

# Jean-Pierre INDJEHAGOPIAN

Distinguished Emeritus Professor

Department: Information Systems, Data

Email: [indjehagopian@essec.edu](mailto:indjehagopian@essec.edu)

Analytics and Operations

ESSEC Business School

3 avenue Bernard Hirsch

95021 Cergy-Pontoise

France

## RESEARCH INTERESTS

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Econometrics, Forecasting, Statistics

## EDUCATION

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|------|--|
| 1975 | Doctorat in Statistics, Université Pierre et Marie Curie (UPMC), France                          |
| 1973 | DEA in Probabilities, Université Pierre et Marie Curie (UPMC), France                            |
| 1969 | Diploma from the Institut de Statistique (ISUP), Université Pierre et Marie Curie (UPMC), France |
| 1968 | Maîtrise in Mathematics, Université Pierre et Marie Curie (UPMC), France                         |

## EMPLOYMENT

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### Full-time academic positions

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| 1971 - 1974    | Professor and consultant, CESMAP, France                        |
| 1970 - Present | Distinguished Emeritus Professor, ESSEC Business School, France |

### Other affiliations and appointments

- |             |  |
|-------------|--|
| 2010 - 2017 | Scientific head of the ESSEC/ ENSAE Double Degree, ESSEC Business School, France           |
| 2010 - 2017 | Scientific head of the ESSEC/ CentraleSupélec Double Degree, ESSEC Business School, France |
| 2006 - 2008 | Head of the IDS Department, ESSEC Business School, France                                  |
| 1997 - 2008 | Head of the Track "Actuariat" ESSEC-ISUP, ESSEC Business School, France                    |
| 1989 - 1995 | CERESSEC Research Center Director, ESSEC Business School, France                           |

## PUBLICATIONS

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### Journal Articles

DECLERCK, F., INDJEHAGOPIAN, J.P. and LANTZ, F. (2022). Dynamics of biofuel prices on the European market: the impact of EU environmental policy on resources markets. *Journal of Energy Markets*, 15(1), pp. 19-45.

INDJEHAGOPIAN, J.P. and LANTZ, F. (2000). Dynamics of Heating Oil Market Prices in Europe. *Energy Economics*, pp. 225-252.

INDJEHAGOPIAN, J.P. and MACE, S. (1994). Mesure d'impact de promotion des ventes : description et comparaison de trois méthodes. *Recherche et Applications en Marketing*, pp. 53-79.

INDJEHAGOPIAN, J.P. and CORDIER, J. (1986). Multidimensional Analysis of a Commodity Price System. *International Journal of Forecasting*, pp. 153-189.

### Books and book editor

DUSSAIX, A.M. and INDJEHAGOPIAN, J.P. (1991). *Statistique pour la gestion*. Éditions d'Organisation, 36 pages.

### Book chapters

INDJEHAGOPIAN, J.P. (1986). La méthode Box et Jenkins. In: *Les prévisions - Performance et prévention - Ordre des Experts Comptables et des Comptables Agréés*. 1st ed. Éditions Comptables Malesherbes, pp. 329-347.

INDJEHAGOPIAN, J.P. (1986). Le modèle de régression et son application en prévision. In: *Les prévisions - Performance et prévention - Ordre des Experts Comptables et des Comptables Agréés*. 1st ed. Éditions Comptables Malesherbes, pp. 360-370.

### Conference proceedings

DECLERCK, F. and INDJEHAGOPIAN, J.P. (2015). Oil and Oil Company Stock Prices: Cointegration with Changing Regimes. In: *32nd International Conference of the French Finance Association*. Association Française de Finance (AFFI).

INDJEHAGOPIAN, J.P., IONNIDIS, C. and LANTZ, F. (2004). Oil Price Volatility: Influence of the Trader's Behaviour on the Term Structure. In: *Stock Markets-LXXXIV Colloque International de l'AEA*. Applied Econometrics Association (AEA).

BOURDON, M.B., INDJEHAGOPIAN, J.P. and LANTZ, F. (2002). Apport des méthodes de Bootstrap à un modèle de Translog. Application à la demande. In: *XXXIV Journées de Statistique (SFdS)*. SFdS, Société Française de Statistique, pp. 177-178.

