Implications of financialisation for sustainability

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Agenda

- Definitions and manifestations of financialisation
- Literature on the impact of financialisation on financial system, the real sectors and on the environment
- Conclusions

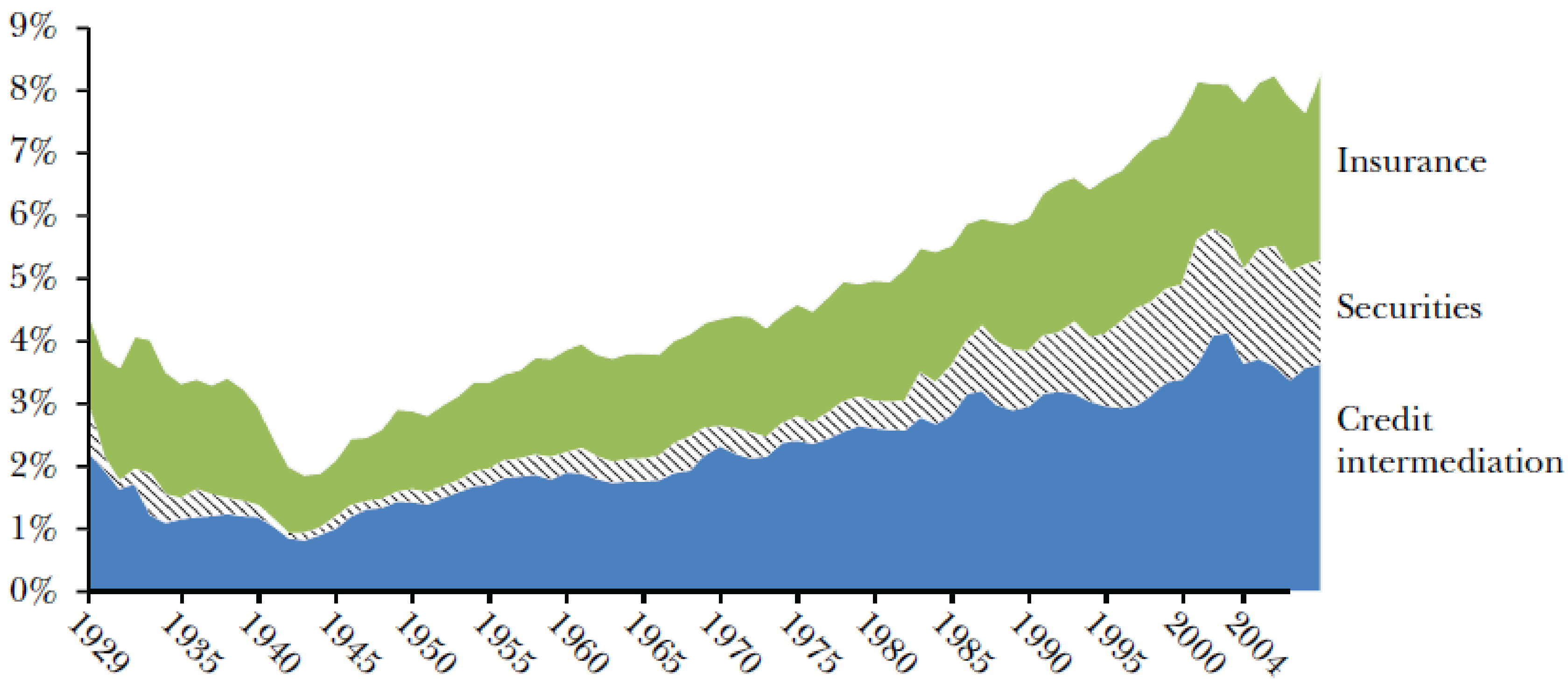
Definition of financialisation

- Epstein (2005) defines financialisation as “the increasing role of financial motives, financial markets, financial actors and financial institutions in the operation of the domestic and international economies”
- Stockammer (2012: 46) summarises this process arguing that ‘actors increasingly perceive themselves like financial institutions manipulating their balance sheets, as if they were managing a portfolio of assets’.
  - Households as groups of people who jointly sustain a preferred consumption pattern by purchasing credit and implementing investment decisions
  - Firms as a bundle of tradable assets

Processes and manifestations of financialisation

- **Financialisation of the macro-economic structure**:
  - ✓ share of financial sector in the economy in terms of generation of income, profits and value added
  - ✓ higher growth rate of stock market capitalisation in relation to the GDP growth rate
- **Increase in complexity of financial markets**
  - ✓ proliferation and expansion of different types of financial assets and financial product innovations
  - ✓ development “shadow banking” and a growing importance of non-banking financial institutions (investment funds, pension funds, insurance companies, hedge funds)
  - ✓ a growth in the share of financial assets under professional management
  - ✓ a shift from a ‘retain and hold’ to a ‘buy and sell on’ banking model
  - ✓ an increasing reliance on self-regulation mechanisms of financial markets

