

# Financial Markets, Money and Banking

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# Aims

- To examine how financial markets work;
- To examine how financial institutions such as banks, pension funds, insurance companies work;
- To examine the role of money in the economy

# Why Study Financial Markets?

- Financial markets are markets in which funds are transferred from people and enterprises who have an excess of funds to people and enterprises who have a need of funds.

# Why Study Financial Institutions and Banking?

- **Financial intermediaries:** institutions that borrow funds from people who have saved and in turn make loans to other people.
  - **Banks:** accept deposits and make loans
  - Other financial institutions: insurance companies, finance companies, pension funds, mutual funds and investment companies
- **Financial innovation:** the development of new financial products and services
  - Can be an important force for good by making the financial system more efficient

# Why Study Money and Monetary Policy?

- Evidence suggests that money plays an important role in generating business cycles.
- Recessions (unemployment) and expansions affect all of us.
- Monetary theory ties changes in the money supply to changes in aggregate economic activity and the price level.

# Money and Interest Rates

- Interest rates are the price of money
- Prior to 1980, the rate of money growth and the interest rate on long-term Treasury bonds were closely tied
- Since then, the relationship is less clear but the rate of money growth is still an important determinant of interest rates

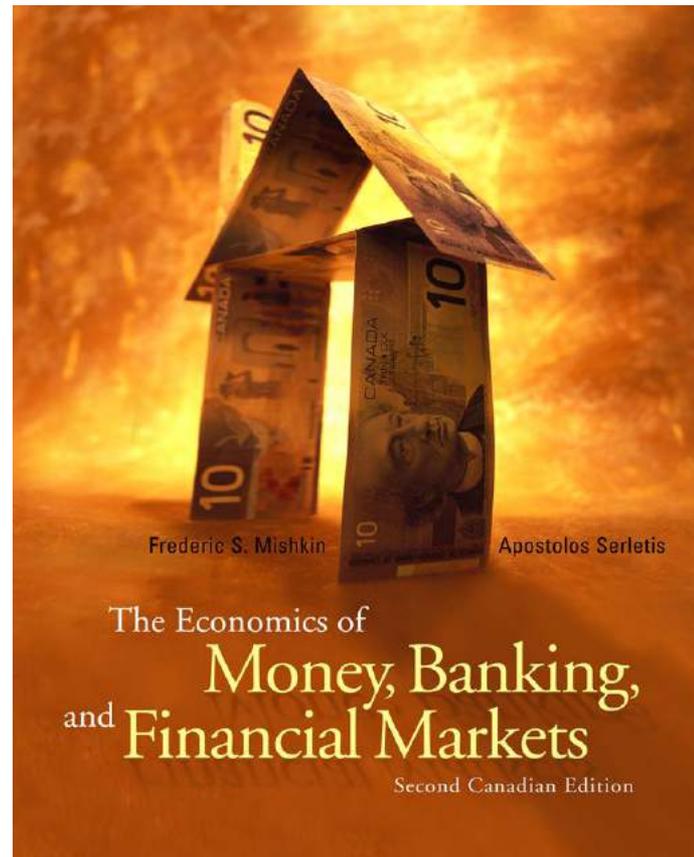
# Fiscal Policy and Monetary Policy

- **Monetary policy** is the management of the money supply and interest rates
  - Conducted in the U.S. by the Federal Reserve System (Fed)
- **Fiscal policy** deals with government spending and taxation

# Introduction to this course

- Outline of the course:
  - Ch1: Introduction (N)
  - CH2: Financial system (N)
  - CH3: Financial institutions, Government interventions and Growth (Y)
  - CH4: Finance growth nexus
  - CH5: Nonbank financial institutions and financial innovation (N)
  - CH6: Money and interest rate
  - CH7: Macroeconomic management

# Textbook



Financial markets and institutions – Mishkin & Eakins (8th edition, 2015)

# References

- [“Development Finance debates dogmas and new directions”- Stephen Spratt \(2009\)](#)
- [Finance and growth: theory and evidence – Ross Levine \(2005\)](#)
- [Financial markets and institutions – Mishkin & Eakins \(8<sup>th</sup> edition, 2015\)](#)
- [Handbook of finance \(2008\) Volume 1- Chapter1](#)
- [Economix : How Our Economy Works \(and Doesn't Work\) by Michael Goodwin](#)

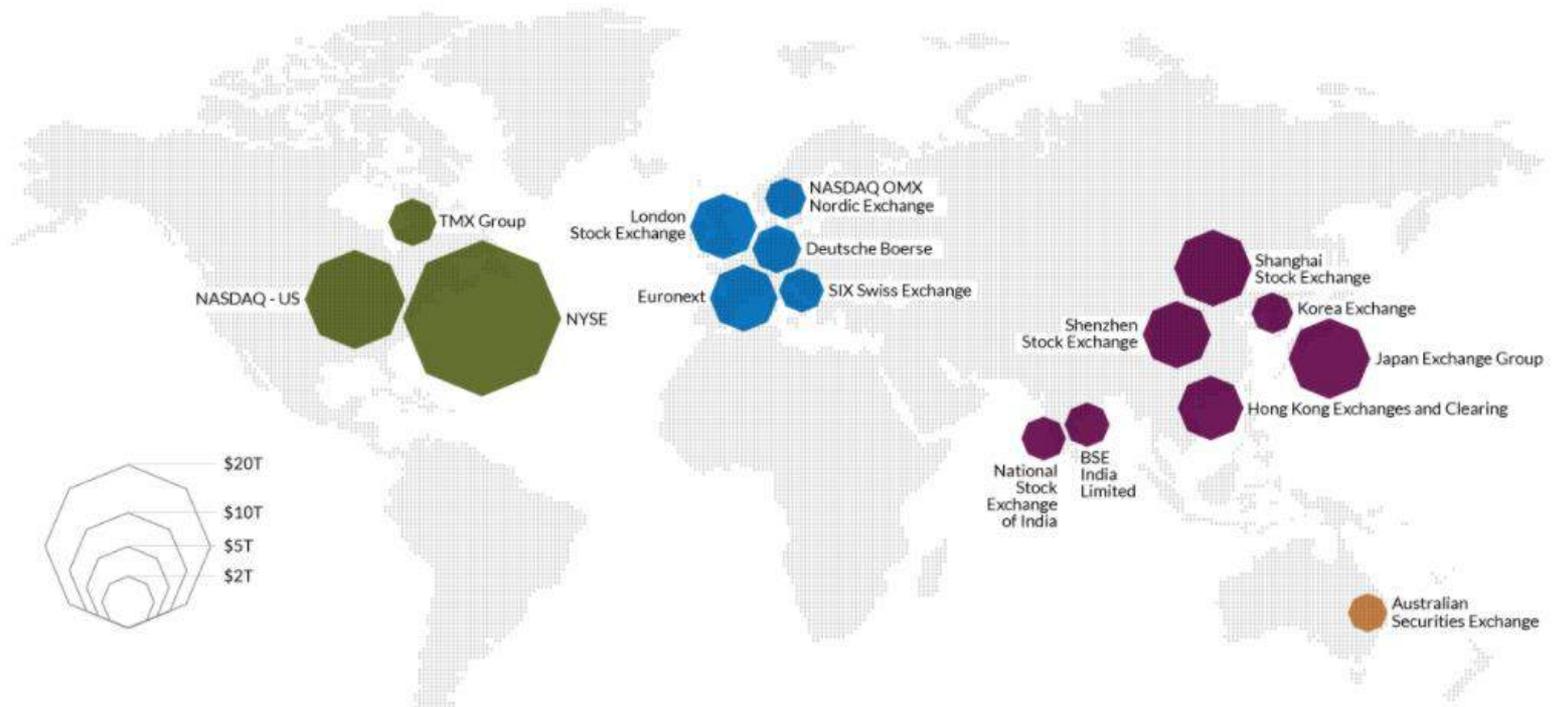
## Evaluation (oral and written) + tests