INDJEHAGOPIAN, J.P., JUAN, S. and LANTZ, F. (2001). Analyse économétrique de la part de marché en France des voitures neuves à moteur diesel. In: *Actes des XXXIIIèmes Journées de Statistique SFdS*. SFdS, Société Française de Statistique, pp. 446.

INDJEHAGOPIAN, J.P., LANTZ, F. and SIMON, V. (1998). Dynamique des prix sur le marché des fiouls domestiques en Europe. In: *Colloque International : Marchés Financiers Emergents*. Financial Management Association (FMA).

INDJEHAGOPIAN, J.P., LANTZ, F. and SIMON, V. (1998). Exchange Rate and Medium Distillates Distribution Margins. In: *Modelling Energy Markets-LXIVème Colloque*. Applied Econometrics Association (AEA), pp. 183-194.

AFTALION, F. and INDJEHAGOPIAN, J.P. (1996). Purchasing Power Parity Dynamics. In: *Forecasting Financial Markets - New Advances for Exchange Rates, Interest Rates and Asset Management*. Chemical Bank, Imperial College, pp. 1-9.

AFTALION, F. and INDJEHAGOPIAN, J.P. (1996). Purchasing Power Parity Dynamics. In: *Forecasting Financial Markets - New Advances for Exchange Rates, Interest Rates and Asset Management*. Chemical Bank, Imperial College, pp. 1-9.

AFTALION, F. and INDJEHAGOPIAN, J.P. (1996). Purchasing Power Parity Dynamics. In: *13th International Conference of the French Finance Association (AFFI)*. International Finance Laboratory, Université de Genève, Faculté des Sciences Economiques & Commerciales, pp. 1-29.

DUSSAIX, A.M. and INDJEHAGOPIAN, J.P. (1995). A Study of the Impact of Promotions on Sales : Data Collection and Statistical Analysis Methods. In: *Bulletin de l'Institut International de Statistique (Bulletin of the International Statistical Institute)*. Institut International de Statistique (IIS), pp. 309-310.

GUEGAN, D. and INDJEHAGOPIAN, J.P. (1995). Nonlinear Time Series Analysis of Commodity Spot Prices : The Case of COCOA. In: *50th Session of the International Statistical Institute (ISI)*. International Statistical Institute (ISI), pp. 537-538.

## Conferences

LANTZ, F., INDJEHAGOPIAN, J.P. and DECLERCK, F. (2017). Dynamique et ruptures dans les relations entre les prix des biocarburants et du pétrole sur le marché européen. In: 49èmes Journées de Statistique (Jds2017).

DECLERCK, F., LANTZ, F. and INDJEHAGOPIAN, J.P. (2017). The Dynamics of Biodiesel Prices in Europe According to Rapeseed Grain and Oil Prices. In: 11th International European Forum on System Dynamics and Innovation in Foods Networks.

DECLERCK, F., LANTZ, F. and INDJEHAGOPIAN, J.P. (2016). Dynamics and Structural Breaks Between the Biofuel, Resources and Oil Prices on Th European Market. In: Energy & Commodity Finance (ECOMFIN) 2016 Conference.

INDJEHAGOPIAN, J.P., LANTZ, F. and SENTENAC-CHEMIN, E. (2011). Multiple Structural Break Change and Energy Forecasts: Application to Diesel Cars Equipment in France. In: 31st International Symposium on Forecasting.

IOANNIDIS, C., LANTZ, F. and INDJEHAGOPIAN, J.P. (2003). Oil Price Volatility: Does It Matter Who Trades?

BOURDON, M.B., INDJEHAGOPIAN, J.P. and LANTZ, F. (2002). Apport des méthodes de Bootstrap à un modèle de Translog. Application à la demande d'énergie.

INDJEHAGOPIAN, J.P. (2002). Modélisation ARCH de la volatilité des marchés financiers.

INDJEHAGOPIAN, J.P. (2000). Co-intégration en finance - Partie I : Intégration , Partie II : Cointégration.

INDJEHAGOPIAN, J.P., LANTZ, F. and SIMON, V. (1999). Tests de cointégration avec rupture : application à l'analyse de la formation des cours mondiaux des produits énergétiques.

INDJEHAGOPIAN, J.P., LANTZ, F. and SIMON, V. (1998). Dynamique des prix sur le marché des fiouls domestiques en Europe.