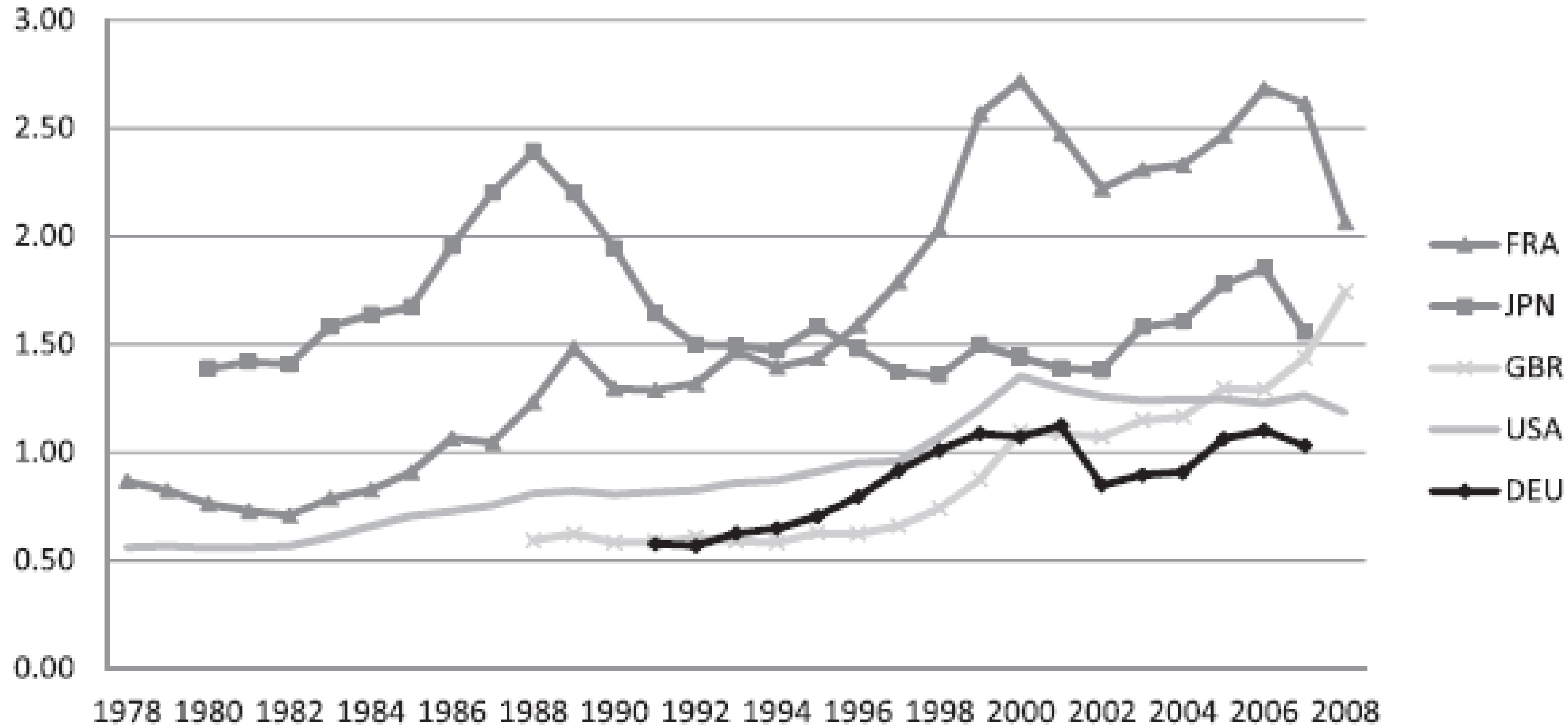
The growth of financial services in USA (value added share of GDP)



Source: Greenwood and Scharfstein (2013). Note:The securities subsector includes the activities typically associated with investment banks and asset management firms.

