

**AFRICAN ECONOMIC RESEARCH CONSORTIUM  
(AERC)**

**COLLABORATIVE PHD DEGREE PROGRAMME  
IN ECONOMICS FOR SUB-SAHARAN AFRICA  
(CPP)**

**JOINT FACILITY FOR ELECTIVES**



**FINANCIAL ECONOMICS - CPP**

**COURSE OUTLINE**

**(Revised April, 2016)**

## **PART I: SUMMARY OF MAJOR TOPICS**

### **SEMESTER ONE**

#### **ECON 666: FINANCIAL ECONOMICS I (60 HOURS)**

- I Introduction to Financial Economics [6 Hours]**
- 1.1 Understanding financial statements
  - 1.2 Financial instruments and markets – stocks, bonds, IPO, derivatives.
  - 1.3 Time value of money
  - 1.4 Term structure of interest rates and yield curves
- II Investments and Financial Markets [26 Hours]**
- 2.1 Investment portfolio optimization and mean variance diversification (risk)
  - 2.2 Asset pricing models
    - 2.2.1 Theories of asset pricing - CAPM, APT, Intertemporal CAPM, CCAPM, International CAPM.
    - 2.2.2 Empirical tests of asset pricing.
    - 2.2.3 Market efficiency and empirical anomalies – size effect, Equity premium puzzle, stock market overreaction.
  - 2.3 Investment funds and risk-adjusted performance evaluation.
  - 2.4 Value at risk
- III Financial Derivatives [14 Hours]**
- 3.1 Options, futures, forwards, swaps
  - 3.2 Pricing of derivatives
- IV Agency Problems and Financial Contracting [14 Hours]**
- 4.1 Management vs equity holders
  - 4.2 Equity holders vs debt holders
  - 4.3 Firm vs government
  - 4.4 Financial distress costs and other agency costs
  - 4.5 Information asymmetry and financial signaling

**SEMESTER TWO**

**ECON 667: FINANCIAL ECONOMICS II (60 HOURS)**

<b>V</b>	<b>Corporate Finance</b>	<b>[30 Hours]</b>
	5.1 Valuation and Capital budgeting	
	5.1.1 Alternative models of firm valuation	
	5.1.2 Alternative methods of capital budgeting	
	5.1.3 Real options and capital budgeting	
	5.2 Taxes and corporate finance	
	5.3 Capital structure	
	5.4 Dividend policy	
	5.5 IPOs: methods of issuance and pricing	
	5.6 Option features of corporate securities	
	5.6.1 Convertible securities, warrants, callable bonds, performance bonds, social impact bonds.	
	5.7 Corporate governance	
	5.8 Mergers and acquisitions	
<b>VI</b>	<b>Market Microstructure</b>	<b>[4 Hours]</b>
<b>VII</b>	<b>Banking and Institutions</b>	<b>[10 Hours]</b>
	7.1 Commercial banks, investment banks, insurance companies, mutual funds.	
	7.2 Governance and risk management of financial institutions	
	7.3 Asset securitization	
	7.4 Financial regulation	
<b>VIII</b>	<b>International Finance - Markets, investment, instruments, etc.</b>	<b>[4 Hours]</b>
<b>IX</b>	<b>Behavioural Finance</b>	<b>[6 Hours]</b>
	9.1 Market over-reaction/under-reaction to new information: Investments, markets, corporate finance, etc.	
<b>X</b>	<b>Financial Development, Financial Crisis and Financial Sector Reforms</b>	<b>[6 Hours]</b>

## **PART II: DETAILED OUTLINE AND READING LIST**

### **I. Course Objective**

The purpose of the course is to provide a comprehensive instruction in contemporary Financial Economics at an advanced level. The course will emphasise theoretical as well as the empirical aspects of each topic in the syllabus.

### **II. Mode of Assessment and Grading**

The course will comprise 120 hours of lectures and tutorials that will equally be divided between two semesters. The grading of each semester will be as follows:

Continuous assessment: 40%

Final examination: 60%

Continuous assessment shall be made up of one in-class test (20%) and at least one assignment (20%).

### **III. Prerequisites**

Admission to the course requires sound grounding in economic theory and quantitative methods.

