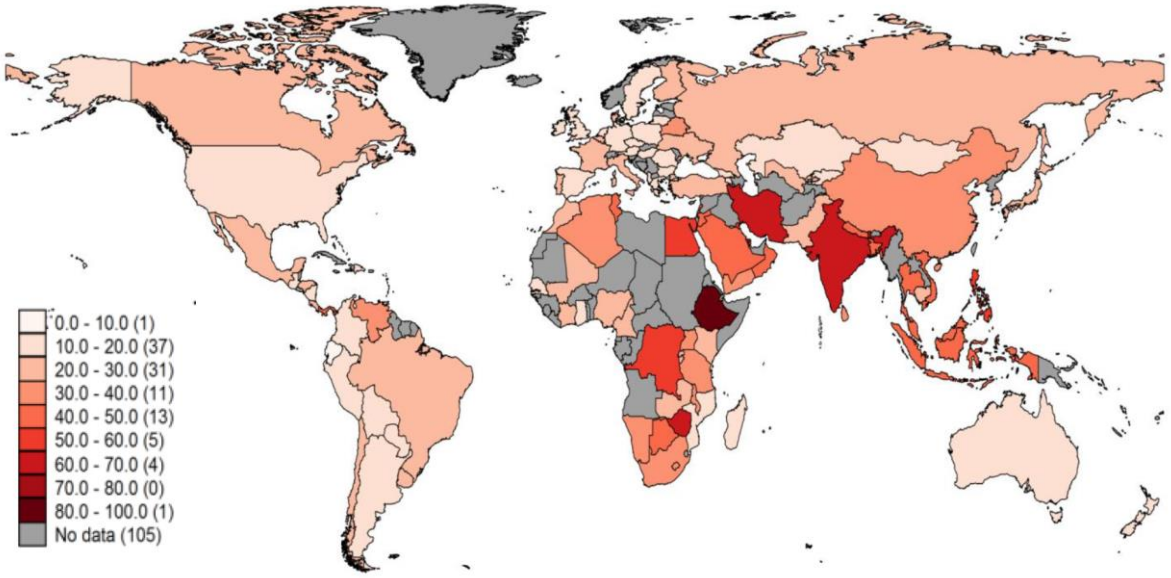
Trade integration



- **Increased EMDE manufactures exports** have been accompanied by *relative declines in the share of manufacturing to output in many AEs*, where *service sectors have generally grown more rapidly*
- **Manufacturing output has increased** most rapidly in countries with ***greater involvement in value chains***, such as *China, and other Asian and Eastern European EMDEs*

Trade integration

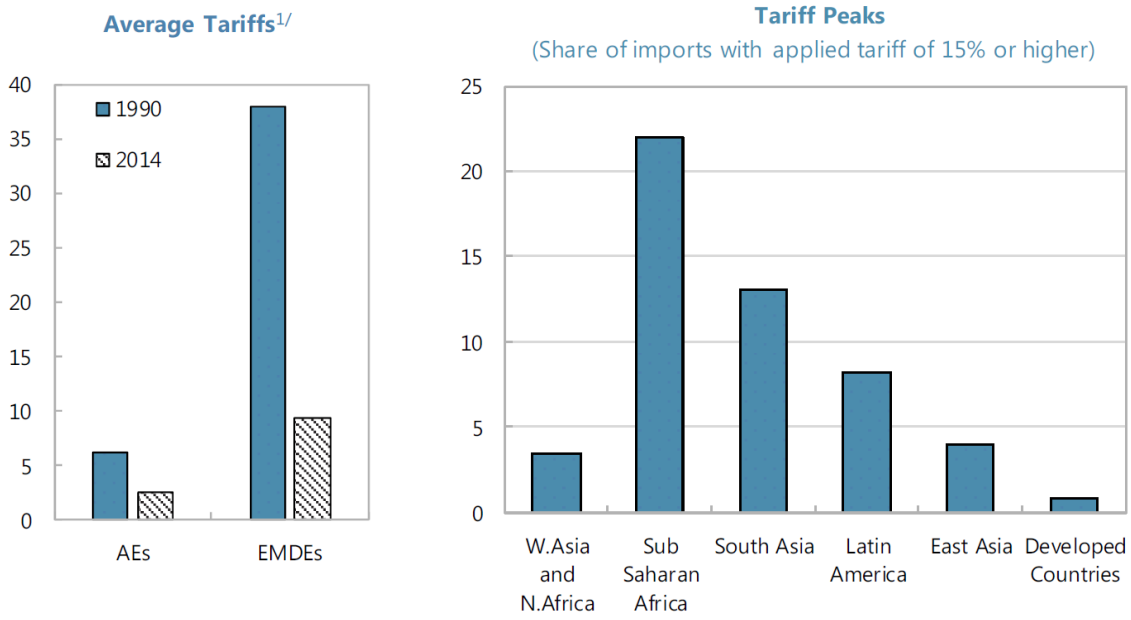
FIGURE 6. Estimated Restrictiveness of Services Trade Policy



