17. Constraints on Growth and Development

Economic growth and human development progress is **not guaranteed** and some countries struggle to maintain the minimum growth rate needed to bring down rates of extreme poverty and sustain a chosen development path.

Overview of some of the key limiters on growth and development

Infrastructure

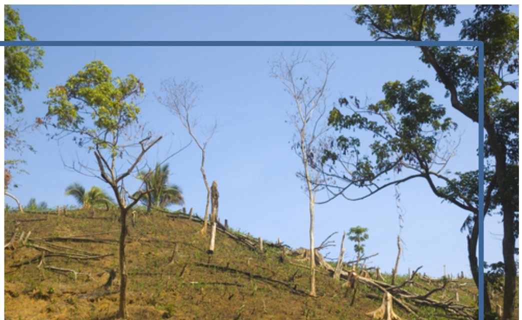
Primary Export Dependency

Macro Instability

Conflict and Corruption

Human Capital Weaknesses

Savings and Foreign Exchange Gap



Natural Capital Depletion

Inequality

What Factors Can Limit Growth and Development?

Infrastructure Gaps

- Infrastructure includes **physical capital** such as critical energy power and water supplies, sanitation, telecommunications & transport networks, schools and hospitals
- Evidence shows a positive correlation between a country's development and the quality of its road network
- Poor infrastructure:
    - Causes **higher supply costs** and **delays for businesses**
    - Reduces **labour mobility** and hurts the ability of exporters to get products to global markets.
- According to the World Bank, transport costs are 25-30% of product costs in developing countries partly because of deficiencies in infrastructure

Examples of **infrastructure deficiencies**:

1. **India:** India's **irrigation system** is not properly managed and this has made it difficult to sustain food grain production when rainfall is less than expected – as was the case in 2012. This has led to a surge in food prices, which hits the poorest communities hardest. For a few days in the summer of 2012, much of northern India was plunged into darkness. About 700 million people were left without power, a situation that affected transport, communication, healthcare, industries and farming. India needs an estimated $400bn investment in the power sector if it is to meet their development goals. About half of India's roads are not paved.
2. **Asia** - in Asia, an estimated 300m people have **no access to clean drinking water** due to infrastructure gaps
3. **Brazil:** Host for the 2014 World Cup and the 2016 Olympics. Brazil's growth is constrained by infrastructure weaknesses: In 2011, only 14% of her roads were paved. The **World Economic Forum** ranks Brazil's quality of infrastructure 104th out of 142 countries surveyed, behind China (69th), India (86th) and Russia (100th).
4. **Sub-Saharan Africa:** The combined power generation capacity of the 48 countries of Sub-Saharan Africa is 68 gig watts – no more than Spain's. Poor road, rail and harbour infrastructure adds 30-40% to the costs of goods traded among African countries. A chronic shortage of energy - with firms and people facing acute shortages of power – is a major barrier to growth and development. According to the Asian Development Bank Report for 2013, Africa currently invests just 4% of its GDP in infrastructure, compared with China's 14%. Sub-Saharan Africa loses 2.1% of gross domestic product from blackouts alone

One limitation to infrastructure investment in developing countries is that **tax revenues are low** or come from a narrow base of businesses. Many countries will need to increase their spending on infrastructure in the years ahead to deal with the consequences of **climate change**. According to the United Nations, between 1901 and 1910 there were eighty-two recorded natural disasters, but between 2003 and 2012 there were more than 4,000

Exam tip*: Examiners report that students are not good at explaining exactly how improved infrastructure can raise development. Take a step-by-step approach, using good applied examples to improve your marks.*

Primary Product Dependency

- Many nations still relying on specializing in and **exporting low value added primary commodities**
- The prices of these goods can be volatile on world markets
- When prices fall, an economy will see a **sharp reduction in export incomes**, an adverse movement in their **terms of trade**, risks of a **higher trade deficit** and a danger that a nation will not be able to finance state-led investment in education, healthcare and core infrastructure
- Despite being rich in natural resources, for many countries this is a curse rather than a blessing

Sub-Saharan Africa (SSA) is often cited as a region where primary sector dependence is high. SSA's share in global manufacturing trade remains extremely low.

Primary Dependency and External Economic Shocks

- Events in one part of the world can quickly affect many other countries
- For example, the global financial crisis (GFC) brought about recession in many countries and financial distress in many regions. It also led to a fall in FDI flows into many poorer countries and pressure on governments in rich nations to cut overseas aid budgets.

- If a **resource rich country** exports the resource, it exposes itself to damaging volatility of its export earnings
- In 2010, economists Bruckner and Ciccone found that a 10% fall in income due to falling commodity prices raises the likelihood of civil war in sub-Saharan Africa by around 12%.

