



News

SUCCESS

- **Guillaume Bataille**, AMSE doctoral student, received the **best student presentation prize** at the **World Conference Natural Resource Modeling 2024**.
- **Anna Zaytseva**, former AMSE PhD student is **laureate of the thesis award from the city of Marseille** for her work on healthcare.
- **Stéphane Benveniste**, former AMSE PhD student, received a special mention at the **thesis award ceremony of the Institut national de la jeunesse et de l'éducation populaire** for his work on *Grandes Écoles*.
- **Anastasiia Antonova**, AMSE PhD candidate, received the **Louis André-Gérard-Varet Prize** for her paper on pricing and cost-push inflation in a production network economy.
- **Jiakun Zheng** received the «**SCOR-EGRIE Young Economist Best Paper Award**» at the last meeting of the European Group of Risk and Insurance Economists.

EVENTS TO COME

- January 23: Iméra-AMSE Workstop on **Gender Inequalities**.
- **Conférences Sciences Echos**: Stéphane Benveniste, «Education and inequalities» on January 23 ; Hervé Magnouloux «Economics and religion» on January 30 ; Cecilia García Peñalosa «Gender inequality in the labour market» on February 13.
- March, 21 : Symposium on «Adaptation of **general practitioners** in towns, to **changes in healthcare** supply and demand»

- March 22: **Policy lecture with Philip Lane**, Chief Economist at the European Central Bank.
- April 18-19: Workshop with the **University of Tübingen**.
- May 21-22: **WASH** (Water, Supply, Sanitation, and Hygiene) Economics Conference.
- May 23-24: 2024 Conference in Applied Econometrics using **Stata**, France.
- May 28-31: 2024 Mediterranean **Game Theory** Symposium.
- June 4-7: 2024 **QFFE** (Quantitative Finance and Financial Econometrics) spring school and conference.
- June 10-12 : AMSE **Summer School** on «Discounting, risk and the environment».
- June 21: 8th AMSE-Banque de France Workshop in **Macroeconomics**.
- June 26-28 : 23rd **Journées Louis-André Gérard-Varet** (LAGV).
- July 2-3 : International Conference on **Development Economics** (ICDE).

**23^e JOURNÉES
LOUIS-ANDRÉ
GÉRARD-VARET**



June 26-28, 2024 | Marseille (France)



Outline

VISITING RESEARCHERS

2

RESEARCH PERSPECTIVE

Do we live in a world with bubbles? By Thomas Seegmuller

4

RESEARCH HIGHLIGHTS

Forward to the past: short-term effects of the rent freeze in Berlin, by Marco Fongoni

8

Location games with references, by Gaëtan Fournier

10

Gender differences in re-contesting decisions: new evidence from French municipal elections, by Julieta Peveri and Marc Sangnier

12

The discounting premium puzzle: survey evidence from professional economists, by Jiakun Zheng

14

AMSE SCHOOL

The AMSE PhD program: roughly 10 years in numbers, by Marc Sangnier

16

PORTRAIT

Portrait of Stéphanie Le Maître Coordinator of the Energy Transition Unit at ADEME PACA by Léa Dispa

18

Visiting researchers



Michael DEVEREUX

University of British Columbia

Michael Devereux is a Professor of Economics at the Vancouver School of Economics in the University of British Columbia. His research interests are exchange rate determination, the link between exchange rates and prices, and international aspects of monetary and fiscal policy.

Date of visit : 01/01/2024 to 30/06/2024

Localisation : MEGA



Uwe SUNDE

LMU Munich

Uwe Sunde is a Professor of Economics at the LMU Munich. His research interests are Population Economics including Long-Run Growth and Development, Demographic Economics, Political Economy, Behavioral Economics, and Labor Economics.

Date of visit : 12/02/2024 to 05/04/2024

Localisation : MEGA



Ludovic RENOU

Queen Mary University of London

Ludovic Renou is a Professor of Economics at Queen Mary University of London. His research interests are Economic Theory, with a focus on mechanism and information design, and revealed preferences.

Date of visit : 01/04/2024 to 31/05/2024

Localisation : Îlot Bernard Dubois



Nizar ALLOUCH

Kent University

Nizar Allouch is a Professor of Economics at the University of Kent. His research interests are in Public Economics and the Economics of Networks.

Date of visit : 01/05/2024 to 31/05/2024

Localisation : Îlot Bernard Dubois



Marica VALENTE

University of Innsbruck

Marica Valente is an Assistant Professor of Economics at the University of Innsbruck. Her research interests are Environmental Economics with a focus on Causal Inference, Big Data, and Machine Learning.

Date of visit : 15/05/2024 to 15/06/2024

Localisation : MEGA



Julien SAUVAGNAT

Bocconi University

Julien Sauvagnat is a Professor of Finance at Bocconi University. His research interests are Financial Economics and Production Networks.

Date of visit : 15/05/2024 to 15/06/2024

Localisation : MEGA

Do we live in a world with bubbles?

Thomas Seegmuller, "Bulles et imperfections financières", in *Macroéconomie, Sciences économiques et gestion*, Encyclopédie Sciences, ISTE Editions, forthcoming.

“
History teaches us that bubble episodes, and the financial crises that often follow their bursting, appear periodically.
 ”

The interest in financial bubbles is supported by several empirical works revealing that asset prices fluctuate more than the underlying fundamentals. In particular, Shiller (1981), in a study of a composite asset price series, Standard and Poor's, from 1871 to 1979 and of the Dow Jones industrial index from 1928 to 1979, measures stock volatility as five times that of real dividends. More recent work (Martin and Ventura (2012)) confirms that asset price volatility cannot be explained by fundamental volatility. These various contributions therefore highlight the existence of speculative bubbles.

Moreover, financial crises are often closely linked to the bursting of speculative bubbles, and frequently follow episodes of concomitant growth of a speculative bubble and GDP. The 2007 crisis, which originated in the subprime crisis, is a striking example. History teaches us that bubble episodes, and the financial crises that often follow their bursting, appear periodically. Famous examples include the seventeenth-century tulipomania in Holland, the 1720 financial crash in London that followed speculation between 1711 and 1720, and the financial crisis in the U.K. that led to the collapse of the U.K. stock market.

The idea that bubbles can reflect irrational behavior is an old one. Regarding the South Sea Company bubble that caused the 1720 stock market crisis in Great Britain, Newton is reported to have said: "I can calculate the motions of erratic stars, but not the madness of the multitude». This traditional view is still present in debates on the evolution of financial assets. In 1996, Alan Greenspan spoke of «irrational exuberance» to describe the movement of bubbles in financial markets.

However, there is no consensus among economists on the idea that speculative bubbles can only be explained by the irrational behavior of traders, even though they have sought to determine



Thomas Seegmuller

Thomas Seegmuller is a Research Professor at CNRS. He obtained his PhD from the University of Strasbourg in 2001 and joined AMSE in 2009. His research interests are macroeconomic dynamics and environmental economics.