Source: Borchert and others, 2014.

- **Expanding services trade** has been supported by *new business models* in areas like financial services and information and communication technology.
- The growth in services trade has occurred despite the fact that ***policy barriers to services trade remain substantial*** in many areas

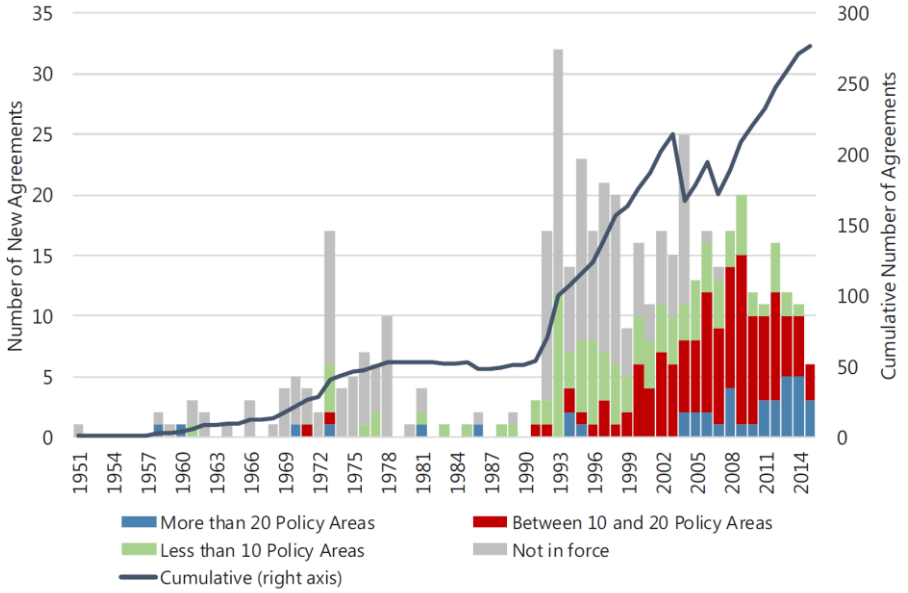
Trade integration



- **Tariffs were steadily reduced** from the 1980s to the early 2000s under multilateral, regional, and unilateral reforms.
- ***EMDEs cut tariffs considerably*** to averages below 15 percent, while advanced economies cut average tariffs from around 6 percent to below 3 percent

Trade integration

FIGURE 8. Number of Trade Agreements, 1951–2015



Source: Hofmann and others, 2016.