- Oral presentation in class during 20mm about your project outline
- Group of 2 students
- Select one topic according to the class session
- Write a short report (deadline: 14<sup>th</sup>, May)
  
- Written exams: mid-term exam and final (23, March and 9, May)
  
- Evaluation: 50% (oral and report) - 50% exams

# Chapter 1 :

# Introduction

# The Trillion Dollar Club



# The Trillion Dollar Club

1	 <a href="#">New York Stock Exchange</a>	NYSE	<b>\$18.17 Trillion</b>
2	 <a href="#">NASDAQ Stock Exchange</a>	NASDAQ	<b>\$7.05 Trillion</b>
3	 <a href="#">Tokyo Stock Exchange</a>	JPX	<b>\$4.6 Trillion</b>
4	 <a href="#">Shanghai Stock Exchange</a>	SSE	<b>\$3.93 Trillion</b>
5	 <a href="#">London Stock Exchange</a>	LSE	<b>\$3.64 Trillion</b>
6	 <a href="#">Euronext Amsterdam Stock Exchange</a>	Euronext	<b>\$3.35 Trillion</b>
7	 <a href="#">Shenzhen Stock Exchange</a>	SZSE	<b>\$3.09 Trillion</b>
8	 <a href="#">Hong Kong Stock Exchange</a>	HKEX	<b>\$3.02 Trillion</b>
9	 <a href="#">Toronto Stock Exchange</a>	TSX	<b>\$1.77 Trillion</b>
10	 <a href="#">German Stock Exchange</a>	FSX	<b>\$1.66 Trillion</b>
11	 <a href="#">Bombay (Mumbai) Stock Exchange</a>	BSE	<b>\$1.43 Trillion</b>
12	 <a href="#">Swiss Stock Exchange</a>	SIX	<b>\$1.42 Trillion</b>
13	 <a href="#">India National Stock Exchange</a>	NSE	<b>\$1.41 Trillion</b>
14	 <a href="#">South Korea Stock Exchange</a>	KRX	<b>\$1.28 Trillion</b>
15	 <a href="#">Stockholm Stock Exchange</a>	OMX	<b>\$1.26 Trillion</b>
16	 <a href="#">Australia Stock Exchange</a>	ASX	<b>\$1.2 Trillion</b>

# Companies with over \$1 trillion in assets under management



Together, these 15 companies hold and manage much of the world's financial assets, such as stocks and bonds.

Rank	Company	Country	AUM
#1	BlackRock Inc.	USA	\$5.7 trillion
#2	Vanguard Group	USA	\$4.4 trillion
#3	State Street Global Advisors	USA	\$2.6 trillion
#4	Fidelity Investments	USA	\$2.3 trillion
#5	J.P. Morgan Asset Management	USA	\$1.9 trillion
#6	BNY Mellon	USA	\$1.8 trillion
#7	Pimco	USA	\$1.6 trillion
#8	Amundi	France	\$1.6 trillion
#9	Capital Group	USA	\$1.4+ trillion
#10	Legal & General Investment Management	UK	\$1.3 trillion
#11	Government Pension Investment Fund	Japan	\$1.2 trillion
#12	PGIM	USA	\$1.0+ trillion
#13	Northern Trust	USA	\$1.0 trillion
#14	Wellington Management	USA	\$1.0 trillion
#15	Norges Bank Investment Management	Norway	\$1.0 trillion

