FIXED INCOME ANALYSIS

1. MODULE SUMMARY

Aims and Summary

Total Debt Securities according to IMF Global Financial Stability Report 2014, is worth 99.8 trillion dollars, comparing to a total stock market capitalization of 65.5 trillion and world GDP equal 74.7 trillion. Such a big and essential market cannot be omitted in the process of understanding the global finance market. The bond market can also be a source of great financial turmoil, as we observed in past years. Therefore understanding of instruments that consist of this market, their characteristics, valuation, risks and volatility is crucial in full comprehension of capital markets. The course is focused on delivering knowledge and tools for a practical and theoretical approaches to debt securities.

The aim of the course is to transfer the knowledge about fixed income securities to the students. To deliver proficiency in evaluating risks associated with debt securities, also a full understanding of mechanisms of debt instruments valuation. Introduce tools of understanding mechanisms and valuation of more complicated structured instruments like Assets Backed Securities, Mortgage-Backed Securities. Efficiently use MS Excel Spreadsheet to create, manage and evaluate a portfolio of fixed incomes. Provide good basis for undertaking finance-related professional programs, like e.g. Chartered Financial Analyst (CFA).

Module Size and credits

ECTS points	5
Total student study hours	125
Number of weeks	12
School responsible	Lazarski University, Faculty of Economics and Management
Academic Year	2022-2023

Entry Requirements (pre-requisites and co-requisites)

None

Excluded Combinations

None

Composition of module mark (including weighting of components)

Midterm exam 50%, Final Exam, 50%

Pass requirements

To pass the course a student must score at least 40% of the overall weighted average and not less than 35% for each assessment component (i.e. coursework and final exam). Re-assessment: coursework component and/or examination as appropriate.

Special Features

None

Course stages for which this module is mandatory

None

Course stages for which this module is a core option

MSc in International Business Economics , Year 2

2. TEACHING, LEARNING AND ASSESSMENT

Intended Module Learning Outcomes

On completion of this module a student should be able to:

4. Define features of fixed income securities
5. Evaluate risk associated with debt securities
6. Understand yield measures and relations of spot and forward rates in the perspective of theories describing shapes of yield curves
7. Use the process of bootstrapping to generate theoretical spot yield curve
8. Evaluate the value of the bond
9. Use duration and convexity of the bond or portfolio of bonds
10. Calculate payments to mortgage backed bonds and risk involved with such securities (like prepayment risk)
11. Know and understand how different types of Assets Backed Securities (ABS) work
12. Value ABS by Option Adjusted Spread analysis

Indicative Content

15. Introduction to debt securities. Their characteristics, types, risks and recent innovations on the fixed income market
16. Time value of money. Valuation of bonds, quotations of bonds, bonds' prices sensitivity for changes of interest rates – introduction
17. Types of yields of bonds – understanding and calculations
18. Volatility of fixed income instruments' prices. Measures, usage, calculations
19. Times structure of interests rates. Understanding, application, calculation.

20. Treasury bonds in US and other state issued bonds across Europe. Ratings agencies
21. Fixed incomes issued by companies. Characteristics
22. Other types of bonds – bonds with options, Mortgage Backed Obligations. Introduction, characteristics, mechanism. Zero volatility spread. Binominal tree valuation
23. Other type of Assets backed Securities. Types, role in the financial crisis. Case study - working mechanism
24. Valuation of the portfolio of the bonds, introduction and characteristics, practical calculations
25. Strategies of bond portfolio management – basic concepts and application

Teaching and Learning

This module will be taught by means of workshops in the computer lab (100%). Formative Assessment: Comments will be given on assessments, and tutorial guidance will be provided for coursework and exam. Student activity and time spent on each activity comprises:

Guided	0 hours	(0%)
Lecture	30 hours	(24%)
Self-guided	95 hours	(76%)
Seminar	0 hours	(0%)
Workshop	0 hours	(0%)
Total	125 hours	

Method of Assessment (normally assessed as follows)

The intended learning outcomes will be assessed as follows:

Midterm exam 50% (will assess learning outcomes 1-6), Final Exam, 50%, will assess learning outcomes 1-9

Date of last amendment

15.07.2015

3. MODULE RESOURCES

Required Reading

Fabozzi F.J. (2012) "Bond Markets, Analysis and Strategies", Prentice Hall

Recommended Reading

Amenc, N., and L. Martinelli. 2002. "Portfolio Optimization and Hedge Fund Style Allocation Decisions." Journal of Alternative Investments, vol. 5, no. 2 (Fall):7–20

Asness, Clifford. 2004. "Sources of Change and Risk for Hedge Funds." CFA Institute Conference Proceedings: Challenges and Innovation in Hedge Fund Management (August):4–9 **Required Equipment** None.

4. MODULE ORGANISATION

Module leader

Name Dr Tomasz Schabek,

E-mail schabek.tomasz@gmail.com

Length and month of examination

110 mins in January

Expected teaching timetable slots

No timetable information available