- **Bilateral and regional trade agreements have expanded** dramatically in scope and in number.
- Recent *preferential trade agreement (PTAs)* cover substantially *more policy areas* than tariff liberalization.
- More than half of the PTAs *include "deep" provisions* in policy beyond the current mandate of WTO, so called *WTO+*

Benefit of Trade

Increasing Productivity

- **Innovation and technology upgrading** are key channels for increasing productivity.
- ***Trade boosts productivity*** by *promoting reallocation of resources*, with production shifting toward sectors and firms with *comparative advantage* and *higher efficiency*

Benefit of Trade

Increasing Productivity

- **Knowledge spillovers** contribute to productivity growth
- Total factor productivity (TFP) is positively related to ***knowledge creation*** in trading partners, and an open trading system contributes to ***knowledge diffusion*** through trade-related spillovers

Benefit of Trade

Increasing Productivity

- Trade enhances productivity *indirectly* by *encouraging* ***institutional reform***, *improving* ***governance***, *and contributing to* ***financial deepening***
- Promoting a **competitive environment** and **increasing growth opportunities** may raise the needs of entrenched firms for *external capital* and increase *support for reforms* that promote a *deeper financial system*

Benefit of Trade

Benefits for Consumers

- By *lowering prices* and providing access to a *wider variety of goods and services*, trade and trade reform have major benefits for consumers through **higher real incomes and greater choices**
- Liberalization can also lead to very large increases in the ***variety of goods*** available, and thus ***quality of life***

Benefit of Trade

Benefits for Consumers

- There is a strong **"pro-poor" bias** in the benefits of *lower prices and consumer choice* that comes with trade
- The pro-poor bias arises because ***poor consumers spend*** *relatively more on sectors that are* ***more traded*** *(e.g., food and beverages)* and thus experience ***larger price drops*** upon opening to trade.
- *Higher-income households* spend relatively more on *less-traded sectors (e.g., some services)*

Benefit of Trade

Benefits for Consumers

- Just as **lower tariffs** can *benefit* vast segments of a country's *population*
- In contrast, the **imposition of tariffs** can be *costly* and have *third-order effects on downstream industries* (associated with many *job losses*)

Trade and Growth Theory

Interactions between trade and growth depend on nature of trade:

- **Ricardian type:** trade driven by technological ***comparative advantage***
- **Heckscher-Ohlin type:** trade from differences in ***factor abundance***.

Role of Empirics in International Trade

- There is a *rich interaction between theory and empirics in International Trade* that is perhaps without comparison in most areas of economics.
- The evolution of the theoretical study of trade since 1975 has been heavily influenced by empirical work
  - Evidence on **intra-industry trade**, trade between similar countries - **New trade theory** in 1980s (e.g. Krugman, 1980).
  - Evidence on **within-industry heterogeneity**, **firm-level approach to trade** (e.g. Melitz, 2003).
  - More recent developments have been heavily data-driven: *intra-firm trade, multinational production, multiproduct firms*.
  - Ongoing debates about *`trade and wage inequality'*: continuous feedback of empirical findings into debate about sets of theories that are empirically relevant.

Globalization and Growth

- Up until mid 1980s, studies of **growth** focused primarily on ***accumulation of physical capital***.
- But ***capital accumulation*** faster than population growth ***likely to meet diminishing returns***, which extinguishes the *incentives for savings* and *further accumulation*.
- *Capital accumulation alone could not be basis for sustained growth*

Globalization and Growth

- New growth theory focus on **accumulation of knowledge**
- **Knowledge** *different from capital*, because often ***non-rivalrous***: use by one party in some application does *not preclude simultaneous or subsequent use by others*
- Generates **increasing returns to scale**
- **Eliminates** inevitability of **diminishing returns** when some inputs are accumulated relative to others.

How does globalization affect growth?

What are the mechanisms that *link globalization and growth*?

- Logic of new growth theory suggested that we should ask **how globalization *affects* *the incentives for knowledge accumulation*** and the efficacy of ***inventiveness*** and ***diffusion***.
- Links between **international integration** and **knowledge accumulation**:
  - Integration: international ***flow of ideas***
  - Integration: larger, but ***more competitive markets***
  - Integration: ***specialization*** according to comparative advantage
  - Integration: possibilities and incentives for ***technological diffusion***