# Chapter 2 :

## Financial system

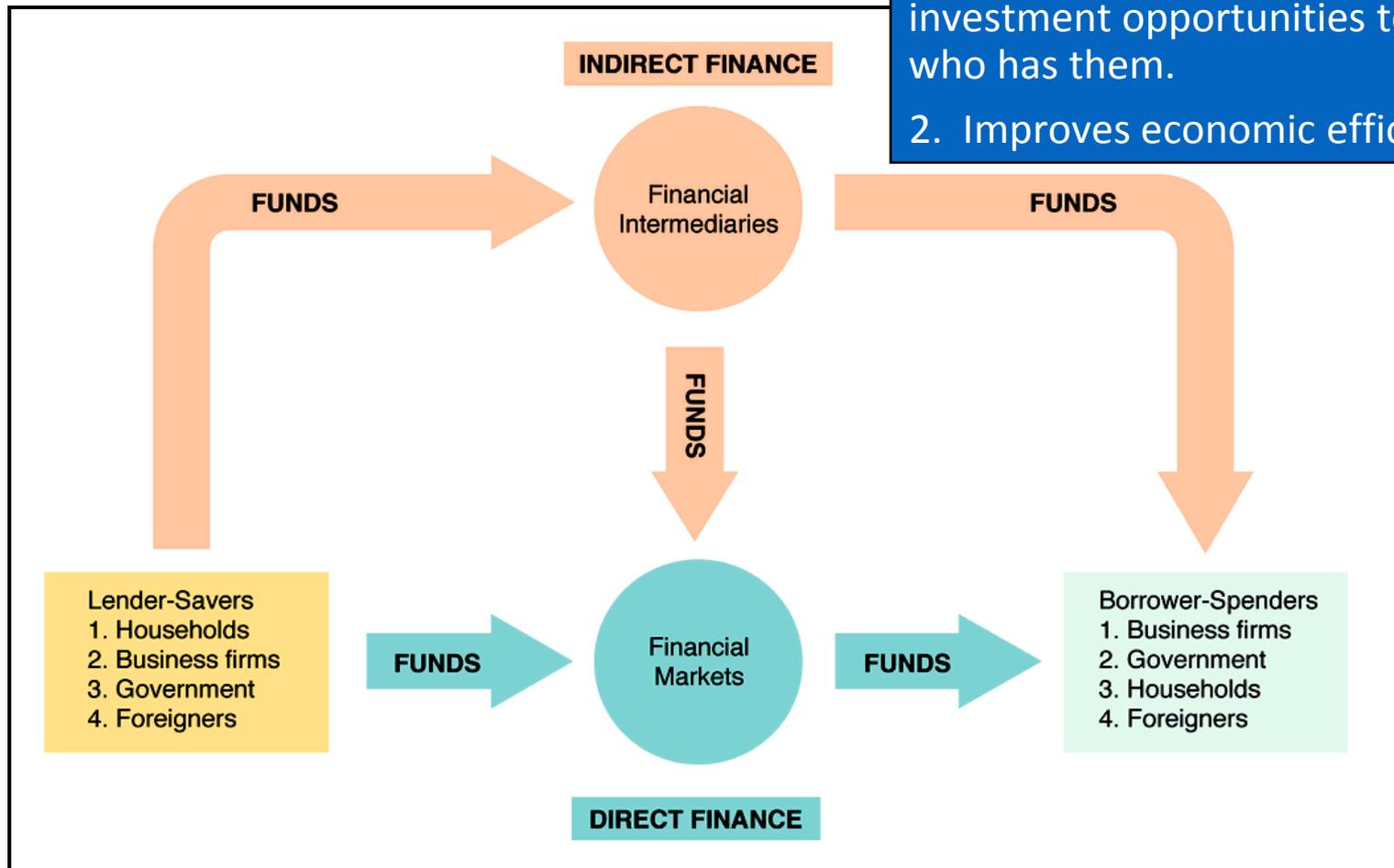
# Defining key terms

- There exist two different forms of exchange in financial markets. The first one is **direct finance**, in which lenders and borrowers meet directly to exchange securities.
- The second type of financial trade occurs with the help of financial intermediaries and is known as **indirect finance**. In this situation borrowers and lenders never meet directly, but lenders provide funds to a **financial intermediary** such as a bank or others institutions (Mutual funds, money managers, ...).

# Function of Financial Markets

(source: Mishkin, 2015)

1. Allows transfers of funds from person or business without investment opportunities to one who has them.
2. Improves economic efficiency



# Function of Financial Intermediaries: Indirect Finance

- Lower transaction costs
  - Economies of scale
  - Liquidity services
- Reduce the exposure of investors to risk
  - Risk Sharing (Asset Transformation)
  - Diversification

# Function of Financial Intermediaries

## Risk Sharing

1. Create and sell assets with low risk characteristics and then use the funds to buy assets with more risk (called **asset transformation**).
2. Lower risk by helping people to diversify portfolios (**diversification**)

## Asymmetric Information: Adverse Selection and Moral Hazard

**Financial intermediaries reduce adverse selection and moral hazard problems.**

### **Adverse Selection**

1. Before transaction occurs
2. Potential borrowers most likely to produce adverse outcomes are ones most likely to seek loans

### **Moral Hazard**

1. After transaction occurs
2. Hazard that borrower has incentives to engage in immoral activities making it more likely that won't pay loan back

# Moral Hazard

- Moral hazard occurs when individual are likely to take greater risks, knowing that a claim will be paid for by other.
- Information known to one party but not the other — makes it difficult for potential trading partners to distinguish between high-risk and low-risk transactions.

# Adverse selection

- Making a decision without having all the information.
- A good example of adverse selection is in the health insurance market. People most likely to purchase health insurance are those who are most likely to use it, i.e. smokers/drinkers/those with underlying health issues.
- This risks pricing healthy consumers out of the market, meaning that only high risk individuals gain insurance – this is clearly a market failure.

# Defining key terms (cont.)

- **Asset**: Any possession that has value in an exchange.
  - **Tangible assets**: Its value depends on particular physical properties: Ex. buildings, land, machinery,...
  - **Intangible assets**: Legal claims to some future benefit:  
*Financial assets*

# Defining key terms (cont.)

- Globally we can identify 2 types of Financial instruments:
  - 1. Debt instrument:** The issuer agrees to pay interest and repay the amount borrowed; Ex: Bonds.
  - 2. Equity instrument:** Obligates the issuer of the financial instrument to pay the holder an amount based on earnings, if any, after the holders of the debt instruments have been paid.  
Ex: common stock, a partnership share in a business.

# Examples of financial instruments

Context	Issuer	Investor	Terms of the loan
A loan by BNP	The individual who buys a car	Commercial bank	Specified payments over time= repayment of the loan+ interest
A bond issued by the French government	French government	Buyer of the bond	Interest payments every six month till maturity date -> amount borrowed
A bond issued by Total Inc.	Corporation		Same as above!
A bond issued by the government of Australia	A central government		Same as above!
A share of common stock issued by L'Oréal	Corporation		Receive dividends + a claim to a pro rata share of the net asset value in case of liquidation
A share of common stock issued by Toyota Motor Corporation	The Japanese Corporation		Same as above!

# Characteristics of debt instruments

- Debt instruments include: loans, money market instruments, bonds, mortgage-backed securities and asset-backed securities.
- **Maturity**: The number of years over which the issuer has promised to meet the conditions of the obligation
  - Money market instrument → Maturity < 1 year
  - Capital market debt instrument → Maturity > 1 year
- **Value/ principal/ face value/ maturity value**: The amount that the issuer agrees to pay by the maturity date.
- **Coupon rate/ nominal rate/ contract rate**: The interest rate the issuer agrees to pay each year. The frequency of interest payments varies by the type of the debt instrument.
  - Zero-coupon bonds: debt instruments that are not contracted to make periodic coupon payments
  - Floating rate securities: coupon payments reset periodically according to some reference rate

# Defining key terms (cont.)

- Financial markets: place where financial instruments are exchanged



## 3 major economic functions

- Interaction of buyer and sellers determine the price of traded asset (price discovery process)
- A mechanism for an investor to sell a financial instrument (offering liquidity)
- Reducing the transaction costs

# Classification of financial markets

1. **Type** of financial claim
  - Debt markets
  - Equity markets
2. **Maturity** of the claim
  - Money market
  - Capital markets
3. **Issuance:**
  - Primary market (newly issued)
  - Secondary market (previously issued)
4. **Time** of the transaction:
  - Cash market
  - Derivatives market (The contract holder buys or sells a financial instrument at some future time)
5. Organizational **structure:**
  - Auction market /organized Exchange
  - Over-the-counter market

# Debt vs. Equity

- The most common equity title is **stock**
- An equity instrument makes its buyer (lender) an owner of the borrower's enterprise
- Equity holders earn a share of the borrower's enterprise's, some firms pay (more or less) payments to their equity holders known as **dividends**.
- Equity titles do not expire and their maturity is, thus, infinite, they are considered **long term** securities

# Debt vs. Equity (cont.)

Two forms of equity market:

1) Public equity market (share markets/ stock exchanges):

Where companies **list** their shares for trading purposes. Total value of the company's outstanding shares → **Market Capitalization**

2) Private equity: Shares are not listed on a public market, they are sold directly to the investors

# Money markets vs. capital markets

- Money markets are markets in which only **short term debt titles** are traded  
Ex: commercial paper, government bills with short maturities
- Capital markets are markets in which **longer term** debt and equity instruments are traded.

