

Adrian Costea, PhD, CFA



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Sex Male | Date of birth 13/06/1974 | Nationality Romanian

PERSONAL STATEMENT

Looking for a position where I can attribute my knowledge and expand my skills in the public sector

WORK EXPERIENCE

January 2023 - Present
August 2020 – December 2022

Regional Director

Deputy Regional Director

National Bank of Romania – Bucharest Regional Branch (www.bnr.ro)

- I coordinate and plan the activity of the units for which an internal decision of direct coordination has been issued, from the disposition of the regional director.
- I coordinate, hold accountable and mobilize subordinate employees by establishing and constantly monitoring performance indicators.
- I work with the regional director to coordinate the branch and I take note of all the documents registered within the branch.
- I am responsible for the organization and operation of the Statistical Reporting and Survey Unit, in accordance with the regulations in force.
- I am responsible for the organization and operation of the Resource Management Unit, in accordance with the regulations in force.
- I ensure the preparation of the annual procurement program and the budget of revenues and expenditures of the regional branch, I approve their projections, I coordinate the monitoring of the budget execution to ensure compliance with the amounts approved by the Board of Directors; I monitor the compliance with the approved consumption norms and the compliance with the standards established for the products purchased at the level of the regional branch.
- I verify, organize and coordinate the activity related to the operations subject to preventive financial control, corresponding to the legislation in force and to the internal working norms of the bank.
- I impose measures for the protection, security and archiving of the information and data necessary for the activity of the regional branch, according to the internal regulations in force.
- I am responsible for the organization and operation of the Cashier Unit, in accordance with the regulations in force.
- I am responsible for the organization and operation of the Precious Metals Unit, in accordance with the regulations in force.
- I manage, in collaboration with the Heritage and Investment Department and the Technical and Maintenance Department, the spaces related to the regional branch, I keep the files containing copies of these documents within the regional branch and send all these documents in original to the specialized structure of the NBR (Heritage and Investment Department).
- I perform any other service tasks received from the executive management, according to the specifics of the branch activity.

Business or sector Central Banking

May 2011 – July 2020

Head of Statistical Reporting and Surveys Unit

National Bank of Romania – Bucharest Regional Branch (www.bnr.ro)

- I performed data analysis – on a quarterly basis – for compiling some of the Romanian balance of payments' accounts such as services and financial accounts. My work supports the general macroeconomic policies of the central bank. The international accounts provide an integrated framework for the analysis of a country's international economic relationships, including its international economic performance, exchange rate policy, reserves management, and external vulnerability.
- I analyzed – on a semi-annual basis – local firm's view regarding (i) their access to financing, and (ii) their ability to cope with unfavorable developments in interest rates and exchange rates, based on responses from the regular survey on this topic. My findings and recommendations feed into the decision-making of the NBR financial stability committee.
- I analyzed – every two years – the payment behavior of cash users (economic agents and households) in order to back-up the annual banknotes' printing program (submitted for approval to the NBR Board of Directors).
- I analyzed – on a monthly basis – the developments of the main agri-food products' prices and the local administered prices (thermal energy and communal services) from county residences in our area of activity, to help achieve short-term projections on inflation and GDP growth.
- Occasionally, I performed statistical and economic analysis - both quantitative and qualitative - that support the NBR decision-making bodies for different purposes. For example:
- I conducted qualitative and quantitative analysis regarding the behavior of firms on the labor market in the context of the efforts deployed by the central banks within the European System of Central Banks for studying wage policies and personnel management at the initiative of the European Central Bank. The focus was on the companies reaction to the financial crisis and the changes in the institutional environment from the perspective of the salary adjustments, as well as the size and structure of the personnel.
- I performed qualitative and quantitative analysis regarding the mechanism for setting and changing prices in Romania. The objective was to assess the degree of sensitivity of the local economy's prices and salaries to changes in different variables such as inflation, production costs, interest rates, etc., which is relevant from the perspective of the functioning of the monetary policy transmission mechanism.

Business or sector Central Banking

March 2007 – May 2011

Inspector at Non-banking Financial Institutions' and Payment Institutions' Supervision Division

National Bank of Romania – Supervision Department (www.bnr.ro)

