

Curriculum Vitae

INFORMAZIONI PERSONALI

Nome ANDREA
Cognome CONSIGLIO
Recapiti Edificio 13, Dipartimento di Scienze Economiche, Aziendali e Statistiche, 1° piano, stanza 108
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FORMAZIONE TITOLI

- **Education**
 - PhD, Applied Mathematics to Finance and Economics, University of Palermo, Italy.
 - Laurea (Summa cum Laude), Statistics and Economics, University of Palermo, Italy.
- **Award and Prizes**
 - Excellence in Practice Award conferred by the Association of the Operational Research Societies within I.F.O.R.S., 2006.

ATTIVITA' DIDATTICA

- Calculus and Linear Algebra
- Mathematical Finance
- Mathematics for Economics and Finance
- Portfolio Selection
- Option Pricing

RICERCHE FINANZIATE

- Principal investigator, IVASS, "Network analysis for anti-fraud activities", 2017, 30,000 euro
- Associate investigator, PRIN 2007, (Italian Research Grants for Project of Relevant Interest), two-years project, *Learning and investment decisions in an artificial automated financial market*, 15,000 euro.
- Associate investigator, FIRB 2005 (Italian Research Grants for Fundamental Research), two-years project, *Managing the public debt*, 22,000 euro.
- Principal investigator, PRIN 2004 (Italian Research Grants for Project of Relevant Interest), two-years project, *Models for the price dynamics of financial securities: institutional aspects and behavioral assumptions in a agent-based framework*, 75,000 euro.
- Associate investigator, PRIN 2002 (Italian Research Grants for Project of Relevant Interest), two-years project, *Models and Algorithms to Select Insurance and Bank Portfolios*, 31,000 euro.
- Principal investigator, Prometeia s.r.l., one-year project, *Portfolio management with coherent risk measure*, 15,000 euro.
- Associate investigator, Prometeia s.r.l., one-year project, *Advanced models to manage insurance products with guarantee*, 20,000 euro.

INCARICHI / CONSULENZE

- European Stability Mechanism, "*Decision Support System for Debt Sustainability Analysis*", Luxembourg, 2017.
- Judge Consultant, *Evaluation of swaps in legal disputes*, Palermo, 2015
- Petrobras & Pontical Universidad Catolique, Rio de Janeiro, Brasile: external advisor for the research project "Asset & liability management for an oil company", 2011.
- Prometeia s.r.l., Bologna, Italy, "Coherent risk measures to manage portfolios of financial assets", 2002.
- Prometeia s.r.l., Bologna, Italy, "Personal asset allocation models for e-banks", 2000.
- Prometeia s.r.l., Bologna, Italy, "Advanced models to manage insurance products with guarantee", 1999.
- Banca della Svizzera Italiana, Lugano, Switzerland, "Scenario analysis for multi-currency bond portfolios", 1998.
- TERRA Computers, Israel, "High-performance computing for financial applications", 1996.
- Scientific Computing Associates, Yale, USA, "High-performance computing for financial applications", 1996

ASSOCIAZIONI SCIENTIFICHE

AMASES, Member of the Scientific Board.

PUBBLICAZIONI

- **Books**

- A. Consiglio, S. Nielsen, and S.A. Zenios. Practical Financial Optimization: A Library of GAMS Models. Wiley, 2009.
- Andrea Consiglio, editor. Artificial Markets Modeling: Methods and Applications, volume 599 of Lecture Notes in Economics and Mathematical Systems. Springer, 2007.