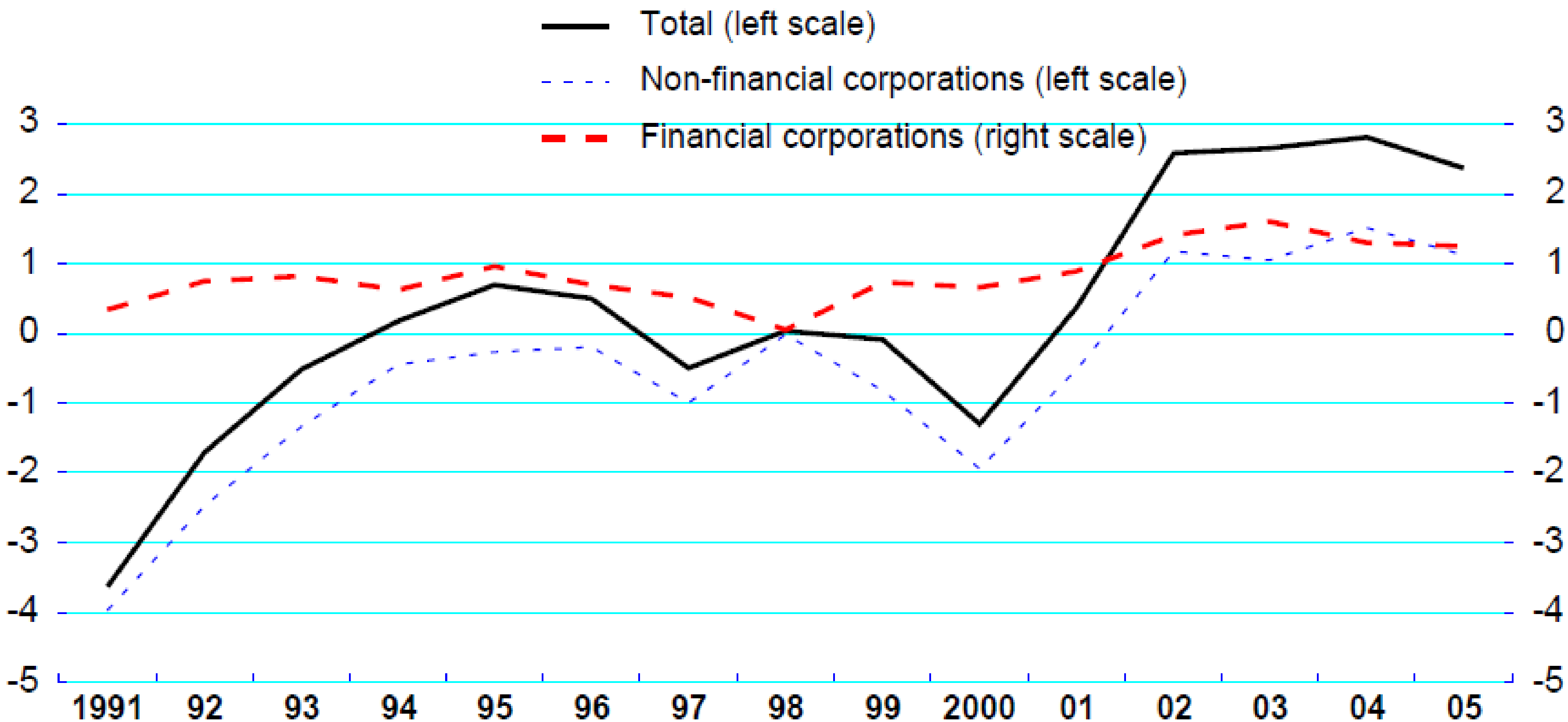
- **Financialisation of non-financial businesses**:
  - ✓ Corporate governance model based on maximising shareholder value
  - ✓ NFCs increasingly invest in financial assets and receive financial incomes, develop financial activities, and offer financial services

Non-financial corporations: total financial assets as a share of fixed assets.



Source: *Lapavitsas and Powell, 2013*

OECD financial and non-financial corporate net lending prior to the 2007-2008 financial crisis



1. Aggregates include Australia, Canada, Denmark, Finland, France, Germany, Italy, Japan, Netherlands, United Kingdom and United States.

Source: André et al. (2007)

- **Financialisation of household decisions and basic needs**
  - ✓ The role of households as financial assets holders has increased.
  - ✓ Provision of household credit through mortgages and consumer loans has grown.
  - ✓ The connection between global financial markets and markets of services and goods for basic needs and capabilities has strengthened (examples: linkage between financial vagaries and housing, provision of public services, such as water is influenced by shareholders’ interests and asset pricing by financial markets)
  - ✓ Lower preference for traditional forms of savings such as deposits and a growing interests in riskier instruments, such as equities, derivatives, and insurance technical reserves.

- **International dimension of financialisation**
  - Size/liquidity/mobility of global financial markets
  - international financial liberalisation and capital account liberalisation

- **Financialisation of commodity market and of natural resources**
  - Rise in financial investment in commodities for portfolio diversification e increasing investment in composite commodity indexes
  - Growing environmental finance ("all market-based instruments designed to deliver environmental quality and to transfer environmental risk", Labatt and White, 2002)

Financialisation of natural resources - Pricing and assignment of economic value to natural resources

- **Direct engagement of finance sector in sustainability actions**
  - ✓ The United Nations Environment Programme Finance Initiative;
  - ✓ Global Sustainable Investment Alliance,
  - ✓ UNEP/BASE Sustainable Energy Finance Initiative
  - ✓ Natural Capital Declaration ("integrate natural capital considerations into loans, equity, fixed income and insurance products")

- **Corporate sustainability measurement and reporting criteria**
  - ➢ The Economics of Ecosystem and Biodiversity (TEEB) for Business Coalition
  - ➢ Bloomberg already collects ESG data from 4,100 companies from 52 countries
  - ➢ More than 700 institutional investors participate in the Carbon Disclosure Project, which asks 2,400 of the world's largest companies to voluntarily measure and disclose their environmental information

Financialisation of natural resources - Pricing and assignment of economic value to natural resources

- **market-based environmental policies and financialisation of environmental conservation**

  ✓ environmental markets and exchanges and related carbon derivatives.
    - in 2011, European Union Allowances (EUAs) in the primary market (US$1.7 billion) = about 1% of the total EUA market value
    - EUA futures (US$130.8 billion) =about 88% of total EUA transaction value

  ✓ platforms and information clearinghouses for transactions for environmental market-based mechanisms and for biodiversity offsetting banking:
    - 45 compensatory mitigation programs and 1,100 mitigation banks.

