

Financial Derivatives

Section 0

Course Outline

Michail Anthropelos

anthropel@unipi.gr

<https://bankfin.unipi.gr/faculty/anthropelos/>

University of Piraeus

Fall 2020

Definition

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More recently, a security similar to the modern derivatives had been used in the Amsterdam Exchange in 1688.

The world oldest organized exchange is the Chicago Board of Trade (CBOT) established in 1864.

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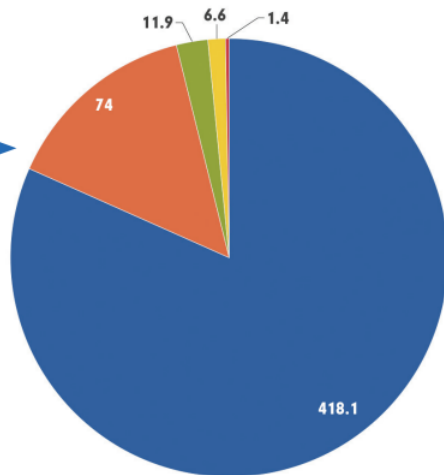
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- The most important derivatives exchanges are the Eurex, the Chicago Mercantile Exchange (CME Group Inc.), the LIFFE (London), etc.

Some Motivating Data and Facts *cont'd*

Derivatives Market by Asset Class (\$ Trillion)

- Interest rate derivatives (IRD)
- FX derivatives
- Credit derivatives
- Equity derivatives
- Commodity derivatives

Source: Bank for International Settlements
semiannual survey June 2016

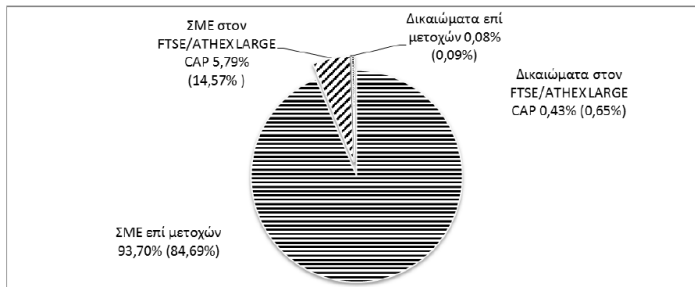


Source: BIS.

The Greek Derivatives Market

- The Greek Exchange Derivative Center is the ADEX (Athens Derivatives Exchange).
- It opened in August 1999 with the goal to organize and support the transactions of the derivatives on assets traded in the Athens Stock Exchange.
- It offers basically two types of derivatives: futures contracts and options on major stocks and the indices FTSE.
- For more information check the web site <http://www.helex.gr/markets-derivatives/>.

Κατανομή όγκου συναλλαγών στην αγορά παραγώγων ανά προϊόν



Πηγή: Χρηματιστήριο Αθηνών, Επιτροπή Κεφαλαιαγοράς

Why Derivatives?

There are three basic uses of the financial derivatives:

- 1 Hedging: **reducing the risk exposure.**
 - ▶ Derivatives provide a perfect tool for **risk management**, since they can be tailored to any specific need.
- 2 Speculation: **increasing the risk exposure for making profit.**
 - ▶ Derivatives provide the opportunity to invest in an asset without having the asset itself (increase of leverage).
 - ▶ They allow investments on assets that can not be purchased directly (such as credit defaults, weather etc).
 - ▶ They allow trading into the future price expectations.
- 3 Arbitrage: **An investment that provides certain profit without any risk.**

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- Section 1: Forwards and Futures.
- Section 2: Swaps.
- Section 3: Introduction to Options.
- Section 4: Price Factors & Arbitrage Bounds.
- Section 5: Binomial Option Pricing Model.
- Section 6: Black and Scholes Model.
- Section 7: Risk Management and Dynamic Hedging.