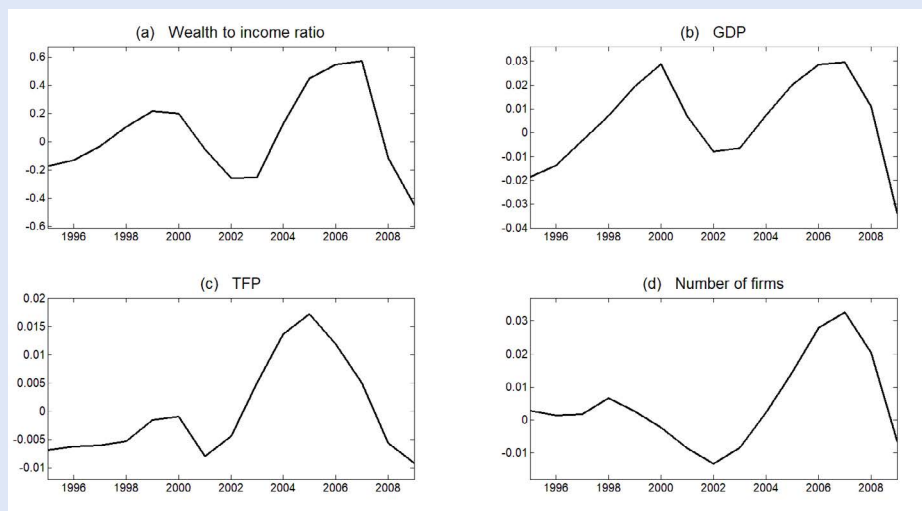


Figure. US time series

Source: Clain-Chamosset-Yvrard, L. and Raurich, X. and Seegmuller, T., 2023, «Entrepreneurship, Growth and Productivity with Bubbles», *Working Paper*.

whether forms of bounded rationality can better explain the evolution of asset prices. The question that has arisen is whether the existence of bubbles can be explained by the rational behavior of agents. This is the approach we will follow here. We will discuss results on the existence and features of bubbles that emerge from the macro-dynamic literature with rational agents.

We recall that a bubble is defined as the difference between the market price of an asset and its fundamental value, i.e. the sum of expected future dividends. Of course, expectations play a crucial role in bubbles: a high price today is justified by optimistic expectations about the future price. The existence of a bubble on an asset requires this asset to be resaleable, and therefore new traders must be able to participate in the market every period. Through its demographic aspects, the overlapping generations model provides such a structure, because not all traders participate in the trading market at the same time.

The first question is the existence of equilibria with bubbles. A stationary equilibrium with a bubble coexists with one without a bubble if the interest factor of the equilibrium without a bubble is sufficiently low. The stationary bubble then obeys the golden rule, i.e. an efficient solution. In contrast, the equilibrium without a bubble is inefficient because it is characterized by too low savings. The existence and the formation of the bubble make up for savings unachieved.

These results that can be obtained from an exchange economy are not drastically different when there is production, except that they can be linked to the level of capital. The existence of a stationary state with a bubble still requires a stationary state without a bubble characterized by a sufficiently low gross return on capital (Tirole (1985)). This means that the latter over-

accumulates capital and is dynamically inefficient. The bubbly stationary state, which again complies with the golden rule, is thus associated with a lower level of capital. The existence of the bubble, which stems from a desire to over-save, leads to a crowding-out effect on capital. This important result of the existence of a bubble in the presence of capital has been criticized for two reasons: dynamic inefficiency lacks empirical validity (Abel et al. (1989)), and bubble episodes are instead characterized by phases of increased production (Martin and Ventura (2012), among others).

As mentioned earlier, the question of expectations is crucial to understand the existence and sustainability of bubbles. The analysis of a market crash is of course related, and was first addressed by Weil (1987). He introduced a positive probability of bubbles bursting which expresses the volatility of agents' expectations. When a bubble exists, agents can coordinate their expectations either on the equilibrium with a bubble, or on the equilibrium without a bubble. In this economy, there is a stationary sunspot equilibrium with a stochastic bubble, if the probability of the bubble bursting is not too high. This result is important, because this is still the way bubble crashes are introduced in most of the current analysis.

“
**In this economy,
 there is a stationary sunspot
 equilibrium with a stochastic bubble,
 if the probability of the bubble
 bursting is not too high.**
 ”

Bubbles are not impossible when agents have infinite lifetimes and horizons, if the behavior of agents mimics overlapping generations. As shown by Kocherlakota (1992), an equilibrium with a



positive bubble can exist when heterogeneous agents are alternatively constrained by the impossibility of short-selling. Since traders are prevented from borrowing against their entire future income, assets can be positively valued. Financial imperfections are therefore crucial to understanding bubbles.

These market imperfections also play an important role in explaining some features of bubbles and responding to some weaknesses of earlier analysis. One key question is that of understanding the positive correlation between episodes of bubbles and growth. Following Farhi and Tirole (2012) or Martin and Ventura (2012), imagine that agents are heterogeneous and face financial constraints. Agents do not have the same opportunities to invest. The most productive will invest in capital. To do so, they will borrow against a financial constraint that generates an investment multiplier. They will also sell liquid financial assets, including the bubble, to less productive agents, to increase their capital investment. This gives the bubble its liquidity role, which explains why phases of bubble growth are accompanied by an increase in productive capital, and a bubble crash by a sharp drop in production, as we observe in data.

Recent research aims to explain additional features of bubbly episodes. Among others, what is the link with entrepreneurship? A growing

bubble can be consistent with an increasing number of entrepreneurs, even though such a trend is associated with an interest rate rise promoting savings. Because wealth increases too, entrepreneurs are better able to pay entry costs. Another question concerns the relationship with

“
One key question is that of understanding the positive correlation between episodes of bubbles and growth.
 ”

total productivity. The positive correlation with bubbly episodes can be explained when the most productive firms are also the largest ones and benefit more from the increased wealth associated with bubbly episodes. Some researchers have also explored why larger bubbles are linked to an increase in labor, while bubble crashes engender higher unemployment. The main reason is that employment is positively correlated to production, and therefore often operates via one of the above mechanisms.

Another important concern of the macroeconomic view of bubbles is, of course, the role of public policies. An important debate focuses on the

stabilizing role of monetary policies when there are bubbles in the economy. There are no general conclusions, but raising the interest rate cannot always be considered to have a stabilizing effect, because this also increases bubbles, which immediately react to the interest rate rise. Some contributions argue that a relevant monetary policy should react to the price of financial assets. Another way of thinking about policies is to determine whether a public policy can rule out the negative impact of a bubble crash. The introduction of public debt can play this role since it evolves in the same way as bubbles and can have the same impacts on liquidity and savings. Therefore, it can be an appropriate substitute for a bubble under a market crash. Finally, it is important to note that the emergence of a bubble strongly depends on the distribution of income throughout the life-cycle, because this distribution creates the incentive to save and borrow at different ages. As a direct implication, the taxation of labor and capital incomes can be a significant determinant of the existence and features of bubbles, modifying the distribution of income throughout the life-cycle. If we consider that we live in a world with bubbles, all these subjects invite further investigation.