Land Locked Countries

- **Land locked economies** face challenges to integrate in global trade – without **good infrastructure** and **efficient logistics** businesses it can be costly and slow to get products to the countries of trade partners
- Some landlocked countries have been doing well especially when they achieve regional economic integration with other land-locked nations. Investment in air transport links helps to overcome this development trap

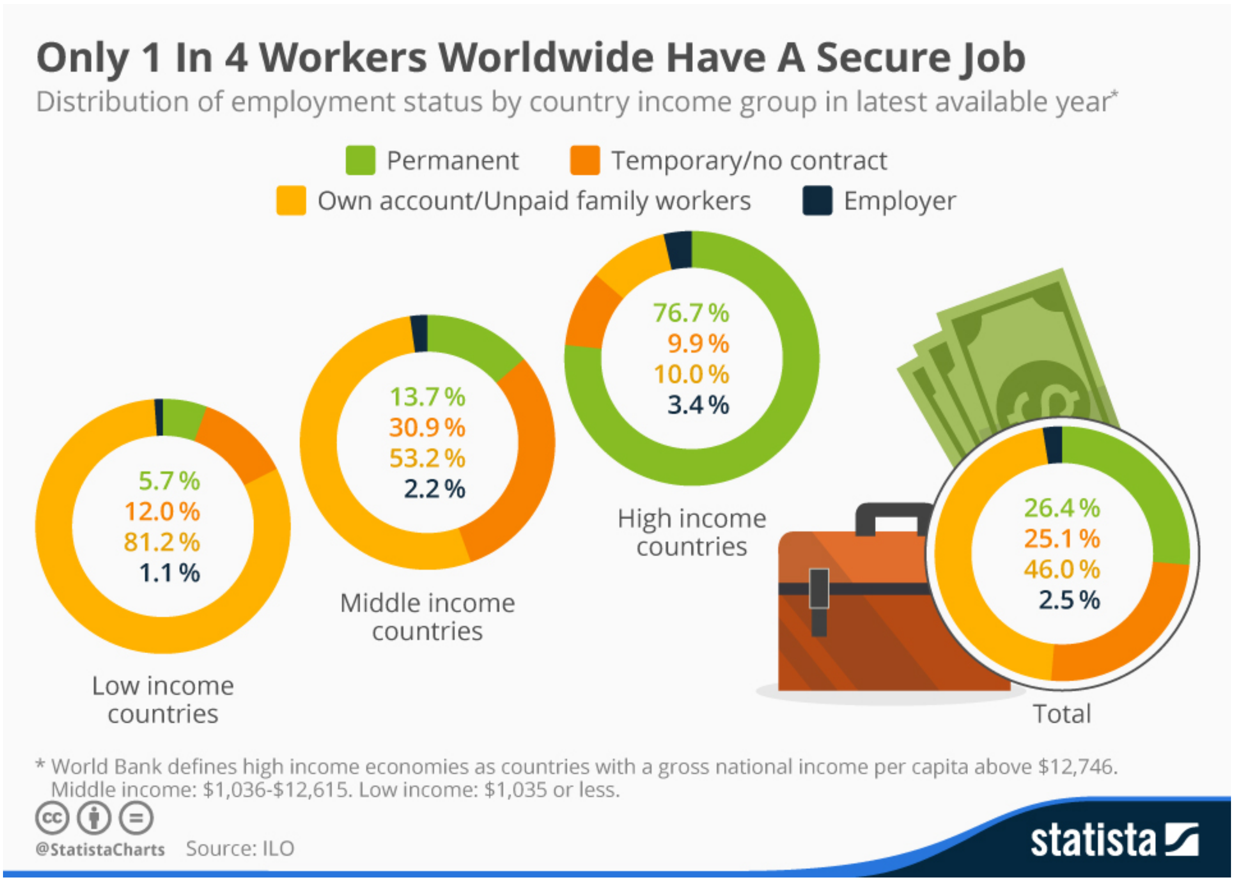
The Savings Gap

- Savings are needed to **provide finance** for capital investment. In many smaller low-income countries, high levels of poverty make it almost impossible to generate sufficient savings to provide the funds needed to fund investment projects. This increases reliance on tied aid.
- This problem is known as the **savings gap.** In Africa for example, savings rates of around 17 per cent of GDP compare to 31 per cent on average for middle-income countries. Low savings rates and poorly developed or malfunctioning financial markets make it more expensive for African public and private sectors to get funds for investment. Higher borrowing costs impede capital investment

Volatile Incomes and Vulnerable Employment

- Volatility can be disruptive to economic health. It increases the risks for businesses considering capital investment, it raises the chances of people falling into extreme poverty and it makes a nation's finances more fragile perhaps lowering the scope for important **investment in public goods**.

There is an increasing trend towards temporary contracts and insecure work across the world, according to the International Labour Organization (ILO). In fact, only a quarter of global workers are on permanent contracts while the rest are unpaid at home, self-employed, working informally or employed on a temporary contract



Weaknesses in Management

- Few textbooks give emphasis to the quality of business management as a constraint on growth and subsequent development. A fundamental cause of poverty is low wages and poverty pay is linked to **relatively low productivity** (measured in different ways such as the value of output per person employed).
- Economists such as **Nicholas Bloom** from Stanford University in the USA have been studying the impact of weak management in some developing countries including India. Bloom has argued for example that "In India are badly managed: equipment is not looked after, materials are wasted, and theft is common because inventory is not monitored, defects keep occurring. In a recent project with the World Bank, we found that giving management advice to Indian factories increased productivity by 20%."
- Weaker management may also help to explain why many poorer countries have not fully and intensively adopted **new technologies**. Many of the least developed countries tend to use technologies less intensively - fewer people use less advanced computers less often.