# Primary market vs. secondary markets

- Primary markets are markets in which financial instruments are **newly issued**
  - They are not very known to the public (selling behind closed doors)
  - An important institution: investment banks
- Secondary markets are markets in which financial instruments **already in existence** are traded among lenders
  - Ex: The New York Stock Exchange
  - Ex: NASDAQ

# Cash vs. Derivatives market

Time of the transaction !

## Derivatives markets:

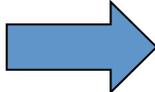
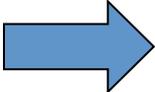
2 types of basic instruments:

- » Futures/forward contract: transaction of a financial instrument at a predetermined price at a specified future.
  - » Option contract: Owner of the contract has the right but **not the obligation** to buy/sell a financial instrument at a specific price from another party.
- Tools for handling of financial risk: Derivatives can be used for a number of purposes, including insuring against price movements (hedging), increasing exposure to price movements for speculation.

# Exchange vs. over-the-counter markets

- Secondary markets can be organized as:
  - **Organized Exchange**, in which buyers and sellers of securities meet in one central location, such as a stock exchange (A visible marketplace for secondary market transactions )
  - **Over-the-counter (OTC)** markets in which dealers at different locations who have an inventory of securities stand ready to buy & sell securities to anyone who comes to them.
    - Titles are exchanged in several locations

# National or international?

- Capital and money markets  National
- Forex and derivatives markets  International
- Internationalization of the financial markets  
→ important trend

**FX markets:** (Foreign exchange market/ Forex)

A market for trading currencies internationally

# International Bond Market

- **Foreign bonds:** are sold in a foreign country and denominated in that country's currency  
Ex: if Porsche sells a bond in US denominated in \$ → foreign bond
- Foreign bond have been an important instrument for centuries: a large percentage of US railroads built in the 19<sup>th</sup> century were financed by sales of foreign bonds in Britain
- An innovation in the international bond market: Eurobond

- **Eurobonds:** A bond issued in a *currency other than the currency* of the country or market in which it is issued  
Ex: A bond that is denominated in U.S. dollars and issued in Japan by an Australian company

A bond denominated in euros is called a Eurobond only if it is sold outside the countries that have adopted the euro

- A variant of the Eurobond → Eurocurrencies:  
foreign currencies deposited in banks outside the home country
- The most important Eurocurrencies are **Eurodollars** :  
US\$ deposited in foreign banks outside the US

# Commercial financial institutions

- Commercial banks:
- Investment banks:
- Universal banks:
- Mortgage banks:
- Contractual savings:
- Asset management companies:
- Private equity companies:

# Commercial financial institutions

- **Commercial banks:** Take deposit from public and lend to individuals and corporate borrowers.
  - ✓ Difference between the interest rate paid to savers and that charged to borrowers  Spread
  - ✓ These banks transform short term liabilities into long term assets
- **Investment banks:** Financial services that are generally related to the businesses (finding and structuring various forms of finance, issuance of corporate bonds, arrangement of mergers and acquisitions, ...)
- **Universal banks:** Combine functions of commercial and investment banks

- **Mortgage banks:** Provide finance for the purchase of property.
- **Contractual savings:** Institutions such as pension funds and insurance companies.
- **Asset management companies:** provide “Portfolio management” services by accessing public and private financial markets
- **Venture capitalists/ Private equity companies:**  
Provide capital for new or expanding business

*In the last 2 decades, we have seen a considerable destruction of the ‘functional boundaries’ between different types of bank and non-bank financial institutions.*

# Quasi-commercial financial institutions

- **State development banks:** Owned by governments, direct credit to priorities of the government.
- **Mutual cooperative banks:** Collectively owned by their members. (higher interest, lower charges)
- **Post office savings banks:** Basic financial services (low income)
- **Credit unions:** Owned by their members, credit granted to members on low incomes
- **Microfinance institutions:** Providing the poor with access to financial services, in form of bank, cooperative, credit union etc.

# Governmental financial institutions

- **Central banks:** Have the monopoly of **fiat money** issuance.
  - Provide liquidity (control money supply)
  - LOLR: act as a lender-of-last resort to the domestic banking system

## Main features:

- National payments and settlement system
- Prudential regulation/ supervision
- Insurance for deposits
- Execute monetary policy → inflation targeting
- Exchange rate policy