  ✓ environmental-linked financial products and indexes
    - carbon-index-linked corporate bonds (JPMorgan), ‘carbon structured product’ (Credit Suisse)

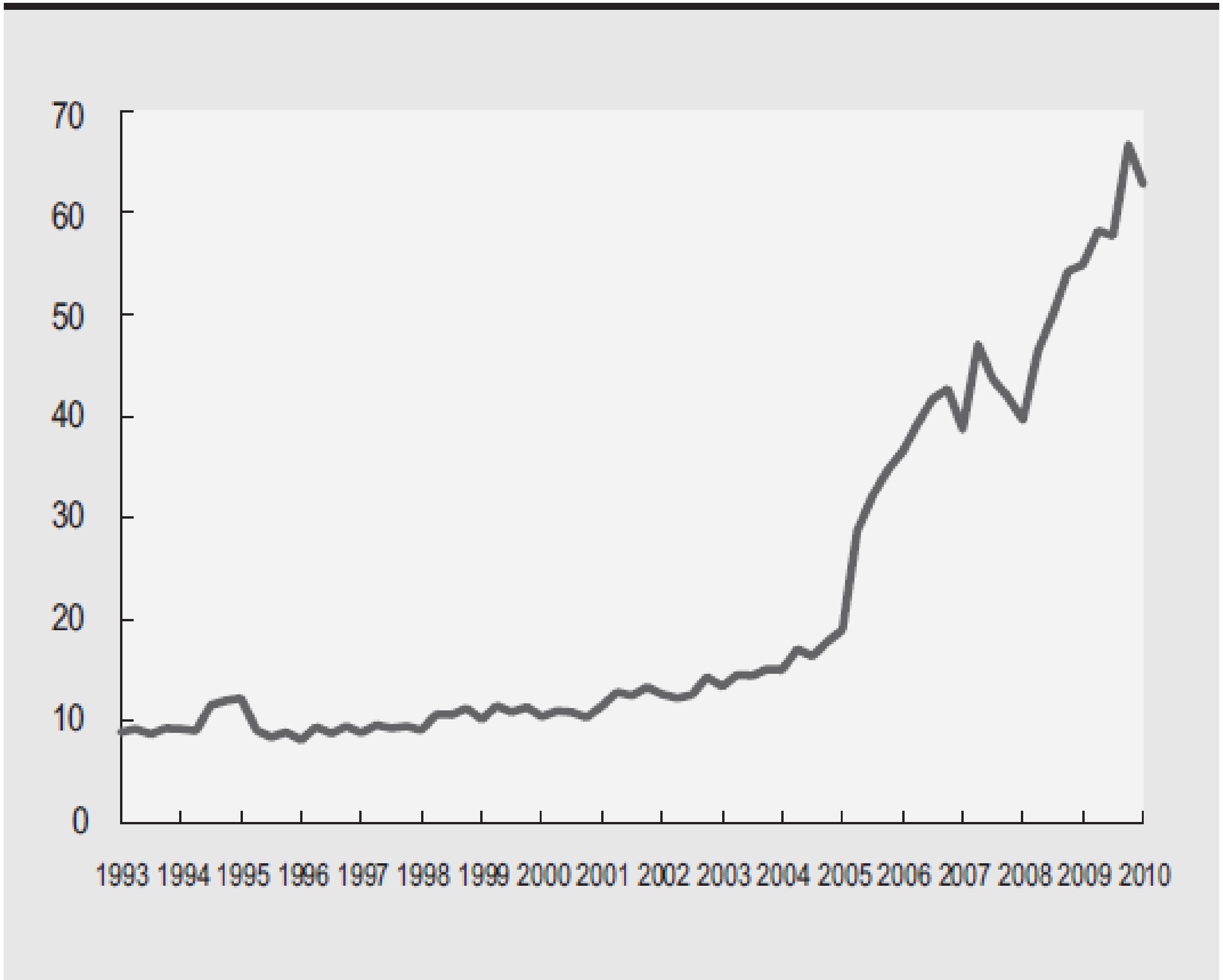
Financialisation of commodity markets

- Rise in financial investment in commodities, especially in in commodity derivatives markets. Fattouh et al. (2013): 'the increasing acceptance of oil derivatives as a financial asset by a wide range of market participants including hedge funds, pension funds, insurance companies, and retail investors'

- Increasing investment in composite commodity indexes: UNCTAD (2011) and Tang and Xiong (2012): growing commodity index investment and the development of synthetic indexes which track returns on weighted commodity baskets (e.g. the Standard & Poor's, Goldman Sachs Commodity Index (S&P GSCI) and the Dow Jones-Union Bank of Switzerland Commodity Index (DJ-UBSCI).

Futures and options contracts outstanding on commodity exchanges

December 1993–December 2010 *(Number of contracts in millions)*



Trading volumes in commodity derivative markets now exceed transactions in physical markets (IMF, 2011)

Source: UNCTAD 2011 based on Bank for International Settlements (BIS), Quarterly Review, March 2011

Impact of non financial businesses

- ***Literature on the role of finance for economic growth***
  - Schumpeter (1911) to cross-cuntry studies by King and Levine (1993), and Rajan and Zingales (1998)
  - Financial systems perform a set of financial services that are expected to serve economic activities and to promote creation of value added in real economy.
    - (i) payment services which are crucial for daily business activity,
    - (ii) insurance and risk-pooling services which should reduce businesses' exposure to risks,
    - (iii) intermediation services which should facilitate real investments and efficient capital allocation by matching providers and users of funds.

