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## João Pedro Bento Ruas

### Professor Auxiliar

BRU-Iscte - Business Research Unit  
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### Contacts

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### Research Interests

Financial Derivatives

### Academic Qualifications

University/Institution	Type	Degree	Period
ISCTE-IUL	PhD	Finanças	2013
ISCTE-IUL	M.Sc.	Finanças	2010
Faculdade Economia da Universidade Nova de Lisboa	Licenciante	Economia	2003

## External Professional Activities

Period	Employer	Country	Description
2013 - 2021	Banco de Portugal	Portugal	Central Bank

## Teaching Activities

Teaching Year	Sem.	Course Name	Degree(s)	Coord .
2025/2026	2º	Asset Pricing I		Yes
2025/2026	1º	Fundamentals of Computational Finance	Institutional Degree in ISCTE Business School;	Yes
2025/2026	1º	Research Seminar in Finance II	Doctorate Degree (PhD) in Finance;	Yes
2025/2026	1º	Research Project in Finance		Yes
2025/2026	1º	Phd Thesis in Finance		Yes
2025/2026	1º	Phd Thesis in Finance	Doctorate Degree (PhD) in Finance;	Yes
2025/2026	1º	Futures, Forwards and Swaps	Master Degree in Finance;	Yes
2024/2025	2º	Asset Pricing I	Doctorate Degree (PhD) in Economics; Doctorate Degree (PhD) in Finance;	Yes
2024/2025	2º	Asset and Liability Management	Master Degree in Finance;	Yes
2024/2025	2º	Investment in Derivatives, Commodities and Foreign Exchange	Other programme in Applied Online Financial Markets: Creation and Management of Portfolios.;	Yes
2024/2025	2º	Investments	Bachelor Degree in Management;	No
2024/2025	1º	Fundamentals of Computational Finance	Institutional Degree in ISCTE Business School;	Yes
2024/2025	1º	Research Project in Finance		Yes
2024/2025	1º	Phd Thesis in Finance		Yes
2024/2025	1º	Investments and Financial Markets	Bachelor Degree in Computer Science and Business Management;	No
2024/2025	1º	Financial Derivatives	Post Graduation Program in Financial Markets and Risk Management;	Yes
2024/2025	1º	Phd Thesis in Finance	Doctorate Degree (PhD) in Finance;	Yes

2024/2025	1º	Investment in Derivatives, Commodities and Foreign Exchange	Other programme in Applied Online Financial Markets: Creation and Management of Portfolios.;	Yes
2024/2025	1º	Futures, Forwards and Swaps	Master Degree in Finance;	Yes
2023/2024	2º	Asset Pricing I	Doctorate Degree (PhD) in Economics; Doctorate Degree (PhD) in Finance;	Yes
2023/2024	2º	Asset and Liability Management	Master Degree in Finance;	Yes
2023/2024	2º	Investments	Bachelor Degree in Management;	No
2023/2024	1º	Fundamentals of Computational Finance	Institutional Degree in ISCTE Business School;	Yes
2023/2024	1º	Investments and Financial Markets	Bachelor Degree in Computer Science and Business Management;	No
2023/2024	1º	Investment in Derivatives, Commodities and Foreign Exchange	Other programme in Applied Online Financial Markets: Creation and Management of Portfolios.;	Yes
2023/2024	1º	Futures, Forwards and Swaps	Master Degree in Finance;	Yes
2022/2023	2º	Asset Pricing I	Doctorate Degree (PhD) in Economics; Doctorate Degree (PhD) in Finance;	Yes
2022/2023	2º	Asset and Liability Management	Master Degree in Finance;	Yes
2022/2023	2º	Investments	Bachelor Degree in Management;	No
2022/2023	1º	Fundamentals of Computational Finance	Institutional Degree in ISCTE Business School;	Yes
2022/2023	1º	Investments and Financial Markets	Bachelor Degree in Computer Science and Business Management;	No
2022/2023	1º	Futures, Forwards and Swaps	Master Degree in Finance;	Yes
2021/2022	2º	Asset Pricing I	Doctorate Degree (PhD) in Economics; Doctorate Degree (PhD) in Finance;	Yes
2021/2022	2º	Asset and Liability Management	Master Degree in Finance;	Yes
2021/2022	2º	Investments	Bachelor Degree in Management;	No
2021/2022	1º	Fundamentals of Computational Finance	Institutional Degree in ISCTE Business School;	Yes
2021/2022	1º	Investments	Bachelor Degree in Finance and Accounting;	No
2021/2022	1º	Futures, Forwards and Swaps	Master Degree in Finance;	Yes