# Types of financial Intermediaries

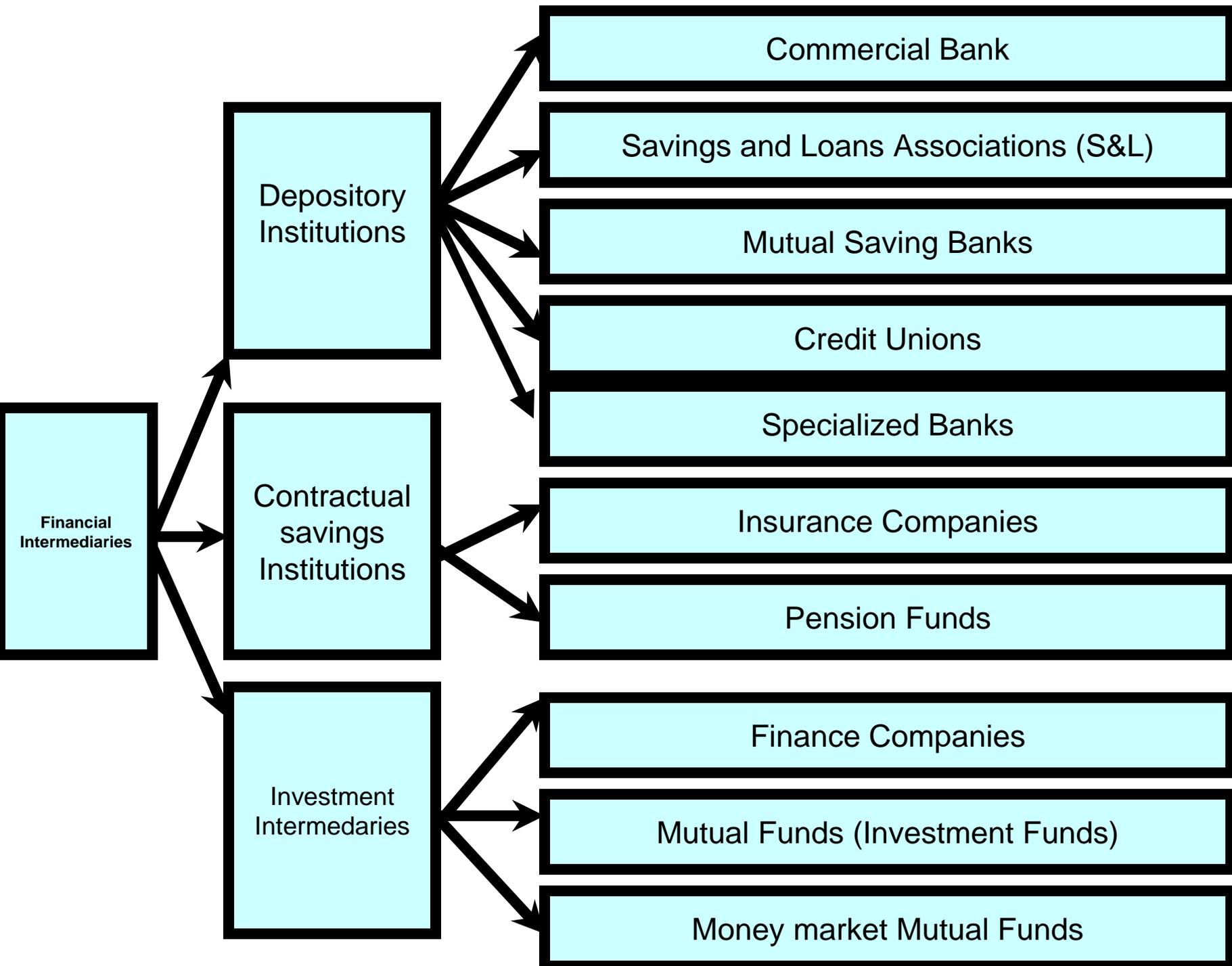
## **1. Depository institutions:**

Financial intermediaries that accept deposits from individuals and institutions and make loans.

## **2. Contractual savings institutions:**

Financial intermediaries that acquire funds at periodic intervals on a contractual basis.

## **3. Investment intermediaries**



# How do financial markets differ from other markets?

- Delivery in future, future is uncertain → Risky → interest payment (*time value of a money*);
- Transfers across time: smoothing consumption and investment;
- Risk management:
  - Credit risk: the risk of default on a debt that may arise from a borrower could not make required payments.
  - Market risk: loss by changes in asset prices
  - Liquidity risk: it may not be possible to sell an investment quickly without loss.
  - Systemic risk: severe instability or collapse in the industry and/or in the economy.

# Main roles of the financial system (Levine, 2005)

## 1. Producing information and allocating capital:

- Improve resource allocation
- Leads to a more efficient allocation of capital

## 2. Risk amelioration:

- **Cross-sectional risk diversification:** high-return projects tend to be riskier than low-return projects → financial markets make it easier for people to diversify risk and shift portfolios towards higher expected returns.
- **Intertemporal risk sharing:** Some risks cannot be diversified at a particular point in time, such as macroeconomic shocks, they can be diversified across generations.  
Long intermediaries can facilitate intergenerational risk sharing by investing with a long-run perspective.



**Hicks 1969:** the products manufactured during the first decades of the Industrial revolution had been invented much earlier, the critical innovation that ignited growth in 18<sup>th</sup> century was **capital market liquidity** → savors can hold liquid assets like equities, bonds etc. that they can quickly and easily sell if they seek to access credit and capital markets can transform these liquid assets to long-term investments.

### 3. Mobilize savings and Invest

- Savings from individuals, investment in a diversified portfolio, reallocation of investment toward higher return activities → positive effects on economic growth.

## 4. Ease the exchange of goods and services

- Financial arrangements lower transaction cost
- More specialization requires more transactions, since each transaction is costly → financial development leads to more specialization → positive impact on growth

# Market efficiency

- The efficient market hypothesis (EMH) formulated by Eugene Fama in 1970.
- Suggests at any given time, prices fully reflect all available information about stock and/or market.
- According to the EMH, no investor has an advantage in predicting a return on a stock price because no one has access to information not already available to everyone.

# Market efficiency

- In the real world of investment, there are arguments against the EMH.
- There are investors who beat the market, there are portfolio managers who have better track records than others.

# Evidence on Efficient Markets Hypothesis

## **Evidence: confirm +++++**

1. Investment analysts and mutual funds don't beat the market
2. Stock prices reflect publicly available information
3. Technical analysis does not outperform market

## **Evidence: opposite -----**

1. Small-firm effect: small firms have abnormally high returns
2. January effect: high returns in January
3. Week-end effect: stock return tend to be lower than those preceding Friday
4. Market overreaction
5. Excessive volatility
6. New information is not always immediately incorporated into stock prices

# Different types of the financial system

- **Bank-based:** banks play the key role (in mobilizing savings, allocating capital, etc.)

a bank-based financial system finds the economy dependent on how well or poorly the banking industry is doing.

Banks in these systems focus their attention on loans. The stock market in these areas has little or no power over economic trends.

- **Market-based:** The majority of financial power is held by the stock market

# Bank-based vs. market-based

- Bank Based:

Germany and Japan

- Market-Based:

UK and the United States

- As country grow richer, financial markets play a more important role relative to banks.

# Bank-based vs. market-based

- Exposure to risk?
- Market-based system expose households to more risk than do institutions based on the bank-based system.
- This risk is eliminated through inter-temporal smoothing, and thus providing insurance to investors who otherwise would be forced to liquidate assets at disadvantageous prices (Allen and Gale, 2000).

# Bank-based vs. market-based

- Market based financial systems are characterized by dispersion of information (public companies are required to publish more information than private ones).

# Bank-based vs. market-based

- Countries with a Common Law tradition, strong protection of shareholders rights, good tax and accounting regulations and low level of corruption, tend to be market orientated.
- Countries with low protection of shareholders rights, high level of corruption, poor accounting standards, restrictive banking regulations and high inflation level, tend to have underdeveloped financial systems.

# Risks in the financial market

- Systematic risk is the risk that remains after no further diversification benefits can be achieved.
- The systematic risk (market risk) of an asset cannot be eliminated by holding the asset as part of a diversified portfolio.
- Non-systematic risk is the part of total risk that is unrelated to overall market movements and can be diversified. Diversifiable/Idiosyncratic Risk.
- Investors are payed only for systematic risk.