- ***Complexity of financial system over the last 20-30 years was expected to improve economic efficiency and firms' performance.***
  - shareholder value orientation / pay-performance sensitivity (Jensen and Meckiling, 1976; Jensen and Murphy, 1990; Fama and Jensen, 1983; Sundaram and Inkpen, 2004)
  - Possibility to tailor investment decisions to the specific preferences of investors by choosing specific combinations of risk/return and liquidity'
  - professional asset management can reduce cost of capital to corporations

Impact on business investment behaviour/use of funds

- ***Theoretical argumentations***
  - Financial versus real and productive investments
  - short-term and reversible investments versus irreversible investments (Rapappport 2005)
  - today's profitability compared to tomorrow's profitability (Dallery, 2009)
  - From 'retain and invest' to 'downsize and distribute' in the investment behaviour (Lazonick and O'Sullivan 2000)

Impact on business investment behaviour/use of funds

- ***Empirical evidence on the link between financialisation and real capital accumulation***
  - Demir (2009) - all publicly traded industrial firms in Argentina, Mexico and Turkey: rising gap between return rates on financial assets and return rates on long-term fixed investments depresses new fixed investment spending and has a positive effect on financial assets to aggregate capital ratio
  - Orhangazi (2008) – US NFCs: past financial income and profits significantly reduce current real investments
  - Blundell-Wignall and Roulet (2013) using a panel of more than 4,000 global companies: high cost of equity and low borrowing rates boost buybacks and dividend payments while reducing long capital expenditure, that is investment
  - Stockhammer (2004): non conclusive results, but in US rentiers' income reduced propensity to real investment
  - increase in repurchasing or buyback of shares

From business investment behaviour to…

- Research and development expenditure and firms' competitiveness and productivity (Lazonick 2010, 2012, 2013; Seo et al. 2012)
- Competition between financial and real sectors for human capital? misallocation of talents in the economy?
- Orhangazi (2011): permanency of non competitive firms in the market?

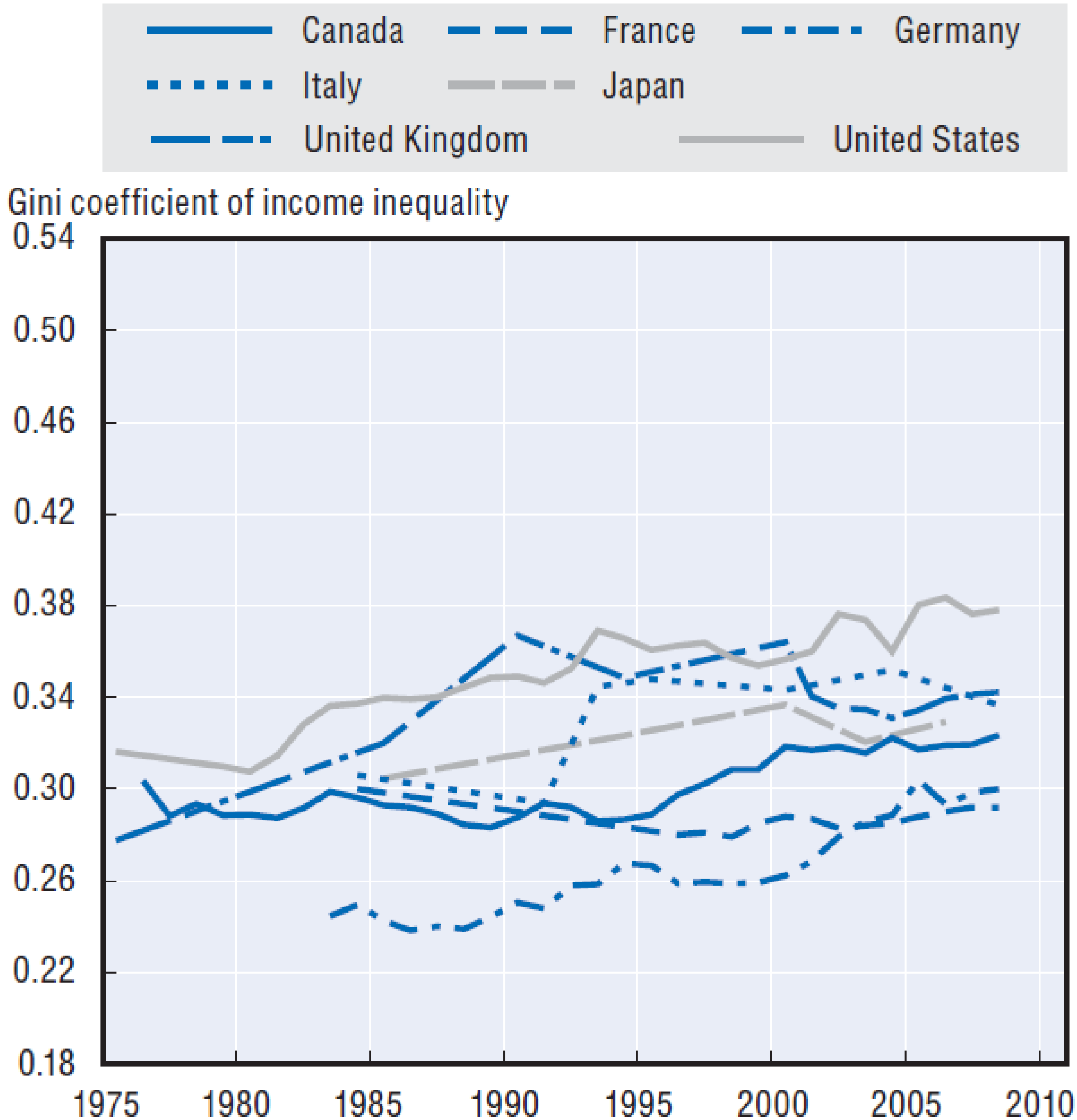
Impacts on non financial businesses: source of funds

- Increase in firms' leverage and level of indebtedness (Palley 2007)
  - (i) shareholder value orientation and the increasing gap between cost of debt and the cost of equity which creates incentives to issue debt (and retire equity);
  - (ii) financial innovation and engineering and asset price inflation which enhances collateral capacity of NFCs;
  - (iii) lowering of credit standards which eases firms' access to borrowing.