2020/2021	2º	Asset Pricing I	Doctorate Degree (PhD) in Economics; Doctorate Degree (PhD) in Finance;	Yes
2020/2021	2º	Asset and Liability Management		Yes
2020/2021	2º	Fundamentals of Finance	Bachelor Degree in Economics;	No
2020/2021	2º	Financial Derivatives	Master Degree in Monetary and Financial Economics;	Yes
2020/2021	1º	Fundamentals of Computational Finance	Institutional Degree in ISCTE Business School;	Yes
2019/2020	2º	Financial Derivatives	Master Degree in Monetary and Financial Economics;	Yes
2019/2020	1º	Fundamentals of Computational Finance	Institutional Degree in ISCTE Business School;	Yes

## Supervisions

### • Ph.D. Thesis

#### - Ongoing

	Student Name	Title/Topic	Language	Status	Institution
1	João Diogo Barros Moura	Financial Options: Options Returns, Hedging Strategy and Static Hedge Portfolio	English	Developing	Iscte
2	Luís Simão Almeida Ferreira	Exact Simulation of Jump Diffusion Processes	English	Developing	Iscte

#### - Concluded

	Student Name	Title/Topic	Language	Institution	Concluding Year
1	Carlos Miguel Aguiar da Glória	Essays on Dynamic Asset Pricing	English	Iscte	2024

### • M.Sc. Dissertations

#### - Ongoing

	Student Name	Title/Topic	Language	Status	Institution
1	João Pedro Gonçalves Frazão do Rosário	The joint SPX/VIX calibration	--	Developing	Iscte
2	Rafael Carreiras Ré	The S&P 500 Risk-Neutral Moments	--	Developing	Iscte

#### - Concluded

	Student Name	Title/Topic	Language	Institution	Concluding Year
1	José Miguel Mateus Serejo Rocha das Neves	Risk-neutral distributions implied from stochastic volatility jump-diffusion models.	English	Iscte	2025
2	Cláudio dos Santos Machado	Implied Risk-Neutral Distribution: Parametric approaches	English	Iscte	2025
3	Miguel Natal de Brito Boto	Numerical and Theoretical Analysis of Lognormal and Location-Scale t Mixture Models for Risk-Neutral Density Recovery	English	Iscte	2025
4	Mafalda Amaro Caneira	the variance risk premium	English	Iscte	2024
5	Duarte Miguel da Cunha Domingues Amador Marques	Empirical Comparison of S&P 500 Index Options: Black-Scholes-Merton Model and Heston Model	English	Iscte	2023
6	Raquel Lopes Coutinho	Option pricing using machine learning methods	Portuguese	Iscte	2023
7	João Pedro Gonçalves Cordeiro da Silva	S&P 500 options term structure	English	Iscte	2022
8	Pedro Miguel Tomás Carvalho	The VIX Premium Puzzle	Portuguese	Iscte	2021

Total Citations	
Web of Science®	89
Scopus	62

## Publications

### • Scientific Journals

#### - Scientific journal paper

1	<p>Nunes, J. &amp; Ruas, J. (2024). A note on the Gumbel convergence for the Lee and Mykland jump tests. Finance Research Letters. 59</p> <p>- Times Cited Web of Science®: 2</p> <p>- Times Cited Scopus: 2</p>
2	<p>Glória, C. M., Dias, J. C., Ruas, J. P. &amp; Nunes, J. P. V. (2024). The interaction between equity-based compensation and debt in managerial risk choices. Review of Derivatives Research. 27 (3), 227-258</p> <p>- Times Cited Web of Science®: 1</p> <p>- Times Cited Scopus: 1</p> <p>- Times Cited Google Scholar: 1</p>

