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# Trade, technology and jobs

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# Some facts



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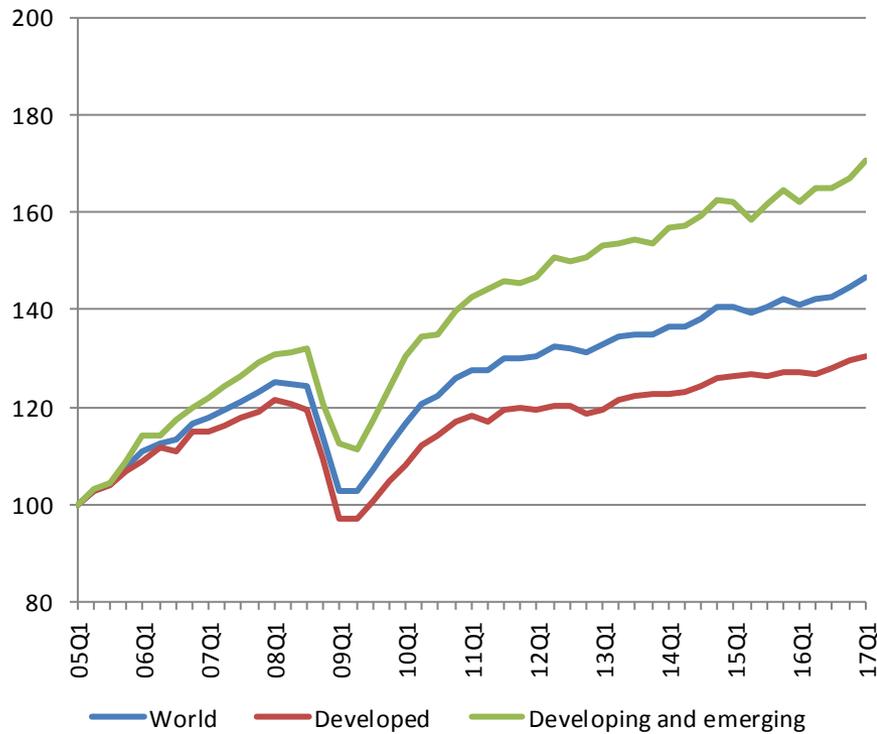
- Global trade volume growth has slowed down since the Great Crisis. The WTO is forecasting that it will expand by 2.4% in 2017 after having fallen to 1.3% in 2016.
- It is difficult to say if technological progress has accelerated but concerns that progress in automation technologies is killing jobs are growing.
- The labour force participation rate and employment-to-population ratio have remained relatively constant across most high- and low-income countries, although they have decreased in middle-income countries.
- Unemployment rates do not exhibit any long-term trends. The incidence of unemployment varies greatly across and within regions. It rose sharply in most developed countries during the post-2007 Great Recession and declined only gradually thereafter. The Great Recession also impacted a large number of developing countries, in particular through an increase in their large informal economy.
- Average real wages have continued to rise, albeit at a slower pace since the Great Recession, across most countries over the past 10 years, with emerging economies experiencing the biggest relative increases.



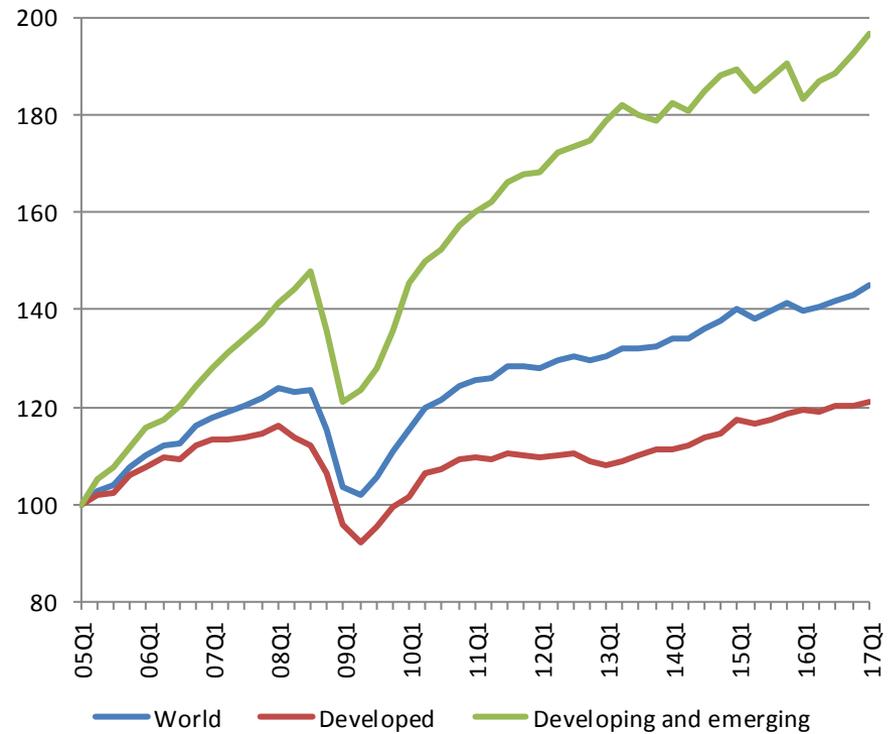
### World merchandise exports and imports by level of development, 2005Q1-2017Q1

(Volume index, 2005Q1=100)

Exports



Imports



Source: WTO Secretariat.

# Important transformations



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- The share of employment in the agricultural and manufacturing sectors continues to decline or to stagnate in developed countries and in an increasing number of developing countries while the share of overall employment in services continues to grow in both developed and developing economies.
- The share of middle-skill occupations in total employment has declined in developed economies and a number of developing countries, while the shares of high- and low-skilled occupations have increased.
- The skill premium, defined as the ratio between the wages of skilled and unskilled workers, has increased across several developed and developing countries, while it has remained constant or decreased in others.
- In some developed countries, the blame for manufacturing jobs losses and increasing inequality is typically placed on trade

# Are trade and/or technological progress causing these changes?



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- Trade and technological progress are the most important drivers of economic advances. Overall they raise incomes and contribute to prosperity
- However, these advances are necessarily accompanied by economic change and upheaval in job markets
- Most of the benefits from trade – or technology - require resources to be reallocated from lower productivity to higher productivity firms/sectors
- Practically, this means that some workers lose their jobs and need to find another job
- This may be difficult
- So yes, trade and technology are causing some changes but there are also other factors driving changes in the labor markets

# Trade, technology and jobs



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- While certain regions, sectors, and individuals benefit considerably from trade, others can be left worse off in the absence of adequate policy responses. These effects are similar to those of technological change.
- Automation is a key factor. The available empirical evidence suggests that trade can explain up to 25% of the recent decline in US manufacturing jobs. This implies that factors other than trade, such as technological change, may explain up to 75% of the decline in manufacturing jobs in the US.
- There has been a lot of debate around the impact of China's economic rise. There is evidence for the US, for example, that in regions less exposed to direct import competition, employment developed favourably compared to employment in more exposed regions. Yet the debate over the labour market effects of import competition needs to encompass other issues.
- In the US, there is no conclusive evidence of nation-wide job losses from import competition. When some manufacturing jobs are lost in a given region or a city, other jobs are created elsewhere or in the services sector, so that the overall effects of trade on employment are positive.

# Trade, technology and wages



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- Trade reduces prices and thus increases real wages
- Both trade and technology increase the demand for skilled workers relative to unskilled workers in all countries
- Depending on a number of factors, this can translate into:
  - an increase in the skill premium
  - an increase in the share of skilled workers in employment
  - a mix of both
  - polarization
- If trade raises the skill premium, it will affect wage inequality

# Adjustment costs



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- Workers who lose their jobs in declining sectors, in exposed regions are not always well equipped and well placed to access newly created jobs
- Because of various “frictions” which constrain the mobility of workers, adjustment costs can sometimes be significant.
- Examples of frictions include: skill-mismatch related frictions, geographic mobility frictions, institutions related frictions
- Recent cross-country empirical evidence suggests that on average obstacles to labour mobility are twice as high in developing countries as in developed countries

# Policy responses



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- Adjustment policies
  - Active (e.g. retraining) and passive (e.g. unemployment insurance) labour market policies
  - Important role for skills development policies
  - Other policies that help reduce frictions and adjustment costs
- Competitiveness related policies
  - Greater investment in education and infrastructure, improving the functioning of credit markets
- Compensation – redistribution measures