- **Journal Articles**

- A. Consiglio and S.A. Zenios. Risk management optimization for sovereign debt restructuring. Journal of Globalization and Development, 6(2):181--213, 2016.
- A. Consiglio, A. Carollo and S.A. Zenios. A parsimonious model for generating arbitrage-free scenario trees. Quantitative Finance, 16(2):201--212, 2016.
- A. Consiglio, M. Tumminello and S.A. Zenios. Designing and pricing guarantee options in defined contribution pension plans. Insurance: Mathematics & Economics, 65:267--279, 2015.
- A. Consiglio and S.A. Zenios. Risk Profiles for Re-Profiling the Sovereign Debt of Crisis Countries Journal of Risk Finance, 16(1):2--26, 2015.
- A. Consiglio and A. Staino. A Stochastic Programming Model for the Optimal Issuance of Government Bonds. Annals of Operations Research, 193(1):159-172, 2012. .
- A. Consiglio and S. Guirrieri. Simulating term structure of interest rates with arbitrary marginals. International Journal of Risk Assessment And Management, 15(4):299-313, 2011.
- A. Consiglio and D. De Giovanni. Pricing the option to surrender in incomplete markets. The Journal of Risk and Insurance, 77(4):935-957, 2010.
- A. Consiglio, A. Pecorella, and S.A. Zenios. A conditional Value-At-Risk model for insurance products with guarantee. International Journal of Risk Assessment And Management, 11(1/2):122-137, 2009.
- A. Consiglio and D. De Giovanni. Evaluation of insurance products with guarantee in incomplete markets. Insurance: Mathematics & Economics, 42(1):332-342, 2008. **VQR 2004-2010. Prodotto valutato Eccellente.**
- A. Consiglio and A. Russino. How does learning affect market liquidity? A simulation analysis of a double-auction financial market with portfolio traders. Journal of Economic Dynamics and Control, 31(6):1910-1937, 2007. **VQR 2004-2010. Prodotto valutato Eccellente.**
- A. Consiglio, F. Cocco, and S.A. Zenios. Asset and liability modelling for participating policies with guarantees. European Journal of Operational Research, 186(1):380-404, 2007. **VQR 2004-2010. Prodotto valutato Eccellente.**
- A. Consiglio, F. Cocco, and S.A. Zenios. Scenario optimization asset and liability modelling for individual investors. Annals of Operations Research, 152:167-191, 2007.
- A. Consiglio, D. Saunders, and S.A. Zenios. Asset and liability management for insurance products with minimum guarantees: The UK case. Journal of Banking and Finance, 30:645-667, 2006. **VQR 2004-2010. Prodotto valutato Eccellente.**
- A. Consiglio, V. Lacagnina, and A. Russino. A Simulation Analysis of the Microstructure of an Order Driven Financial Market with Multiple Securities and Portfolio Choices. Quantitative Finance, 5(1):71-87, February 2005. **VQR 2004-2010. Prodotto valutato Buono.**
- A. Consiglio, F. Cocco, and S.A. Zenios. Personal Asset Allocation. Interface, 34(4):287-302, July-August 2004. Winner of the 2006 EURO Excellence in Practice Award.
- A. Consiglio, D. Saunders, and S.A. Zenios. Insurance League: Italy vs. UK. Journal of Risk Finance, 4(4):47-54, Summer 2003.
- A. Consiglio, F. Cocco, and S.A. Zenios. The Value of Integrative Risk Management for Insurance Products with Minimum Guarantees. Journal of Risk Finance, pages 1-11, Spring 2001.
- A. Consiglio and S.A. Zenios. Integrated Simulation and Optimization Models for Tracking International Fixed Income Indices. Mathematical Programming, 89(2):311-339, 2000.
- A. Beltratti, A. Consiglio, and S.A. Zenios. Scenario Modeling for the Management of International Bond Portfolios. In R.J. Wets and W.T. Ziemba, editors, Stochastic Programming. State of the Art, 1998, volume 85 of Annals of Operations Research, pages 227-247. Baltzer Science Publishers, March 1999.
- A. Consiglio and S.A. Zenios. Designing Portfolios of Financial Products via Integrated Simulation and Optimization Models. Operations Research, 47(2):195-208, March-April 1999.
- A. Consiglio and S.A. Zenios. A Model for Designing Callable Bonds and its Solution Using Tabu Search. Journal of Economic Dynamics and Control, 21:1445-1470, 1997.
- A. Consiglio. How to Control Stock Market. International Journal of Systems Science, 25(12):2245-2253, 1994.