Capital Flight

- **Capital flight** is the uncertain and rapid movement of large sums of money out of a country
- There could be several reasons - lack of confidence in a country's economy and/or its currency, political turmoil or fears that a government plans to take privately-owned assets under state control
- Capital flight can lead to a **loss of foreign currency reserves** and put downward pressure on an **exchange rate** – driving the prices of essential imports of goods and services higher.
- Developing countries are estimated to have lost $5.86 trillion in 2001-2010 to illicit financial flows

Conflicts, Corruption and Poor Governance

- Governance refers to how a country is run and whether the exercise of authority manages scarce resources well improving economic outcomes and the quality of life for a country's people.
- High levels of **corruption and bureaucratic delays** can harm growth by **inhibiting inward investment**
- Corruption makes it likely that domestic businesses will invest overseas rather than at home.
- According to the United Nations, *"Corruption undermines human development and democracy. It reduces access to public services by diverting public resources for private gain."*

Corruption	Impact	Fairness
Keeping track of election promises	Is the government delivering key public services?	Can people trust government and institutions?
Low transparency of where tax revenues come from	How is this money spent? Does it deliver good outcomes per $ spent?	How free of corruption is the government?
How is state money spent and on whom?	Is spending effective in promoting long run growth?	Is the distribution of spending equitable?

Governments need a stable and effective **legal framework** to collect taxes to pay for public services. In India for example, there are 15 times more phone subscribers than taxpayers. If a legal system cannot **protect private property rights** then there will be less research and development & innovation.

Conflicts – there have been an estimated 150 conflicts since 1945 with 28 million deaths (this is twice the toll of WW1). Conflicts have huge **collateral damage effects** – for example, Angola has lost 80% of its farmland because of landmines. Most conflicts are **intra-state** i.e. civil war and **reconstruction** can take decades and many countries remain aid-dependent. About 1.5 billion people live in countries suffering waves of political and criminal violence.

A recent example of the cost of conflict comes from the **Ivory Coast**. After a disputed presidential election in late 2010 violence erupted and the country descended into a four-month civil war that killed an estimated 3000 and displaced around a million people. The war could only be ended by a French intervention in April 2011. Since then, a new government under President Ouattara has struggled to re-establish security but raids against army and policy installations still threaten stability.

Corruption has long been a barrier to sustained growth and development in Africa. **Conflict** has had terrible consequences; over one third of economies in Africa have suffered some kind of warfare from Rwanda, Sierra Leone, Eritrea, Uganda, and Somalia. Corruption can cost a country up to 17% of its GDP according to the United Nations.

That said encouraging progress has been made in building **democratic institutions** in many African countries.

Economic growth can collapse and go into reverse **when states fail** – there are numerous reasons why **chronic government failure** can hamper growth and development:

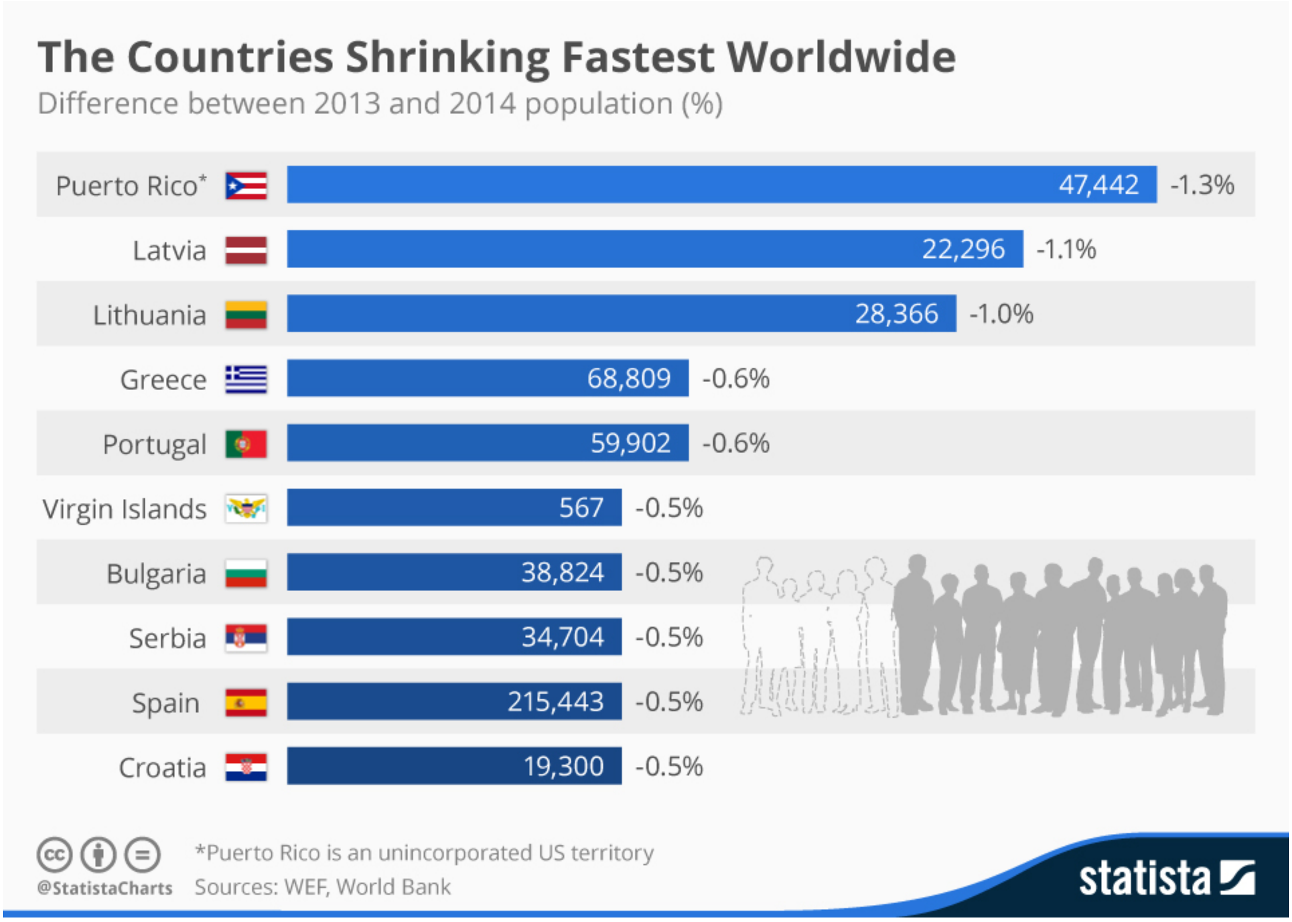
- **Failures to protect property rights** and provide sufficient incentives for new businesses to flourish
- **Forced labour, caste labour and other forms of discrimination** – all of which waste scarce human resources not least limiting the roles that women can play in labour markets and – over the long term - holding back innovation and technological progress (two key drivers of growth)
- **Power elites controlling an economy** - using their power to create monopolies that keep consumer prices high and blocking socially useful new technologies
- **Stateless areas -** large parts of the world are still dominated by stateless societies where the rule of law barely exists
- **Public goods -** chronic failures to provide basic and effective public services such as education, health and transport. Many of the world's least developed countries have not built effective tax systems and so their revenue base is inadequate for much needed capital investment and the annual revenues required to provide public health and education programmes

Population Decline, Brain Drains and / or an Ageing Population

- A falling population can usually be attributed to emigration and/or death rates exceeding birth rates.
- If a nation loses **younger workers**, this can have a damaging effect on competitiveness and growth
- The changing age-structure of a population also matters, leading to a fall in the ratio of workers to dependants i.e. a **rise in the age-dependency ratio**

Demographic change is important to many of the fast growing countries in Asia.

- Most countries in East Asia are expected to experience a decline the portion of their working age population (15-64 years) to total population from now until 2025
- Seven countries are expected to see declines of 10 per cent or more (including China, Japan, Thailand and Vietnam) while three will see declines of over 20 per cent (Hong Kong SAR China, Korea and Singapore)
- Countries such as Indonesia, Mongolia, Myanmar and Vietnam are forecast to see a decline in their population size due to a combination of emigration and demographics



Declining populations in Eastern Europe

- Many countries in Eastern Europe face the challenge of continued population decline. Only two out of twelve countries will experience population growth according to recent estimates.
- The relationship between demographic trends, per-capita income and economic growth is complex.
- Lower per-capita income should lead to higher growth, but it has a negative impact on the labour supply.
- Many countries in Eastern Europe will have to rely on capital accumulation and productivity growth rather than labour force growth to generate future economic growth.

Russia – is experiencing a sustained decline in their population and their active labour force. High levels of net migration, rising death rates linked to exceptionally high accident rates and the effects of alcohol abuse have all contributed to a fall in population to below 150 million.

Globally the world's population is **ageing**. Within next 10 years, there will be 1 billion older people worldwide. By 2050 nearly one in five people in developing countries will be over 60

Countries with the lowest fertility rate in 2014
The fertility rate is the average number of **children born per woman of childbearing age** in a country. Usually, a woman aged between 15 and 45 is considered to be in her childbearing years

Singapore	0.80
Macau	0.93
Taiwan	1.11
Hong Kong	1.17
South Korea	1.25
Lithuania	1.29
Ukraine	1.30
Romania	1.32
Poland	1.33
Slovenia	1.33

High rate of Inflation and trade deficits

High Inflation

- Faster growing countries may experience high inflation which can have damaging economic consequences
- Developing countries typically have higher average inflation rates than advanced, rich nations
- These effects of high inflation in particular can hit growth
  - Falling real incomes and profits together with higher costs
  - The threat of a rise in extreme poverty for the most vulnerable in a nation's population
  - Reduced planned investment by businesses
  - Negative effects from higher interest rates used to combat inflation problems
  - Reduced competitiveness in international markets leading to a loss of export sales

Persistent Trade Deficits

- Some countries may experience large deficits on the current account of their balance of payments. This means that the value of imported goods and services is greater than the value of exports and net investment incomes leading to an outflow of money from their economy.
- High trade deficits might have to be covered by **foreign borrowing** (increasing **external debt**) or a reliance on inflows of capital investment from overseas multinationals
- Large trade gaps can eventually lead to a **currency crisis** and possible loss of investor confidence.

Over-extraction of the Natural Resource Base

- Despite being heavily endowed natural resources, Africa has the highest poverty rate in the world
- Natural resources provide a source of wealth for many lower-income countries and when world prices are high, there is an incentive to increase extraction rates to raise short-term export earnings. This might lead to a high **rate of extraction** that damages growth potential
- **Deforestation** and rapid extraction of **oceanic fish stocks** threaten development. The World Bank finds that 350 million jobs are linked to the health of the oceans and 1 billion of the poorest people in the world depend on fish as their major source of protein
- Critical **water scarcity** in agriculture is a major problem. The MDG for drinking water was met in 2010, yet 1 billion still lack access to clean water. The number suffering with water scarcity is expected to rise to 2.8 billion by 2025
- **Extreme weather events** are becoming more frequent. The damaging effects of these extreme climatic events fall most heavily on the poorest and most vulnerable communities in developed and developing countries.

Low Level of Investment in Human Capital

- To sustain growth requires improvements in productivity, research & development and innovation. Whilst physical capital such as technology plays a role, so too does the quality of the human input into production.
- Growth might be limited by **skills shortages** as businesses seek to expand which forces up labour costs.
- High level skills and qualifications are also needed to help businesses to move up the **value chain** and supply products that will get higher prices in the world economy.
- In many countries there are acute shortages of human capital. Although primary enrolment rates have risen, secondary enrolment and **teacher quality is poor** and the tertiary education sector is tiny and low quality.
- Higher education is also highly important. For example, university enrolment in Africa is only 7% of the relevant age group versus a world average of 30%
- Some countries lose some of its limited skilled workforce to other countries through a **brain drain**

Inequality of Income and Wealth

Although two decades or more of globalisation has strengthened growth rates in many lower and middle-income countries, it has brought an increase in inequalities of income and wealth.

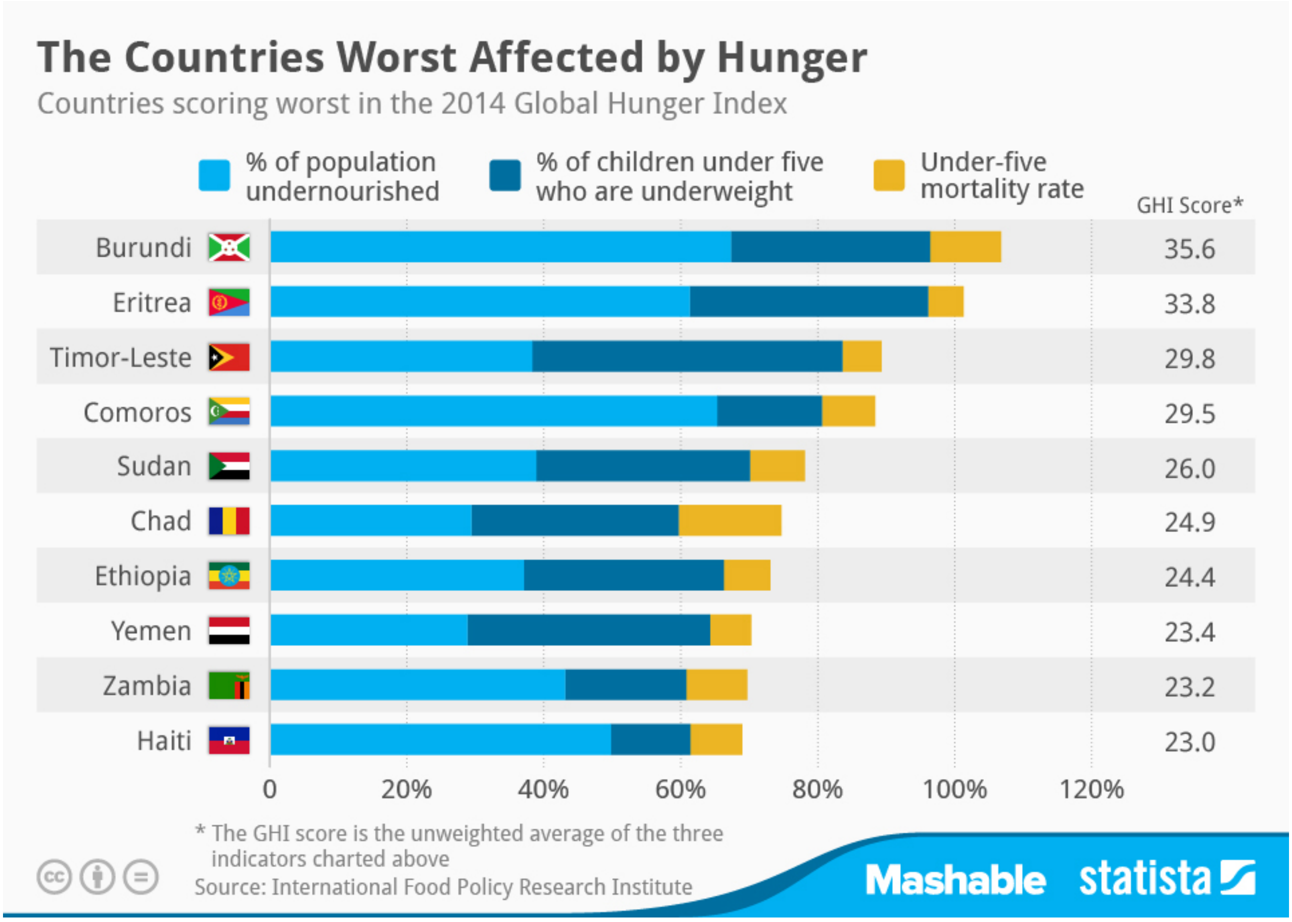
- There are many possible dangers of this not least the costs of **social tension and conflict** and increasing spending on insurance, law and order systems and government welfare bills.
- Recent theoretical work finds a negative correlation between income inequality and economic growth. One book - **The Spirit Level** (Kate Pickett and Richard Wilkinson) finds evidence that unequal societies may become less competitive over time.
- An IMF paper published in 2013 economists claimed that "inequality can undermine progress in health and education, cause investment-reducing political and economic instability, and undercut the social consensus required in the face of shocks, and thus tends to reduce the pace or growth."