International Knowledge Spillovers

- **Foreign** contributions to ***national knowledge stock***
  - ***Foreign contacts*** contribute to *research and manufacturing productivity*
  - Innovators *standing on* the shoulders of *foreign* giants
  - Substantial empirical evidence of ***international knowledge spillovers***
- **Endogenous knowledge spillovers**
  - ***Spillovers*** increase with *interpersonal interactions*
  - *Spillovers* might increase with *bilateral trade contacts*
  - *Spillovers* might increase with *bilateral FDI*

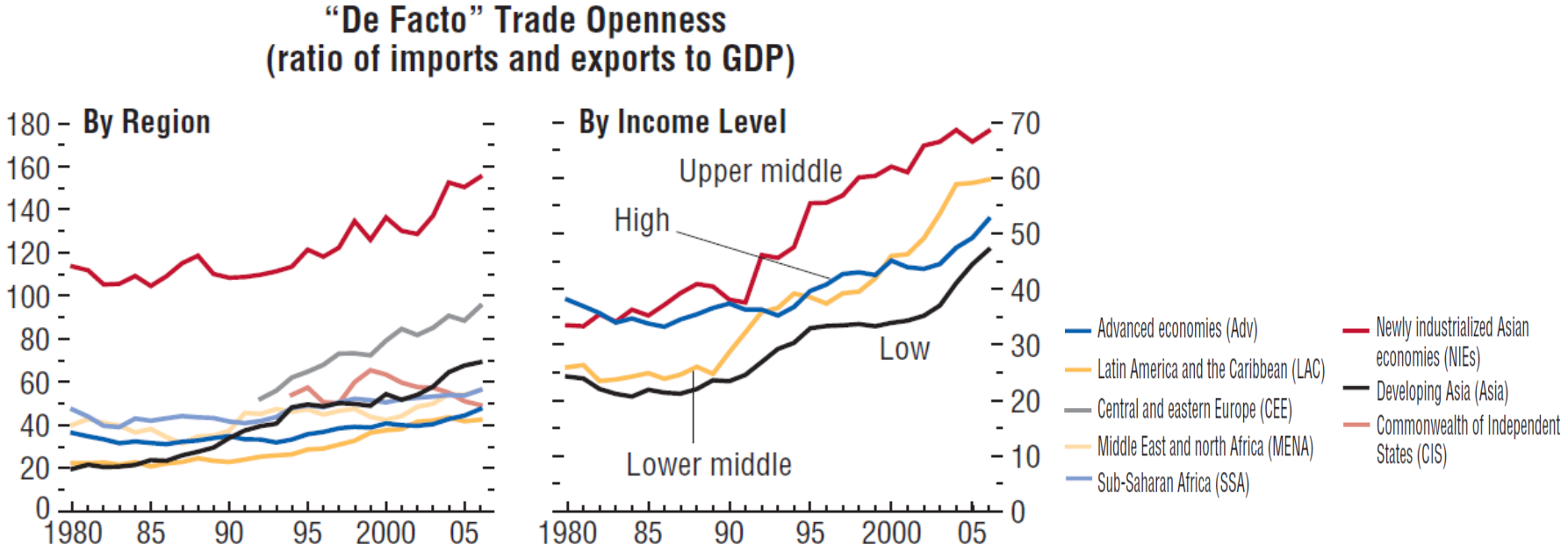
Section III

Globalization and Inequality

Globalization and Inequality

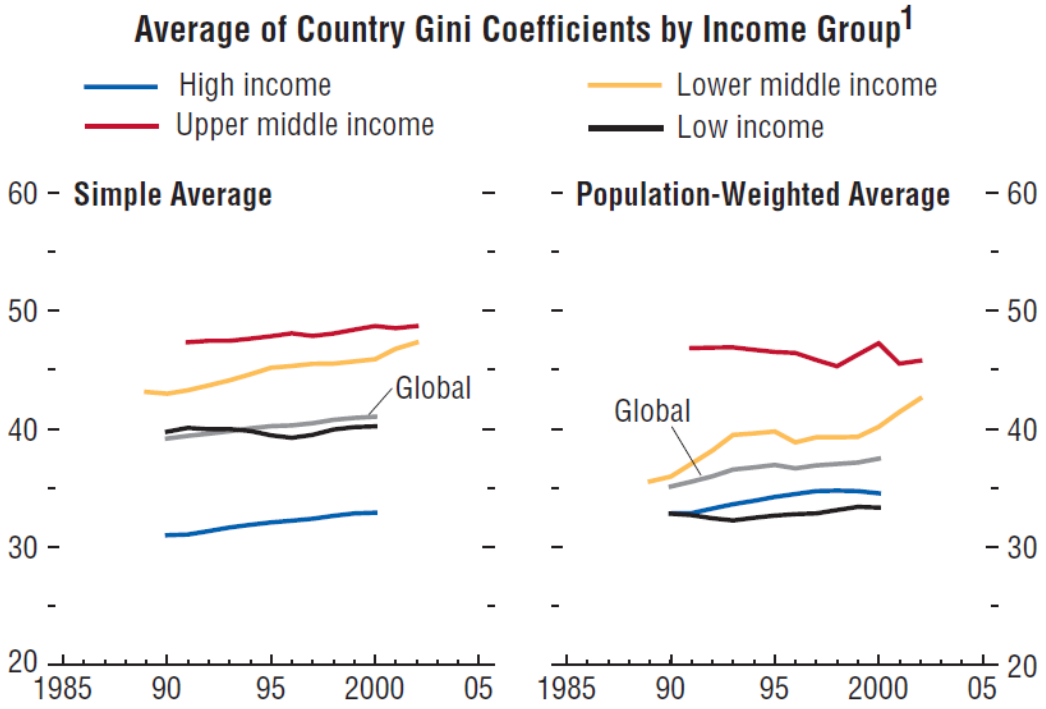
- The debate on the ***distributional effects of globalization*** is often polarized between two points of view.
- One school of thought argues that *globalization leads to a rising income*, and *equally distributed* as **Kuznets** hypothesis
- The opposing school argues that *although globalization may improve overall incomes*, the ***benefits are not shared equally*** among the citizens of a country

Trend in Inequality & Globalization



- **Trade globalization** accelerated in the 1990s as countries of the *former Eastern bloc integrated into the global trading system*.
- All groups of **emerging and developing countries**, aggregated by income group or by region, have been **catching up with high-income countries** in their trade openness, *reflecting the* ***convergence*** *towards advanced economies*.

Trend in Inequality & Globalization



- Based on observed movements in **Gini coefficients**, ***inequality has risen*** in all except the low-income country aggregates over the past two decades. This pattern remains *broadly unchanged* using *population-weighted averages*.