3	<p>Nunes, J., Ruas, J. &amp; Dias, J. C. (2020). Early exercise boundaries for American-style knock-out options. <i>European Journal of Operational Research</i> . 285 (2), 753-766</p> <p>- Times Cited Web of Science®: 11</p> <p>- Times Cited Scopus: 9</p> <p>- Times Cited Google Scholar: 15</p>
4	<p>Nunes, J. P. V., Dias, J. C. &amp; Ruas, J. P. (2020). The early exercise boundary under the jump to default extended CEV model. <i>Applied Mathematics and Optimization</i>. 82 (1), 151-181</p> <p>- Times Cited Web of Science®: 1</p> <p>- Times Cited Scopus: 2</p> <p>- Times Cited Google Scholar: 6</p>
5	<p>Ruas, J. P., Nunes, J. P. V. &amp; Dias, J. C. (2016). In-out parity relations for American-style barrier options. <i>Journal of Derivatives</i>. 23 (4), 20-32</p> <p>- Times Cited Web of Science®: 1</p> <p>- Times Cited Scopus: 1</p> <p>- Times Cited Google Scholar: 2</p>
6	<p>Dias, J. C., Nunes, J. P. V. &amp; Ruas, J. P. (2015). Pricing and static hedging of european-style double barrier options under the jump to default extended CEV model. <i>Quantitative Finance</i>. 15 (12), 1995-2010</p> <p>- Times Cited Web of Science®: 21</p> <p>- Times Cited Scopus: 14</p> <p>- Times Cited Google Scholar: 24</p>
7	<p>Nunes, J., Ruas, J. &amp; Dias, J. C. (2015). Pricing and static hedging of American-style knock-in options on defaultable stocks. <i>Journal of Banking and Finance</i>. 58, 343-360</p> <p>- Times Cited Web of Science®: 22</p> <p>- Times Cited Scopus: 14</p> <p>- Times Cited Google Scholar: 24</p>
8	<p>Ruas, J. P., Dias, J. C. &amp; Nunes, J. (2013). Pricing and static hedging of American-style options under the jump to default extended CEV model. <i>Journal of Banking and Finance</i>. 37 (11), 4059-4072</p> <p>- Times Cited Web of Science®: 30</p> <p>- Times Cited Scopus: 19</p> <p>- Times Cited Google Scholar: 36</p>

## • Conferences/Workshops and Talks

### - Talk

1	<p>Nunes, J., Ruas, J. &amp; Dias, J. C. (2025). Unpuzzling Volatility Risk Premiums through the Joint SPX/VIX Smile Calibration. Workshop on Financial Risk with Big Data.</p>
2	<p>Glória, C. M., Dias, J. C. &amp; Ruas, J. (2024). Robust Optimal Strategy for an AAM of DC Pension Plans under Jump-Diffusion and with Time-Varying Ambiguity. Scandinavian Actuarial Conference 2024.</p>
3	<p>Dias, J. C., Nunes, J., Ruas, J. &amp; Silva, F. C. (2023). Optimal Investment Decisions with Minimum Price Guarantees under the Constant Elasticity of Variance Process. 26th International Conference on Real Options.</p>
4	<p>Dias, J. C., Nunes, J., Ruas, J. &amp; Silva, F. C. (2023). Optimal Investment Decisions with Minimum Price Guarantees under the Constant Elasticity of Variance Process. 12th International Conference of the Portuguese Finance Network.</p>
5	<p>Gloria, C. M., Dias, J. C., Ruas, J. &amp; Nunes, J. (2022). The Interaction Between Equity-Based Compensation and Debt in Managerial Risk Choices. Paris Financial Management Conference.</p>

6	Dias, J. C., Ildefonso, J., Nunes, J. & Ruas, J. (2021). Repeated Richardson Extrapolation and Static Hedging of Barrier Options under the JDCEV Model. 11th International Conference of the Portuguese Finance Network.
7	Ruas, J., Nunes, J. & Dias, J. C. (2018). Early Exercise Boundaries for American-style Knock-Out Options. 10th World Congress of the Bachelier Finance Society.
8	Nunes, J., Dias, J. C. & Ruas, J. (2016). The Early Exercise Boundary under the Jump to Default Extended CEV Model. 9th World Congress of the Bachelier Finance Society.

## • Other Publications

### - Other publications

1	Ruas, J., Dias, J. C. & Nunes, J. (2017). Erratum to “Pricing and static hedging of American-style options under the jump to default extended CEV model” (Journal of Banking and Finance (2013) 37(11) (4059–4072) (S0378426613002896) (10.1016/j.jbankfin.2013.07.019)). Journal of Banking and Finance. 81, 20-23
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## Academic Management Positions

Director (2024 - 2026)  
Unit/Area: Doctorate Degree (PhD) in Finance

Coordenador de ECTS (2024 - 2027)  
Unit/Area: Department of Finance

Director (2022 - 2024)  
Unit/Area: Doctorate Degree (PhD) in Finance