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Name: Cathrine Hagem
Date of birth: 12.04.1963
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Education

1997 Dr. Polit. in economics, University of Oslo.
Dissertation: "Climate Agreements under Limited Participation, Asymmetric Information and Market Imperfections". Supervisor: Michael Hoel.
1989 Cand. oecon. (Master of Economic Theory and Econometrics), University of Oslo.

Professional experience

2014- Head of Research, Unit for Energy and Environmental Economics, Statistics Norway.
2013- 2016 Editor of *Samfunnsøkonomen* (collegium of three editors).
2010 Approved by external committee to have "Professor equivalent competence" (Forsker 0).
2007 - Senior Researcher, Statistics Norway.
2002 - 2007 Post Doctorate, University of Oslo, Department of Economics (80% position).
Member of the research group "Environmental economics: policy instruments, technology development, and international cooperation" at the Centre for Advanced Study (CAS) at the Norwegian Academy of Science and Letters in Oslo, 2005- 2006.
1996 - 2002 Research Fellow at CICERO (Center for International Climate and Environmental Research – Oslo). (Maternity leave 1996/1997 and 1998/1999).
1992 - 1996 Doctorate student at CICERO.
1990 - 1992 Executive Officer at the Economics Department, the Central Bank of Norway.
1988 Student on engagement at the Department of Finance.

Board and Committee memberships

2017 - Board member of CREE – Oslo Centre for Research on Environmentally friendly Energy.
2010 - 2011 Member of one of the Norwegian government-appointed commissions on power cable in Hardanger ([Sjøkabelutvalg 3](#)).
2010 - 2011 Member of The Norwegian Board of Technology's expert group on [Carbon Funds](#).
2010 - 2012 Member of one [Swedish Expert Group for Environmental Studies](#).
2008 - 2010 Member of the [Danish Commission on Climate Change Policy](#).
2008 - Board member of Norges Bank's Fund for Economic Research.
2006 - 2007 Member of the Norwegian government-appointed commission for special taxes.
2005 - 2007 Member of the Danish working group on energy- and CO₂-taxes, appointed by the Danish Government.
2004 - 2005 Council Member of the European Association of Environmental and Resource Economists (EAERE).
2001 - 2006 Board member of the Norwegian Research Council's program RAMBU (Rammebetingelser, styringsmuligheter og virkemidler for en bærekraftig utvikling).
1998 - 1999 Member of the Norwegian government-appointed commission for GHG emissions trading system for Norway (Kvotoutvalget).

Research projects (2010-2017)

- Leader of the project “Spatial assessment of environment-economy trade-offs to reduce wind power conflicts (WINDLAND)”, financed by the Norwegian Research Council (2017-2020).
- Leader of the project “Electrification of transport: Challenges, mechanisms and solutions (ELECTRANS),” financed by the Norwegian Research Council and Industry Partners (2016-2019).
- Member of the research group at Oslo Centre for Research on Environmentally friendly Energy (CREE). CREE is a social science based energy research centre funded by the Research Council of Norway. The research partners include the Frisch Centre, Department of Economics (University of Oslo), the Research department at Statistics Norway, and Tilburg Sustainability Center (the Netherlands) (2011-2020).
- Leader of one of the work packages of the project “Security of supply in a green power market – The challenges and opportunities of intermittent power,” financed by the Norwegian Research Council (2015-2018).
- Leader of one of the work packages of the project “Diffusion of climate technologies,” financed by the Norwegian Research Council (2010-2013).
- Statistics Norway’s internal manager of the research project “Alternatives to the Kyoto Protocol - The nature, design and feasibility of robust climate treaties,” financed by the Norwegian Research Council and headed by CICERO (2008-2011).
- Participants and responsible for one of the work packages of the project “Multiple instrument and the design and implementation of effective energy and climate policy,” financed by the Norwegian Research Council (2008-2010).

