# Christian Marini

## SUMMARY

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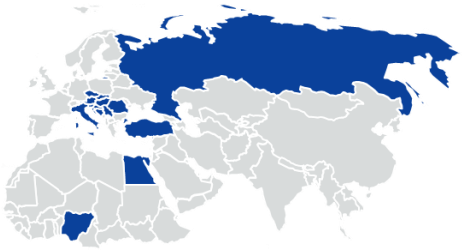
| Name & Contact | Christian Marini – Tel: +39 345 2599468 |
| Title and Office | Associate Partner – Head of Credit Risk Europe – International Business |
| Education | MSc. Applied econometrics & PgD in Finance and Commodities |
| Experience | + 15 years in Credit Risk |

## SHORT BIO

Christian has joined Prometeia in 2007, since then he has acquired experience as leading consultant in the quantitative risk management modeling space, working in collaboration with primary financial and non-financial institutions as well as public companies, including local and European Central Banks. His expertise includes both development of analytical methodologies and architectures for analytical IT systems accompanied by a strong attitude in developing commercial opportunities mainly in the Credit Risk environment. In the recent years, Christian has acquired and managed multiple projects across different types of portfolios, executed across different regions, such as West-Europe, East-Europe, Russia, Turkey and EMEA:



Christian is a contract professor at the University of Bologna (academic year: 2021-2022) in the department of Statistics (SSFA – *Scienze Statistiche Finanziarie ed Attuariali*) for the full time 30 hours course, “Risk Econometrics”. Teaching the basics of Credit Risk for a conceptual analytical stand point as well as their implication in the overall business of Banks.

## RESPONSABILITIES AND AREA OF EXPERTISE

Head of Credit Risk Competence Line for Europe and Africa regions, with the responsibility of overlook all Credit Risk related projects delivered in the market, including budget accountability for the business and the management of the international Credit Risk teams. In the last 8 years of international activities, Christian took part of the main international market development, including:

- Starting the business on the Turkish market in 2015 when the office was established, the Istanbul office has currently more than 35 people.
- Starting the activities in the Moscow office, early 2014.
- Opening the Austrian market in 2017 when the first project was delivered, currently Prometeia is a market leader for Credit Risk models development partnering all Top tier Austrian Banks.
- Being involved in the major projects delivered for the most strategic EU clients on Credit Risk matters.

Leading and delivering analytical solutions in the Credit Risk modelling space, the activities include, development of the main Credit Risk measures such as Probability of default (PD), Loss estimation (LGD) or macro-economic model to forecast the risk (stress-test models), for a wide range of portfolios, from high default portfolios to low (or

no) default portfolios. The projects have been delivered for top tier multinational Bank as well as non-financial institutions (such as utilities companies). The activities include:

- A deep use of data management and mining of different sources such as financial statement, transactional data, client base data, external rating agencies data… including the use of data engineering techniques and features selection.
- Traditional analytical methods including a deep use of the basic statistical test (ANOVA, Dickey-Fuller Test for stationarity, Breusch–Pagan test for homoscedasticity of residuals, …), linear, logistic, multimodal or autoregressive regressions, Merton-like models (KMV), Markov chains.
- A wide range of advanced analytical methods have been used, including random forest, extreme gradient boosting and neural networks.

Developing and delivering projects focused on the analytical optimization of managerial Banking processes, which includes:

- Digitalization of monitoring credit systems (Early Warning Systems) with the use of transactional data (+100 million of information), link analysis and on-line news. Such activity includes the use of supervised and unsupervised processes, in particular advanced analytics procedures to benchmark traditional models, such as creation of time series features (TSfresh python package), features engineering and selection, definition of hyperparameters for each selected model and final model choice based on model performances and the selected variables.
- Collateral evaluation models for Real Estate portfolios, in order to evaluate the mortgage objects based on specific collateral information, such as geo-localization, building status, market RE values, ...
- Credit Risk IT architecture, gained in supporting the software development teams, during the update of new functionality in the software developed and licensed by Prometeia (ERMAS and Prometeia Modeling platform) as well as the Python libraries properly customized to accelerate the Credit Risk model development.

In addition to traditional computer packages such as Office, the following are the IT expertise:

- SAS: advanced user.
- Python: basic user.
- R: basic user.

## EDUCATION

- **January 2020**: **Artificial Intelligence bootcamp at the University of NY (AIFI - Artificial Intelligence Financial Institute)**. Intensive on-site university course (6 full time days – 30 hours) of applied advanced analytics concepts to finance. Focus on supervised and un-supervised techniques, natural language process, neural network and all basic concept of econometrics looked from an “advanced” standpoints.
- **June 2007**: **Postgraduate Diploma (PgD) in Finance and Commodities at Birkbeck College, University London**. The courses included pricing option, hedging portfolio in continuous time, using advanced mathematical finance procedures such as SDE, Greeks and stochastic volatility models, with particular attention to derivatives on commodities. Final dissertation: *Modelling the dependence between a pair of European electricity markets*.
- **July 2006 (11th July): Master of Science (MSc) in Statistics and Financial Econometrics at the University of Bologna (2 years full time)**. Achieved a grade average of 110 (out of 110) cum laude. Major thesis for master course titled: *Co-movement in financial markets: the case of the Italian stock market*. Econometrics studies of a sample of stocks belonging to the MIB30 index, in which I proved the presence of co-movements between various stocks in the index.
- **October 2004 (26th of October): Bachelor of Science (Majoring in Statistics) from the University of Bologna. Achieved a grade average of 101 (out of 110)**. Major thesis: *A Statistical Study on the Stock Market for Central Italy*. Construction of GARCH financial time series models to explain the dynamics of a particular sample of stocks in central Italy firms.