Trend in Inequality & Globalization

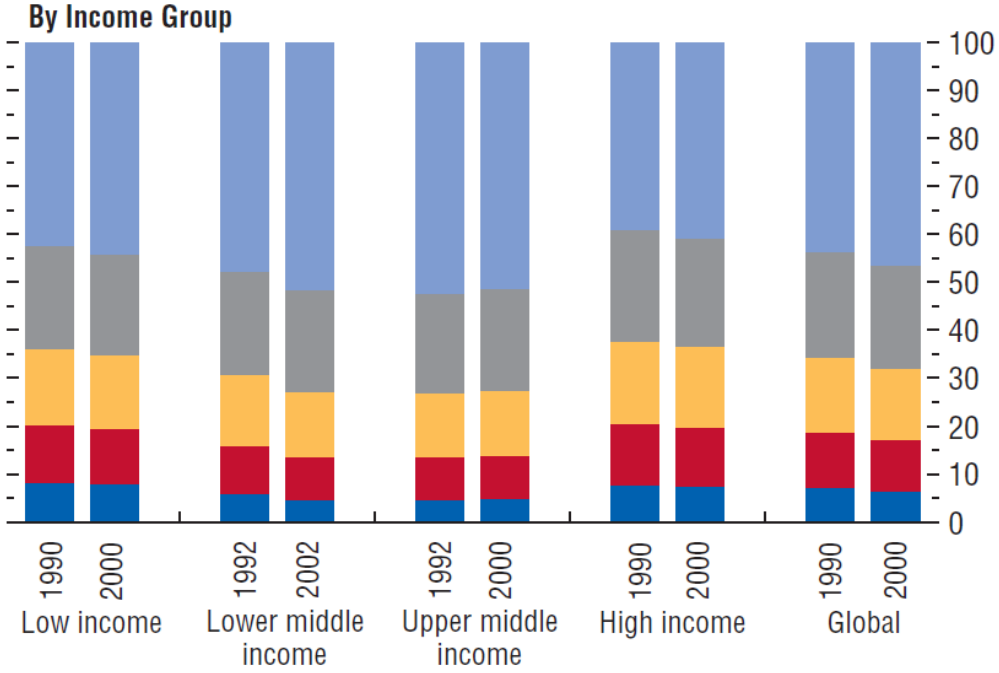


Figure 4.4. Income Shares by Quintile
(Share of total income, population-weighted average)

Increasing inequality is largely explained by the increasing income share of the richest quintile at the expense of the middle quintiles, while there has been little change in the poorest quintile.

Quintile 1 (poorest) Quintile 2 Quintile 3
Quintile 4 Quintile 5 (richest)

- However, the data show that **rising Gini coefficients** are explained largely by the increasing ***share of the richer quintiles*** at the *expense of middle quintiles*, whereas the *income share of the poorest quintile (1) changes little*.

Heckscher-Ohlin (HO) model

- **Heckscher-Ohlin (HO) model**:

countries *specialize* in production in their *relatively abundant factor* and ***export*** these goods

Stolper-Samuelson theorem

- **Stolper and Samuelson (1941)** shows that the subsequent trade-induced relative changes in product prices ***increase the real return*** to the ***factors used intensively*** in the production of the ***factor-abundant export goods*** and decrease the returns to the other factors.
- As a consequence, the country's *abundant production factors* ***gain from openness***, while scarce factors lose

Globalization and Inequality: Stolper-Samuelson theorem

Stolper-Samuelson theorem:

- It implies that in a *two-country two-factor framework*, increased trade openness in a ***developing country*** where *low-skilled labor is abundant* would result in an ***increase in the wages of low-skilled workers*** and a reduction in the compensation of high-skilled workers, leading to a ***reduction in income inequality***

Globalization and Inequality: Stolper-Samuelson theorem

Stolper-Samuelson theorem:

- *After tariffs on imports are reduced*, the ***price of the (importable) high skill-intensive product declines*** and so does the *compensation of the scarce high-skilled workers*, whereas the *price of the (exportable) low skill-intensive good* for which the country has relatively *abundant factors increases* and so does the *compensation of low-skilled workers*.

Globalization and Inequality: Stolper-Samuelson theorem

- Considering "***noncompeting***" traded goods, that is, goods that are *not produced in a country* and are *imported only*.
- ***Tariff reductions*** would ***reduce the prices*** of these goods—and therefore ***increase the effective real income*** of households.
- In both advanced and developing economies, if *tariffs are reduced for noncompeting goods that are not produced in a country* but are consumed particularly by the poor, it would *lead to* ***lower inequality***.

Globalization and Inequality: *A Skilled Bias Case*

- Relaxing the assumption to allow **labor and capital to mobilize** internationally.
- This channel would appear to be most evident for **FDI**, which is *often directed at* ***high-skill-intensive inward FDI*** for a *less-developed host economy*.
- An increase in FDI from advanced economies to developing economies could thus ***increase the relative demand for skilled labor*** and *increasing inequality in both countries*.

Globalization and Inequality: *A Skilled Bias Case*

- **Skill biased technological change** is discussed as one of the main alternative explanations of the ***rising skill premium*** and ***income inequality*** within countries.
- While technological innovations primarily occurs in advanced economies, **globalization** may ***facilitate technology transfe***r across borders, so that *skill biased technological change* also takes place in *less developed countries*.