INDJEHAGOPIAN, J.P. and MACE, S. (1998). Mobil Telephone Traffic Forecasts.

INDJEHAGOPIAN, J.P. and MACE, S. (1997). Modélisation du trafic aérien en utilisant une approche linéaire et une approche par réseaux neuronaux.

INDJEHAGOPIAN, J.P. (1997). Une étude de cas : les modèles ARCH.

INDJEHAGOPIAN, J.P. and MACE, S. (1995). Modelling of the Impact of the Arrival of a New Means of Transport which is a Rival to the Plane.

INDJEHAGOPIAN, J.P. and MACE, S. (1994). Comparative Study of Modelling Time Series with Outliers.

- INDJEHAGOPIAN, J.P. and MACE, S. (1994). Etude comparative de mesures d'impact de promotion de ventes.
- INDJEHAGOPIAN, J.P. and MOURAD, M. (1992). Cointégration dans le système macroéconomique : production industrielle française.
- INDJEHAGOPIAN, J.P. and MOURAD, M. (1991). Causality Analysis, Effects of Shocks and Forecasting Using Vector Autoregressions in the French Industrial Product Sector.
- INDJEHAGOPIAN, J.P. and MOURAD, M. (1991). Modélisation des indices de la production industrielle française à partir de processus autorégressifs vectoriels - Etude de la causalité et de la propagation de chocs.
- INDJEHAGOPIAN, J.P. (1991). Processus agrégés et cointégration.
- INDJEHAGOPIAN, J.P. (1989). Modélisation VAR de la production industrielle française avec effets ARCH.
- INDJEHAGOPIAN, J.P. (1988). Modelling the French Macro Economic Series with VAR Processes.
- INDJEHAGOPIAN, J.P. (1987). Journée sur les processus stochastiques et la prévision.
- INDJEHAGOPIAN, J.P. (1987). Séminaire international sur le transport aérien organisé par l'Institut du Transport Aérien.
- INDJEHAGOPIAN, J.P. (1986). 6th International Symposium on Forecasting.
- INDJEHAGOPIAN, J.P. (1986). Discussion du document de recherche de Gourieroux, Monfort et Renault intitulé : Mesures de causalité et information de Kullback.
- INDJEHAGOPIAN, J.P. (1986). Les méthodes de prévision à très court terme et court terme : présentation, comparaison et logiciels.

### Working Papers

- DECLERCK, F., INDJEHAGOPIAN, J.P. and LANTZ, F. (2020). *Dynamics of Biofuel Prices on the European Market: Impact of the EU Environmental Policy on the Resources Markets*. 2003, ESSEC Business School Research Center.
- DECLERCK, F., INDJEHAGOPIAN, J.P. and BELLOCQ, F. (2015). *Relation entre le prix du pétrole et les cours boursiers des grandes compagnies pétrolières mondiales*. ESSEC Business School.
- INDJEHAGOPIAN, J.P., JUAN, S., LANTZ, F. and PHILIPPE, F. (2001). *La pénétration du diesel en France : tendances et ruptures*. ESSEC Business School.
- INDJEHAGOPIAN, J.P., LANTZ, F. and SIMON, V. (1998). *Dynamique des prix sur le marché des fiouls domestiques en Europe*. ESSEC Business School.
- INDJEHAGOPIAN, J.P., LANTZ, F. and SIMON, V. (1998). *Exchange Rate and Medium Distillates Distribution Margins*. ESSEC Business School.
- DUSSAIX, A.M. and INDJEHAGOPIAN, J.P. (1996). *Etude de l'impact des promotions sur les ventes : méthodes de collecte des données et méthodes d'analyse statistique*. ESSEC Business School.
- AFTALION, F. and INDJEHAGOPIAN, J.P. (1996). *Purchasing Power Parity Dynamics*. ESSEC Business School.
- AFTALION, F. and INDJEHAGOPIAN, J.P. (1996). *Purchasing Power Parity Dynamics (Version révisée du numéro 96018)*. ESSEC Business School.