- I was responsible with analyzing and reporting on the activity of two different categories of non-banking financial institutions (NFIs): NFIs that were listed on the Bucharest Stock Exchange and those which formed groups and reported on a consolidated basis with each of their mother-banks. In this context, I developed and proposed a new linear programming model for optimizing portfolios' asset allocation based on interval analysis. The theoretical results were backed up by a case study.
- I developed and proposed *descriptive* models based on non-traditional techniques such as Self-Organizing Map (SOM) clusterization algorithm for assessing comparatively the financial performance of NFIs: I built a financial performance map based on different prudential indicators (capital adequacy, assets' quality and profitability financial ratios). In addition, I employed a number of classification techniques (decision trees, artificial neural networks, logistic regression) to *forecast* the performance of new companies (NFIs) as data became available. Moreover, I built *early-warning systems* (EWSs) for predicting the underperformance of NFIs and when this might occur (in a six-, nine- or twelve-months time horizon). These models greatly improved the prudential supervision activity: the periodic financial statements were no longer manually analyzed by the inspectors. The Supervision Department could benefit from this type of analysis by using it to select those NFIs that need to be scrutinized more closely, e.g. by "on-site" inspections.
- I concluded surveillance reports by recording the findings of inspection actions or analyzes performed on the basis of prudential reports and data received from the NFIs and I monitored the implementation of the measures established as a result of the inspections and presented proposals to the management of the Supervision Department for remedying the identified deficiencies and improving the activity of the NFIs.
- I conducted quantitative and/or qualitative analyzes both for substantiating some regulations issued by the central bank and for ex-post evaluation during the implementation period: e.g., when new credit standards were imposed on NFIs I actively participated in clarifying the methodological aspects to the management of these institutions, taking feedback notes from them and proposing improvements in relation to these standards.

Business or sector Central Banking

Professor at Department of Statistics and Econometrics (Full Professorship obtained in October 2015)

Bucharest University of Economic Studies, Faculty of Economic Cybernetics, Statistics and Informatics (www.ase.ro)

- Habilitation in *Cybernetics and Statistics* – Order of MENCŞ No. 3298/02.03.2016;
- Teaching different courses for the second, third-year and master students in the university: “Basic Econometrics”, “Business Statistics”, “Macroeconomic Statistics”, “Data Mining”;
- Teaching different courses as a Foreign Professor in ESIGELEC, Rouen, France: “Data Warehousing and data mining” (3 years: 2007-2009), “Introduction to Business Intelligence” (3 years: 2010-2012), “Data Mining” (8 years: 2010-2017);
- Member of the Scientific Committee of the International Conference on Applied Statistics (2014 – 2020);
- Counseling students;
- Reviewer for the International Journal of Intelligent Systems in Accounting, Finance and Management (2007 – present);
- Reviewer for the ISI journals: Neural Computing and Applications (August 2015), Expert Systems with Applications - An International Journal (2005 – 2016).

Business or sector Academia

October 1998 – Present

Researcher

Bucharest University of Economic Studies, Faculty of Economic Cybernetics, Statistics and Informatics, Department of Statistics and Econometrics (www.ase.ro) and Åbo Akademi University, Turku Centre For Computer Science (TUCS), Institute for Advanced Management System Research (IAMSR), Turku, Finland (www.tucs.fi , www.iamsr.fi)

In the last 20 years I performed research in the field of Data Mining. Starting with September 2000 when I was admitted in the PhD program at Turku Centre for Computer Science in Finland, I used/improved and proposed new computational intelligence (CI) methods for assessing comparatively and in time the financial performance of companies from different economic sectors. My PhD thesis, defended on 2 December 2005, can be found at: <http://tucs.fi/publications/attachment.php?fname=DISS67.pdf>

Within the postdoctoral project *Models for assessing the performance of non-banking financial institutions from a prudential supervision perspective* (November 2010 – February 2013), I presented different NFIs’ financial performance classification models, setting up a substantial database (1111 observations) with NFIs’ performance ratios. The final report of the project was published (ISBN: 978-606-505-656-5) and sent to the management of the Supervision Department in the central bank which found it useful: the models could be used to predict the NFIs’ performance 1, 2 or 3 quarters in advance, making “on-site” inspection planification more efficient.

In 2013 I set up the Data Mining Learning Group (dmlg.ase.ro) whose objective is to use Data Mining techniques in financial performance benchmarking. For example, starting from the NFIs’ financial performance dataset, we developed *early-warning* models for predicting the NFIs’ performance deterioration: Moinescu B, **Costea A** (2014). *Towards an early-warning system of distressed non-banking financial institutions*, ECECSR, 48(2): 75-90, ISSN 0424–267X).

In 2016 I obtained the Habilitation in the research domain of *Cybernetics and Statistics* which allowed me to continue my research in building financial performance benchmarking models as a PhD supervisor within the Economic Cybernetics and Statistics Doctoral School of Bucharest University of Economic Studies. One result: **Costea A**, Ferrara M, Şerban F (2017). *An integrated two-stage methodology for optimising the accuracy of performance classification models*, TEDE, 23(1): 111-139, ISSN 2029–4913.

Another research area which I have worked on: portofolio management. A first result: Şerban F, **Costea A**, Ferrara M (2015). *Portofolio optimization using interval analysis*, ECECSR, 49(1): 147-162, ISSN 0424–267X. Here we propose a new linear programming model for optimising portofolios’ asset allocation based on interval analysis (the restrictions’ and objective function’s coefficients are modeled by the means of interval numbers).

Business or sector Academia

September 2001 – June 2003

Software Designer

Extended DISC International, Espoo, Finland

- Facilitate project team meetings and provide meeting minutes
- Implement the application designed in cooperation with the team
- Programming in PHP, ASP, HTML, Microsoft SQL, and Access DBMS. One of the programming tasks was to construct the web-interface at <http://www.extdisc.com/edo/>
- Testing different versions of the programs
- Manage the project schedule to assure the project deliverables are being met
- Manage change control and scope, and negotiate changes with team
- Report on project performance to team

Business or sector Software application design

EDUCATION AND TRAINING

November 2010 – February 2013

Postdoctoral degree program in finance

Postdoctorate

Bucharest University of Economic Studies, Bucharest, Romania

- Research subject: *Models for assessing the performance of non-banking financial institutions from a prudential supervision perspective*
- Research domain: Economic and Monetary Union

September 2000 – December 2005

PhD program in information systems

EQF level 8

Abo Akademi University, Turku Centre for Computer Science, Turku, Finland

- Thesis: *Computational Intelligence Methods for Quantitative Data Mining*
- Research domain: Data Mining techniques for economic/financial data analysis

October 1998 – June 1999

Master of Science in Economics (G.P.A. 9.66/10)

EQF level 7

Bucharest University of Economic Studies, Bucharest, Romania

- Thesis: *The Design and Implementation of the Information System of the Stock Exchange*
- Specialization: Information Systems for Management

October 1993 – June 1998

Bachelor of Science in Economics (G.P.A. 5 years <<without the Licentiate exams' grades>> – 9.11/10, Licentiate exam (average) – 9.65/10)

EQF level 6

Bucharest University of Economic Studies, Bucharest, Romania

- Thesis: *The Computer-based Processing of Statistical Polls*
- Specialization: Economic Informatics

PERSONAL SKILLS

Mother tongue(s)

Romanian (Aromanian dialect)

Other language(s)

	UNDERSTANDING		SPEAKING		WRITING
	Listening	Reading	Spoken interaction	Spoken production	
English	C2	C2	C2	C2	C2
TOEFL certificate (2000)					
French	B1	B2	A2	A2	A2
Romanian Banking Institute certificate					

Levels: A1/A2: Basic user - B1/B2: Independent user - C1/C2 Proficient user
Common European Framework of Reference for Languages

Communication skills

- good communication skills gained through my experience as teacher, head of regional branch

- leadership (currently responsible for a team of 15 people)
- attended training course “Project Management for Financial Services Industry” held in Bucharest from 12 to 14 November 2013 and organised under the aegis of the Ministry of Finance, Luxembourg in collaboration with Romanian Banking Institute

Job-related skills

- mentoring skills, I am responsible for training new staff in the NBR’ statistical reporting division

Digital competence

SELF-ASSESSMENT				
Information processing	Communication	Content creation	Safety	Problem solving
Proficient	Proficient	Independent	Independent	Proficient

Levels: Basic user - Independent user - Proficient user
[Digital competences - Self-assessment grid](#)

Replace with name of ICT-certificate(s)

- good command of Microsoft Office™ suite (ECDL – advanced level)
- knowledge of Matlab or other statistical softwares for data processing: SAS, E-Views.

Other skills

- football (soccer): winner of 2 regional trophies (NBR team) and 2 domestic trophies (BUES team)

Driving licence

B

ADDITIONAL INFORMATION

Publications (Selection)