### **IV. Text Books**

#### **Main Textbooks**

Ross, S. A., Westerfield, R. W. and Jaffe, J. F., and Jordan B. (2016), **Corporate Finance**, 11<sup>th</sup> Edition, McGraw-Hill Irwin (**RWJJ**)

Hillier, D., Ross, S. A., Westerfield, R. W. and Jaffe, J. F., and Jordan, B. (2013), **Corporate Finance**, 2<sup>nd</sup> Edition, McGraw-Hill Irwin. (**HRWJJ**)

Hull, J. C. (2015), **Options, Futures, and Other Derivatives**, 9<sup>th</sup> Edition, Pearson. (**Hull**)

Bodie, Z., Kane, A. and Marcus, A. (2014), **Investments**, 10<sup>th</sup> Edition, McGrawHill. (**BKM**)

Cochrane, J. (2005), **Asset Pricing**, 2<sup>nd</sup> Edition, Princeton University Press. (See especially chapters 1-9, 17-21) (**JC**).

#### **Financial Econometrics Textbooks**

Campbell, J., Lo, A. and MacKinlay, A. (1997), **The Econometrics of Financial Markets**, Princeton University Press.

Meucci, A. (2005) **Risk and Asset Allocation**, Springer Verlag.

#### **Suggested Textbooks**

Barnea, A., Haugen, R. A. and Senbet, L. W. (1985). Agency Problems and Financial Contracting, Prentice-Hall.

Hull, J. C. (2015), **Risk Management and Financial Institutions**, 4<sup>th</sup> Edition, Wiley Finance.

Nofsinger, J. R. (2012), **The Psychology of Investing**, 5<sup>th</sup> Edition, Pearson.

Copeland, T. E., Weston, J. F. and Shastri, K. (2005), **Financial Theory and Corporate Policy**, 4<sup>th</sup> Edition, New York, Pearson Addison-Wesley.

O'Hara, M. (2004), **Market Microstructure Theory**, Blackwell Publishing Ltd.

Howell, S., Stark, A., Newton, D., Paxson, D., Cavus, M., Pereira, J. and Patel, K. (2001), **Real Options**, London, Prentice Hall.

Duffie, D. (2001), **Dynamic Asset Pricing Theory**, 3<sup>rd</sup> Edition, Princeton University Press.

Tirole, J. (2005), **The Theory of Corporate Finance**, Princeton.

Sercu, P. (2009), **International Finance: Theory into Practice**. Princeton University Press.

Danthine, J. and Donaldson, J. B. (2002), **Intermediate Financial Theory**, Prentice Hall.

### **Other Reading Materials**

Apart from the above prescribed and recommended textbooks students will be required to master contemporary articles in the leading journals of Financial Economics. The *Journal of Finance* (JF), the *Journal of Financial Economics* (JFE), the *Review of Financial Studies* (RFS), and the *Journal of Banking & Finance* (JBF) are the leading forums for publication of scholarly contributions in finance. Other journals, such as *Financial Analyst Journal* (FAJ) and *Journal of Applied Corporate Finance* (JACF), feature expositional and practitioner-oriented articles in finance.

Significant contributions to finance have also appeared in other finance, econometrics, economics and business journals, such as *American Economic Review* (AER); *Econometrica* (EC); *Financial Management* (FM); *Journal of Business* (JB); *Journal of Economic Theory* (JET); *Journals of Financial and Quantitative Analysis* (JFQA); *Journal of Money, Credit and Banking* (JMCB); *Journal of Political Economy* (JPE); *Quarterly Journal of Economics* (QJE).

### **On-Line Sources**

Various journals can be accessed and articles downloaded from the following sources:

- 1 JSTOR ( [www.jstor.org](http://www.jstor.org))
- 2 Social Science Research Network ([www.ssrn.com](http://www.ssrn.com))
- 3 University of Maryland, E-Journals (<http://www.lib.umd.edu/ETC/EJNLS/ejnls.php3>)
4. Researchgate ([www.researchgate.net](http://www.researchgate.net))
5. AERC ([www.aercafrica.org](http://www.aercafrica.org))
6. Other links ([www.cob.ohio-state.edu/fin/journal/jofsite.htm](http://www.cob.ohio-state.edu/fin/journal/jofsite.htm))