Publications in international refereed journals

- Hagem, C. and H. B. Storrøsten, 2017. «Supply versus demand-side policies in the presence of carbon leakage and the green paradox”. Accepted, *Scandinavian Journal of Economics*.
- Fæhn, T., C. Hagem, L. Lindholt, S. Mæland and K. E. Rosendahl, 2017, "Climate policies in a fossil fuel producing country - demand versus supply side policies." *The Energy Journal*. 38:77-102.
- Greaker, M. and C. Hagem, 2014, "Strategic investment in climate friendly technologies: The impact of global emissions trading," *Environmental and Resource Economics* 59, 65-85.
- Hagem, C., 2013, "[Incentives for Strategic Behavior in the Permit Market](#)", *Strategic Behavior and the Environment*: Vol. 3: No 3, pp 149-167.
- Hovi, J., M. Greaker, C. Hagem and B. Holtmark, 2012, "[A credible compliance enforcement system for the climate regime](#)," *Climate Policy* 12 (6): 741-754.
- Aune, F. R., H. M. Dalen and C. Hagem, 2012, "[Implementing the EU renewable target through green certificate markets](#)." *Energy Economics*, 34 (2012), pp. 992-1000.
- Hagem, C. and B. Holtmark, 2011, "[Is the clean development mechanism compatible with an ambitious climate agreement?](#)" *Environmental Economics*, vol 2, Issue 3, 24-35.
- Richardson, K., D. Dahl-Jensen, J. Elmeskov, C. Hagem, J. Henningsen, J. Korstgård, N. Buus Kristensen, P. Morthorst, J. Olesen, M. Wier, M. Nielsen and K. Karlsson, 2011, "[Denmark’s Road Map for Fossil Fuel Independence](#)," *Solutions*, Vol 2, No. 4., 45-55.
- Eyckmans, J. and C. Hagem, 2011, "[The European Union’s potential for strategic emission trading through permit sales contracts](#)," *Resource and Energy Economics*, 33, 247-267.
- Hagem, C. 2009, "[The clean development mechanism versus international permit trading: The effect on technological change](#)," *Resource and Energy Economics* 31 (1), 1-12.
- Hagem, C. and H. Westskog, 2009, "[Allocating tradable permits on the basis of market price to achieve cost effectiveness](#)," *Environmental and Resource Economics* 42, 139-149.
- Hagem, C., and H. Westskog, 2008, "[Intertemporal Emission Trading with a Dominant Agent: How does a Restriction on Borrowing Affect Efficiency?](#)" *Environmental and Resource Economics* 40, 217-232.

- Hagem, C., S. Kallbekken, O. Mæstad and H. Westskog, 2006, “[Market Power with Interdependent Demand: Sale of Emission Permits and Natural Gas from Russia](#),” *Environmental and Resource Economics* 34, 211-227.
- Hagem C. and O. Mæstad, 2006, “[Russian exports of emission permits under the Kyoto Protocol: the interplay with non-competitive fuel markets](#),” *Resource and Energy Economics* 28, 54-73.
- Hagem, C., S. Kallbekken, O. Mæstad, and H. Westskog, 2005, “[Enforcing the Kyoto Protocol: sanctions and strategic behavior](#),” *Energy Policy* 33, 2112-2122.
- Hagem, C., 2003, “[The merits of non-tradable quotas as a domestic policy instrument to prevent firm closure](#),” *Resource and Energy Economics* 25, 373-386.
- Hagem, C., 2002, “[A Note on the Kyoto Protocol, Tradable Quotas and Firm Survival](#),” *Environmental and Resource Economics* 22, 467-468.
- Hagem, C., and H. Westskog, 1998, “[The Design of a Dynamic Tradeable Quota System under Market Imperfections](#),” *Journal of Environmental Economics and Management* 36, 89-107.
- Hagem, C., 1996, “[Joint implementation under asymmetric information and strategic behavior](#),” *Environmental and Resource Economics* 8, 431-447.
- Golombek, R., C. Hagem, and M. Hoel, 1995, “[Efficient incomplete international climate agreements](#),” *Resource and Energy Economics* 17, 25-46.
- Hagem, C., 1994, “[Cost-effective climate policy in a small country](#),” *Energy Journal* 15, 119-139.

Publications in Books

- Hagem, C. og S. Kverndokk, 2014, ”Klimaendringer” I Flåten, O. og A. Skonhoft (red): *Naturressursenes økonomi*, Gyldendal. s. 240-271
- Hagem, C., 2007, ”Combating Global Warming – A Contribution from Developing Countries” in W. Østereng (ed.), *Consilience. Interdisciplinary Communications 2005/2006.*, Centre for Advanced Study, Oslo
- Hagem, C. and H. Westskog, 2005, “Effective Enforcement and Double-Edged Deterrents” in O.S. Stokke, J. Hovi and G. Ulfstein (eds.), *International Compliance: Implementing the Climate Regime*. London: Earthscan.
- Hagem, C. and B. Holtmark, 2004, “The Kyoto Protocol - Insignificant Impact on Global Emissions “ in V. Grover (ed.), *Climate Change: Perspectives Five Years After Kyoto*”. Science Publishers Inc., USA.
- Hagem, C., 2001, “Gratisvoter i klimapolitikken - konsekvenser av ulike tildelingsformer, i Røvik (red.): “*Energi og miljø ved et tidskille*,” Norges Forskningsråd.
- Golombek, R., C. Hagem and M. Hoel, 1994, "The design of a carbon tax in an incomplete international climate agreement" in C. Carraro (ed.): "*Trade, Innovation, Environment*", Kluwer Academic Publisher, The Netherlands.