REFERENCES

- Abel, A. B., N. G. Mankiw, L. H. Summers and R. J. Zeckhauser (1989): "Assessing dynamic efficiency: theory and evidence," *Review of Economic Studies* 56, 1-19.
- Clain-Chamosset-Yvrard, L. and Raurich, X. and Seegmuller, T., 2023, «Entrepreneurship, Growth and Productivity with Bubbles», *Working Paper*.
- Fahri, E. and J. Tirole (2012): "Bubbly liquidity", *Review of Economic Studies* 79, 678-706.
- Kocherlakota, N. (1992): "Bubbles and constraints on debt accumulation", *Journal of Economic Theory* 57, 245-256.
- Martin, A. and J. Ventura (2012): "Economic growth with bubbles", *American Economic Review* 102, 3033-58.
- Shiller, R. J. (1981): "Do stock prices move too much to be justified by subsequent changes in dividends?", *American Economic Review* 71, 421-36.
- Tirole, J. (1985): "Asset bubbles and overlapping generations", *Econometrica* 53, 1071-1100.
- Weil, P. (1987): "Confidence and the real value of money in overlapping generations models", *Quarterly Journal of Economics* 102, 1-22.



Forward to the past: short-term effects of the rent freeze in Berlin

Anja M. Hahn, Konstantin A. Kholodilin, Sofie R. Waltl, **Marco Fongoni**, 2023, *Management Science*, forthcoming.

“

This paper is the first to analyse the short-run effects of the rent freeze on rent prices as well as on the quantity of residential units in Berlin and surrounding areas.

”

RESEARCH QUESTION

Following the rapid increase in residential rents in the 2010s, Germany began to expand rent control policies. In 2020, Germany's capital Berlin introduced a radical rent control policy: the rent freeze (in German Mietendeckel). Only 13 months after its enactment, the policy was declared unconstitutional and subsequently abolished.

Upon enactment in February 2020, rents within the administrative borders of Berlin were ex-post frozen at the June 2018 level for five years. The policy allowed for predefined mark-ups based on location and other amenities, but it effectively enforced a maximum rent ranging between 3.92 and 9.80 €/m² per month. With few exceptions, such as premises that had been modernised and were therefore new on the market, all residential units were covered.

Berlin's rent freeze can be considered a first-generation rent control policy as opposed to today's standard second-generation policies that combine market incentives with tenant-protective measures. As such, the Berlin rent freeze meant a step back in time.

The rent freeze was successful in lowering the overall level of newly advertised rents within Berlin. Its announcement drew broad media attention worldwide. Politicians in other countries saluted the policy initiative, which also had an appealing ring to the ears of renters. However, it was not clear what the potentially unintended consequences of such a policy for Berlin's rental housing market and neighbouring areas would be.

In this paper, we explored the immediate price and quantity effects of the rent freeze within and around the Berlin administrative area. We focused on the supply side of the rental property market, by assessing changes in landlords' decisions to advertise properties for rent.

PAPER'S FINDINGS

This paper is the first to analyse the short-run effects of the rent freeze on rent prices as well as on the quantity of residential units in Berlin and surrounding areas.



Marco Fongoni

Marco Fongoni obtained his PhD in 2017 from the University of Strathclyde, Glasgow, where he became a Lecturer in Economics prior to joining AMSE in 2022 as Assistant Professor. His research interests are in behavioural economics, macroeconomic theory and labour markets.

We analyse landlords' vacancy posting decisions through the lens of a simple theoretical framework on the rental market that captures some key features of the rent freeze. These include the option of investing in modernisation and the practice of "double-pricing rents" to hedge the expected shortfall in rents under the freeze---that is, advertised rents would feature a clause that if the rent freeze was abolished, tenants would subsequently have to pay a substantially higher rent to compensate the landlord for rent foregone earlier. Then, we test the predictions using microdata on rental advertisements and employ causal inference techniques to measure the size of the immediate price effects within and around Berlin.

We document a remarkable immediate aggregate drop of 7-11% in advertised rents as compared to those of unregulated units (see Figure 1). We also document a substitution effect from the rental to the sales sector, with sales and rent indices following opposite trends after the policy enactment.

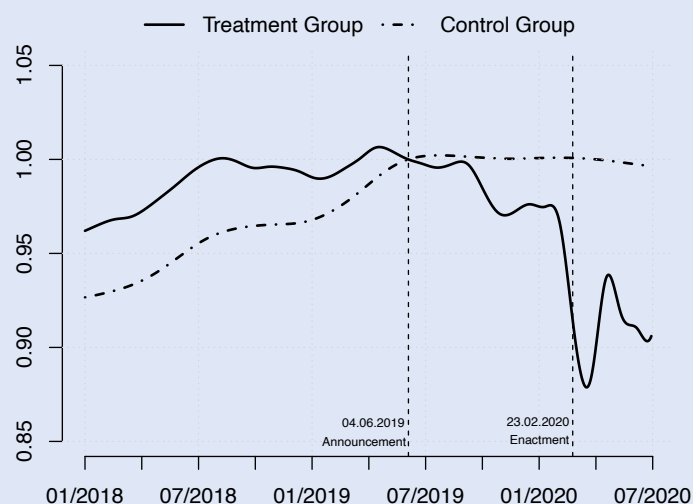


Figure 1. Price trends in the treatment and control group

Source. Author's visualization based on data provided by VALUE Marktdaten.
Notes. The indices show the general trend of prices in the treatment versus control group between 2018 and the end of the second quarter 2020. Indices control for observable hedonic features and are normalized to the announcement date (June 4, 2019). The time-continuous indices follow the methodology developed in Waihl (2016) based on adaptive smoothing techniques.

Further, we document a spill-over effect towards Berlin's neighbouring city Potsdam and smaller municipalities, with asking rents surging at an accelerated pace after the enactment. This resulted in windfalls for landlords renting out properties just outside the administrative border of Berlin.

This finding is supported by a substantial and likely lasting decline in the number of rental units advertised in Berlin (see Figure 2). For instance, the incentives for modernisation under the rent freeze led to a loss of affordable older residential units. We find empirical evidence in support of three main

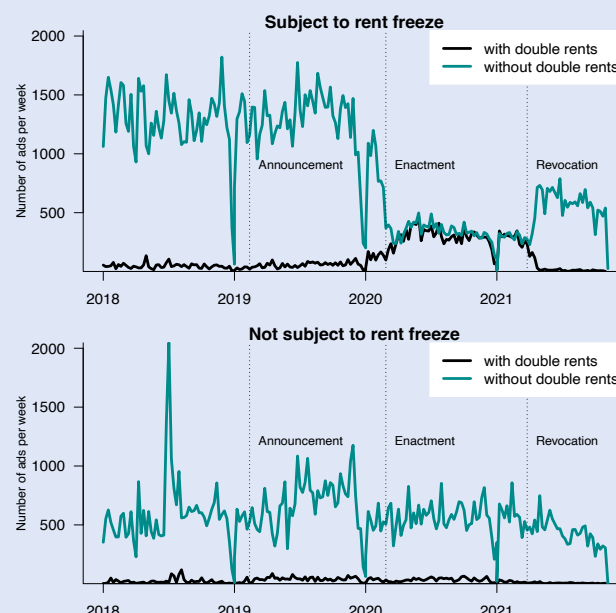


Figure 2. Number of advertisements

Source. Author's visualization based on data provided by Immobilienscout24.
Notes. The black line shows the number of advertisements stating double rents, whereas the gray one displays the number of advertisements without double rents. Two vertical lines indicate the enactment and revocation of the rent freeze, respectively. Spikes depict the typical monthly, quarterly, and year-end dynamics.

channels: increased conversions of rental to owner-occupied units; reduction in newly built dwellings; decrease in properties advertised.

POLICY IMPLICATIONS

Rigorous price restrictions limiting owners' returns appear short-sighted if they are not accompanied by strategies to sustain the supply of rental units. The rent freeze was short-lived, but it provided a glimpse of the unintended consequences of introducing overly strict but not sufficiently well-designed policies in a rental market facing distress.

Because of reduced supply, seeking housing within the rental segment became increasingly challenging both for established tenants and for new entrants. Young workers (the largest group moving into German cities) faced the combined challenge of low income and reduced availability of housing.

Our study shows that first-generation rent freezes do more harm than good. This points towards the desirability of alternative policies combining more modern rent control designs or other regulatory attempts to improve housing affordability without negatively impacting the supply of residential units. These include vacancy taxes and incentives for revitalising older residential neighbourhoods, as well as indirect policies such as higher minimum wages, which have been shown to have positive effects on the rental market.

Location games with references

Gaëtan Fournier, Amaury Francou, 2023, *Games and Economic Behavior*, Volume 142, Pages 17-32.

Agents are often influenced by a reference situation determined by their prior decisions or the choices made by their predecessors. These references significantly affect the competition outcome.

RESEARCH QUESTION

Spatial competition explores the strategic interactions among economic agents who select characteristics to attract the greatest demand possible. Primary examples include competition between firms informed of consumer preferences, choosing product characteristics to maximize their clientele, and electoral competition among political parties selecting their platforms to maximize their electorate.

This literature tends to overlook the fact that agents are limited in their choices of characteristics, as they are often influenced by a reference situation determined by their prior decisions or the choices made by their predecessors. Although these references are not always controlled by the agents, they significantly affect the competition's outcome.

We study these anchoring effects comprehensively, covering a wide range of application domains. The two above competitive situations can be re-examined by introducing an anchoring effect:

Example 1: In a competitive market, we assume that firms can change the characteristics of the goods they historically produce to gain new clients through research and development investments. When these firms know consumers' preferences and the characteristics chosen by their competitors, they can infer the optimal changes to implement in their products. With changes involving increasing and convex costs, the firms face a trade-off between potential gains in market shares and differentiation costs.

Example 2: In the classical Downs model, political parties only have office motivations, treating policy as an opportunistic instrument for electoral success. It is sometimes more realistic to suppose that political parties also have policy motivations, such as not wanting to betray their genuine policy objectives. The political party must find a compromise between a purely competitive political platform and a platform closer to their sincere convictions.



Gaëtan Fournier

Gaëtan Fournier obtained his PhD from Paris 1 University in 2015. He was a Post-doc at Tel-Aviv University in 2016, at the Institute for Advanced Study in Toulouse in 2017, before joining AMSE as a *Maître de conférences* in applied mathematics. His research interests include location games, political economy and repeated games with incomplete information.



Figure

PAPER'S FINDINGS

Introducing a reference point ensures that the competition admits at most one pure Nash equilibrium. This result contrasts with standard location games that generally admit a continuum of equilibria, making qualitative analysis and comparative statics challenging. This simplification makes it possible to analyze the competition between any number of economic agents and any vector of reference points. We exhibit the unique equilibrium candidate and describe the necessary and sufficient conditions for its existence. A key property of this equilibrium is that only peripheral agents can significantly differ from their references. Using the vocabulary of the first example above, our results indicate that firms producing goods with extreme characteristics have more freedom to adjust their positions than firms with moderate characteristics.

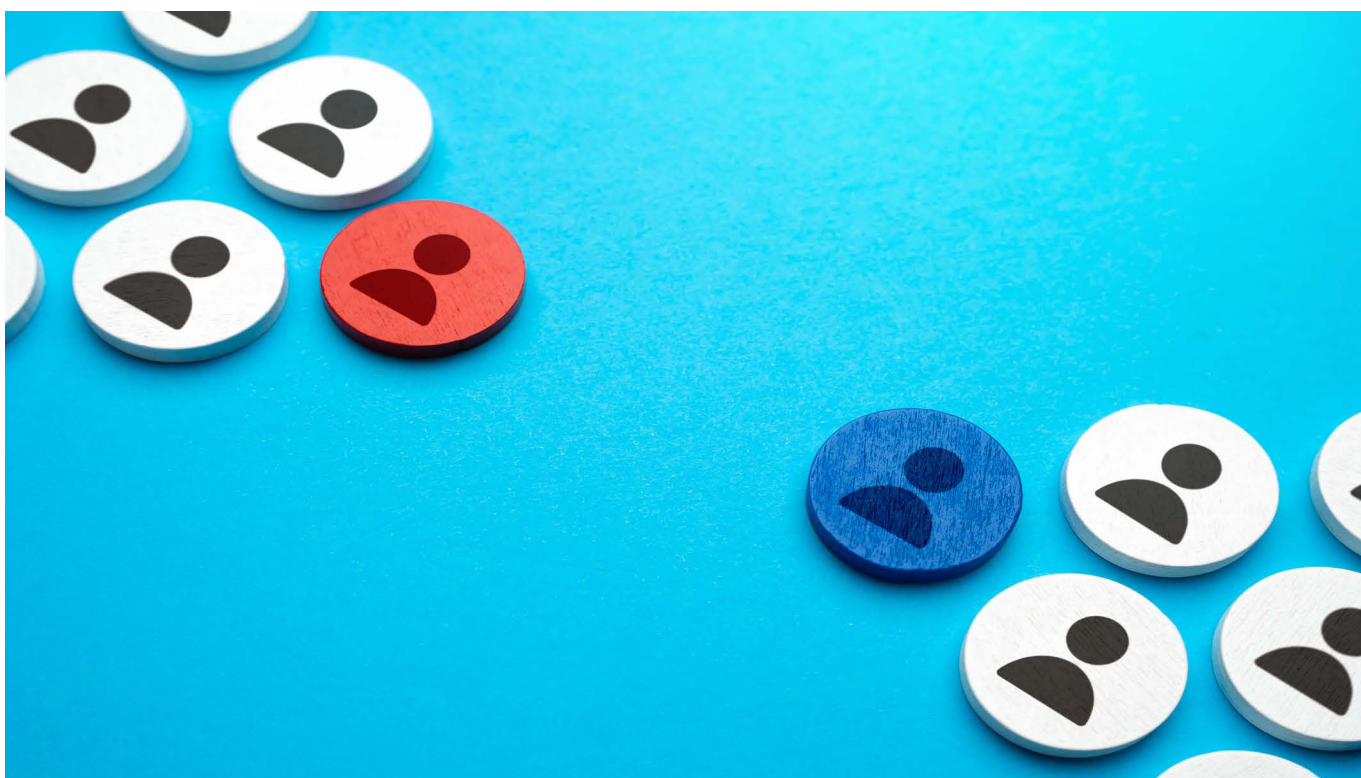
In the specific case of two firms, we mitigate the principle of minimal differentiation, which states that two firms have no interest in choosing different characteristics for their products. This results in a

single good available to consumers and decreased welfare, as consumers buy a product they like less in general. We characterize how this inefficiency disappears with the anchoring effect. The sequence of graphs below shows the nature of the equilibrium in a duopoly competition.