## **SEMESTER ONE**

### **ECON 666: FINANCIAL ECONOMICS I (60 HOURS)**

#### **I Introduction to Financial Economics [6 Hours]**

- 1.1 Financial markets, institutions, instruments and trading (an overview)
- 1.2 Time value of money and risk aversion
- 1.3 Cash flows and the principle of value maximization
- 1.4 Term structure of interest rates and yield curves
- 1.5 Understanding financial statements and cash flows

BKM (Chapters 1-5)

#### **II Investments and Financial Markets [26 Hours]**

- 2.1 Portfolio optimization, diversification and the mean variance approach
- 2.2 Asset pricing:
  - 2.2.1 Theories of asset pricing - CAPM, APT, Intertemporal CAPM, CCAPM, International CAPM.
  - 2.2.2 Empirical tests of asset pricing [e.g. APT – Roll and Ross, Cho, Eun, Senbet (1986), Fama and French (1992), Breeden and Litzenberger (1989)].
  - 2.2.3 Market efficiency and empirical anomalies – size effect, equity premium puzzle and stock market overreaction.
- 2.3 Investment funds and risk-adjusted performance evaluation
- 2.4 Value at risk

**BKM** (Chapters 6-13)

#### **Hull**

- Roll, R. and S. A. Ross (1980), An empirical investigation of the arbitrage pricing theory, *Journal of Finance*, 35 (5), 1073-1103.
- Cho, D.C., Eun, C. S. and Senbet, L. W. (1986), International arbitrage pricing theory: an empirical investigation, *Journal of Finance*, 41(2), 313-329.
- Fama, F. and French, K. R. (1992), The cross section of expected stock returns, *Journal of Finance*, 47(2), 427-465.
- Fama, F. and French, K. R. (2015), The five-factor asset pricing model, *Journal of Financial Economics*, 116(1), 1-22.
- Hou, K., Xue, C. and Zhang, L. (2014), A comparison of new factor models, *NBER Working Paper Number 20682*.
- Breeden, D., Gibbons, M. and Litzenberger, R. (1989), Empirical Tests of the Consumption-Oriented CAPM, *Journal of Finance*, 44, 231-262.
- Merton, R. (1973). An Intertemporal Capital Asset Pricing Model, *Econometrica*, 41(5), 867 - 887.

**III Financial Derivatives [14 Hours]**

3.1 Options, futures, forwards, swaps

3.2 Pricing of derivatives

**Hull**

**BKM** (Chapters 20-23)

Cox, J. C., Ingersoll, J. E. and Ross, S. A., 1985. A theory of the term structure of interest rates. *Econometrica* 53, 385–408.

Black, F. and Scholes, M. (1973). The pricing of options and corporate liabilities, *The Journal of Political Economy*, 81(3), 637-654.

**IV Agency Problems and Financial Contracting [14 Hours]**

4.1 Management vs equity holders

4.2 Equity holders vs debt holders

4.3 Firm vs government

4.4 Financial distress costs and other agency costs

4.5 Information asymmetry and financial signaling

**Tirole (Chapter 6)**

Jensen M. and W, Meckling (1976) *Theory of the Firm: Managerial Behavior, Agency Costs and Ownership Structure* *Journal of Financial Economics* 3:305-360.

Myers, S.C. and N. S. Majluf (1984), “Corporate Financing and Investment Decisions When Firms Have Information That Investors Do Not Have”, *Journal of Financial Economics* 13, 187-221.

Hellwig, M. F. (2009) A reconsideration of the Jensen-Meckling model of outside finance, *Journal of Financial Intermediation*, 18, 495-525.

Barnea, A., Haugen, R. A. and Senbet, L. W. (1985). *Agency Problems and Financial Contracting*, Prentice-Hall.

**SEMESTER TWO****ECON 667: FINANCIAL ECONOMICS II (60 HOURS)****V Corporate Finance [30 Hours]**

- 5.1 Valuation and Capital budgeting
  - 5.1.1 Alternative models of firm valuation
  - 5.1.2 Alternative methods of capital budgeting
  - 5.1.3 Real options and capital budgeting
- 5.2 Taxes and corporate finance
- 5.3 Capital structure
- 5.4 Dividend policy
- 5.5 IPOs: methods of issuance and pricing
- 5.6 Option features of corporate securities
  - 5.6.1 Convertible securities, warrants, callable bonds, performance bonds, social impact bonds.
- 5.7 Corporate governance
- 5.8 Mergers and acquisitions