Consumption and mis-allocation of resources	• Low income families spend a higher % of their incomes - inequalities depress consumer demand • Investment skewed towards preferences of the rich
Risk-taking	• Incentives are undoubtedly needed for enterprise • But excessive compensation can encourage too much risk-taking especially in financial markets
Market failures	• High inequality deprives many people of access to education limiting human capital growth • Many of the poorest pay more for their debt
Unemployment and social cohesion / upheaval	• Structural unemployment and vulnerable employment increases the burden on the state • Low employment damages social capital

Economic and Human Cost of Malnutrition

High rates of malnutrition can severely impair development and bring untold human misery. Poor nutrition can have serious negative effects on development prospects.

- It impairs brain development – nearly one in five under-5 children in the developing world are under-weight. 165 million children under-5 suffer from stunting
- It is responsible for half of all child deaths – 38% of under-five children in the poorest 20% of families in developing countries are underweight compared to 14% of under-fives in the wealthiest 20%
- Under nutrition causes 45% of child deaths in sub-Saharan Africa
- Of 44 countries in sub-Saharan Africa, all but two have child stunting levels > 20%
- It increases the risks of HIV infection and cuts the numbers who survive outbreaks of malaria
- Malnourished children are more likely to drop out of school and suffer reductions in their lifetime incomes
- According to the World Bank, *"the effects of this early damage on health, brain development, educability, and productivity caused by malnutrition are largely irreversible."*



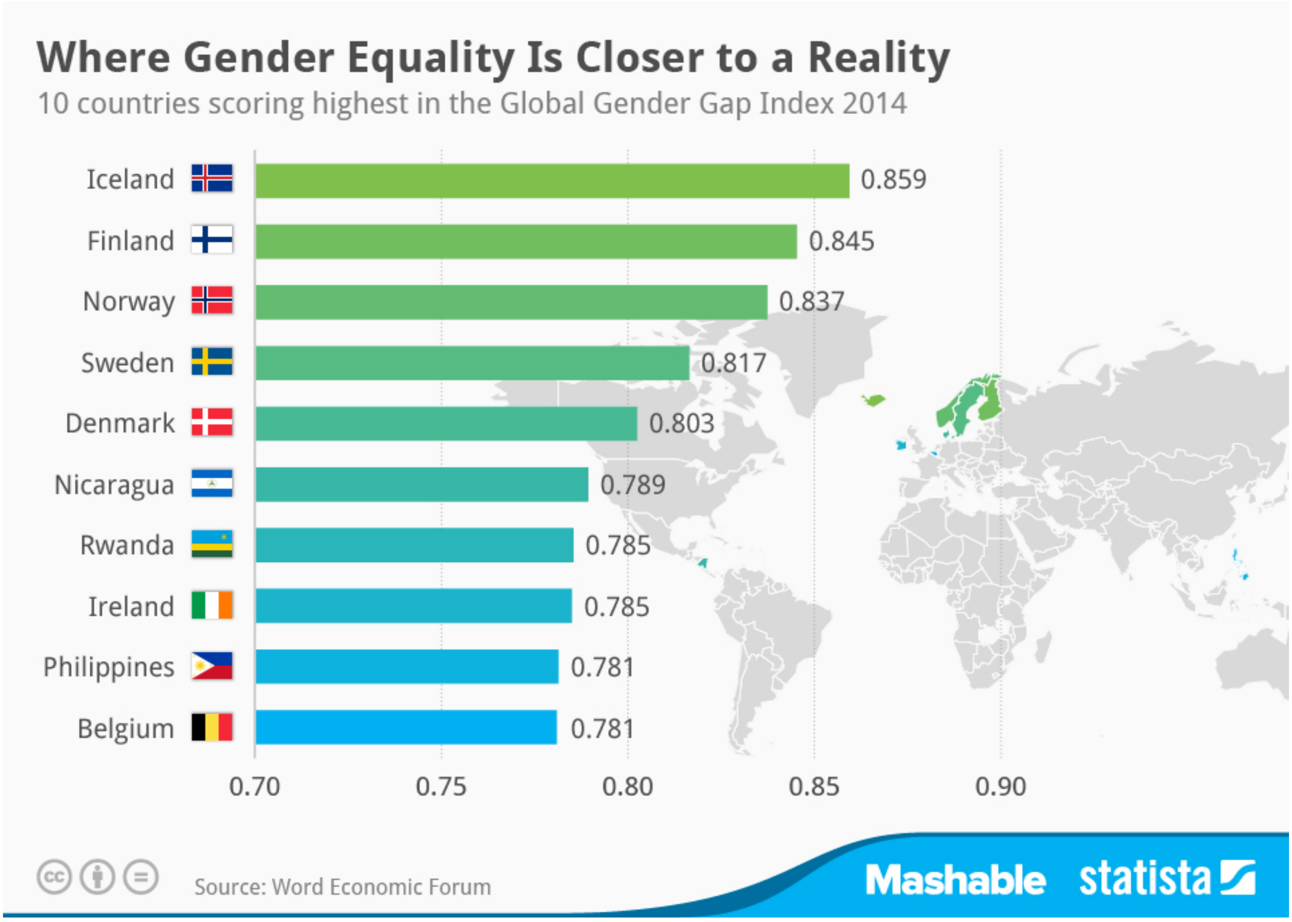
There has been progress in reducing malnutrition globally but high prices for basic foods in recent years have become a major problem in the fight against endemic malnutrition. Another effect is that high food prices make substitution of unhealthy calories more likely, contributing to global obesity level.

Policies to reduce malnutrition

1. Spending on **nutrition education** plus direct provision of micro-nutrient supplements and fortified foods
2. **Growth monitoring schemes** for the newly born and infants supplemented with vitamin provision from community organisations
3. Targeting **cultural norms** – in some countries, girls are often allowed to eat only after their brothers
4. **Cash transfers** – i.e. consumer subsidies that can be spent on certain foods
5. **Government subsidies** for grain prices and export bans on domestically produced foods
6. Higher market **prices** paid to small-scale farmers
7. **Opening up retail markets** to international supermarkets where food prices might come down through economies of scale and increased competition
8. **Infrastructure spending** to improve access to and quality of sanitation and clean water supplies

Gender Inequalities and Discrimination

The unequal opportunities available to hundreds of millions of women around the world represent one of the biggest barriers to growth and development. According to the UN Human Development Report: "All too often, women and girls are discriminated against in health, education, political representation, labour market, etc. — with negative repercussions for development of their capabilities and their freedom of choice."



1) Just over half of the world's female population aged 15-64 is in employment, compared to more than 8 out of 10 men. But the proportion of economically active women has declined in the last 20 years
2) In many countries women are subject to **cultural norms** preventing them playing a full and active role
    a. According to the World Bank, 232 million women live in economies where they can't get a job without their husband's permission
    b. Only 1 in 4 women in the Arab world participate in the labour force
    c. Less than 10% of credit for small farmers in Africa is directed to women
    d. Without ID, women can't access a bank account, vote, claim entitlements or inherit property
    e. Women make up 70% of Africa's farmers but the majority are locked out of land ownership
    f. In only two countries, Cuba and Rwanda, does the share of women in parliament match or exceed their share in the population
3) Some progress is being made, from 2009 to 2011, 39 developing countries made legal changes towards gender parity – but only 38 out of 141 nations set the same legal rights for men and women
4) Women in many countries have a substantial role in the **informal economy**, working in family businesses, doing domestic work and producing goods for self-consumption. This type of work generally offers low, irregular or no pay and little or no access to social security or legal protection

Savings Gap and Foreign Exchange Gap

Limited Scales and Efficiency of Financial Markets

- Many of the least developed countries have limited financial markets such as banking, money and credit systems, insurance markets and stock markets.
- Worldwide, approximately 2.5 billion people do not have a formal account at a financial institution. Access to financial services is linked to overcoming poverty, reducing income disparities, and increasing growth
- These are essential for providing long term capital for the private sector and helping to channel savings and provide funds for investment projects.

- Some progress is being made in Sub-Saharan Africa – there are now 19 stock markets in operation – but most of these are small by international standards. The Nigerian stock market accounts for only 3% of Brazil or India's stock market capitalization.

Savings Gaps

- Many poorer countries do not have sufficient domestic savings to be able to finance the required rate of capital investment to promote economic growth
- Many developing countries also suffer from a shortage of foreign exchange that can be used to finance imports of consumer goods and services, raw materials and components and new capital inputs

Deriving the savings gap and the foreign exchange gaps
Thinking back to introductory national income accounting

- Y is total output produced in a given year (GDP)
- C is private consumption
- I stand for total investment
- G is government consumption
- X denotes exports
- M represents imports
- S is savings
- T stands for total government tax revenue

We know that

- Y (GDP) = C+I+G+X-M
- Y is also the sum of C + S + T

Rearranging

- C+I+G+X-M = C+ S + T

Therefore

- S-I = (X-M) + (G-T)

This gives us an equation explaining the **total resource gap of an economy** into internal balance (i.e. the government budget) and also the external gap (balance of trade)

Overview of Financing for Development
The main sources of finance for development are:

- Savings from the domestic private sector
- Revenues of developing country governments themselves
- Overseas development assistance (otherwise known as overseas aid)
- Loans taken out by (or guaranteed by) developing country governments, from international financial institutions or private sources
- Private external finance, in the form of foreign direct investment (FDI) and other portfolio flows e.g. into bond and stock markets

Without question, **private sector financing** now dominates the financial flows that are funding development projects in most of the world's lower and middle-income countries.

18.Commodity Dependence and the Prebisch-Singer Hypothesis

What is the Prebisch-Singer Hypothesis?