# Market Risk

- **Market Risk:** The risk associated with the co-movements of the market.
- Market risk **cannot be eliminated** by diversification. Holding the total market does not help if all companies are falling together.

# Harry Markowitz's "Portfolio Selection"

- Portfolio variance (total risk) declines as the number of securities included in the portfolio increases
- Harry Markowitz's "Portfolio Selection" *Journal of Finance* article (1952) set the stage for modern portfolio theory
  - The first major publication indicating the importance of security return correlation in the construction of assets portfolios.
  - Covariance and correlation matrices are required.

Chapter 5  
Nonbank financial  
institutions and financial  
innovation

# Introduction

- The sector of NBFIs is defined as including insurance, pension funds and other financial intermediaries (OFIs).
- OFIs include financial institutions: securities and derivatives dealers and specialised financial institutions (e.g.: hedge funds).
- The sector of the non-bank financial institutions (NBFIs) has increase in size and highly inter-connected with banks.

# Introduction

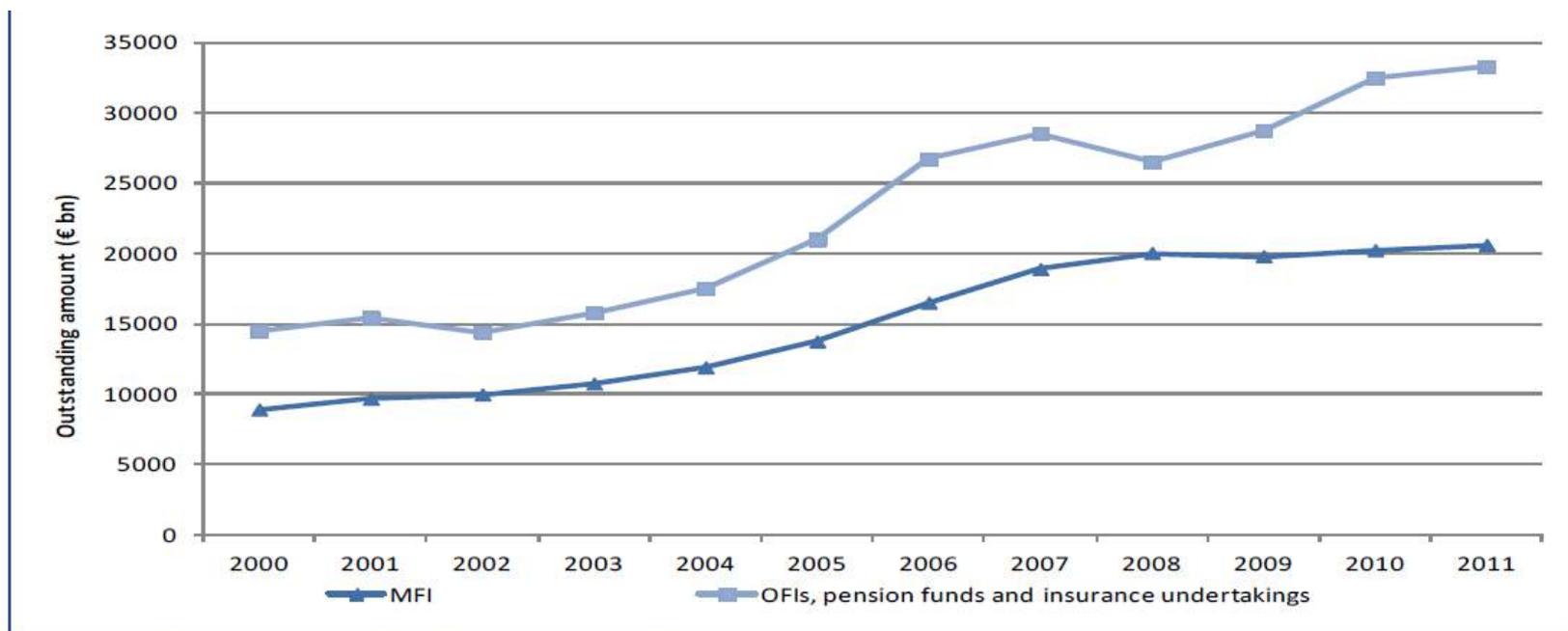
- In the EU27, at the end of 2011, the assets held by NBFIs exceeded the assets held by monetary financial institutions (excluding central banks) (MFIs) (source: European commission):
  - **NBFIs held €32.6 tn of assets**
  - **MFI-Monetary financial institutions held €20.8 tn.**

# Def.

- Non bank financial institution do not have a full banking license, not supervised by a national or international banking regulatory agency.
- Functions: investment, risk pooling, contractual savings, ...

- The non-bank financial sector often referring to the sector as the shadow banking sector (Noeth and Sengupta (2011), Pozsar and Singh (2011), Pozsar et al. (2012), Tobias and Shin (2009)).
- Estimates of the size of the non-bank financial sector vary considerably (because of different methodologies).

# Evolution of the size of the bank and non-bank financial sectors in the EU27



Source: London Economics analysis of Eurostat sectoral account data

- Money market funds (MMFs) or mutual funds: invest in a diversified portfolio of money market instruments.
- Private equity firms: intermediate between investors seeking to invest (indirectly) in companies through private capital markets and companies seeking external finance.

- Hedge funds are active investment vehicles that are lightly regulated with great trading flexibility (Fung et al., 2008).

- **Pension fund** is a pool of assets and a pool of liabilities that are to be funded with assets.
  - collect, invest funds.
  - Set up by employers, unions to provide for the employees' or members' retirement benefits.
  - Long term investors.
- **Insurance undertakings** play a similar role to pension funds in financial intermediation, acting as large institutional investors.