**RWJJ (Chapters 15-19)**

- Chen, K. C. W., Chen, Z. and Wei J. K. C., 2011. Agency costs of free cash flow and the effect of shareholder rights on the implied cost of equity capital. *Journal of Financial and Quantitative Analysis* 46, 171–207.
- Jensen, M. C. (1986). Agency Costs of Free Cash Flow, Corporate Finance, and Takeovers, *The American Economic Review*, 76(2), 323-329.
- Öztekin Ö., 2015. Capital Structure Decisions around the World: Which Factors Are Reliably Important? *Journal of Financial and Quantitative Analysis* 50, 1–23.
- Chang K., Kang, E. and Li, Y., 2016. Effect of institutional ownership on dividends: An agency-theory-based analysis. *Journal of Business Research* 69, 2551–2559.
- Rangvid, J., Schmeling, M. and Schrimpf, A., 2014. Dividend predictability around the world. *Journal of Financial and Quantitative Analysis* 49, 1255–1277.
- Liang, D. Lub, C-C. Tsai, C-F. and Shiha, G-A., 2016. Financial ratios and corporate governance indicators in bankruptcy prediction: A comprehensive study. *European Journal of Operational Research* 252, 561–572.
- Claessens, S. and Yurtoglu, B. B., 2013. Corporate governance in emerging markets: a survey. *Emerging Markets Review* 15, 1–33.
- Coles, J. L., Daniel, N. D. and Naveen, L., 2014. Co-opted boards. *Review of Financial Studies* 27, 1751–1796.
- Bernile, G., E. Lyandres and A. Zhdanov (2012). “A Theory of Strategic Mergers,” *Review of Finance*, 16, 517-575.
- Hsieh, J., E. Lyandres and A. Zhdanov (2011). “A Theory of Merger-Driven IPOs,” *JFQA*, 46(5), 1367-1405.
- Morellec, E. and A. Zhdanov (2005). “The Dynamics of Mergers and Acquisitions,” *JFE*, 77(3), 649-672.



**VI Market Microstructure [4 Hours]**

- Kyle, A. S. (1985). Continuous Auctions and Insider Trading, *Econometrica*, 53(6), 1315-1335.
- M. O'Hara (2004), Market Microstructure Theory, Blackwell Publishing Ltd.
- Amihud, Y. and Mendelson, H. (1987) Trading mechanisms and stock returns: An empirical investigation, *Journal of Finance*, 42(3), 28-30.
- Chaboud, A. P., Chiquoine, B., Hjalmarsson, E. and Vega, C. (2014). Rise of the machines: Algorithmic trading in the foreign exchange market, *Journal of Finance* 69(5), 2045-2084
- Gabrielsen, A., Marzo, M. and Zagaglia, P. (2011) Measuring market liquidity: An introductory survey, The Remini Centre for economic analysis Working paper 12:02
- Amihud, Y., Mendelson, H. and Pedersen, L. H. (2005) Liquidity and Asset Prices, *Foundations and Trends in Finance* 1 (4), 269–364
- Amihud, Y., Hameed, A. Kang, W. and Zhang, H., 2015. The illiquidity premium: International evidence. *Journal of Financial Economics* 17, 350–368.

**VII Banking and Institutions [10 Hours]**

- 7.1 Commercial banks, investment banks, insurance companies, mutual funds
- 7.2 Governance and risk management of financial institutions
- 7.3 Asset securitization
- 7.4 Financial regulation

- John, K., Saunders, A. and Senbet, L. W. (2000). A theory of bank regulation and management compensation, *The Review of Financial Studies*, 13(1), 95-125.
- Aebia, V., Sabatob, G. and Schmidc, M. (2012), Risk Management, Corporate Governance, and Bank Performance in the Financial Crisis, *Journal of Banking & Finance*, 36 (12), 3213–3226.
- Goetz, M. R., Laeven, L. and Levine, R. (2016), Does the Geographic Expansion of Banks Reduce Risk? *Journal of Financial Economics*, 120(2), 211-444.
- Grullon, G., Underwood, S. and Weston J. P., 2014. Comovement and investment banking networks. *Journal of Financial Economics* 113, 73–89.
- Andersson, F. N., 2016. A Blessing in Disguise? Banking Crises and Institutional Change. *World Development* 83, 135–147.
- Freixas, X. and Rochet, J. (2008), *The Microeconomics of Banking*, MIT Press.