- Chiriluş A, **Costea A**, *The Effect of FDI on Environmental Degradation in Romania: Testing the Pollution Haven Hypothesis*. Sustainability, Volumul 15, Numărul 13, 10733, 2023, ISSN: 2071-1050. <https://doi.org/10.3390/su151310733>
- **Costea A**, *An Early-Warning System for Financial Performance Predictions*, Economic Computation and Economic Cybernetics Studies and Research (ECECSR), ASE Publishing House, Volumul 56, Numărul 2, 2022, pp. 5-20, ISSN 0424–267X. Link: http://ecocyb.ase.ro/nr2022_2/1.%20Costea%20Adrian.pdf
- **Costea A**, Ferrara M, Şerban F (2017). *An integrated two-stage methodology for optimising the accuracy of performance classification models*, TEDE 23(1): 111-139. <http://www.tandfonline.com/doi/abs/10.3846/20294913.2016.1213196>
- Şerban F, **Costea A**, Ferrara M (2015). *Portfolio optimization using interval analysis*, ECECSR 49(1): 147-162. [http://www.ecocyb.ase.ro/nr20151/09%20-%20SerbanCosteaFerrara%20\(T\).pdf](http://www.ecocyb.ase.ro/nr20151/09%20-%20SerbanCosteaFerrara%20(T).pdf)
- Moinescu B, **Costea A** (2014). *Towards an early-warning system of distressed non-banking financial institutions*, ECECSR 48(2): 75-90. <http://www.ecocyb.ase.ro/eng/Bogdan%20Moinescu.pdf>
- **Costea A** (2014). *A statistical-based approach to assessing comparatively the performance of non-banking financial institutions in Romania*, A. Karasavoglou and P. Polychronidou (eds.), Economic Crisis in Europe and the Balkans – Problems and Prospects, Contributions to Economics, DOI 10.1007/978-3-319-00494-5_11, © Springer International Publishing Switzerland, 240 pg., 2014, ISBN 978-3-319-00494-5, Chapter 11, pp. 195-209. http://link.springer.com/chapter/10.1007%2F978-3-319-00494-5_11#
- **Costea A** (2013). *Modele de evaluare a performanţelor instituţiilor financiare nebankare din perspectiva supravegherii prudentiale*, individual volume (postdoctoral research synthesis) in the collection of the program “Performance and excellence in postdoctoral research in economics – Contract no. POSDRU/89/1.5/S/59184”, Publisher: Editura ASE, Bucharest, Romania, 124 pg., 2013, ISBN: 978-606-505-656-5. <http://www.editura.ase.ro/Carti-realizate-prin-proiecte-de-cercetare/>
- **Costea A**, Bleotu V (2012). *A new fuzzy clustering algorithm for evaluating the performance of non-banking financial institutions in Romania*, ECECSR 46(4): 179-199. [http://www.ecocyb.ase.ro/20124pdf/Adrian%20Costea%20\(T\).pdf](http://www.ecocyb.ase.ro/20124pdf/Adrian%20Costea%20(T).pdf)
- **Costea A** (2005), *Computational Intelligence Methods for Quantitative Data Mining*, Publisher: Painosalama Oy, Turku, Finland, 260 pg., November 2005, ISBN: 951-29-4013-2. <http://tucs.fi/publications/attachment.php?fname=DISS67.pdf>

Projects (Example)

- Postdoc research program No. 494/01.11.2010 “*Modele de evaluare a performanțelor instituțiilor financiare nebancale din perspectiva supravegherii prudentiale*” as part of the general project “Performance and excellence in postdoctoral research in economics – Contract no. POSDRU/89/1.5/S/59184” (2010-2013) – leader

Conferences (Selection)

- HICSS 2003, IJCNN 2004, ICAS 2012-2016, ICIB 2011-2012, EBEEC 2011-2012

Honours and awards

- 3rd prize winner (with Iulian Nastac, PhD) of the International Competition on Artificial Intelligence organized by EUNITE in 2003. The topic of the competition: *Prediction of product quality in glass manufacturing process* (http://www.eunite.org/eunite/events/eunite2003/look_back/look_back.htm)

Memberships

- CFA Institute Society, CFA Romania Society, NBR, BUES, TUCS, IAMSR, ESIGELEC, Romanian Statistics Society, IEEE and AGER

References

- **Profesor dr. Barbro Back** (PhD supervisor)
Professor in Accounting Information Systems at Åbo Akademi University and IAMSR, Turku, Finland.
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E-mail: barbro.back@abo.fi
Office phone: +358-2-215 4750, Fax: +358-2-215 4809
- **Professor dr. Christer Carlsson** (retired)
Head of Institute for Advanced Management Systems Research (IAMSR), Turku, Finland
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- **Costel Stanciu**, Head of the Non-banking Financial Institutions' and Payment Institutions' Inspection Division, Supervision Department, NBR
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E-mail: Costel.Stanciu@bnro.ro, Office phone: +40213130410/ext.1432 or direct: +40311321432, Mobile: + 40742093183, Fax: +40213124823

Courses

- European Banking Certificate (2012 – 4 months), The implementation of statistical surveys – foreign direct investments and international trade services (2012 – 3 days, 2013 – 1 day, 2014 – 2 days, 2015 – 2 days, 2016 – 2 days, 2017 – 2 days), Monetary policy and the central bank's independence (2012 – 3 days), Money laundering (2012 – 1 day), NBR – history, values, perspectives (2009 – 1 day), Efficient communication (2016 – 3 days), Business Intelligence in Business Negotiation (2016 – 2 days), Appropriate communication - the key to correct understanding and good reputation (2017 – 3 days), The fundamentals of process optimization (2018 – 2 days)

Certifications

- CFA Institute Program (passed all 3 CFA program exams on first attempt, charter obtained on 18.09.2017)