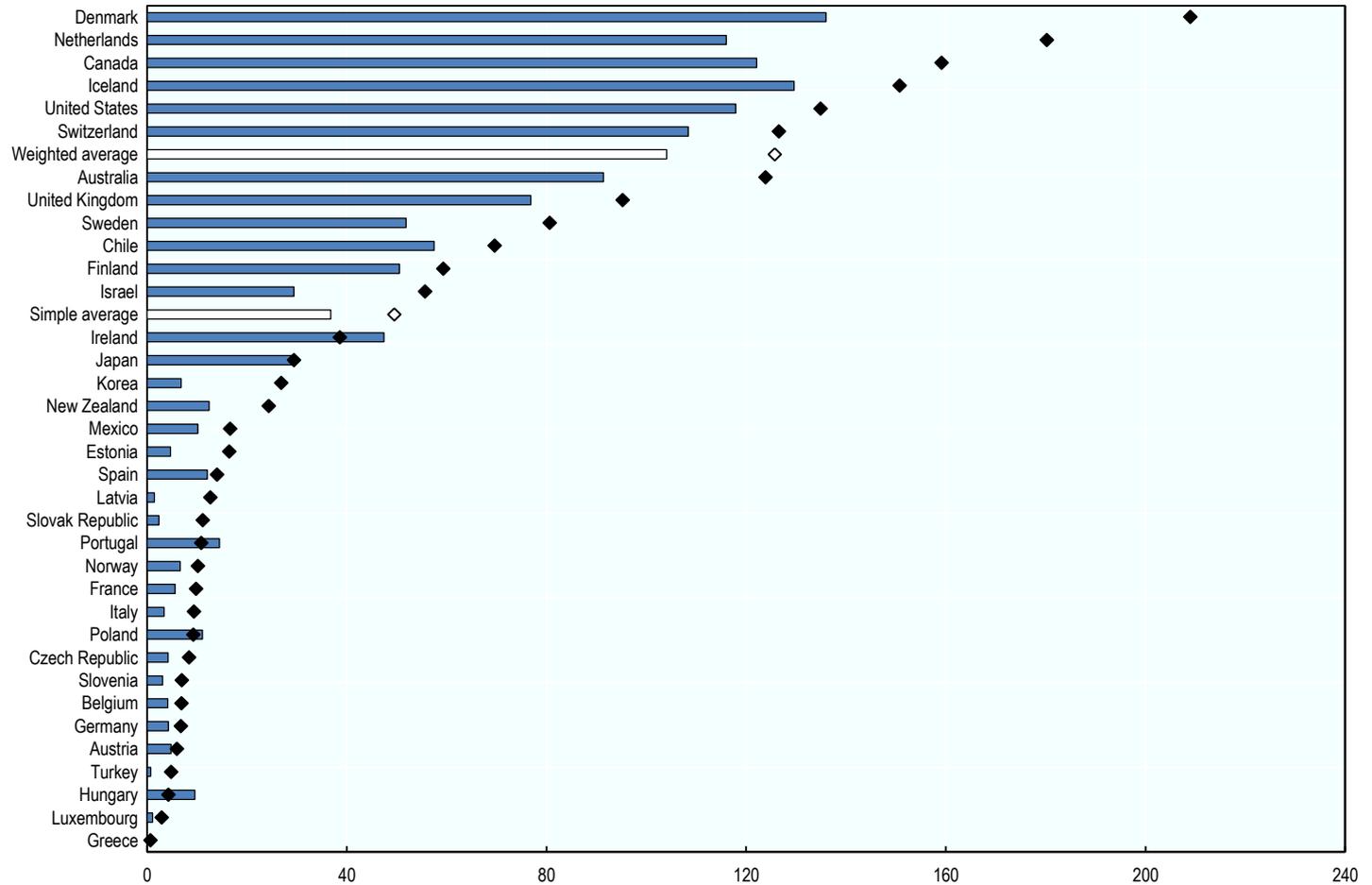
## Characteristics: DB pension schemes (3)

- Schemes cover:
  - Retirement
  - Health
  - Incapacity for employment
  - Death by accident
  - Disability due to accident or illness

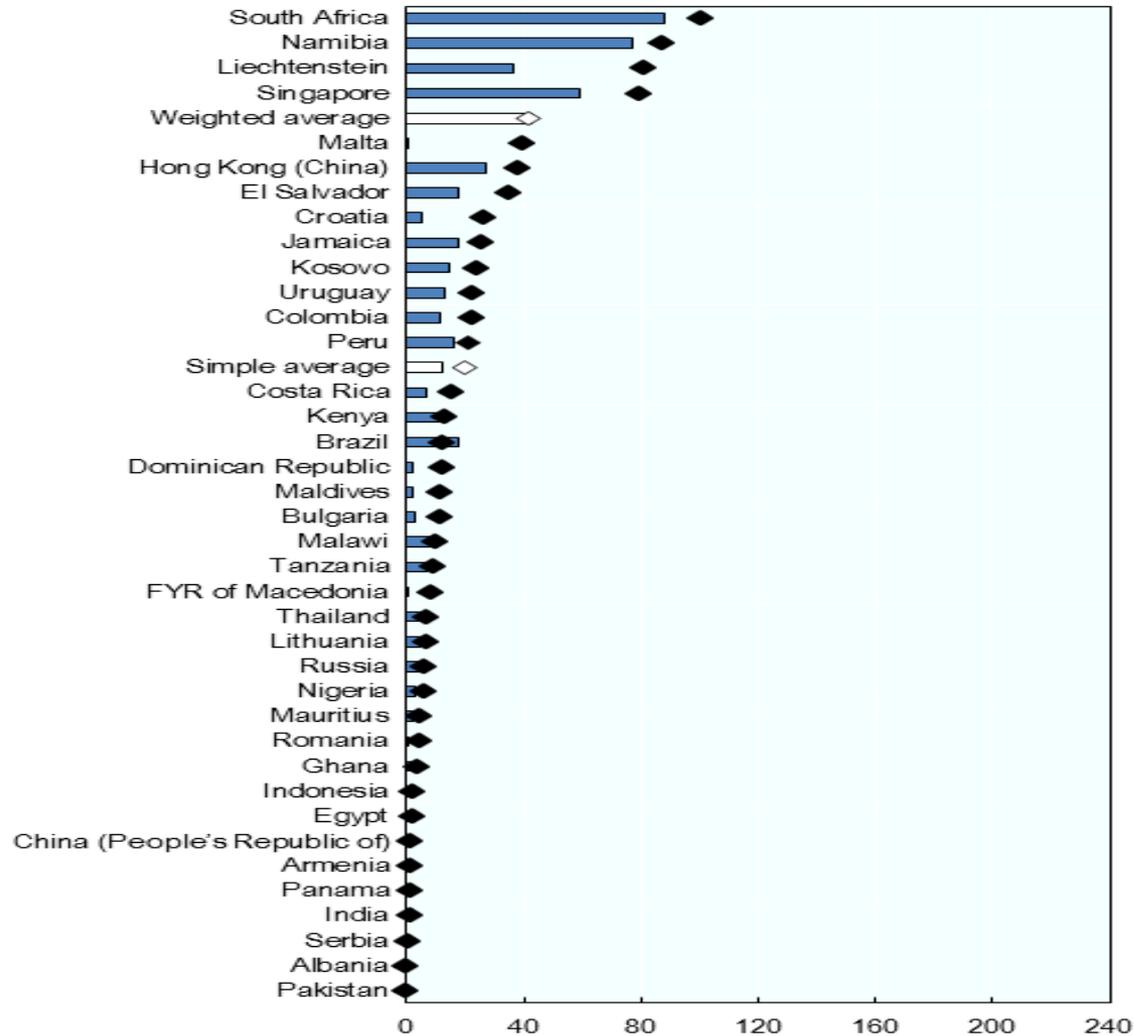
# Insurance

- Insurers accumulate funds due to the time gap between **the receipt of premiums and payment of claims**;
- Invest and manage these funds to generate investment income.

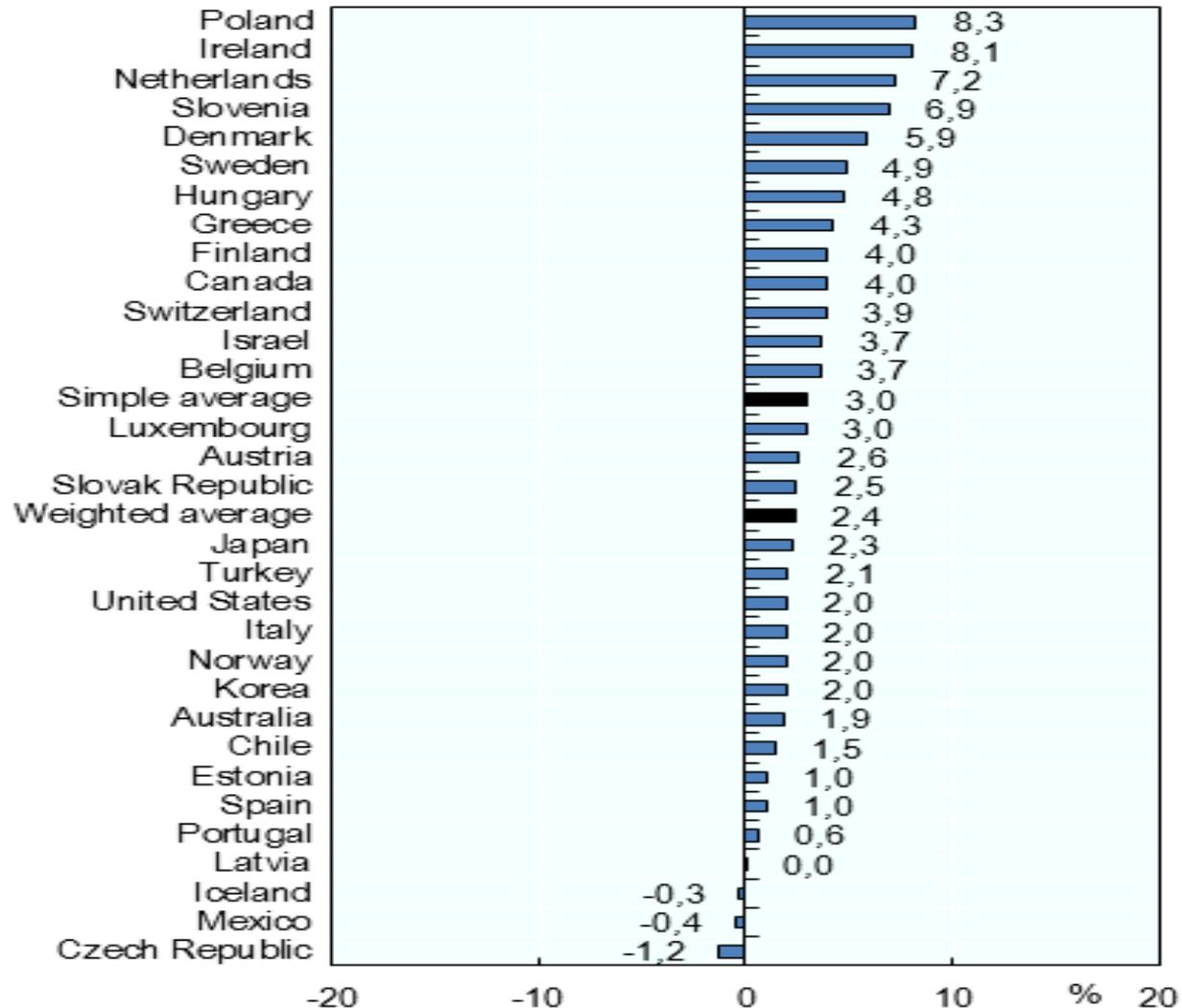
# Total assets as % of GDP, in 2006 and 2016 (OECD)



# Total assets as % of GDP, in 2006 and 2016 (OECD)



## Pension funds Returns 2016 (source: OECD)



# Pension funds Returns

- Strong public equity returns helped.
- Sept. 30, 2017: the MSCI Emerging Markets index returned 22.46%, the MSCI EAFE index returned 19.1% and the Russell 3000 index returned 18.71%.
- Popularity of passive indexed equity assets.

# Portfolio Evolution:

- Use of derivative instruments to hedge interest rate risk,
- Investment in alternative instruments, such as private equity and hedge funds.
- **Private equity** is the investment in companies that do not trade on a quoted market.

## 2 - Financial innovation

# Financial innovation

- Creation of new financial instruments, financial technologies, institutions and markets.
- It includes institutional, product and process innovation.

# Financial innovation

- Institutional innovations: the creation of new types of financial firms such as specialist credit card, internet banks.
- Product innovation: new products such as derivatives, foreign currency mortgages.
- Process innovations: new ways of doing financial business including online banking and new ways of implementing information technology.

# Financial innovation

- Financial innovation has been a central force driving the financial system toward greater economic efficiency (Zvi & Merton).
- The underlying force driving the development of efficient institutional structures is Adam Smith's "invisible hand" —firms seeking to maximize their profits in competitive product markets.

- Recent innovations include: hedge funds, private equity, weather derivatives, exchange traded funds, multi-family offices and Islamic bonds (Sukuk), longevity bonds.

# How Financial Innovations improve economic performance?

- Completing markets: expanding opportunities for
  - o risk-sharing
  - o risk-pooling
  - o hedging
  - o lowering transactions costs
  - o increasing liquidity
- reducing “agency” costs caused by
  - o asymmetric information between trading parties

# Financial System Functions

## Pooling of funds

- Mechanism for the pooling of funds to create large-scale indivisible enterprises.
  - Creating a mechanism for pooling capital in a low-cost way and/or minimizing related agency problems.
- Example: hedge funds, mutual funds, private equity funds.

# Financial System Functions

## Risk Management

- Reducing the risk by selling the source of it.
  - In general, adjusting a portfolio by moving from risky assets to a riskless asset to reduce risk is called hedging; this can be done, for example, in a futures or forward market.

# The dynamic of financial innovation

- Sophisticated hedging and risk management will become an integrated part of the financial management process.
- Households will continue to move away from direct, individual financial market participation such as trading in individual stocks or bonds and move to aggregate bundles of securities, such as mutual funds and index securities designed by intermediaries.