**VIII International Finance - Markets, investment, instruments, etc. [4 Hours]**

- Errunza, V. R. and Senbet, L. W. (1980). The Effects of International Operations on the Market Value of the Firm: Theory and Evidence, *The Journal of Finance*, 36(2), 401-417.
- Kodongo, O. and Ojah, K. 2014. Conditional pricing of currency risk in Africa's equity markets. *Emerging Markets Review* 21, 133-155.
- Kodongo, O. and Ojah, K. 2011. Foreign Exchange Risk Pricing and Equity Markets Segmentation in Africa. *Journal of Banking and Finance* 35, 2295 – 2310.
- Kodongo, O., Natto, D. and Biekpe, N., 2014. Explaining cross-border expansion of banks in East Africa. *Journal of International Financial Markets, Institutions and Money* 36, 71–84.

Grullon, G., Underwood, S. and Weston J. P., 2014. Comovement and investment banking networks. *Journal of Financial Economics* 113, 73–89.

## **IX Behavioural Finance [6 Hours]**

9.1 Market over-reaction/under-reaction to new information: Investments, markets, corporate finance, etc.

Barberis, N. and Thaler, R. (2003) A survey of behavioral finance, *Handbook of the Economics of Finance*, (eds) Constantinides et al., Elsevier.

De Bondt, W. F. M. and Thaler, R. (1985). Does the Stock Market Overreact? *The Journal of Finance* 40(3), 793-805.

Shiller, R. J. (2003), From Efficient Markets Theory to Behavioral Finance, *Journal of Economic Perspectives*, 17(1), 83–104.

Jiao, Y. and Ye, P., 2014. Mutual fund herding in response to hedge fund herding and the impacts on stock prices. *Journal of Banking and Finance* 49, 131–148.

Lo, A. W. (2005). Reconciling Efficient Markets with Behavioral Finance The Adaptive Market Hypothesis, *Journal of Investment Consulting*, 7(2), 21-44.

Baker, M. and Wurgler, J. (2007). Behavioral Corporate Finance: An updated survey, *Handbook in Corporate Finance: Empirical Corporate Finance*, edited by Espen Eckbo.

## **X Financial Development, Financial Crisis, and Financial Sector Reforms [6 Hours]**

Uddin, G. S., Sjö, B. and Shahbaz, M., 2013. The causal nexus between financial development and economic growth in Kenya. *Economic Modeling* 35, 701–707.

Ojah, K. and Kodongo, O. 2015. Financial development in Africa: reflections and the way forward. *In The Oxford Handbook of Africa and Economics: Policies and Practices*. Oxford University Press.

Ngugi, R. W, Murinde, V. and Green, C.J (2003), “How have the emerging stock exchanges in Africa responded to market reforms”, *Journal of African Business*, Vol. 4, No. 2, pp. 89-127.

Summers, L. H. (2000), International Financial Crises: Causes, Prevention, and Cures, *The American Economic Review*, Vol. 90, No. 2.

Levine, R. (1997). Financial development and economic growth: Views and agenda, *Journal of Economic Literature* 35, 688-726.

Franklin, A., Otchere I., and Senbet, L. W. (2010). African financial systems: A review, *Review of Development Finance, Volume 1(2)*, 79–113.

Amadou, M.R. (2015). Trends and Developments in Africa Frontier Bonds Markets, *Brookings Policy Paper 2015-01*.

Thorsten, B. (2011). The role of finance in economic development: benefits, dangers and politics, *European Banking Centre Discussion Paper No 2011-038*

Andrianaivo, M. and Yartey, C. A. (2009). Understanding the Growth of African Financial Markets, *IMF Working Paper WP/09/182*.

Abdullahi, D. A. (2016). Integration of Financial Markets, Financial Development and Growth: Is Africa Different? *Journal of International Financial Markets, Institutions and Money*, 42, 43-59.

Franklin. A., Carletti, E., Cull, R., Qian, J., Senbet, L. W. and Valenzuela, P. (2011). Resolving the African Financial Development Gap: Cross-Country Comparisons and a Within-Country Study of Kenya.