On-going work

- Bjørnebye, H., C. Hagem and A. Lind, 2016. “Optimal location of renewable power”, CREE Working paper 04/2017. Submitted.
- Hagem, C., B. Holtmark, M. Hoel and T. Sterner. 2015. Refunding Emissions Payments, *Discussion paper 15-05*. Resources for the future. (R&R to *Environmental and Resource Economics*).

Publications in Norwegian journals

- Hagem, C., 2016, «Grønn bølge», Leder, *Samfunnsøkonomen* 6/2016.
- Fæhn, T., C. Hagem, L. Lindholt og K. E. Rosendahl. 2016. Er oljekutt god klimapolitikk? *Forskningsnytt, Samfunnsøkonomen* 3/2016

- Hagem, C., 2016. "Energieffektivisering erstatter fornybarmål: Fra vondt til verre", Leder, *Samfunnsøkonomen* 3/2016
- Hagem, C., 2015, "Jul, velstand og sammenligninger", Leder, *Samfunnsøkonomen* 6/2015
- Hagem, C., 2015, "Vindkraft", Leder, *Samfunnsøkonomen* 3/2015
- Hagem, C., 2014, "Julegaver og økonomiske analyser", Leder, *Samfunnsøkonomen* 9/2014
- Hagem, C., 2014, "Taxfree til besvær", Leder, *Samfunnsøkonomen* 6/2014
- Hagem, C., B. Holtsmark og T. Sterner, 2014, "NOx-fondet gir ikke en kostnadseffektiv løsning" *Samfunnsøkonomen* 5/2014, 18-19.
- Hagem, C., 2014, "Hvem skal vurdere verdien av stillhet?" Leder, *Samfunnsøkonomen* 3/2014
- Hagem, C., B. Holtsmark og T. Sterner, 2014, "Om den norske politikken for reduksjon av NOx" *Samfunnsøkonomen* 2/2014, 27-38.
- Fæhn, T., C. Hagem, L. Lindholt, S. Mæland og K. E. Rosendahl, 2013, "Oljekutt og klimapolitikk," *Samfunnsøkonomen* 9/2013, 21- 30.
- Greaker, M., C. Hagem og J. Hovi, 2013, "Hvordan kan en internasjonal klimaavtale håndheves?" *Samfunnsøkonomen* 2/201, 28-35.
- Hagem, C., 2012, "Klimameldingen – svake mål og svake virkemidler," *Samfunnsøkonomen* 5/2012, s. 12-17.
- Hagem, C. og K. E. Rosendahl, 2011, "Elsertifikater og fornybar kraft: Mål eller midler?" *Samfunnsøkonomen* 3/2011, s. 26-29.
- Baldursson, F., O. Bergland, J. Bjørndalen, C. Hagem, A. M. Heggedal, H. Moen og K. E. Rosendahl, 2011, "Har vi tid til å vente på en sjøkabel i Hardanger?" *Samfunnsøkonomen* 3/2011, s. 4 -14.
- Hagem, C. og B. Holtsmark, 2008, "Er det noen fremtid for CDM-ordningen?," *Samfunnsøkonomen* nr 5/2008, s. 10 -18.
- Greaker, M. og C. Hagem, 2008, "Det globale klimaret: Vad kan et litet land som Norge Bidra med?," *økonomisk debatt*, 4, 44-55
- Greaker, M. og C. Hagem, 2007, "Det globale klima: Noen tanker om hvordan Norge kan bidra," *Røst* Nr.1, 10-19.
- Bjertnæs, G.H., C. Hagem og B. Strøm, 2007, "Økonomiske virkninger av nasjonal klimapolitikk," *Økonomisk Forum* 61, Nr. 8, 24-33.
- Bye, B., C. Hagem og S. Kverndokk, 2007, "Sære avgifter? Anbefalinger fra Særavgiftsutvalget," *Økonomisk Forum* 61 Nr 8, 14-23.
- Hagem, C. og K. E. Rosendahl, 2007, "Høring om det norske kvotesystemet," *Økonomisk Forum* Nr. 5
- Hagem, C., 2002, "Klimaproblemet og økonomene," *Økonomisk Forum* