# Globalization and Growth

Lecture 2

# Globalization and Growth

- **Growth in Emerging Economies and global trade imbalances**
- **Jobless recoveries in Developed Economies and income inequalities**
- **Policymakers' responses, cyclical or structural?**

# Growth in Emerging Economies

- **Usually Emerging Economies (EM) depend on capital flows from more developed economies**
- **Capital is scarce in EM and therefore returns are much higher than in Developed Economies (DM)**
- At the beginning of the 19th century, capital from England flowed to Central and Southern American countries and, after 1830, mainly to the US (and Australia)
- The influx of funds helped build infrastructures (canals, roads, railroads, ports, cities) and develop agriculture and industries in EM (in 19th century US was an EM!)
- It also led to several booms and speculative bubbles on both sides of the Atlantic Ocean, that inevitably eventually turned to bust (1837,1857,1873)

# Crisis in Emerging Economies

- **Emerging Economies dependence on capital from more developed economies leaves them subject to (i) overinvestment, (ii) overvaluation of exchange rates coupled with high inflation, (iii) trade balance deficits, (iv) excessive leverage**

- **In the early stages of growth, EM do not have the human capital and the organizational structures to deploy large quantities of physical capital effectively.** They also lack the institutional environment for competition and innovation (barriers to entry, rule of law, property rights, patents laws, anti-corruption rules, low taxes for new enterprises) and a sound, competent and honest financial system

- **Excessive foreign capital flows end up financing unprofitable ventures** or even outright frauds, boosting real estate prices to unreasonable levels, funding unsustainable increases in consumer/government spending

- Internal or external events lead to a **sudden loss of confidence**: loans are not renewed, capital is withdrawn ("**sudden stop**" **of capital flows**), the exchange rate is sharply devalued. Companies (and households) default, the banking sector collapses and there might be outright default on external debt (usually denominated in foreign currencies) and/or default on internal debt (usually denominated in local currency) through high domestic inflation

# Development in Emerging Economies

- EM have the "advantage of backwardness": to innovate in their choices of technology, industries and institutions they can simply imitate or licence existing technology, industries and institutions from DM
- In practice convergence among world economies has been limited: in 2008 US GPD per capital was 3 times higher than in Mexico, 16 times higher than in India and 145 times higher than in Democratic Republic of Congo
- Between 1950 and 2008 only 28 economies reduced their per capita income gap with the US by at least 10% - and only 12 were neither Western European countries nor oil- or diamond-producing small countries. The other 150 plus countries suffered of the so-called "**middle- or low-income level trap**"
- Since 2000 we have seen the rise of a multipolar world with China and a few other large EM driving global growth: only a few East Asian economies have advanced from low income agrarian economies to middle income newly industrialized economies and toward high income advanced industrialized economies. **The rise of a multipolar world is therefore the result of dynamic growth in just a few middle income countries with large population**
- Historical evidence suggests that growth in successful economies followed a similar pattern: front-runners such as England or the United States devoted ingenuity to the production of innovative new products, industries and ways of doing business, allowing them to make productivity gains and grow at a rapid pace. Latecomers such as France, Germany and Japan could simply imitate the successful countries – like "**flying geese**" – and catch up
- The West took 300 years to innovate and industrialize, but Japan less than 100 years and East Asia only 40 years. The BRICs started their development process less than 30 years ago
- **Why did so many EM fail to achieve their economic growth ambitions?**

# Development Strategies for Emerging Economies

After WW2 governments in EM, especially in those nations that just became independent, had the natural and legitimate aspiration to catch up with DM

- **Most of the development strategies prioritized capital-intensive/''heavy'' industries and adopted import substitution policies** to accelerate industrialization. Countries following this approach had some initial successes, but these were quickly followed by repeated crises and stagnation
- **EM are characterized by:**
  - **Small endowment of capital (physical, human, organizational, institutional) and an inefficient financial sector, leading to high cost of / suboptimal returns on capital**
  - **Need to import advanced technologies**
  - **Small BoP surplus, therefore limited access to forex reserves**
- Therefore, **to prioritize capital-intensive industries** governments had to **distort the price system**, guaranteeing capital-intensive industries handsome profits by suppressing the prices of all productive inputs – raw materials, capital, labour - and forcing them to reinvest it in the "priority" sectors:
  - **Interest rates were suppressed below market through administrative measures**
  - **The currency was artificially overvalued to make imports more affordable**
  - **Wages of workers were kept low and, to avoid social unrest, prices of agricultural goods (especially daily necessities) were also controlled** (leading to food shortages - sometimes even famine – and impoverishing farmers)
- To ensure that all factors of production can be used in priority industries governments had to **adopt at macro level administrative measures to allocate scarce capital, foreign exchange and raw materials** and then had to **"micromanage" firms**, to support the proper implementation of their strategies

## Development Strategies for Emerging Economies: **the failures**

- The greatest mistake made by many EM and by former socialist countries was their attempt to defy the comparative advantage determined by their endowment structures: **in countries where factor endowments were characterized by the abundance of labour and scarcity of capital, government policy aimed at building modern, advanced, capital intensive, heavy industries**. Because of their high capital needs and their structurally high production costs in a developing country, the enterprises in these priority industries were not viable in open, competitive markets. Even when they were well managed, they could not earn a socially acceptable profit in an undistorted, competitive market

- In order to mobilize resources to make investments and maintain operations in advanced capital-intensive sectors, it was necessary for EM to **subsidize and protect the firms in those priority industries**, mainly through administrative measures. Thus development strategies inconsistent with comparative advantage also led to a bureaucratic establishment that itself became an impediment to progress in many EM

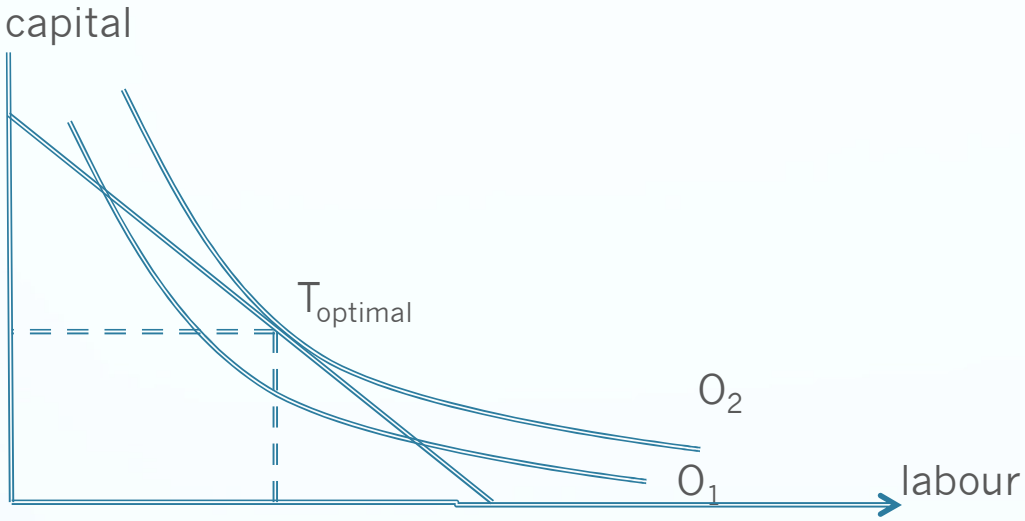
- **These strategies always failed to bridge the gap between EM and DM, often ending in serious economic, financial – and sometimes even humanitarian - crises**

# Development Strategies for Emerging Economies: **the successes**

- Japan first and subsequently the four Asian Tigers (HK, Singapore, Taiwan, Korea) successfully followed a different strategy: **export-oriented** rather than import substitution
- They did not try to "jump-start" their growth through investments in capital heavy industries but climbed the same ladder the DM had done, step by step - though at a much faster speed - **moving from the least sophisticated technologies to the frontier of innovation, using low labour cost to stay competitive until technologies improved and the available capital stock - including human, organizational & institutional capital – increased**
- They imported what the RoW knew and exported what it wanted, producing large economic surpluses and generating rates of return on investment that were high enough to provide strong incentive to save (**higher saving leading to higher investment and thus to higher growth rates**)
- Governments protected (at least initially) their domestic markets from foreign imports through high tariffs and import restrictions, allowing domestic firm the space to flourish whilst also pushing them to compete on international markets; also, **they did not resist the market forces in the reallocation of capital and labour from sector to sector, from industry to industry**
- The country's savings were directed through a largely captive financial system to these "favoured" but globally competitive industries
- These strategies succeeded because they exploited **the comparative advantage** determined by the **existing endowment structure of the country**

# A framework for analysing development (I)

- In an open and competitive market, with capital and labour as the only two production factors, the mix of factors ("technology") an enterprise should choose depends on the isocost line, indicating the relative prices of the two inputs



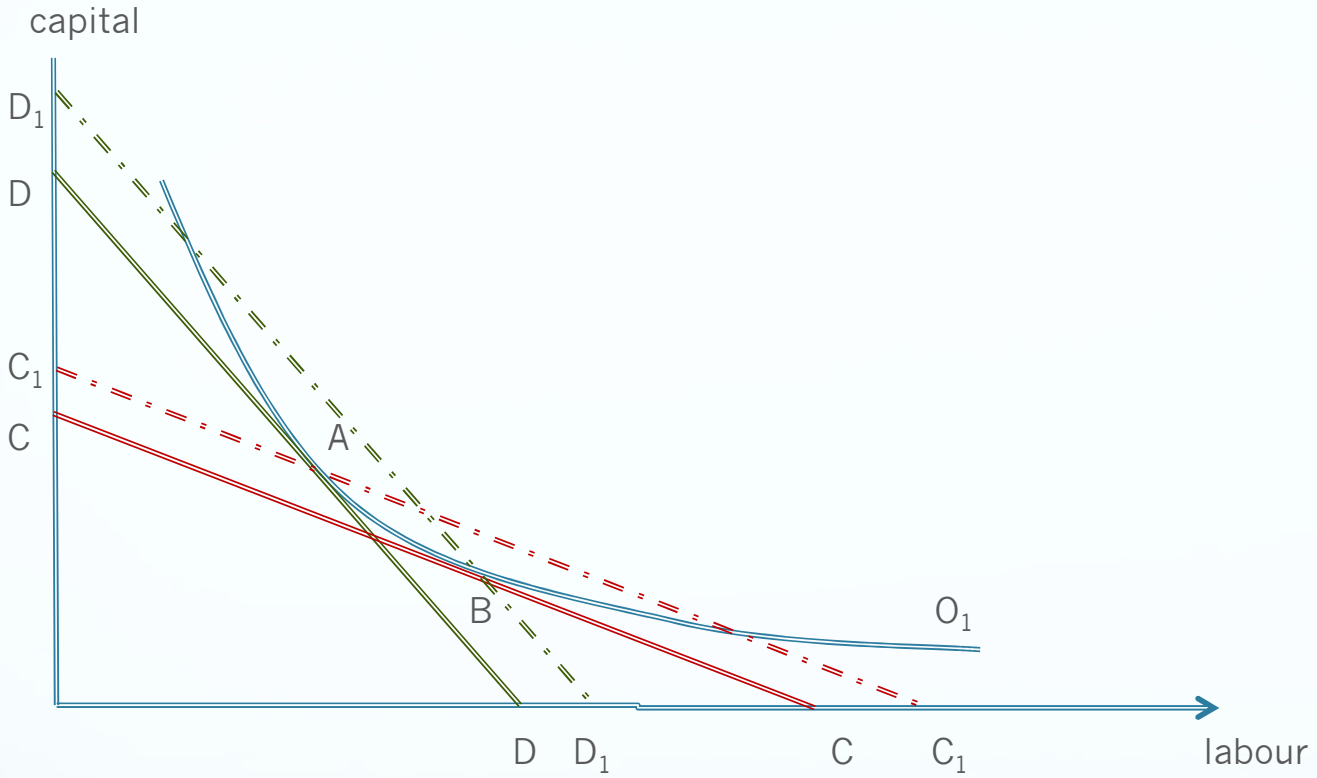

- The slope of the isocost line depends on the economy's factor endowment structure, namely the relative abundance of its capital and labour

**An EM, where labour is cheap relatively to capital, will choose:**

- **less capital-intensive technologies to produce a certain good**
- **will specialize in less capital-intensive products within an industry**
- **will specialize in less capital intensive industries**

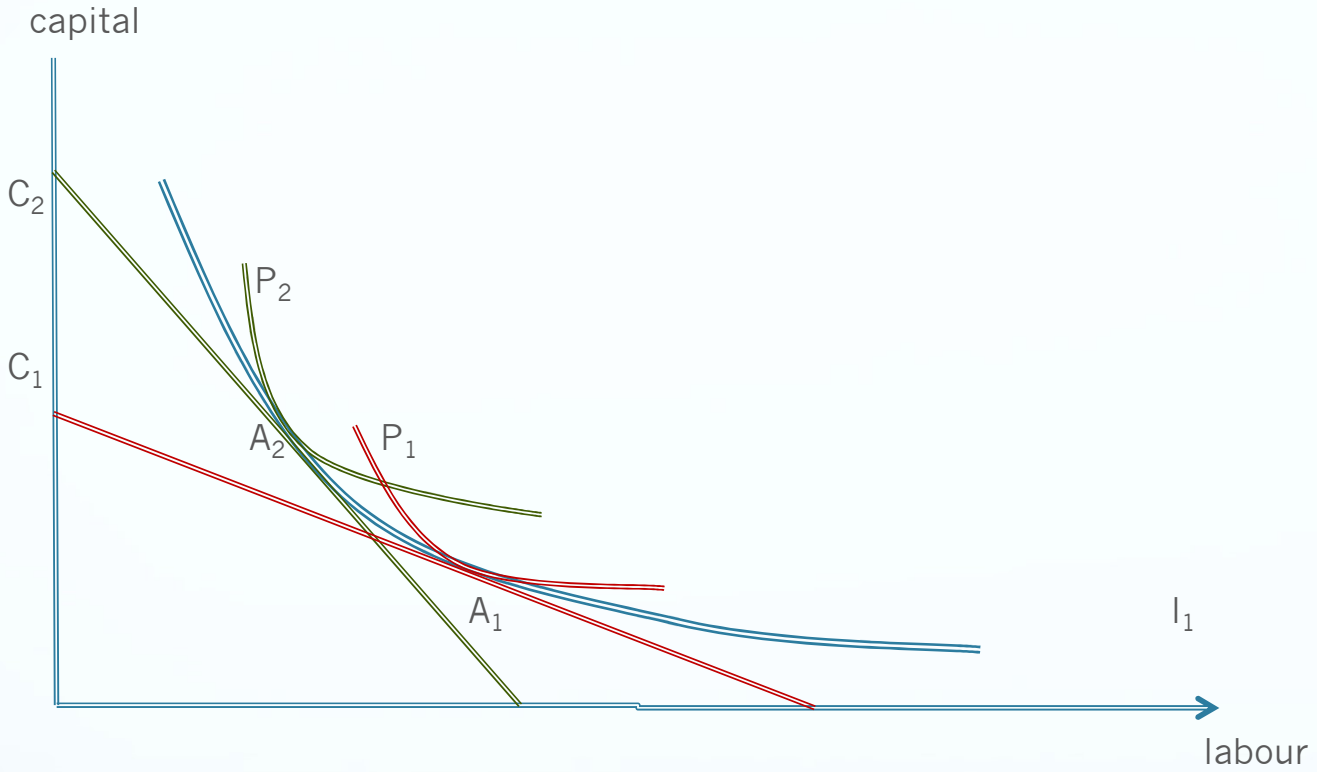
- A country better endowed with abundant labour or resources can produce labour- or resource- intensive goods or services more cheaply than capital intensive goods, especially when compared with a country that is better endowed with capital

# A framework for analysing development (II)




- If C is the isocost line in the economy, technology represented by point B is optimal, for it costs the least. Any other technology will make the enterprise incur losses in an open and competitive market
- If the economy with an isocost C adopts technology A, it would be expected to incur a loss equivalent to the distance from C to $C_1$
- The "best" technology available for a country hinges on the slope of the isocost line, that in turn depends on the economy's factor endowment structure – i.e. the relative abundance of its capital and labour
- **Technologies adopted by DM are not always the best ones for EM, since normally EM are endowed with more labour and less capital**

# A framework for analysing development (III)




- There are multiple types of products in Industry 1:
  - some are capital intensive ($P_2$), requiring enormous R&D resources
  - other are labour intensive ($P_1$), like components production and products assembly
- The isoquant line of the industry $I_1$ is the envelope of isoquants $P_1$, $P_2$, .., $P_n$
- If $C_1$ is the isocost line in the economy, it should optimally choose to produce $P_1$, the product with the higher content of labour. $C_1$ has a higher cost of capital relative to labour
- If $C_2$ is the isocost line in the economy, it should optimally choose to produce $P_2$, the product with the higher content of capital. $C_2$ has a higher cost of labour relative to capital

# Comparative advantage theory

**A country has a comparative advantage if it can produce a particular good or service at lower marginal and opportunity cost over another country.** Even **if one country is more efficient in the production of all goods** (has an absolute advantage in the production costs for all goods) than the other, **both countries will still gain by trading with each other**, as long as they have different relative inefficiencies (different relative production costs)

- Absolute Advantage: If a foreign country can supply us with a commodity cheaper than we ourselves can make it, better buy it of them with some part of the produce of our own industry, employed in a way in which we have some advantage (Adam Smith)

- **Comparative Advantage**: In Portugal is possible to produce both wine and cloth with less labour than it would take to produce the same quantities in England. However **the relative costs of producing those two goods are different in the two countries**. In England is very hard to produce wine, relative to cloth. In Portugal both are easy to produce. Therefore, while it is cheaper to produce cloth in Portugal than in England, it is cheaper still for Portugal to produce excess wine and trade that for English cloth. England also benefits from this trade, since its cost of producing cloth has not changed but it can now get wine at a lower price (D. Ricardo)

- **All countries would prosper if they chose to concentrate on what they can produce best and then traded those products for products that other countries produce best**. Specialization of each country in the production line in which it has comparative advantage would actually raise total production and be profitable for both countries

- A country with relative abundance of labour/resources (typically an EM) should produce more labour/resource- intensive goods and trade for capital-intensive products with a country that has relative abundance of capital. **Trade between the two nations normally raises the real income of both**

**By building an "optimal industrial structure", consistent with the endowment structure of their economy, Japan and other (mainly Asian) EM succeeded to achieve sustainably high rates of growth over several decades**

# New "Structural" Economics (I)

- Justin Lin, World Bank Chief Economist 2008-12, developed a theory to explain what drives economic growth and how policies to foster growth should be implemented (with a focus on EM)

- According to "New Structural Economics" (NSE), **a development strategy aimed at directly upgrading the industrial and technological structure of a country is doomed to fail because it defies the comparative advantage determined by the existing endowment structure**: this will result in distortions and low efficiency, leaving the EM always reliant on capital imports (=running a trade deficit) and therefore subject to capital flights, with little domestic capital accumulation (=little domestic saving)

- Because **the industrial structure in an economy at a specific time is endogenous** to its relative abundance of given labour, capital and natural resources, **the speed of industrial upgrading and development depends on the speed of the upgrading of its factor endowments** as well as the required corresponding improvements in infrastructure (and in institutions)

- **Economic development requires continuous industrial diversification, upgrading, and corresponding improvements in hard and soft infrastructure**: over time, with capital accumulation (or population growth), the economy's factor endowments will change, requiring industrial upgrading and new types of infrastructure services to remain competitive. **Governments must not resist market forces in the reallocation of capital and labour from sector to sector, from industry to industry**

- Therefore the **"optimal industrial structure" of the economy will be different at different levels of development**

# New "Structural" Economics (II)

- According to NSE the role of the state in supporting the process of industrial diversification and upgrading should focus on:
  - Making sure that the price system reflects the relative scarcity of production factors in the country's endowments, therefore maintaining competitive markets to send the right price signals to private economic agents
  - Coordinating related investments (mainly infrastructure) across different firms
  - Providing information on new industries, compensating pioneering firms for (info) externalities
  - Nurturing new industries through incubation, encouraging clustering
  - Attracting FDI

- NSE is consistent with the neoclassical view that **export and imports are endogenous to the comparative advantage determined by a country's endowment structure** (they are essentially features of industrial upgrading, reflecting changes in comparative advantage). Globalization offers ways for EM to **exploit the "advantages of backwardness"**, achieve a faster rate of innovation and structural transformation than is possible for countries already on the global technology frontier

- Openness is an essential channel for convergence

➢ NSE considers Foreign Direct Investment (FDI) a more favourable source of foreign capital for EM than other capital flows, since
  - FDI is usually targeted towards industries consistent with a country's comparative advantage
  - FDI is less prone to sudden reversals during panics
  - FDI generally also brings technology, management, access to markets and social networking, all crucial for industrial upgrading (technological spill-over effects)

➢ On the contrary, large Portfolio Investments to EM can cause equity and housing bubbles and excessive currency appreciation, complicating macroeconomic management.
  - Sudden large inflows of capital in EM have often been invested in speculative sectors

# Export-Led Growth and "Managed Capitalism"

**One way to both discipline inefficient firms and to expand their markets is to encourage (large) firms to export** ("openness" of the economy)

- Firms – not any more constrained by the size of the domestic market – will choose to **exploit the comparative advantage** of their home country (in order to be "viable" and competitive globally) and the larger international markets offer them the possibility to benefit from economies of scale
- The starter sector in EM is easy-to-make but labour intensive consumer goods like garments and textiles, before moving up the technological ladder and producing more complicated goods
- Governments might try to support exporting industries by:
  - Maintaining an undervalued exchange rate, thus making domestically produced goods more competitive
  - Underpricing key raw material or energy inputs
  - Holding down wages

but

**this strategy will only be successful if it is backed by an industrial and technology structure coherent with the country's competitive advantage at each moment in time**

- This type of "managed capitalism" usually works well in small nations, with limited domestic markets, where firms are forced to turn to exports. In large EM, with big local market, firms are more likely to exploit government support and remain domestic, protected and increasingly inefficient (India, Brazil)
- Japan and Germany after WW2 and China after 1978 are three exceptions were "managed capitalism" has been successful in countries with large domestic markets

# Failure of "Export Led" Growth Models

- In the initial phases of growth, when capital is scarce and labour abundant, wages generally do not keep up with the extraordinary rate of productivity growth and, as a result, **corporations that exploit the country's comparative advantage generate substantial profits**
- Once excess labour in agriculture is fully drawn into the manufacturing sector, wages inexorably increase to keep pace with productivity growth in the efficient export sector, therefore **low wages no longer offer a competitive advantage for exporters**
- To stay competitive, **exporters move up the value chain of production** and eventually reach the frontiers of innovation, making more high-tech, skill-intensive products
- More importantly, **productivity improves in the "tradable" sector, but less in the "nontradable" sector** (construction, retail, hotels&restaurants, services), often deliberately shielded from foreign competition by politicians supported by "local" vested interests
- High wages (relative to productivity) in nontradable goods and services reduce domestic demand for them and hold down domestic consumption, thus **maintaining the dependency on export growth** and **building up huge current account surpluses** (see Japan & Germany)
- The CA surpluses put pressure on the currency to appreciate but this does not automatically help to rebalance growth: **the required structural reforms** (liberalization of non-tradable goods & services) **are normally postponed and strongly resisted by vested interests**

# Financing EM trade imbalances

Countries with a surplus CA need to look for countries that are disposed to spend more than what they produce but also have the credibility to borrow to finance their spending

- (Asian)EM pursuing an export-led growth initially needed to import substantial quantities of raw material, capital goods and machinery, so they were running CA deficits that needed to be financed by foreign borrowing (to fund investments)
- Governments in many other EM until late 1990s pursued populist spending and shunned structural reforms (Brazil, India), so they were running CA deficits that needed to be financed by foreign borrowing (to fund consumption)
- **Since the late 1960s global trade imbalances have been growing**. From 1970 till 2000 the surplus countries where mostly Germany, Japan and the Gulf oil producing countries

Poorer EM, with low levels of per capita consumption and investment, where ideal candidates for boosting their spending, provided they could get financing

- In 1950s&60s financing to EM mostly came from governmental and supranational organization
- In 1970s&80s Western bank "recycled" large amounts of "petrodollars"
- In 1980s&90s foreign "arm's-length" investors (mutual and pension funds) lent to EM by buying their government and corporate bonds

But in **creating a bias in favour of producers, EM stunted the development of their financial systems, thus making it hard for them to use foreign financing to expand domestic demand for goods and services effectively**

# Financing EM trade imbalances: FDI

- Traditional economic theory predicts that **a country's investment should not depend on its domestic savings**, since – if their investment opportunities are good – it should be able to borrow as much as it needs from international financial markets

- But in practice there is a much higher positive correlation between a country's investment and its domestic savings than one might expect if capital flowed freely across countries

- For EM, the more a country invests the more it grows, but **the more investment is financed from foreign sources as opposed to domestic savings, the slower the growth** (a relationship that does not necessarily hold for DM)

- Lucas highlighted that **the flow of capital from DM to EM is much less than would be justified by differences in expected returns** (even risk-adjusted)

- Without improving infrastructure and upgrading to new comparative-advantage industries (following changes in factors endowments), **EM may encounter diminishing returns in accumulating capital in existing industries, causing lower returns to capital and justifying the outflows of capital**

# Financing EM trade imbalances: portfolio flows

- **International capital mobility** (portfolio flows) **serves several purposes**:
  - It allows countries with limited savings to attract financing for productive domestic investment projects
  - It enables investors to diversify their portfolios
  - It spreads investment risks more broadly
- **Liberalized capital markets in EM can be distorted by incomplete information** and can be affected by the specific features of the domestic financial system (normally "relationship based" vs "arm's length")
- **Foreign portfolio investments in EM** – loans, purchases of bonds - ultimately **rely**, either directly or indirectly, **on government guarantees** and therefore on the **creditworthiness of the country**
- The analysis of the attributes of the project being financed are normally left to the local, domestic banks, who do often not have the skills, competence and sometimes independence to properly assess them
- **During booms capital flows freely in EM**, with direct intermediation of the government (government debt) or through the local banking system (bank debt). **The problem is that often there are not enough profitable investments opportunities for all the money that is flowing in and chasing them**
- **Due to information asymmetries and costs, relatively little funds flow directly from foreign investors to EM corporates, except for FDI** (foreign direct investments). **Most of credit allocation goes through inefficient (and often corrupt) public sector or incompetent domestic banking sector**

# The LatAM crises: 1982-2002

- In the 1970s many LatAM government embarked on **massively inefficient economic development projects and strong domestic consumption growth was financed with foreign capital** (but mainly through "portfolio flows")
- The resulting huge fiscal and CA deficits were financed by American and European bank through floating-rate foreign currency loans (LatAm countries borrowed both to roll over the debt but also to pay interest on the past loans: a typical example of "Ponzi Finance")
- When Paul Volker dramatically hiked US interest rates to curb US runaway inflation of the 70s, a severe double-dip recession led to a drop in the prices of the commodities the LatAM countries where exporting, making it impossible for them to service their debts, whose value rose as their currencies depreciated
- Mexico defaulted in 1982, soon followed by Brazil, Argentina and other LatAM countries: the recession that hit South America lasted almost 10 years, since only in the late 1980s, when the loans were reduced in face value and converted in "Brady Bonds", did the region start to recover
- After the resolution of the LatAM debt crisis of the 1980s, capital inflows resumed but the same problems resurfaced. In 1994 Mexico edged toward crisis, due to unsustainable deficits and an overvalued currency. As doubt spread about the health of the nation's banking system, the peso plunged in value and made the burden of foreign-currency denominated debt (the "tesobonos") unbearable
- Other "capital account crises" hit LatAM EM in the 1990s, ending with the infamous Argentinian default of 2001

# The implication of the East Asian Crisis of 1997

**The East Asian crisis of 1997 was largely a result of corporate overinvestment**, where the benefits would have accrued to a few "well connected" elite but the risks of economic collapse were borne by governments (hence all taxpayers)

- **In East Asia EM foreign banks and investors lent mainly to:**
  - **EM governments**
  - **The domestic banking system**

  and did not care about how efficiently these funds will be allocated, knowing that, if needed, governments (and consequently taxpayers) would "step in"

  ["Country don't go bust" theory, infamously stated by former Citibank Chairman Walter Wriston, 1984]

  Moreover **foreign investors lent short-term and in foreign currencies**

- This left EA EM exposed to **sudden stop of foreign inflows**. The consequences were financial crises and ensuing busts that set back growth tremendously
- The EA governments turned to the **IMF**, that **imposed onerous conditions** before releasing the funds required to pay back foreign lenders and preserve the local banks (IMF was accused of "overreaction")
- Consequently **Governments and Corporates in Asia cut back on investment** and **started to run large CA surpluses**: from being net borrowers, they joined Japan, Germany (and, since 2003, China) as large net supplier of funds to global financial markets
- With all this "**savings glut**" interest rates dropped to record low levels (Greenspan's "**conundrum**") and bankers looked for some other "big spender" to finance

# Emerging Market Economies

**EM economies face external and internal challenges that render their old, export-led growth models unsustainable and require ‘‘structural’’ changes**

**Externally**

(i) weak consumers’ demand from rich countries

(ii) onshoring back to DM of certain manufacturing activities (already happening in the US)

(iii) risks to capital flows

All are at work against EM

**In the future the US** (and possibly Europe) **will more likely be a competitor, not any more a consumer, for EM:** in the US the combination of cheap shale energy, a decade of real US dollar depreciation and strong US corporates means that the relatively low-sophistication goods (from the US point of view) - that have been unprofitable to produce in the US for more than a decade - are likely to make a comeback. *[Some already have: the production of fabricated metals, chemicals, cars and construction equipment supporting shale production have all been steady performers in the US economy.]* However, those same goods represent a step up in terms of sophistication for most EM economies, a step up that EM economies need in order to maintain growth outperformance. **If the US is moving ‘‘*down*’’ the sophistication ladder, EM economies that need to move *’’up’’* the same ladder will find themselves in a ‘*battle of sophistication*’**

**Internally**

- focus on export-led growth has meant that **important sources of domestic demand in EM have been neglected**, especially in the service sector

**Key risks**: “Slowness in structural reforms”, maintenance of excessive direct government intervention, crowding out of private entrepreneurship

# EM Economies – The "Great Unwind"

The unwinding – at around the same time – of:

1. US QE, generating higher real rates and stronger US $
2. China's deleveraging, affecting the rest of EM through three channels:
   i. The trade of manufactured good
   ii. The trade of commodities
   iii. The impact of a slower Chinese economy on the terms of trade
3. EM domestic growth (in those EM countries where it has been 'excessive')

**creates a very difficult environment for EM growth**

This **triple unwind** affects:

(i) EM capital accounts via the impact of QE unwinding

(ii) EM current accounts via China's leverage unwind

(iii) EM domestic demand directly where economies that have allowed/encouraged/sought high credit growth now have to rein it in

**EM economies are going through a very tricky phase due to this "Great Unwind"**

# EM Economies – cyclical or structural?

**Is it structural or cyclical?** Cyclical factors are certainly weighing on EM growth, but the primary drag on growth comes from three structural impediments:

- **Capital misallocation is lowering growth and profitability in a regime of rising real rates, making it difficult to correct that misallocation:** Real rates are rising not just because of higher US real rates but also because of a mix of forced rebalancing (current account balances deteriorating, reflecting national savings falling faster than national investment, putting pressure on real rates) and higher risk premia
- **Global growth is becoming more of a zero-sum game,** with growth in the US, Japan and the € area coming at the expense of EM growth. The upshot is that export growth in EM will not have the structural momentum of past decades
- **The 'Great EM Unwind':** A triple cocktail of an unwind of: i) US QE via higher real rates; ii) China's leverage; and iii) Excessive EM domestic credit growth will affect virtually all EM economies, although to a different extent depending on their sensitivity to each factor

For potential output growth to rise, policy stimulus needs to go to the '**RIGHT**' sources of domestic demand: in particular **India and China need internal rebalancing – China needs to boost its consumption, India its investments**

**While many are talking about structural reforms, the ability or willingness to deliver on such structural reforms is in shorter supply.** The rigidities and unsustainable models of growth that are constraining emerging markets are the very source of their promise. Should these rigidities and unsustainable models be discarded, emerging markets can again convincingly outperform in terms of growth

# EM Economies – different structural responses needed

Most EM economies need to deal with **capital misallocation** and **reorientation of their broken growth models** even as real rates rise and external demand is weak. Despite these similarities, **there are huge differences in the problems that EM economies face, and hence in the reforms each economy need**

| Country | Old model | New model | Reforms needed |
|---|---|---|---|
| China | Export/investment-led, SOE domination subsidised by households (implies household consumption 'taxed') | Consumption-led, larger private sector involvement | Interest rate liberalisation to unlock consumption, reduce SOE presence and encourage private sector; 'smart' rather than aggressive urbanisation |
| Brazil | Dutch Disease (commodity + consumption lead, manufacturing lags); real rates unnaturally high and distorted | Manufacturing-led growth, with improving infrastructure; encourage savings growth to lower real rates and current account deficit | Improve (non-commodity) manufacturing competitiveness via: i) Industrial policy; ii) REER unwind; and iii) Pension and tax reform; BNDES lending to activities with positive spillovers only |
| Russia | Commodity-led, large public sector involvement | Balanced manufacturing, larger private sector involvement | Improve competitiveness of non-commodity sector – privatisation, industrial policy, pension reform |
| S. Africa | Under-invested in mining; manufacturing uncompetitive due to labour protection | Efficient mining-led growth with labour reforms to restore manufacturing competitiveness | Selective liberalisation of labour markets; raise competitiveness; improve mining logistics |
| India | Consumption/fiscal-led; investment and savings in decline | Investment-led; higher savings | Correct price distortions, labour market reform, improve business climate |
| Turkey | High credit growth; persistent current account deficit due to low savings | Curb credit growth; encourage savings to reduce current account deficit | Higher real rates and advances in pension coverage to raise savings; more macro-prudential emphasis in monetary policy |
| Indonesia | Dutch Disease (a milder version than in Brazil or Russia) | Manufacturing-led growth; encourage savings to reduce current account deficit | Raise competitiveness via: i) industrial policy; and ii) REER unwind; labour market policies to raise productivity and better infrastructure |
| Mexico | Export-led manufacturing; fiscal reliance on oil | Manufacturing led by exports and domestic reforms; reduce oil reliance further | Reforms in energy, fiscal, financial, labour market and education reforms (all on the agenda/in progress) |

Source: Morgan Stanley Research

# The "trilemma": exchange vs interest vs inflation rate

- David Hume argued that when a country on a gold standard (=fixed exchange rates) runs a positive balance of trade, gold would flow into the country in the amount that the value of exports exceeds the value of imports
- **In the absence of offsetting actions by the central bank (sterilization), money supply (and inflation) would rise in a country with a trade surplus and fall in a country with a negative trade balance**
- This would lead to an appreciation of the real exchange rate of the surplus country, making its goods less competitive and pushing towards a rebalancing of the trade account
- **In the long term, a country cannot keep a fixed exchange rate and, with free flows of goods and capital, control its domestic interest rates and its inflation rate**
- In the short term the Central bank and the government can accumulate foreign currency, but this is tantamount as "**vendor financing**": lending money to the purchaser of your goods, in order to allow him to spend, and then "recycling" the proceeds in his capital market, keeping interest rates artificially low
- **Chinese "lent" to Americans** (and Germans lent to South Europe) in order for Americans to be able to purchase Chinese goods. To keep the exchange rate from revaluing, they "sterilized" the $ received and "recycled" them in the US financial markets. In doing so, Chinese helped keep US rates artificially low, fuelling the crisis (moreover, since F&F bonds were considered of the same credit standing as US Federal Government, Chinese bought agencies' bonds, helping fuel the housing boom that made US consumers feel richer and thus consume/import more)
- **A vicious circle that in the end damaged the world economy**

# US Jobless recoveries

- **Prior to 1990** US economy's post-WW2 **recoveries were rapid** – on average output recovered to pre-recession levels within two quarters and lost jobs were recovered eight months after the recession trough
- **Social security** (the **"safety net" for those unemployed**) was devised for an **economy capable of quick recoveries**, not just in output but also in employment. Even though the unemployment benefits are of short duration, in downturns before 1990 they were enough to support most of the unemployed until they found a job
- The recession of 1990 broke these post-war patterns: production recovered within 3 quarters but it took almost 2 years from the trough of the recession to recover the lost jobs. In the 2001 recession it took 38 months for jobs to recover vs only 1Q for output. Nowadays we are still well below the level of employment of 2007 ("**jobless recoveries**")
- We could argue that **most recent US recessions are not just "cyclical" adjustments (an inventory cycle), but they are "structural"**: a shift of resources from traditional mature industries to new young ones (from steel to software) that is not matched by a corresponding shift in the skills in the workforce
- The **NAIRU** (non-accelerating inflation rate of unemployment) **tends to increase** due to **"hysteresis" in unemployment**: the workers whose skills are in demand have the power to influence or set wages and their reduced number incentivizes them to bargain for even higher wages as soon as the economy improves. The workers who are unemployed and, due to lack of employable skills, find it more difficult to get work might become discouraged and drop out of the workforce (drop in participation rate) or, if no re-training is available, might remain long term unemployed

# "Automatic" vs "Discretionary" Stabilizers

- In the US – as opposed to Continental Europe - the emphasis has always been on **rapid restructuring in the face of distress**, terminating dying enterprises and moving on to finance new businesses. Recessions are a time of both destruction and new creation: old jobs are destroyed and a whole set of new ones is created. **Short-duration benefits give the laid-off worker the incentive to actively look for a suitable job**. Mobility is easy across firms, no stigma is attached to unemployment and re-entry into employment is easy because jobs are not clogged up by incumbents

- But **the absence of a strong and durable safety net**, coupled with slow job growth in recoveries, **is putting pressure on politicians, fiscal and monetary authorities to purse "active" discretionary policy** aimed at stimulating the economy far and beyond what traditional "automatic stabilizer" (as unemployment benefits) would normally be allowed to do

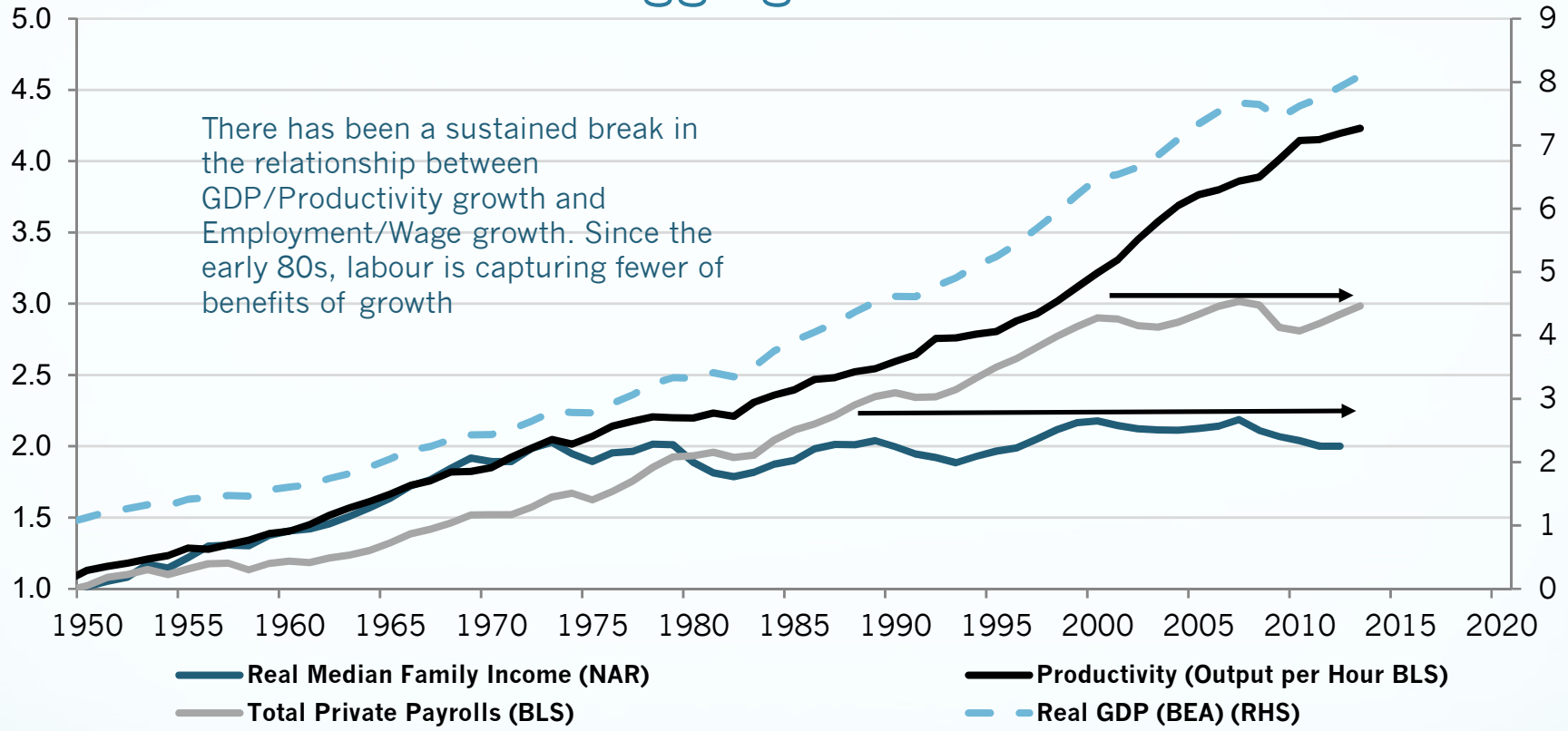
- Discretionary stimulus and aggressive easing by monetary authorities present a number of problems:
  - They only partly ease anxiety of unemployed workers (and of those at risk of losing their job), given their discretionary nature
  - Fiscal and monetary policy work with a lag
  - Discretion leads to abuse

- **Discretionary fiscal stimulus tends to be based on ideology and on past obligations or interests rather than attuned to the needs of the moment. Discretionary monetary stimulus (persistent and politically motivated) can affect the financial sector and ignite speculative bubbles**

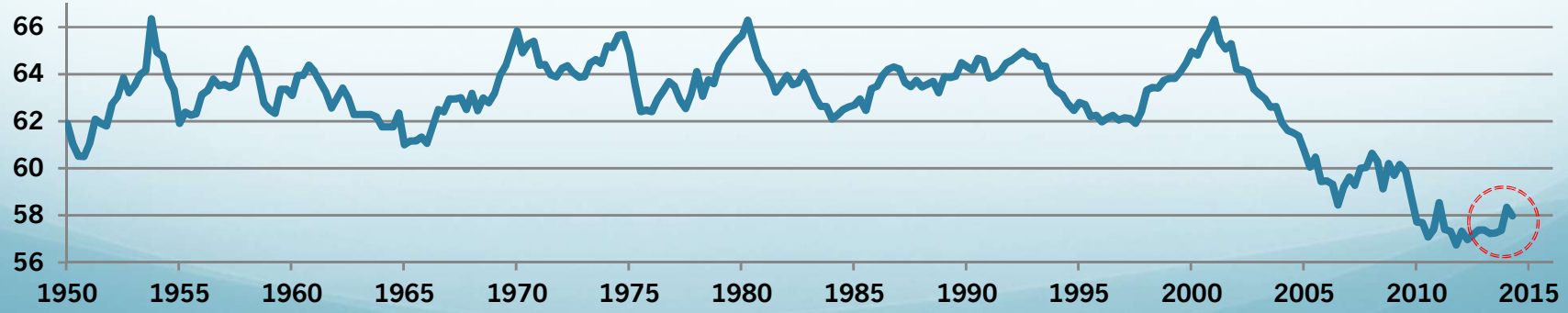
# Jobless recoveries + **Income Inequalities**

- **US is politically predisposed toward stimulating consumption because it is singularly unprepared for "jobless recoveries"**: typically unemployment benefits last only 6 months. Moreover, because health care benefits are tied to jobs, an unemployed worker also risks losing access to affordable health care
- **In politics, economic recovery is all about jobs, not output**, and politicians are willing to add stimulus, both fiscal (government spending and lower taxes) and monetary (lower short-term rates and, when rates hit the zero bound, Quantitative Easing – QE)
- **The average American has also been faced with rising income inequalities**: the wages of the 90$^{th}$-percentile earner increased in the period 1975-2005 by about 65% more than the wages of a 10$^{th}$-percentile earners [In 1975 the first one earned, on average, 3 times more than the latter; by 2005 they earned 5 times more]
- The reasons for growing income inequality are a matter of heated debate: certainly one of the main reasons is the **gap between the demand for highly educated and its lagging supply**
- Also - as EM exploit their comparative advantages - a number of activities, mainly labour intensive, are outsourced to these countries. **The excess supply of low-skilled workers in DM weighs on their relative incomes and on their employment opportunities**

# Lagging Labour

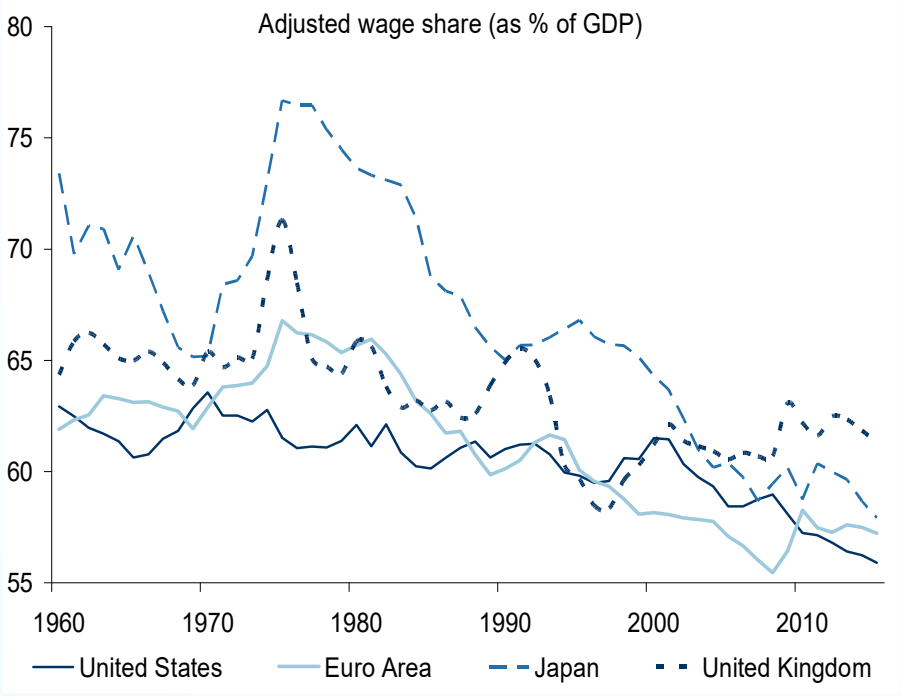



Labour's share of non-financial GDP (2)



# Declining Share of Labour in National Income

## Adjusted Wage Share Declining Across DM




Source: European Commission AMECO database, Morgan Stanley Research

## DM Adjusted Wage Shares (as % of GDP)

| | 1970 | 1980 | 1990 | 2000 | 2010 | 2015F |
|---|---|---|---|---|---|---|
| Germany | 61.1 | 63.7 | 58.8 | 60.6 | 57.1 | 57.9 |
| France | 63.0 | 66.5 | 59.3 | 57.2 | 58.7 | 58.2 |
| Italy | 65.4 | 66.6 | 61.9 | 53.2 | 55.4 | 55.1 |
| Spain | 64.2 | 66.8 | 61.7 | 58.9 | 56.8 | 52.3 |
| Canada | 61.0 | 59.3 | 59.7 | 56.4 | 57.4 | 56.7 |
| Australia | 59.8 | 63.6 | 59.1 | 57.1 | 53.7 | 56.3 |
| Denmark | 60.2 | 62.3 | 59.3 | 56.4 | 59.5 | 57.7 |
| Ireland | 67.3 | 70.0 | 59.4 | 48.3 | 53.2 | 50.1 |
| Greece | 64.8 | 60.3 | 62.4 | 55.6 | 55.0 | 47.1 |
| Norway | 58.3 | 55.2 | 54.0 | 46.6 | 48.1 | 49.6 |
| Netherlands | 65.2 | 68.1 | 61.7 | 59.6 | 59.4 | 60.2 |

Source: European Commission AMECO database, Morgan Stanley Research; Compensation per employee as percentage of GDP at market prices per person employed.

- **There has been a long-term downwards trend in the share and strength of labour in national income, which is depressing both demand and inflation**
- While the rate of decline varies from country to country, it nevertheless appears to be broadly common. This has reflected an initial **fall and flattening in the rate of growth of real compensation per employee since the early 1980s,** which has been continuing through the ups and downs of the economic cycle, and is again common to most developed countries; it cannot easily be attributed to short-term political or macroeconomic policies.
- **The preferred explanation is globalisation,** and in particular the entry of the Asian, especially Chinese, labour force into the world's trading economy. This has allowed businessmen to apply a **credible threat of relocating the production of any good, and of most services, to anywhere else in the world.**
- **Technical progress**, in the shape for example of IT and robotics, has further weakened the share in output of labour, relative to capital and land (including natural resources, such as oil), but the measurement of this effect is fraught with difficulties.

# Globalization, unemployment and income inequality (I)

- By relocating some parts of international supply chains, **globalization has been affecting the price of goods, jobs patterns and wages everywhere**
- M. Spence estimated that almost all of the 27 million new jobs created in the US between 1990 and 2008 were in the so-called nontradable sector (NTS) of the economy, the sector that produces goods and services that must be consumed domestically (government, health care, retail, construction, hotels&restaurants)
- Employment in the tradable sector (TS), subject to international competition, barely changed during that period (+600,000 on 34 million employed)
- Unlike employment, Value Added (VA, the difference between the value of its outputs, that is the goods and services it produces, and the costs of its inputs, such as the raw materials and energy it consumes) in the tradable and nontradable parts of the US economy has increased at a similar rate since 1990
- Therefore, over the period, **value added per employee** (VApE, labour productivity) **increased modestly in the nontradable sector** (+12% to US$ 80,000 from US$ 72,000) **vs a strong increase in VApE in the tradable sector** (+52% to US$ 120,000 from US$ 79,000)
- Generally (except for mining industries and utilities, that are very capital intensive) **incomes of workers are closely correlated to VApE**, therefore
  - Average incomes in NTS rose very little
  - Average income in TS rose rapidly

**Since more jobs were created in NTS than in TS, distribution of income in US economy has become more uneven**

# Globalization, unemployment and income inequality (II)

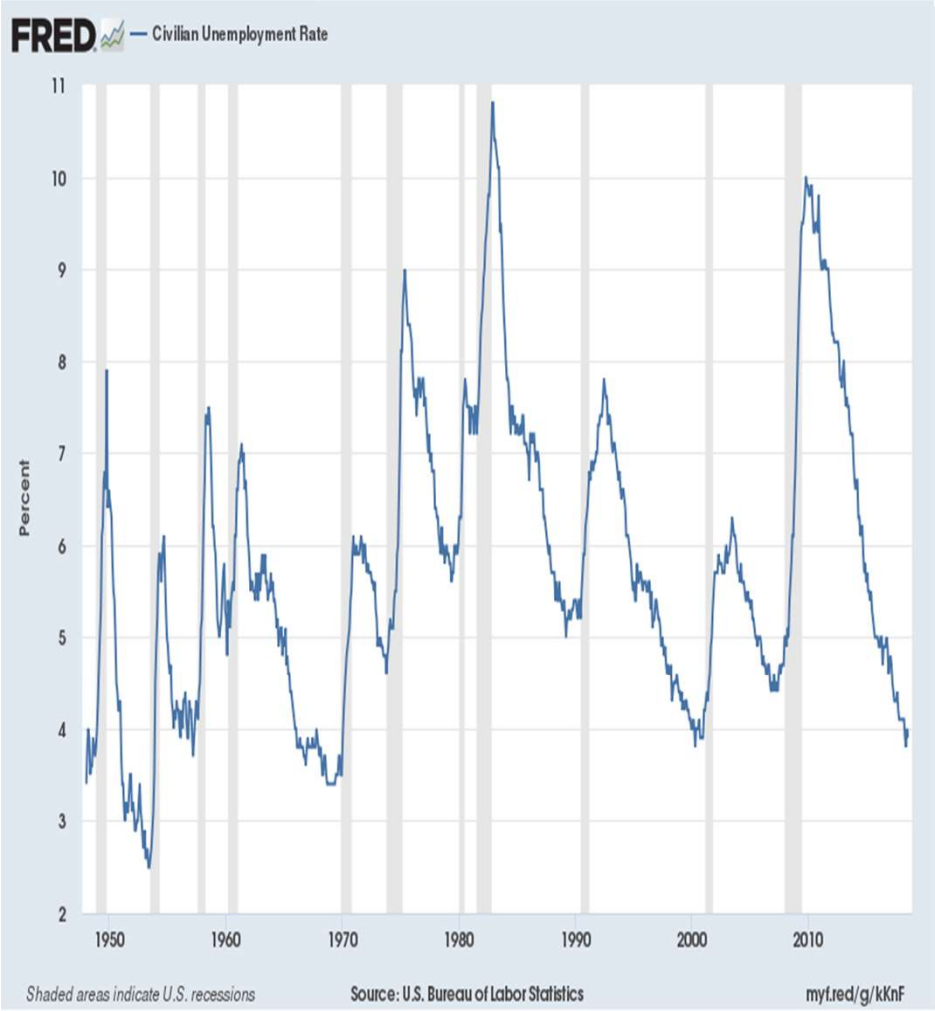
In the TS, employment is growing at the high end of the value chain, that employs highly educated people in areas where the US continues to have a comparative advantage and can successfully compete in the global economy

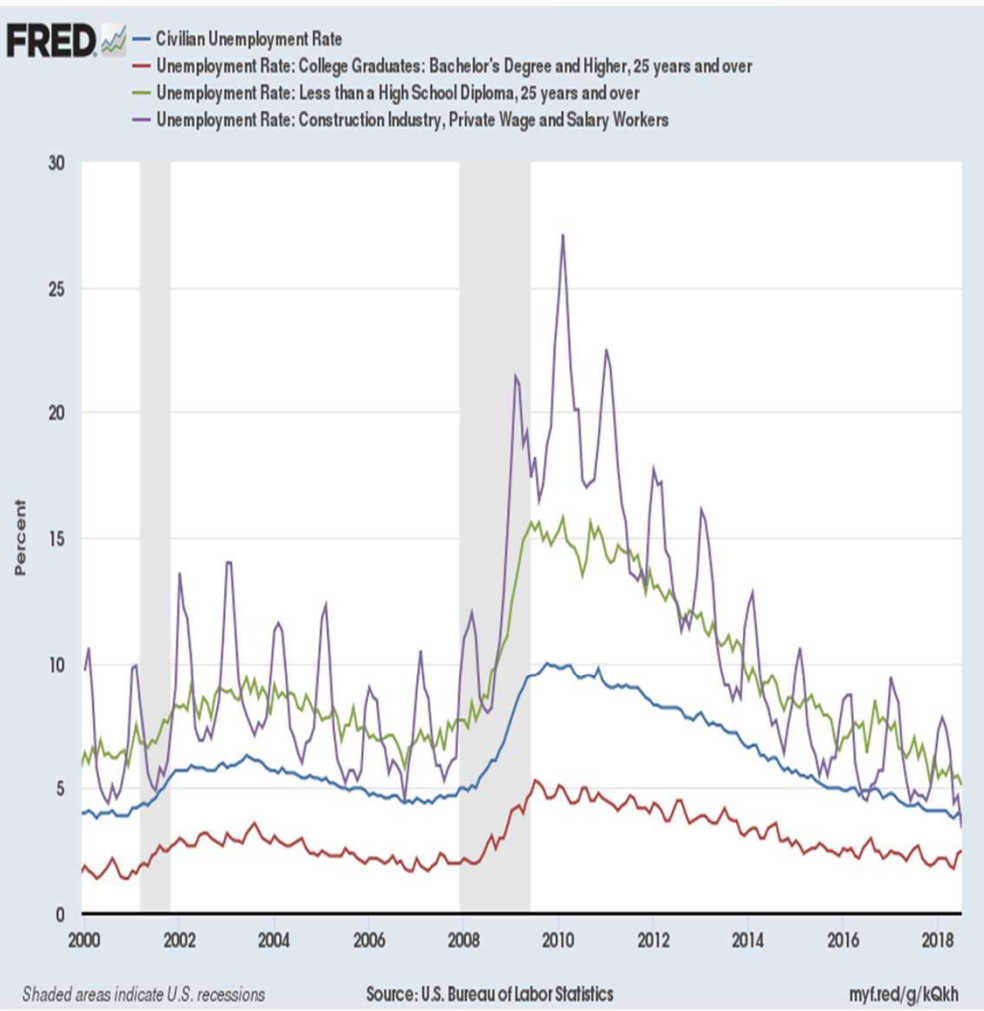
- Competition for highly educated workers in the TS spills over to NTS, raising incomes in the high-Value Added part of NTS
- On the other hand, fewer lower-VA jobs in TS will increase competition and reduce wages also for lower-Value Added jobs in NTS

**The evolving structure of the global economy has diverse effects on different groups of people in the US, increasing unemployment and reducing (relative) wages for lower skilled, lower-VA job**

- Governments can play a role in fighting unemployment and income inequalities generated by globalization if, like in Germany, it works with labour and businesses to find the right combination of productivity enhancing technology and competitive wage levels that would allow to keep some manufacturing industries, or at least some value-added pieces of their production chains in the country
- The solution is not protectionism (like sometimes suggested by politicians) - that damages consumers, especially the poorest – but **developing ways to increase both the competitiveness and the inclusiveness of DM economies**
- **DM must invest in human capital** (especially education), **technology** (also in productivity enhancing technologies) and **infrastructure**: a Keynesian way out of the crisis that could be accepted also by neoclassical economists, since these investments will bring a payback (and therefore not give rise to Ricardian equivalence)

# Unemployment and income inequality, higher after the crisis




- In the Great Financial Crisis of 2007-08 more than 8.1 million jobs were lost just in the US, almost 7% of total employment, but the **distribution of job losses was uneven across sectors, skills and states**: construction, transportation and durable goods were the most severely affected
- At the through of the cycle, construction industry employed almost 30% fewer people and the downturn in employment was harsher in States that had experienced a large housing boom or where manufacturing was a major employer (the “Rust Belt”)
- Unemployment rose more for workers without qualifications, who tended to work in sectors hit by hardest by the crisis (construction, leisure and transport)

# Challenges of modern economic development: the **structural response**

- **Modern economic development is a process of continuous structural change**: as EM accumulate factor endowments and their comparative advantage is upgraded they become competitive in more capital intensive and technologically sophisticated industries and start competing with DM also in these more advanced sectors
- **DM governments, especially in Europe but sometimes also in US, often resist market forces in the reallocation of labour to new sectors and industries, where DM maintain a competitive advantage**
- Such structural changes do not happen spontaneously and the public sector should be proactive in assisting the private sector and individuals to keep up with the changes
- DM, situated on the global technology and industrial frontier, should rely on creative destruction or the invention of new technologies and products for technological innovation and industrial upgrading
- DM governments adopt various measures to **support technological innovation, industrial upgrading and diversification**. They also should **build infrastructures** in key economics sectors such as transportation and IT networks **and provide financing for education and training** to build and upgrade the country's skill base in many advanced industries

**DM governments should focus on "structural" issues, not just provide "cyclical" responses**

# The **"cyclical" response**: "Let them eat credit"

- The difficult political answers to problems of "structural" unemployment and of rising income inequalities in DM would **require policymakers to tackle structural reforms of the education system and of the social security system** (both unemployment and health care benefits) as well as **changes in taxation and redistribution of incomes**: for most professional politicians the equivalent of "committing suicide"
- **The easy way out** – as in the past – has been to **increase access to credit and leverage**
- **Easy credit has large, immediate, positive and widely distributed benefits, whereas the costs lie in the future**: the ideal solution for politicians!
- **Affordable housing for low income groups** was the obvious, bi-partisan answer in the US: Fannie and Freddie the channels for the transmission of this policy
- **Fannie and Freddie** (F&F), two government-sponsored enterprises (GSEs), were officially private entities (listed), but to investors they were backed by the full faith and credit of the US. These government benefits, that allowed cheaper funding, came with public duties and oversight (including having government appointees on their Boards), especially to **support housing finance**
- F&F fulfilled their mandate of supporting housing finance in three ways:
  - F&F bought "conforming" mortgages (conforming to size limits/credit standards they had set out), thus allowing banks that originated such loans to sell them and go out to make more mortgages
  - F&F packaged pools of loans together (including "non-conforming") and issued mortgage-backed securities against the package after guaranteeing the mortgages against default
  - F&F also started to borrow directly from market and to invest in MBS underwritten by other banks

  Much of the profit from this activities – that was accruing to F&F private shareholders – stemmed from their low cost of financing, deriving from the implicit government guarantee

# The housing (and subprime) boom & bust

- **The Federal Government has long sponsored and subsidized home ownership**, making it a far less expensive and burdensome proposition than it would be. Its subsidies include allowing homeowners to deduct property taxes and mortgage interest payments on their federal income tax returns and not taxing a certain proportion of capital gains from the sale of a primary home.
- These subsidies may not have caused the "housing bubble" in US but they certainly created conditions that encouraged and sustained its growth
- Legislation passed in the 1990s compelled F&F to purchase mortgage that effectively included subprime loans: in 1997, 42% of loans purchased by F&F came from borrowers whose income was below average for their neighbourhood (though not necessarily subprime). In June 2008 exposure to subprime and Alt-A loans amounted to $ 2.7 bn, almost 60% of total loans to these categories
- **The combination of an activist Congress and Administration (both under Democratic and under Republican leadership), government-supported private firms hungry for profits (and whose losses would be borne by the general public) and a weak and pliant regulator contributed substantially to the subprime crisis**
- On Sunday, Sept 7, 2008, as losses on agencies' portfolios mounted and investors around the world shunned their debt, F&F were taken over by the US Government at a cost to the taxpayer conservatively estimated in several hundred billions of $
- **Relative to other industrial countries, like Ireland, Spain and the UK, all of which had house price booms that turned to busts, US house prices overall were nowhere as high relative to fundamentals, but the boom (and leverage) in US home was concentrated in those least able to afford the bust**

# The increasingly permissive regulatory policy (I)

- **1938**: The Federal National Mortgage Association (**Fannie Mae**) is established as part of FDR's New Deal, to purchase mortgages guaranteed by the Veterans Administration and the Federal Housing Administration. **In late 1960s**: Fannie Mae is permitted to purchase 'conventional' mortgages (not just VA/FHA)
- **late 1960s**: Mozilo&Loeb founded Countrywide Financial, pioneering the nationwide non-bank mortgage lending business; initally, Mozilo is very concerned with credit quality
- **1968**: Fannie Mae spins off **Ginnie Mae** as a separate entity, that will continue to have an explicit, written government guarantee for all its mortgage loans. Fannie Mae is converted into to a stand-alone corporation, a government sponsored enterprise (**GSE**)
- **1970**: Federal Home Loan Mortgage Corporation (**Freddie Mac**) is created by an act of Congress as a GSE to buy mortgages from the Thrift/S&L industry; it is owned by the industry itself (until 1989)

The GSEs (Fannie and Freddie) have an 'implicit guarantee' from the government: if they get into trouble, the government will bail them out. There is no written law or contract, it is simply assumed by the industry, government officials, and investors

- **1970**: Ginnie Mae creates the first **mortgage-backed security (MBS)**, based on FHA and VA mortgages. It guarantees them. In 1971 Freddie issues its first Mortgage Participation Certificate security. This is the first mortgage-backed security made of ordinary mortgages
- **1970s**: Private companies begin mortgage securitization creating private mortgage pools
- **1974**: **Equal Credit Opportunity Act** imposes heavy sanctions for financial institutions found guilty of discrimination on the basis of race, colour, religion, national origin, sex, marital status, or age
- **1977**: **Community Reinvestment Act** is enacted to address historical discrimination in lending, such as 'redlining'. The Act encourages commercial banks and savings associations to meet the needs of borrowers in all segments of their communities, including low- and moderate-income neighbourhoods

# The increasingly permissive regulatory policy (II)

- **Late 1970s**: Lewis Ranieri (Salomon) and Larry Fink (First Boston) invent **securitization**; mortgages are pooled and the pool is sliced into tranches, which are then sold to investors
- **1980**: The **Depository Institutions Deregulation and Monetary Control Act** grants all thrifts, including S&L associations, the power to make consumer and commercial loans and to issue transaction accounts. The law also allows home equity loans to be treated just like mortgages
- **1982**: **Alternative Mortgage Transaction Parity Act** allows lenders to originate mortgages with features as adjustable-rate, balloon payments, and negative amortization
- **1983**: The first **collateralized mortgage obligation (CMO)** is created by Larry Fink's team at First Boston. It is made from Freddie Mac mortgages
- **1986**: **Tax Reform Act** prohibits taxpayers from deducting interest on consumer loans, such as credit cards and auto loans, while allowing them to deduct interest paid on mortgage loans, providing an incentive for homeowners to take out home equity loans to pay off consumer debt
- **1987**: The **mezzanine CDO** is invented at Drexel Burnham Lambert
- **1985–1989**: Asset-liability mismatch for many S&Ls lead to a de facto insolvency and to the failure and/or closure of half of all federally insured savings and loans. The number halved from 3,234 to 1,645. The U.S. government established the Resolution Trust Corporation (RTC) and ultimately appropriated $105 billion to resolve the S&L crisis
- **1988**: Guardian Savings and Loan issues the first **'subprime'-backed mortgage security**. Long Beach Mortgage begins to move towards the subprime securitization market
- **1989-95**: The RTC decides to sell the massive amount of bad real estate debt it holds to investors, using the tools of securitization and structured finance, such as overcollateralization, bond insurance, and subordination. This results in transforming the bad debt into various new products that have high enough ratings to attract investors

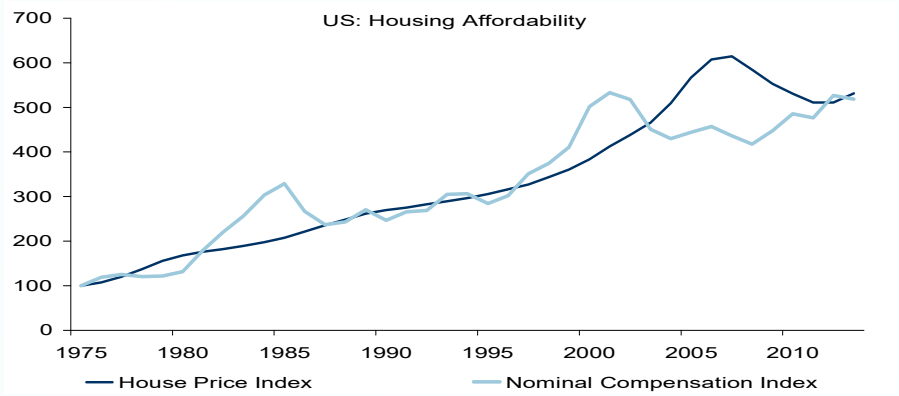
# The increasingly permissive regulatory policy (III)

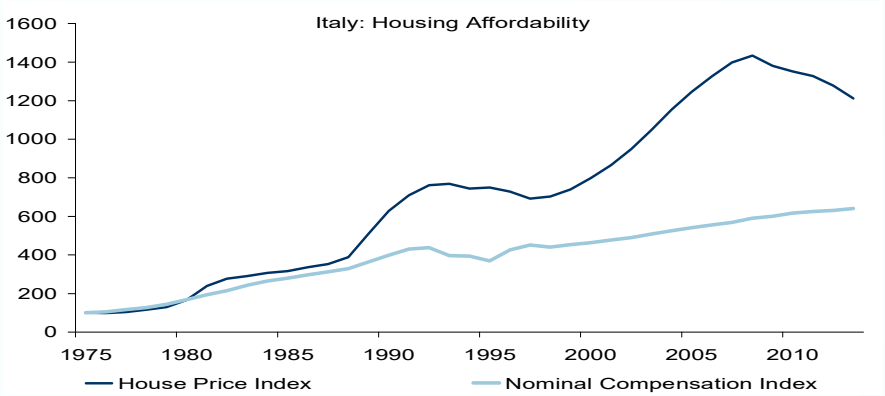
- **1992**: **Federal Housing Enterprises Financial Safety and Soundness Act** requires Fannie Mae and Freddie Mac to devote a percentage of their lending to support affordable housing, increasing their pooling and selling of such loans as securities; Office of Federal Housing Enterprise Oversight (OFHEO) is created to oversee them
- **1995**: **New Community Reinvestment Act (CRA) regulations** break down home-loan data by neighbourhood, income, and race, enabling community groups to complain to banks and regulators about CRA compliance. Regulations also allow community groups that market loans to collect a broker's fee. Fannie Mae is allowed to receive affordable housing credit for buying subprime securities
- **1998**: The New York Fed persuades Wall Street to **bail out Long-Term Capital Management** (a hedge fund), creating a major issue of **"moral hazard"**
- **1998**: Ms. Born at the Commodity Futures Trading Commission wants to investigate OTC derivatives like credit default swaps; their lack of transparency, lack of regulation, and possible systemic risk. Alan Greenspan, Robert Rubin, and Arthur Levitt of Clinton's Working Group on Financial Markets, and Larry Summers shut her down. She resigns soon after
- **1999**, **September**: Fannie eases the credit requirements to encourage banks to extend home mortgages to individuals whose credit is not good enough to qualify for conventional loans
- **1999, November**: The **Gramm-Leach-Bliley Act (Financial Services Modernization Act)** passes. It repeals the Glass-Steagall Act of 1933. It deregulates banking, insurance, securities, and the financial services industry, allowing financial institutions to grow very large. Congressmen key to the effort include Phil Gramm, Jim Leach, Thomas J. Bliley, Jr., Chuck Schumer, and Chris Dodd
- **2000**: Credit Suisse develops the **first mortgage-backed CDO**
- **2000, December**: **Commodity Futures Modernization Act of 2000** (based on a report by Summers, Greenspan, Levitt, & Rainer) declares credit default swaps (and other derivatives) to be unregulated, banning the SEC, Fed, CTFC, state insurance companies, and others from meaningful oversight

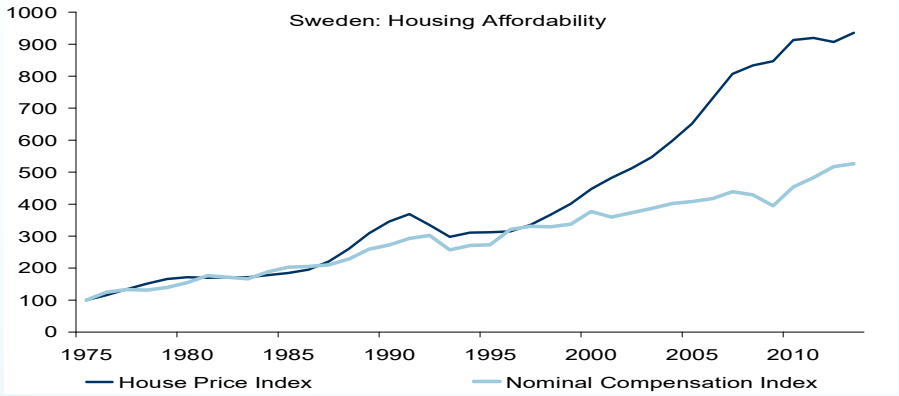
# The increasingly permissive regulatory policy (IV)

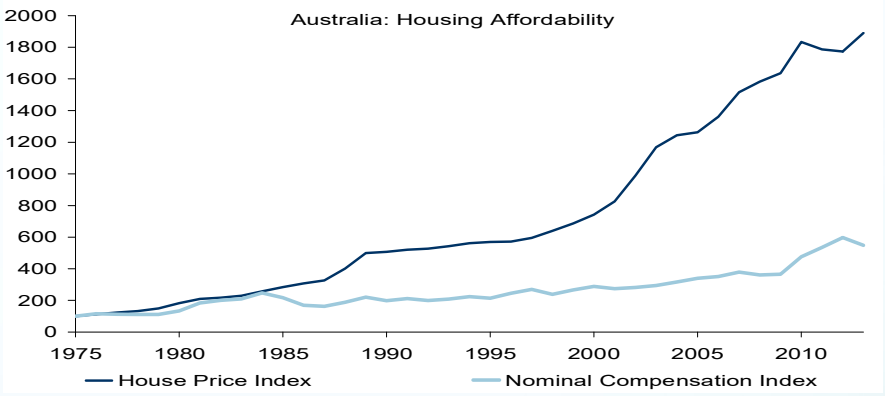
- **2002**: GW Bush unveils his "**Blueprint for the American Dream**". He sets the goal of increasing minority home owners by at least 5.5 million by 2010 through billions of dollars in tax credits, subsidies and a Fannie Mae commitment of $440 billion to establish NeighborWorks America with faith based organizations
- **2004**: **U.S. homeownership rate peaks with an all time high of 69.2 %**
- **2004**: After Countrywide Financial, the largest U.S. mortgage lender, many lenders adopt **automated loan** approvals that were not subjected to appropriate review and documentation according to good mortgage underwriting standards. In 2007, 40% of all subprime loans resulted from automated underwriting. **Mortgage fraud** by borrowers **increases**
- **2004**: HUD ratchets up Fannie Mae and Freddie Mac affordable-housing goals for next four years, from 50 to 56%, stating they lagged behind the private market; they purchase $175 billion in 2004 - 44% of the market; from 2004 to 2006, they purchase $434 billion in securities backed by subprime loans
- **2004, October**: **SEC effectively suspends net capital rule for five firms**—Goldman Sachs, Merrill Lynch, Lehman Brothers, Bear Stearns and Morgan Stanley. Freed from government imposed limits on the debt they can assume, they **levered up 20, 30 and even 40 to 1**, buying massive amounts of mortgage-backed securities and other risky investments
- **2003-2007**: **The Fed fails to use its supervisory and regulatory authority over banks**, mortgage underwriters and other lenders, who abandon loan standards (employment history, income, down payments, credit rating, assets, property loan-to-value ratio and debt-servicing ability), emphasizing instead lender's ability to securitize and repackage subprime
- Fed Governor Edward Gramlich raises concerns over subprime lending practices, says mortgage brokers might not have incentives for careful underwriting and that that portion of the subprime industry was veering close to a breakdown
- The Bank of International Settlements (BIS) warns about the problems with structured financial products, and points out the conflict of interest of credit rating agencies - that they are being paid by the same companies they are supposed to be objectively evaluating

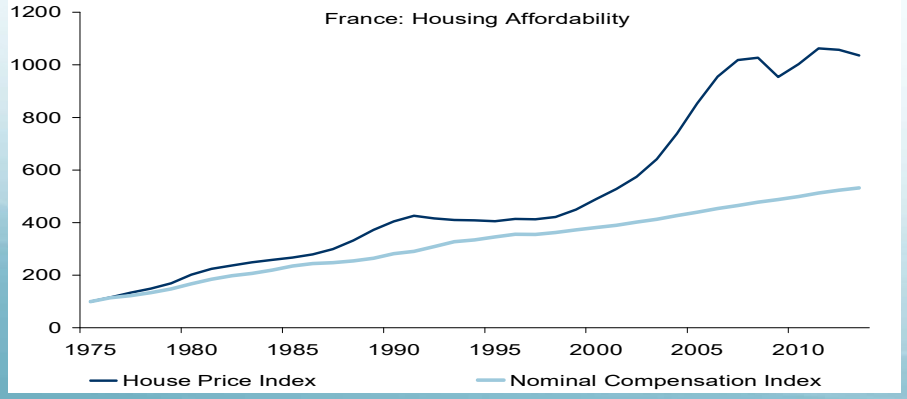
# Housing (un)affordability

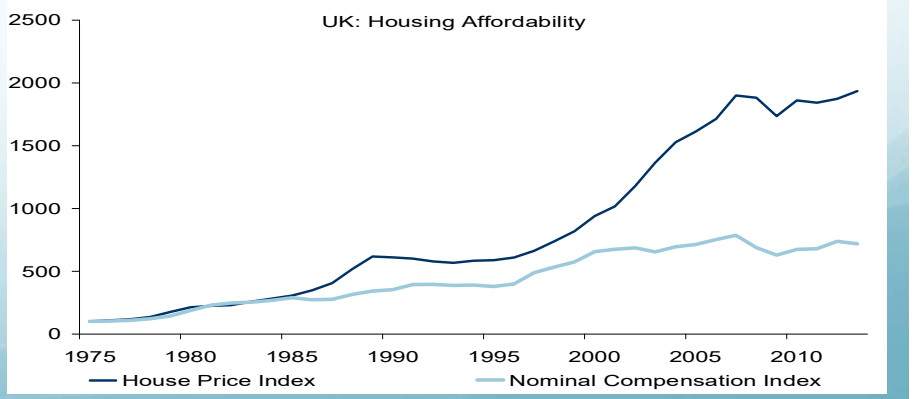


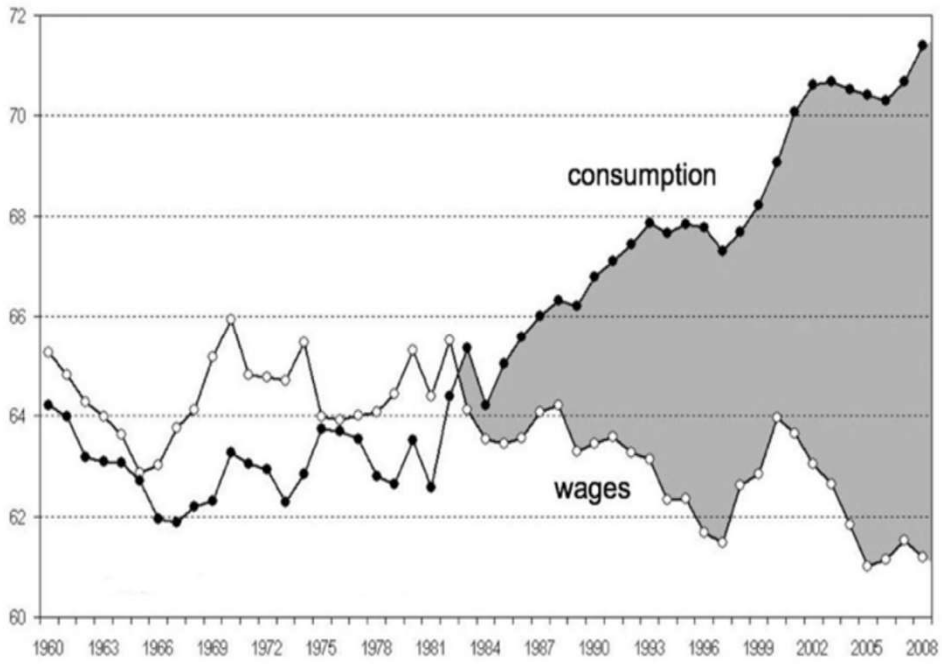



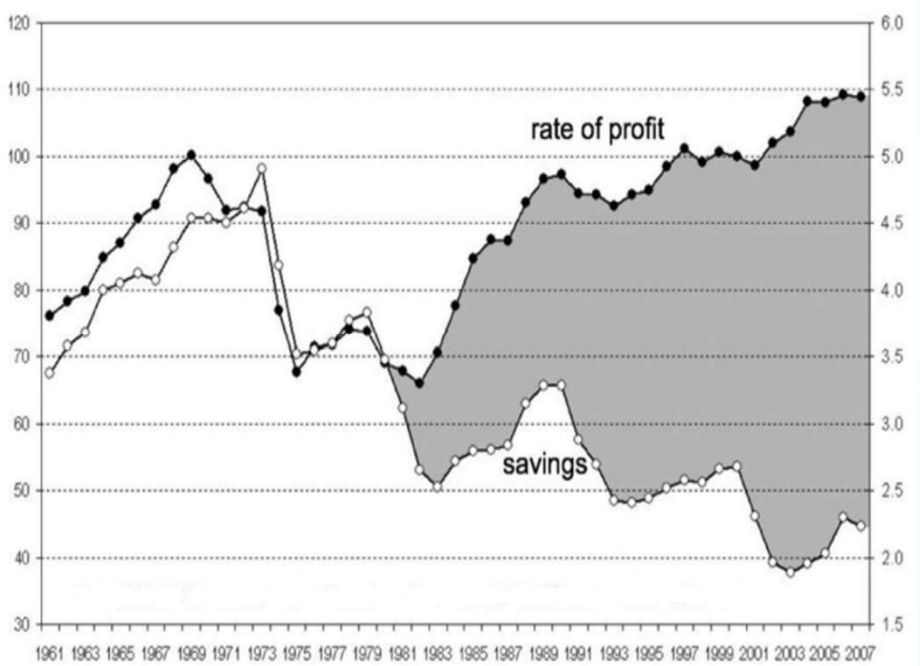




Source: European Commission AMECO database, Haver Analytics, Morgan Stanley Research

# DM increasing consumption-wages gap and its funding




- The figure on the left compares the time evolution of private consumption in the U.S., European Union and Japan (expressed in % of GDP) to total wages. **Until 1981, wages funded consumption**. **After 1984**, the gap between consumption and wages has been growing dramatically: **consumption had to be funded by other sources of income than just wages**. The figure on the right suggests that this other source of income is nothing but the increasing profits from investments, while the diminishing level of savings only partially covered the increased consumption propensity
- **Households in the U.S., European Union and Japan have increased their overall level of consumption from about 64% of GDP to almost 72% of GDP by extracting wealth from financial profits.** Figures for the U.S. alone confirm and amplify this conclusion. The big question is whether the financial profits were translated into real productivity gains and, therefore, were sustainable. It seems obvious today to everybody that **financial innovations and their profits, which do not provide productivity gains in the real economy, cannot constitute a source of income on the long-term.** This evidence was lost as several exuberant bubbles developed during the last 15 years

# Required Readings

- Raghuram G. Rajan: Fault Lines, **How Hidden Fractures still Threaten the World Economy**, Princeton University Press, 2010, Chapters 1, 2, 3, 4
- Michael Spence: **Globalization and Unemployment, The Downside of Integrating Markets**, Foreign Affairs, July/August 2011, http://www.viet-studies.info/kinhte/MichaelSpence_Globalization_Unemployment.pdf

# Suggested Readings

- Justin Yifu Lin: **The Quest for Prosperity, How Developing Economies can take off**, Princeton University Press, 2012, Chapters 1, 2, 3, 4, 5