Description of the figure: from left to right, we increase the magnitude of the anchoring effect. On each sub-figure, we represent the square of all possible reference locations, one for each player of the duopoly. We then draw in orange the situations where the equilibrium displays no differentiation, in blue situations where the equilibrium displays differentiation, and in white situations where no equilibrium exists.

FURTHER RESEARCH

This paper assumes references are non-strategic. A future research direction could consist in exploring the case of farsighted agents who, in a repeated interaction scenario, choose an adaptation path by gradually changing their characteristics while controlling their competitors' reactions.



Gender differences in re-contesting decisions: new evidence from French municipal elections

Julieta Peveri, **Marc Sangnier**, 2023, *Journal of Economic Behavior & Organization*, Volume 214(C).

“

We explore whether women’s propensity to remain in politics after a win or a loss differs from that of their male counterparts.

”

RESEARCH QUESTION

As of today, women serve as heads of state in only 31 countries. Only 26.5% of members of parliament are women, and less than one in four cabinet members. Therefore, we are far from achieving gender equality among policymakers.

Addressing this gender disparity is important for two compelling reasons. First, it aligns with a normative objective that should characterize modern societies. Second, evidence suggests that women are more inclined than men to make decisions responsive to the needs and concerns of female citizens. Hence, it is vital to achieve equal representation of genders among officeholders to ensure a fair reflection of society’s preferences.

To succeed in closing this gender gap, it is crucial to understand the drivers of women’s low presence in politics. Among the potential explanations, women’s reluctance to run for office and discrimination by voters or political parties against female candidates have been active topics of research. We focus instead on an alternative explanation: gender differences vis-à-vis persistence in political competition. We explore whether women’s propensity to remain in politics after a win or a loss differs from that of their male counterparts. This hypothesis is supported by a substantial body of literature in behavioural economics, revealing that women are less comfortable than men in competitive environments and are more likely to shy away from such contexts.

Our paper focuses on candidates who ran for mayor in France in 2008 and 2014. To investigate this issue thoroughly, merely comparing all municipalities led by a woman with those led by a male mayor would not suffice. Such an approach would fail to isolate the gender of the mayor from the political preferences and gender norms of the municipalities electing a woman. Instead, we concentrate on gender-mixed close elections—those in which a female (male) candidate barely beat a male (female) candidate. The rationale behind this strategy is that in elections defined by a tiny margin, the outcome of the election (in this case, the fact that the elected mayor is a woman or a man) is as good as random.



Julieta Peveri

Julieta Peveri obtained her PhD from Aix-Marseille University in 2022. She was a Post-doc at ENS de Lyon in 2022-2023 before joining Paris 1 University as Assistant Professor in 2023. Her research interests are in the fields of political economy and development economics.



Marc Sangnier

Marc Sangnier is Professor at Aix-Marseille University. He obtained his PhD from the Paris School of Economics in 2012. His research interests are in the fields of political economy and public economics.

PAPER'S FINDINGS

The figure illustrates the re-contesting probability of the top two candidates in mixed-gender races by gender and by vote outcome. The quantities of interest are the values of the four series next to the 0% margin. The figure reveals that female candidates who lose a close election exhibit lower re-contesting rates than male runners-up. Conversely, female winners demonstrate equal or greater persistence in political competition than their male counterparts. In summary, our findings suggest that top female candidates are more affected than top male candidates by the outcome of the vote.

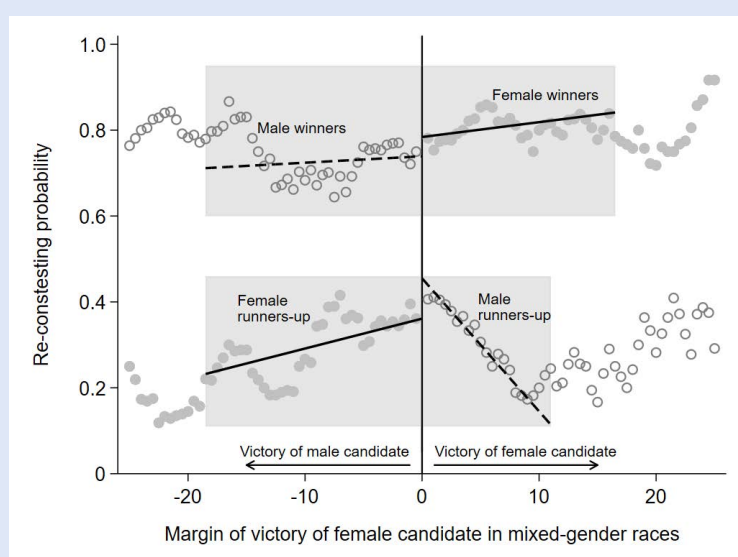
We then explore potential mechanisms. First, we show that the difference in political persistence between genders cannot be attributed to systematic differences in characteristics such as past participation in elections, age, occupation, political orientation, or affiliation to a political party. Second, we rule out the possibility of a demand effect, by showing that gender differences in the probability of being elected do not account for the observed structure in re-contesting decisions. Third, we consider gender differences in broader political career choices or aspirations and find that female runners-up who don't re-contest are not likely to drop out of politics at large, but are more likely to run for lower ranks of municipal lists. Fourth, behavioural explanations involving gender differences in competitiveness may play a significant role. This includes differences in general attitudes towards competition, beliefs about relative performance and risk and feedback aversion. Our analysis supports this mechanism, as we find that the win-loss gender gap is more pronounced among older, more experienced candidates, those in the

public sector, left-wing candidates and candidates formally affiliated with a political party—traits that also correlate with attitudes towards competition.

Alternatively, the observation that the win-loss gender gap is mainly driven by candidates formally affiliated with a political party aligns with the notion that political parties may be more inclined to replace a female candidate after a loss. Such a “glass cliff” in fact corresponds to differential preferences or beliefs by political parties regarding male and female candidates. Unfortunately, the data do not allow us to disentangle the role of political parties in nominations from potential differences in female and male candidates' decisions depending on the election outcome and on adherence to a formally organised political group. Both behaviours might be at play.

SO WHAT?

We undertake a final quantification exercise to assess the relative contribution of cross-gender differences in persistence in explaining women's under-representation in politics vis-à-vis other channels. We find that it can at best account for one-tenth of observed women's under-representation among office-holders. This finding highlights the prime importance of voters' discrimination as the most important mechanism behind the low share of women among officeholders for a given intensity of female participation in politics. Still, the two mechanisms together hardly compete with the simple shortage of female candidates that remains the main driver of women's under-representation in politics.



Observations are candidates who ran in the 2008 and 2014 municipal elections. A 2008 (2014) candidate is considered as re-contesting if she runs again for office in 2014 (2020). The sample is restricted to the best two candidates in each election and to mixed-gender races. Dots represent averages within windows of 2% vote margin moving in 0.5% steps. Lines of sub-figure (a) are locally smoothed series using a 5-dot window. In sub-figure (b), the width of shaded areas indicates gender- and vote outcome-specific optimal bandwidths, and lines are order 1 polynomials fitted using triangular kernel weights. Graphical representation is restricted to the [6 25%, 25%] interval.

Figure. Re-contesting probability of runners-up and winners by gender in mixed-gender races.

The discounting premium puzzle: survey evidence from professional economists

Christian Gollier, Frederick van der Ploeg, **Jiakun Zheng**, 2023, *Journal of Environmental Economics and Management*, Volume 122, Issue 102882.

“

Economic experts recommend using project-specific discount rates, but they penalize risky public projects far less than financial markets penalize private investments.

”

RESEARCH PROGRAM

When assessing public programs that encompass costs and benefits over time, the initial step involves discounting monetary units to their present value. This process leads to the computation of the net present value (NPV), a pivotal metric used to select projects aimed at maximizing collective value. The choice of social discount rates plays a significant role in determining a project's NPV. In many cases, the benefits of a project are tied to macroeconomic growth. Should the same discount rate apply to projects with different risk profiles, such as expanding Intensive Care Unit (ICU) capacity in response to a pandemic and economic downturns, and increasing railway line capacity during economic booms? The standard asset pricing approach recognizes the ICU project's insurance benefit by discounting its expected net benefits at a lower rate than for the railway project, which intensifies macroeconomic volatility.

However, in practice, different countries often determine discount rates differently from theoretical suggestions. France stands out as the only country using risk-adjusted discount rates. Failure to adjust rates for projects with different risk profiles results in misallocation of public funds, with socially undesirable risk-increasing projects passing NPV tests and socially desirable risk-reducing projects failing. Gollier (2021)¹ warns that using a uniform discount rate may result in a permanent loss exceeding 20% of GDP share.

How much progress did our profession achieve in building a science-based consensus on the social rate of discount? We explore this issue by reporting the results of a survey on the opinions of a broad sample of professional economists. We go beyond either estimating the average cost of productive capital or calibrating the Ramsey rule, as in the literature, to examine broader questions related to the potential desirability of having different discount rates for projects with different risk profiles.



Jiakun Zheng

Jiakun Zheng completed his Ph.D. at the Toulouse School of Economics in 2020. Subsequently, he served as an assistant professor at Renmin University of China. He is currently a tenure-track assistant professor at AMSE and Central Mediterranean. His research focuses on Risk Theory, Insurance Economics, Behavioral Economics, and Cost-Benefit Analysis, with a particular emphasis on applications to health and environmental policies.

1 Gollier, C. (2021). The welfare cost of ignoring the beta. TSE working paper.

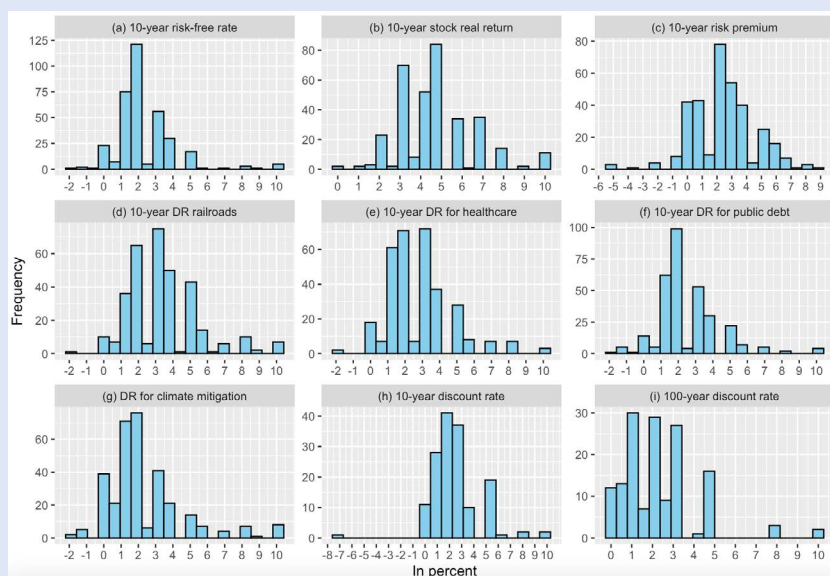


Figure 1. Histogram depicting risk-adjusting economists' point estimates for different rates

PAPER'S CONTRIBUTIONS

Our main finding is that three-quarters of the 948 surveyed professional economists recognize the need to adjust discount rates to the risk profile of the projects under scrutiny, following the principles outlined in the modern asset-pricing literature. However, another discovery from our survey is that when comparing projects with very different risk profiles, experts discriminate between discount rates much less than financial markets have over the last century or so. Among the six specific discount rates surveyed (see Figure 1), the lowest and highest mean discount rates are 2.28% (climate mitigation) and 3.38% (railways), respectively. This suggests that when risk-adjusting, respondents use a relatively small aggregate risk premium to adjust sectoral rates based on projects' betas, defined as the elasticity of projects' future benefits to changes in future aggregate consumption. In contrast, a 6.4% equity premium was observed in the U.S. between 1889 and 2010, leading to a «discounting premium puzzle». Furthermore, risk does not seem to be accounted for in the recommended rate for discounting marginal global warming damages, given that the mean climate discount rate (2.28%) is not statistically different from the mean risk-free discount rate (2.30%) in our sample.

Surveying discounting attitudes in our profession can be highly meaningful. The views of economists are often considered significant in the context of public investment decisions because they provide valuable insights into economic principles, theories, and empirical analysis. Economists study and analyze various factors that influence investment decisions, including discount rates. Their expertise in assessing the trade-offs between present and future costs and benefits can be instrumental in determining appropriate discount rates for long-term projects with intergenerational implications. Our survey provides strong support for public decision-makers

to change their discounting guidelines. It shows that a vast majority of the surveyed professional economists believe that governments should stop using a single discount rate for public evaluations.

FUTURE RESEARCH

Baumol (1968) pointed out over fifty years ago that the social rate of discount is a topic in our discipline that combines a significant degree of knowledge with a notable level of ignorance. Our study suggests that economists have gleaned insights from the theories developed over the years to address the uncertainties identified by Baumol (1968)² regarding the discounting system. However, our survey respondents seem hesitant to broadly differentiate discount rates based on risk, in contrast to the discernment exhibited by financial markets over the last century.