- While access to credit can be seen as beneficial for firms' performance and activity, over-indebtedness can be a source of fragility and unsustainability.

Impacts on households: income distribution

- Financialisation might affect
  - managers' incentives / return on financial capital / labour costs
  - changes in political and economic power distribution. Duménil and Lévy (2011): from 'the alliance between the managerial and the popular classes' to 'the alliance between the managerial and the capitalist classes'
  - distributive consequences of international capital mobility and capital account liberalisation
    - Small firms might be not able to fully take advantage from foreign bank entry
    - Capital inflows might prefer sectors which exhibit higher rates of return, short-term profitability and speculative earnings
    - complementarity of capital with respect to skilled labour is greater than with respect to unskilled labour
  - exposure to exogenous or endogenous shocks can produce regressive effects



Source: OECD, 2011

Labour earnings inequality and functional distribution: theory

- Shareholder value orientation

- Earnings opportunities through financial operations tends to partially detach profits and real investments; financial investment decouples the generation of surplus from production (Lin and Tomaskovic-Devey 2011)

→ owners' and elite workers' negotiating power ↑

→ alignment between managers' and shareholders' objectives

→ managements' incentives to follow and meet workers' interests ↓

→ commitment to production ↓ *and* dominance of short-term performance

Growth of return rate on bond, stocks and other financial assets

→ rentiers' income and capital gains ↑

Self-reinforcing process? Philippon and Reshef (2012): it became impossible "for regulators to attract and retain highly skilled financial workers because they could not compete with private sector wages" (referring to US economy in the 2000s).

Impact of financialisation on labour earnings inequality : empirical evidence based on US data

- Arestis et al. (2013): Evidence of a wage premium in managerial and financial occupations;

- Philippon and Reshef (2012): Finance wage gap has increased over time and is higher among top-decile earners

- Tomaskovic-Devey and Lin (2011): An increase in dependence on financial income in NF firms leads to
  - ↑ top executives’ compensation share;
  - ↑ earnings dispersion among employees;
  - ↓ labour’s share of income

- Shin (2012): large NF firms in line with shareholder value orientation are more likely to pay higher executive compensation regardless of their product market performance.

Impact of financialisation on functional distribution : empirical evidence

- negative effect of different indicators of financialisation on wage share (Alvarez, 2012 on France; Dünhaupt 2013 on a sample of 13 OECD countries; Lin and Tomaskovic-Devey, 2011 on US.

But additional explanations: trade liberalisation, monetary and fiscal policies, deregulation of labour markets, technological and productivity changes and migration flows

Impacts on households: exposure and resilience to shocks

→ consumption smoothing and risk diversification capacity → satisfaction of households needs and ability to cushion exogenous shocks (under assumption of perfect rationality and foresight in agents' maximising behaviour, no possibility of unsustainable paths of household debt)

BUT

→ increased accessibility to credit also for households with poor credit score.

→ financial and housing asset price inflation generates a wealth effect

RESULTS:

- expansionary effect on consumption also through indebtedness
- household living conditions more linked to financial fluctuations
- Risk that financial disturbance extends across economic units

Impacts on households: exposure and resilience to shocks

- Prasad et al. 2007: risks of higher output and consumption volatility in the early stages of financial integration

- Claessens et al. 2013: typical patterns prior to crises include
  - asset price bubbles
  - rapid, prolonged and large expansions of credit,
  - deterioration in lending standards,
  - risky liability structures of financial intermediaries,
  - poor regulation and supervision of domestic financial systems
  - underestimation of systemic risks

- Financial and economic crises tend to have regressive effects:

  in OECD countries, inequality in income from work and capital (excluding welfare state interventions) has increased by more over the past three years than in the previous twelve.

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Potential impacts on environment: channels of interaction

- shrinking in planning horizon of invest. → R&D exp for eco-innovations ↓
- borrowing expansion → financial barriers to green investments ↓
- changes in pricing and assignment of economic value to natural resources
- Effect of financialisation of commodity markets on commodity prices

Debate on financialisation of nature or capital natural accounting

More finance

- From a invisible to a visible status.
- Mobilization of financial resources and business practices towards investments in environmental conservation
- transform hidden costs, risks, services, wealth capacity in ‘material for financial institutions’ (Mulder et al. 2013)
- ‘climate change, water scarcity, flooding, pollution and deforestation present material risks and opportunities to investors’. (CDP)

Less finance

- the complexity of ecosystems cannot be narrowed down, compressed and summarised in a single metric or in a single service
- monetization of ecosystem services is “selective” and “uncompleted”
- “orphan” environmental services
- new forms of dispossession (“green grabbing”)
- exposure to vagaries, volatility and failures of markets

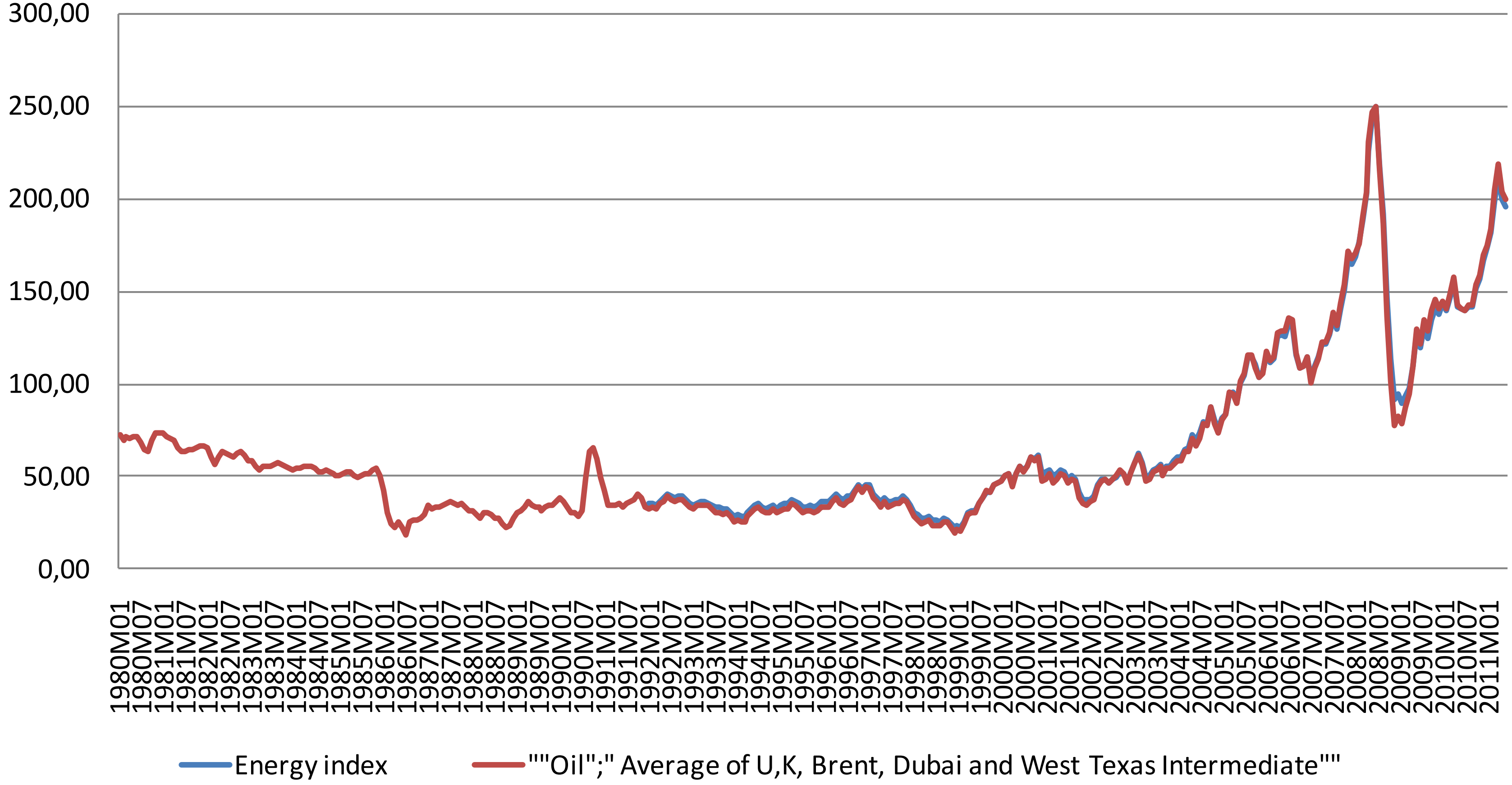
Financialisation of commodity markets

- Commodity prices movements over the last years
  - ✓ global food and energy shocks
  - ✓ upwards trends
  - ✓ Increased correlation between oil and agricultural prices
  - ✓ increased correlations between commodity futures returns and conventional stock and bond returns