- INDJEHAGOPIAN, J.P. and MACE, S. (1994). *Etude comparative de mesures d'impact de promotion des ventes*. ESSEC Business School.
- INDJEHAGOPIAN, J.P. and MOURAD, M. (1993). *Causality and Shock Analysis in the French Industrial Sector*. ESSEC Business School.
- INDJEHAGOPIAN, J.P. and MOURAD, M. (1993). *Var Modelling of Macroeconomic Time Series : Causality and Shock Analysis*. ESSEC Business School.
- INDJEHAGOPIAN, J.P. and MOURAD, M. (1991). *Modélisation des indices de la production industrielle française à partir des processus autorégressifs vectoriels - Etude de la causalité et de la propagation de chocs*. ESSEC Business School.
- INDJEHAGOPIAN, J.P. and MOURAD, M. (1989). *Comparaison des critères AIC, FPE, BIC et HQ pour estimer l'ordre d'un processus vectoriel autorégressif. Application à la production industrielle française*. ESSEC Business School.
- INDJEHAGOPIAN, J.P. (1989). *Modélisation VAR de la production industrielle française avec effets ARCH*. ESSEC Business School.
- INDJEHAGOPIAN, J.P. and MOURAD, M. (1988). *Modelling the French Macro Economic Series with VAR Processes*. ESSEC Business School.
- INDJEHAGOPIAN, J.P., BERTUCAT, V., CHARPENTIER, E., DIEUDONNE, O. and RENARD, F. (1987). *Analyse théorique du "Timeless Rank" calculé par Value Line*. ESSEC Business School.
- INDJEHAGOPIAN, J.P. (1987). *Tests de causalité par décomposition de fréquences : application à un marché financier*. ESSEC Business School.
- INDJEHAGOPIAN, J.P. and DIEUDONNE, O. (1987). *Tests sur le marché financier français de la méthode Value Line*. ESSEC Business School.
- INDJEHAGOPIAN, J.P. (1986). *Analyse des séries chronologiques et prévisions : la méthode Box et Jenkins*. ESSEC Business School.
- INDJEHAGOPIAN, J.P. (1986). *Le modèle de régression et son application en prévision*. ESSEC Business School.
- INDJEHAGOPIAN, J.P. (1986). *Trois tests de causalité : test direct de Granger et deux versions du test de Sims modifié*. ESSEC Business School.

## OTHER RESEARCH ACTIVITIES

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### Affiliations

- |             |  |
|-------------|--|
| 2011 - 2019 | Jury Member for the Actuariat France Award from the "SCOR for Sciences" Foundation   |
| 2011 - 2015 | Member of the Scientific Committee "Journal : Risque - Les cahiers de l'assurance"   |
| 2011 - 2015 | Member of the Scientific Committee of the RISQUE journal   |
| Since 1994  | Elected Member at the Conseil de l'Institut de Statistique , re-elected in 2002, Université Pierre et Marie Curie (UPMC), France |
| 1994 - 1996 | Nominated Member of the Commission de Coordination Scientifique de l'Ecole Nationale Supérieure du Pétrole et des Moteurs        |
| 1979 - 2008 | Member, Société de Statistique de France (SFdS)  |

## PhD Supervision

- 2015 Julien Riposo (Université Pierre et Marie Curie (UPMC)), Thesis jury member
- 2012 Guillaume Coqueret (University of Lille), Thesis jury member

## PROFESSIONAL ACTIVITIES

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### Consulting

- 2012 - 2013 Consulting for the Higher Education and Research Ministry to elaborate new educational programs for the preparatory classes to the best French business schools ("Classes préparatoires aux Grandes Ecoles de Management (ESCP-Europe, ESSEC, HEC...)")
- 2011 Study in Econometrics on the Diesel equipment in France for the "Institut Français du pétrole" (IFP)
- 2005 - 2006 Creation of a prevision system for vocal traffic on mobile phones for France-Telecom
- 1997 - Present Studies in Econométrics for the Institut Français du Pétrole (IFP)
- 1996 Prevision on the number of phone calls for the Société Française de Radiotéléphone (SFR)
- 1993 Logisitcs and Spare Parts, consulting for the Air Army and Matra Cap Systèmes
- 1992 - 1993 Modeling and Previsions of air traffic for the Institut du Transport Aérien et la Direction Générale de l'Aviation Civile
- 1991 Consulting for the Securities Firm ODDO
- 1987 - 1991 Scientific Council reporting to the Executive Committee of Groupe EXPANSION