One possible interpretation of the «discounting premium puzzle» is that respondents believe decision-makers do not derive their risk attitudes from saving and investment decisions in financial markets, but rather let these be governed by their own ethical and pragmatic attitudes. Another key factor potentially explaining some inconsistencies with project-specific betas in asset-pricing theory is the presence of political economy considerations. Despite the procyclical returns associated with railways and the resulting higher project-specific discount rates, individuals may apply a lower discount rate for such projects due to political factors, given the influence of strong transport departments and lobbies. The next step in our research is to delve deeper into understanding the roots of the «discounting premium puzzle.» This exploration will aid in designing a more effective discounting system to maximize the common good.

2 Baumol, W.J. (1968) «Entrepreneurship in Economic Theory», *American Economic Review*, 58, 64-71.

The AMSE PhD program: roughly 10 years in numbers

By **Marc Sangnier**, co-head of the AMSE PhD program.

The AMSE PhD program was officially launched in 2012, shortly after the birth of Aix-Marseille University, when AMSE was created to unite researchers in economics from four research centers (GREQAM, DEFI, CEA, SESSTIM). The program was built on the existing GREQAM program.

This column provides an outline of the program as it stands after (about) 10 years and describes some of the main changes it has undergone. It also gives us the opportunity to answer some frequently asked questions about the program.

Note: Figures presented here only concern the “classic” PhD track.

OVERALL PROGRAM STATISTICS

155 PhD candidates. In total, there have been 155 PhD candidates on the AMSE PhD program since 2012. With an average of 11 new enrollees each year, the program currently hosts 46 PhD candidates.

DURATION AND TIMING

4 years. The average time taken to defend a PhD dissertation is 4 academic years and 1 month, with about half of the final defenses taking place in May and June, and half between November and December.

DEMOGRAPHICS OF PHD CANDIDATES

25 years old. The average age of PhD candidates at entry is 25 years and 5 months (standard deviation from this average is 2 years).

Two thirds locals. On average, AMSE master-level graduates account for 64% of AMSE PhD candidates. The proportion in given years can be high (100% of 2017 entry cohort) or low (50% of 2019 entry cohort), depending on the relative size and quality of the internal applicant pool, as well as on externally available funding opportunities. 31% of PhD candidates hold a master from other French institutions, and only 5% from a foreign institution.

50% women. In 2012, only 26% of the initial cohort of AMSE PhD candidates were women. They now account for about half of PhD candidates and

represent 50.3% of PhD candidates admitted to the program in the 2018-2023 period.

50% non-French. On average, half the entry cohorts are French nationals, with highs and lows in given years: from 25% in 2021 to 62% in 2020, for example. In total, the program has hosted PhD candidates of 33 different nationalities since 2012. All continents except Oceania are represented (Europe, excluding France: 12%; Asia: 9%; Africa: 19%; North and South Americas: 10%).

FUNDING AND TEACHING OPPORTUNITIES

100% fully funded. Since 2015, all PhD candidates admitted to the AMSE PhD program have received full-time research funding. The largest sources of PhD funding are Aix-Marseille University grants (67% of grants), grants directly awarded by AMSE (13%), and industrial partnerships (CIFRE, 9%). About two thirds (60%) of PhD candidates teach during their first three years in the PhD program.

5% interruption rate. Only 1 out of 20 PhDs are interrupted. Half of these interruptions are the result of re-orientation decided by candidates.

BUDGET GROWTH AND EXPENDITURE

120K€. The yearly operating budget of the AMSE PhD program has grown from 57K€ in 2013 to 174K€ in 2022. Using the French consumer price index to account for inflation, this corresponds to a 172% increase in real terms since the start of the program. Excluding years 2020 and 2021,

when activities were deeply affected by the COVID-19 pandemics, AMSE spent on average 120K€ per year (in current euros) to support the research activities of PhD candidates. Research visits abroad and attendance at conferences and workshops each represent one third of this amount. The next largest expenditure is on access to data, which represents 12% of the total budget.

POST-PHD CAREERS

59% abroad, 41% in France. Close to two thirds of AMSE PhD graduates pursue their career outside France, as opposed to only 45% ten years ago. The first positions of both French and non-French graduates are evenly distributed between France and abroad.

61% in academia, 25% in institutions, 14% in industry. While about 75% of AMSE graduates began their career in academia prior to 2015, the rate is now 61%. More than one third of graduates' first positions are in institutions or in industry.

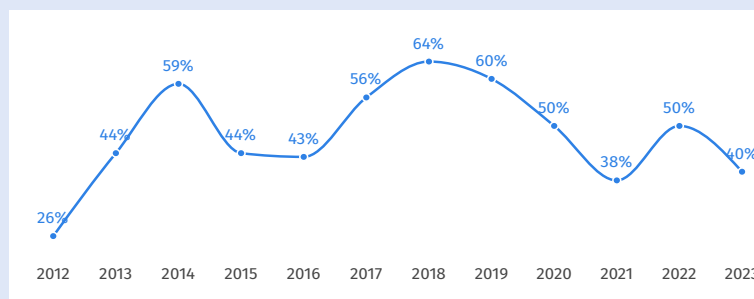
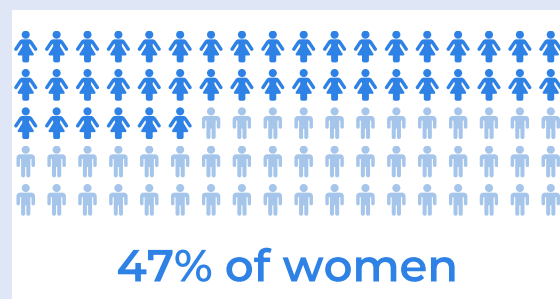
VISITING PHD CANDIDATES

9 + 3 visiting PhD candidates. A program of one-year grants was launched in 2012 to host PhD candidates about to finish their PhD in other institutions. While this program was interrupted for several years, 28 PhD candidates have so far taken part in it, and we currently welcome about 3 candidates each year. A formal program was launched in 2018 to host visiting PhD candidates for shorter periods. Excluding 2020 and 2021, during which research visits were severely limited by the Covid-19 crisis, 9 students were hosted each year on average. In total, we have welcomed 41 foreign PhD candidates from 17 different home universities (located in 12 countries) since 2018.