- Impact on poverty, inequality, environmental resources

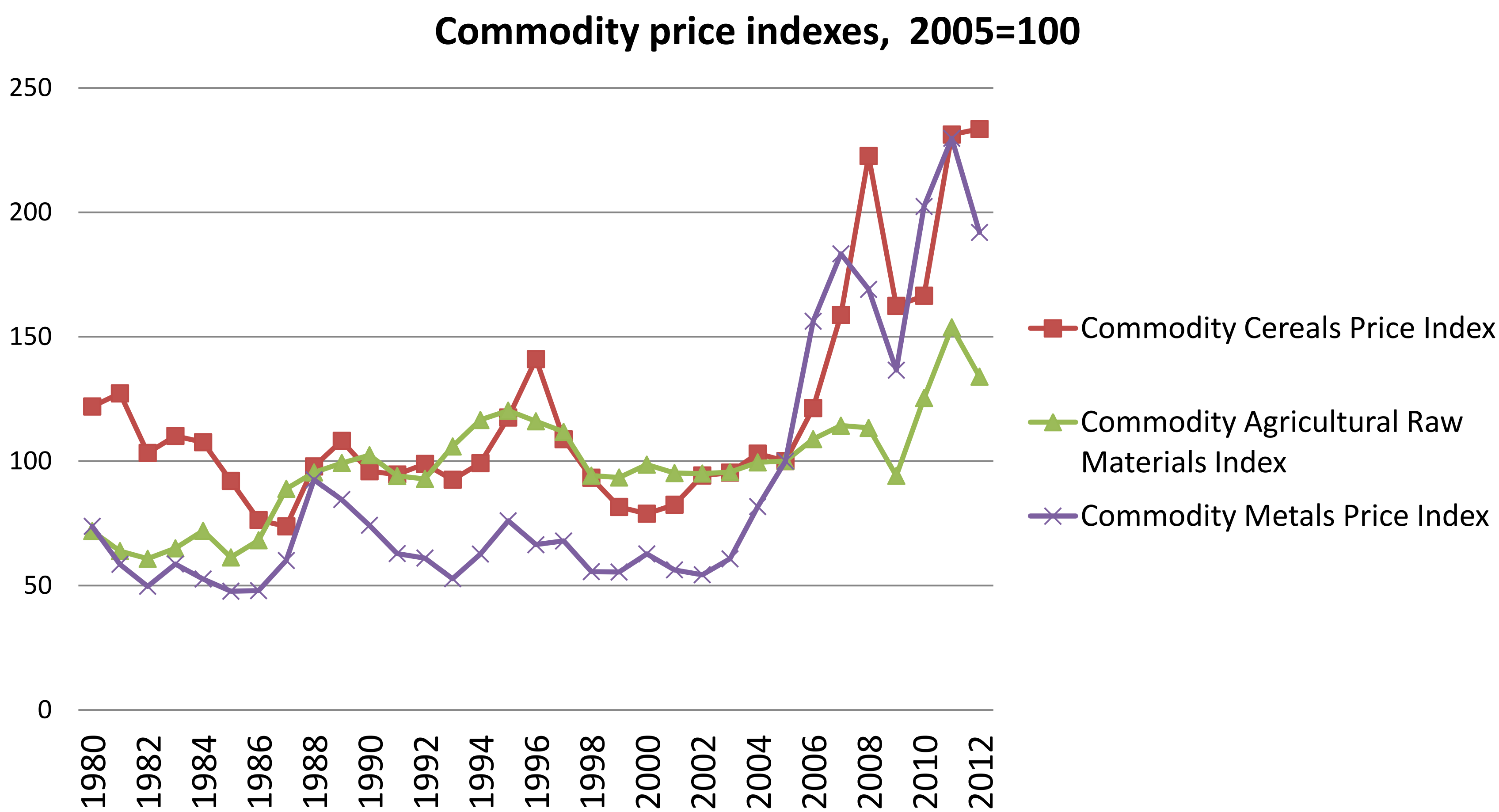
- Financialisation and speculation on commodity prices: possible determinants of energy and food price spikes and prices co-movements ?

Energy and oil price index (1980-2011) base year=2005



Source: IMF

Commodity prices, 1980-2012



Source: IMF

Financialisation of commodity markets and price movements

No significant determinants

- Fattouh et al. (2013): no evidence tat that speculation and financialisation of oil market have driven oil spot prices after 2003.
- Irwin and Sanderds (2012): little evidence that passive index investment caused a massive bubble in commodity futures prices.

Significant role

- Tadesse et al (in press): food price shocks are also explained by the linkages between food, energy, and financial markets and by speculation.
- Henderson et al. (2012): financial institutions' behaviour and demand for commodity exposure have a significant effect in price formation in the commodities futures markets

Financialisation of commodity markets

- Since the early 2000s, correlation between oil and agricultural prices and correlation between commodity futures returns and conventional stock and bond returns have increased (Silvennoinen and Thorp 2013)

↓

- Shocks can be more easily transmitted (and therefore amplified) across different agricultural and natural resources commodities and between commodity and conventional financial assets

↓

- interventions to enhance surveillance and regulations of financial investors participating in commodity markets: improved transparency and position limits in commodity futures exchanges and OTC markets, transaction taxation, and requirements to hold positions for a minimum amount of time (UNCTAD 2011)

- <u>However</u>: attention on the role of fundamentals (such as increasing demand of raw materials), namely from more challenging agendas requiring greater efforts for less environmentally intensive consumption and production at global level

Final remarks

- Financialisation encompasses a range of different processes and involves different components of economy.
- Effects can change across different periods of economic growth, slowdown and recession. Multiple effects at the same time and opposite impacts across different economic phases.
- Most applied works focus on a narrow number of countries
- Cross-country evidence on financialisation is still weak
- Empirical evidence on the environmental dimension is sparse. Debate dominated by polarized positions.

Final remarks

- Sources of non-sustainability in the non-financial sector and in the interactions between financial and non-financial units: short-term orientation in investment decisions and governance, lower incentives for productive real investments and incentive for an excessive financial leverage.

- Social effects: emergent evidence on regressive distributive effects

- New risks and challenges for environmental services and their users that are excluded by official systems of natural capital monetisation and accounting.

- Financial regulation and repression. Examples: improved transparency and position limits in commodity futures exchanges and in derivatives markets, transaction taxation, and requirements to hold positions for a minimum amount of time. Clear definition of speculative and hedging positions. Ban (or limitations) for short selling.