- The **Prebisch-Singer Hypothesis** (PSH) is more of an *observation* rather than a complex theory. It suggests that over the long run the price of primary goods such as coal, coffee cocoa declines in proportion to manufactured goods such as cars, washing machines and computers.
- If the PSH holds true then countries with a **high export dependence on primary products** may eventually lose out from a worsening of the terms of trade. They will have to import a greater volume of exports to pay for essential imports such as raw materials, consumer goods and capital technology.
- The PSH suggests that revenue **windfall gains from high world commodity prices** may to be temporary and threaten the macroeconomic stability of such countries – for example a fall in world demand and prices for a primary commodity will cause a rise in the trade deficit and the fiscal deficit for an exporting country
- Those who believe in the PSH tend to be "**export pessimists**" arguing that exporting low value-added products will not generate enough foreign exchange currency to pay for much needed exports
- Based on the PSH, the advice for these countries is to use revenues from primary commodity exports to fund education and skills. Developing manufacturing capacity and greater diversity of output is also important.

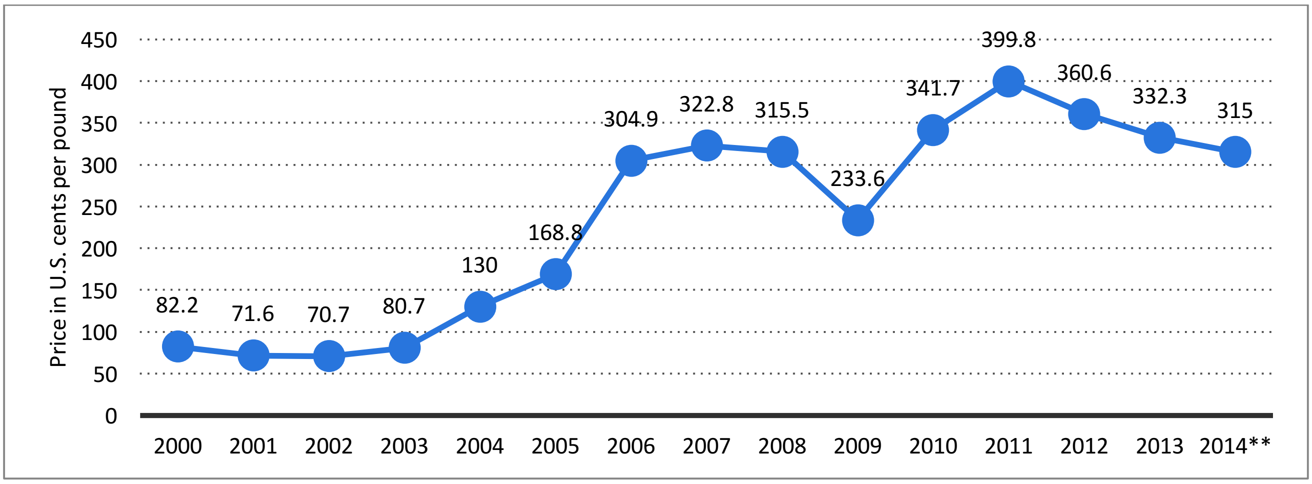
Example: Zambia and Natural Resource Dependence

"Zambia achieved strong growth and macroeconomic stability over most of the last decade. However, in the last two years, the Zambian economy has been facing strong headwinds from large fiscal imbalances, lower copper prices, and policy uncertainties. The current account of the balance of payments has deteriorated, international reserves have fallen, and the exchange rate has been under downward pressure." (Source: IMF Report, 2015)

Financial Flows for Zambia in 2014

• International Trade (% of GDP)	83%
• Foreign direct investment, net inflows (% of GDP)	10%
• Private capital flows (% of GDP)	-8.23%
• Net official development assistance received (% of GNI)	6.1%
• Remittances, inflows (% of GDP)	0.24%
• Total foreign currency reserves minus gold (% of GDP)	2.51%

Zambia is a relatively **open economy** with a trade to GDP ratio exceeding 80%. The country scores lowly on economic complexity with the **bulk of their exports coming from primary commodities** especially copper. FDI inflows into Zambia have been a significant percentage of annual DP but the economy has also seen a strong net outflow of private capital – in part because of changing tax regimes for foreign investors and also a weak and volatile exchange rate that has led to some capital flight. Remittance inflows for Zambia are low compared to many other low and middle-income countries. The country's overseas aid dependency is also low. Zambia's terms or trade and balance of trade benefitted greatly from the surge in the **world price of copper** until 2012. But since then, copper prices have been falling steeply.



Overcoming the Natural Resource Trap

This is a crucial issue for many countries who are blessed with a strong endowment of natural resources.
The **natural resource trap** or resource curse can come about for a variety of reasons:

- Risk of political conflict and corruption / conflict / land grabs
- Vulnerability to changes in world prices which causes high levels of macro volatility
- Danger of over-rapid extraction of finite and renewable resources
- Rising prices can lead to a currency appreciation – damaging domestic industries

Professor Paul Collier has argued:
"Although large deposits of key resources such as oil would usually be considered a blessing for the development prospects of a country, it often turns out to be a 'resource curse'"

Professor Joseph Stiglitz has argued:
"Resource-rich countries often do not pursue sustainable growth strategies. They fail to recognise that if they do not reinvest their resource wealth into productive investments above ground, they are becoming poorer. Conflict over access to resource rents gives rise to corrupt and undemocratic governments."

Which strategies might help to overcome the natural resource curse?

Better government – including more transparency & accountability to tax payers

Stabilisation Fund / Sovereign Wealth Fund – e.g. to fund human capital and critical infrastructure

Higher taxes of natural resource profits (extracting resource rents)

Diversification – investment in processing and manufacturing – giving higher value added