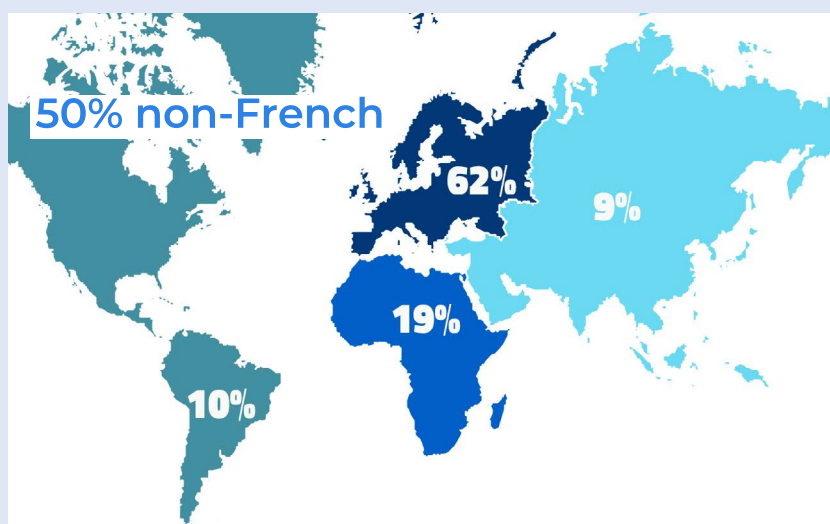
SUPERVISION TRENDS

74% joint supervision. Today, close to three quarters of AMSE PhD candidates are co-supervised by two faculty members, as against only 35% in 2012-2014. The 46 currently enrolled PhD candidates are supervised by 47 faculty members, each responsible on average for 1.7 PhD candidates.

Share of women by starting cohort, since 2012



Origins of PhD Candidates, since 2012



Portrait of Stéphanie Le Maitre

Coordinator of the Energy Transition Unit at ADEME Provence-Alpes-Côte d'Azur

By Léa Dispa

Stéphanie Le Maitre completed her thesis in 2009 at AMSE. Back then, she was already passionate about environmental issues. After rising through the ranks, she is now Coordinator of the Energy Transition Unit at the French Agency for Ecological Transition (ADEME) in Provence-Alpes-Côte d'Azur.

CAN YOU DESCRIBE YOUR CAREER TRAJECTORY SINCE YOUR TIME AT AMSE?

I completed my PhD thesis in 2009 under the supervision of Antoine Soubeyran and Hubert Stahn. The subject was «Household waste management : from consumer to citizen between constraint and persuasion». The year before, I had done a gap year and worked in the sustainable development department of Dexia Bank, in the La Défense (Paris). I came back and finished my thesis, but I realised that I wanted to leave the world of research and work in business.

I sent my CV to recruitment agencies, and one of them offered me a job as a waste engineer, echoing the subject of my thesis. The job was at ADEME's Franche-Comté Regional Office. I was taken on at ADEME a fortnight before I defended my thesis. But it was really my thesis and the subject it explored that gave me the chance to work for ADEME, which only recruited PhDs or people from an engineering school background.

ADEME is a national body but operates at regional level to support local players. At national level, the agency works with ministries to implement priority policies. This provides a framework for the regional divisions. At regional level, ADEME helps local authorities, businesses and associations develop their skills, raise awareness and meet the challenges of energy and ecological transition, and offers technical and financial support.

Until 2014, I worked in Besançon on the theme of circular economy and waste. The aim was to reduce the production of waste, both by private individuals and by businesses and industry, and to

improve sorting, recovery and recycling. My work was wide-ranging, from setting up awareness-raising programmes aimed at changing behaviour to funding sorting centres, composting plants, recycling plants or reusing and recycling centres.

I then joined the Provence-Alpes-Côte d'Azur Regional Department as an engineer working on building issues. I was involved in setting up and running the network of «energy renovation platforms», the forerunner of the public service France Rénov'. At the same time, I was helping building professionals (design offices, architects, construction companies) to develop their skills in sustainable construction and renovation, while taking into account the specific characteristics of the Mediterranean. For example, when it comes to summer comfort, the challenge is to build a home without having to install an air-conditioning unit, which means orienting the building properly, insulating it well, planting vegetation, and so on.

In 2018, the subject of hydrogen came up. Hydrogen is widely used in industry, for instance to refine oil or produce fertiliser. The problem is that it is produced from fossil fuels (gas and coal) and the technologies used to produce it are polluting. One of the challenges facing the decarbonising industry is therefore to replace this carbon-based hydrogen with decarbonised hydrogen, i.e. to use a less polluting technology (electrolysers).

Another application for hydrogen is in the decarbonisation of heavy mobility applications (HGVs, coaches, trains). My role has been to support the construction of «hydrogen ecosystems», i.e. consortia of partners involved in the entire chain :

some produce low-carbon or renewable hydrogen, others distribute it and still others use it.

WHAT ARE YOU WORKING ON CURRENTLY?

Since January 2023, I've been coordinating the Energy Transition Unit at the PACA Regional Division. So I'm back working on building, hydrogen, decarbonisation of industry and discovering renewable heat. I coordinate eight engineers. I also look after the budgets, which are substantial at ADEME (€35 million for the PACA Regional Office, between €15 and €25 million for the Energy Transition Unit). As I want to keep one foot on the ground and support projects, I continue to supervise those that produce renewable heat from biomass.

Project support involves raising awareness of the issues at stake and presenting all the financial aid schemes that can be put in place to assist project leaders. It also means putting people in touch with each other, because a local authority does not necessarily know all companies or associations in the area. We put people in touch with each other so that partnerships can be created, and we support them in setting up their projects. ADEME co-finances projects with other institutions such as departmental councils and regional councils, as well as banks, notably the *Banque Publique d'Investissement* (BPI) and the *Banque des Territoires*, which often share our areas of activity.

What I love about my work is the diversity. The diversity of subjects first of all : ADEME covers a vast range of issues relating to ecological transition. And the diversity of roles: at times, I'm in the position of 'communicator' or 'commercial manager' raising awareness and convincing people, 'analyst' or 'advisor' having to set up a project and meet potential partners, or 'administrator' when drawing up an aid agreement. And since the start of the year, I've also been wearing a 'manager's' hat, which gives me a whole new angle on the job.

HOW DO YOU FEEL ABOUT YOUR TIME AT AMSE?

Doing a PhD was extremely formative. Antoine Soubeyran was one of my Master professors, he wanted to work on an environmental issue, which immediately appealed to me. The PhD taught me how to conduct effective research, open up the field of possibilities, be patient and persevering and present my work. During my thesis, I gave classes and learnt how to transfer knowledge, which I still use today. And I was lucky enough to have two thesis co-directors who managed to support me while taking my wishes into account.

“
What I love about my work is (...)
the diversity of subjects (...)
and the diversity of roles.
”



“

**A rock pile ceases to be a rock pile the moment a single man contemplates it,
bearing within him the image of a cathedral.**

”

Antoine de Saint-Exupéry, *Le Petit Prince* (1943).



AMSE Newsletter

Director of Publication: Alain Venditti

Editor: Yann Bramoullé

Designer and producer : Léa Dispa

Proofreader: Marjorie Sweetko

p.1 ©VectorMine, ©Iamax ; p2-3 ©Devereux, ©FalkHeller, ©Renou, ©Allouch, ©Valente, ©Sauvagnat; p4-5 ©Marif Deruffi, ©DR/Kepler; ©Marc Sendra /Unsplash; p8 © ©Marif Deruffi; p10-11 ©Marif Deruffi, © Andrii Yalanskyi; p12 ©Marif Deruffi; p14 ©Marif Deruffi; p19 ©ADEME

©Aix-Marseille School of Economics - All Rights Reserved