- **Refereed Chapters in Books**

- A. Consiglio and D. De Giovanni. Pricing reinsurance contracts. In M. Bertocchi, G. Consigli, and M. Dempster, editors, *Stochastic Optimization Methods in Finance and Energy*, volume 163 of *International Series in Operations Research & Management Science*, pages 125-139. Springer New York, 2011.
- E. Catanese, A. Consiglio, V. Lacagnina, and A. Russino. Asset return dynamics under alternative learning schemes. In C. Hernandez, M. Posada, and A. Lopez-Parades, editors, *Artificial Economics, The Generative Method in Economics*, volume 631 of *Lecture Notes in Economics and Mathematical Systems*, pages 211-222. Springer, 2009.
- A. Consiglio, V. Lacagnina, and A. Russino. The dynamics of quote prices in an artificial financial market with learning effect. In C. Bruun, editor, *Advances in Artificial Economics*, volume 584 of *Lecture Notes in Economics and Mathematical Systems*, pages 63-75. Springer, 2006. 3-540-37247-4.
- A. Consiglio, V. Lacagnina, and A. Russino. Learning and the price dynamics of a double-auction financial market with portfolio traders. In P. Mathieu, B. Beauls, and O. Brandouy, editors, *Artificial Economics, Agent-Based Methods in Finance, Game Theory and Their Applications*, volume 564 of *Lecture Notes in Economics and Mathematical Systems*, pages 215-227. Springer, 2005.
- A. Consiglio, F. Cocco, and S.A. Zenios. The Prometheus model for managing insurance policies with guarantees. In W.T. Ziemba and S.A. Zenios, editors, *Handbook of Asset and Liability Management 2. Applications and Case Studies*, *Handbooks of Finance*, chapter 15, pages 664-705. Elsevier, The Netherlands, 2007.
- A. Consiglio and S.A. Zenios. Model Error in Enterprise Wide Risk Management: Insurance Policies with Guarantees. In *Operational Risk and Financial Institutions*. In *Advances in Operational Risk*, pages 199-214. Risk Books, London, 2001.

- **Chapters in Books**

- A. Consiglio and S.A. Zenios. High-Performance Computing for Computer Aided Design of Financial Products. In L. Grandinetti, J.S. Kowalik, and M. Vajtersic, editors, *Advance in High Performance Computing*, NATO ASI, pages 273-301. Kluwer Academic Publisher, 1997.
- A. Consiglio, F. Cocco, S. Mazzoni Perelli, and S.A. Zenios. Internet, Tecnologie Web-Based e Financial Planning. In A. Resti, editor, *Il Private Banking Gestione del Risparmio e della Clientela: Strategie, Strumenti ed Esperienze*, chapter 6, pages 185-207. EDIBANK, Milano, 2003.
- A. Consiglio, I. Massabo, and S. Ortobelli. Value-At-Risk: Oltre la Normale". In D. Drago, editor, *La Tutela dell'Investitore nella Gestione del Risparmio*, volume 38 of *Banca e Mercati*, pages 175-199. Bancaria Editrice, Milano, Ottobre 2002.
- A. Consiglio and C. Mari. Sul Rischio di Credito nei Mutui Bancari A cura di D. Drago, *Nuove Tendenze dell' Asset & Liability Management in Banca*. Bancaria Editrice, Roma, 2001.
- A. Consiglio, M. Costabile, C. Mari, and I. Massabo. La Valutazione di Opzioni Implicite nei Mutui Bancari. A cura di D. Drago, *Nuove Tendenze dell' Asset & Liability Management in Banca*. Bancaria Editrice, Roma, 2001.

ATTIVITA' SCIENTIFICHE

- **Refereeing**

- Reviewer of research papers for: *Annals of Operations Research*, *European Journal of Operations Research*, *Operations Research*, *Journal of Banking and Finance*, *Computational Economics*, *International Journal of Theoretical and Applied Finance*, *Journal of Economics Dynamics and Control*, *Mathematical Programming*, *Insurance: Mathematics & Economics*, *Quantitative Finance*, *Geneva Papers on Risk and Insurance*, *Advances in Complex Systems*.
- Reviewer of research proposal for: Dutch Social Science Research Council, Italian Ministry of Research and Education.

- **Plenary Talks and Seminars**

- Workshop on Scenario Generation, Bolzano, IT, 2013
- Petrobras Seminars, Rio de Janeiro, Brasil, 2011
- Mathematics in Finance, Kruger National Park, South Africa, 2011
- Workshop on Longevity, Bergamo, IT, 2011
- NatCor, Brunel University, London, UK, 2010
- STREP Meeting, Cagliari, IT, 2008

AMBITI DI RICERCA

- Computational Finance, Risk Management, Portfolio Management.
- Global Optimization, Stochastic Programming.
- Artificial Markets.