Globalization and Inequality: The Role of Technology

- To the extent that ***technological change*** favors those with **higher skills** and **exacerbates the "skills gap"**
- It could adversely affect the distribution of income in both developing and advanced economies by *reducing the demand for lower skill activities* and *increasing the premium for higher-skill activities* and *returns on capital*.

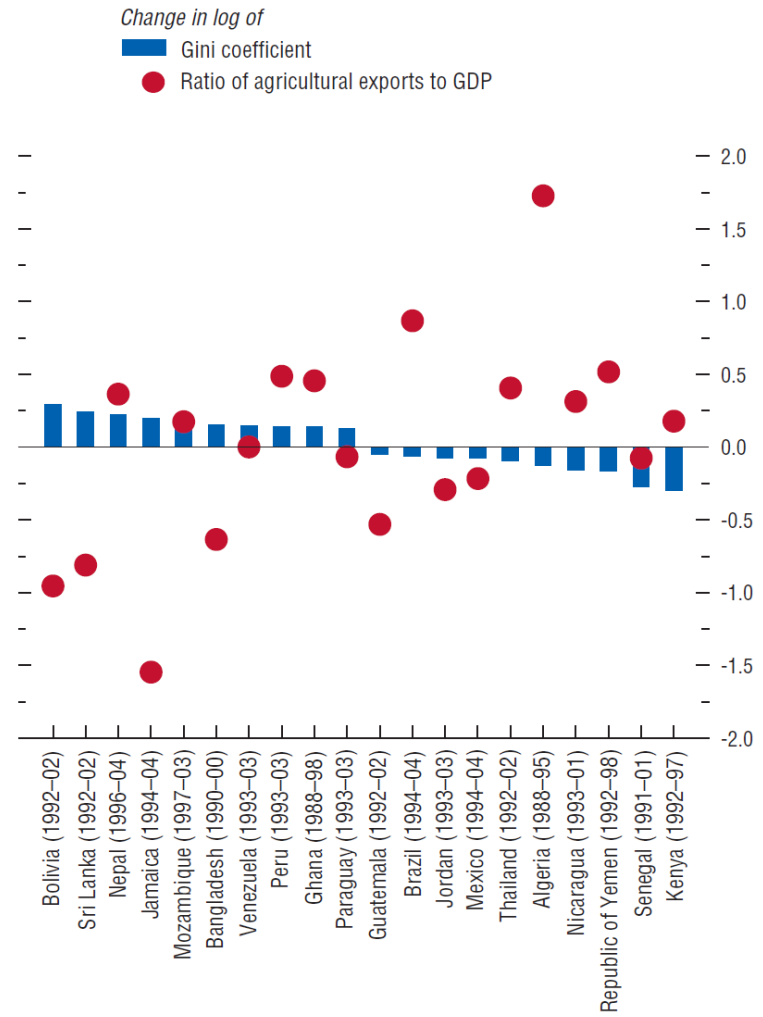
Globalization and Inequality: Access to Education

- For a given level of technology, **greater access to education** would be expected to ***reduce income inequality*** by allowing a greater share of the population to be engaged in *high-skill activities*.

Globalization and Inequality: Sectoral Share of Employment

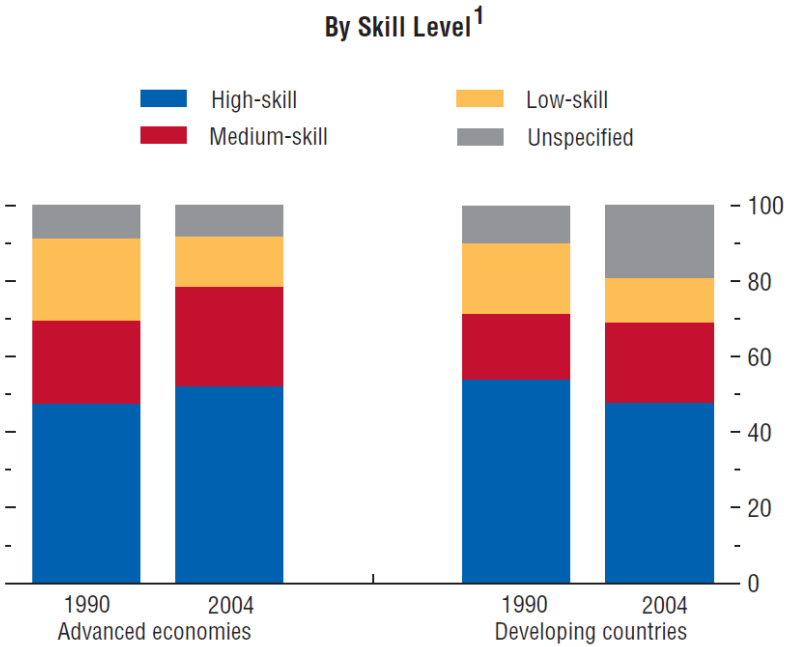
- In developing countries, a *move away from the agricultural sector to industry* could be expected to **improve the distribution of income** by *increasing the income of low-earning groups*.
- In this context, *greater flexibility in labor markets* that facilitates a *move away from low-return occupations* to those where opportunities are better can also be expected to *improve the distribution of income*

Globalization and Inequality: Inequality and Exports in Agriculture



- The positive effect of trade on **reducing income inequality** is particularly noticeable for ***agricultural exports***, especially in developing countries where *agriculture still employs a large share of the workforce*
- A **rise in the relative productivity of agriculture** is also associated with a ***reduction in inequality***. A *shift of underemployed agricultural workers* to *industry and services*—which would ***raise the agricultural sector's productivity*** relative to the average of the economy—also tends to ***reduce inequality.***

Globalization and Inequality: Foreign Direct Investment Stock by Sector



- Financial globalization, and especially **FDI**, appears to be associated with ***higher inequality.*** While it is inward FDI that exacerbates inequality in developing countries
- This finding is consistent with evidence that ***FDI tends to take place in more skill- and technology-intensive sectors*** (from the point of view of the host country), *increasing the relative demand for skilled workers* in both advanced and developing economies

Section I

Trade-related Policy for Inclusive Growth

Identifying Adjustment Frictions

Skill mismatches:

- ***Industry- or firm-specific job skills*** may not easily be *transferred across firms or industries*.
- This makes it ***costly*** *to change jobs*, *slowing adjustment* in the face of intensified import competition or other developments
- For workers these costs include the *need for retraining, longer unemployment spells, or lower starting wages* in a new job requiring different skills.

Identifying Adjustment Frictions

Geographic frictions:

- Workers and families can face a *range of obstacles* when *relocating* to expanding regions, such as *job search* and *travel costs*.
- Other factors include *social networks, family and friends, housing policy, migration restrictions, and cultural barriers*.

Policies to Mitigate Adjustment Cost of Labour Market

- Early and comprehensive action to **improve labor mobility** is a *priority*, both ***active labor-market policies*** (such as *job search assistance* and *training*) and ***passive policies*** (including *income support* and *social insurance* programs)
- **Active programs** alleviate the well-known moral hazard problem arising from unemployment insurance.
- However, active programs can also hamper workers' job search intensity as workers get locked into training programs.

Active Labor Market Programs (ALMPs)

- *Early engagement* with **displaced workers** can improve outcomes
- Generally, displaced workers are required to participate in *interviews with employment counselors*, apply for *identified job vacancies*, formulate *individual action plans*, *accept offers* of suitable work, and attend *training programs* if deemed necessary.

Active Labor Market Programs (ALMPs)

- **Training programs** can help address the skills gap
- **Job search assistance** can facilitate the matching process.
- **Wage subsidies or insurance** could be considered
- **Reemployment bonuses** may also help

Passive Labor Market and Social Protection Policies

- *Unemployment benefits, employment protection and minimum wage legislation* can provide income support and reduce displacement
- *Social insurance and income support programs* may be necessary to support the longer-term dislocated workers and their families, but are costly

End of Lecture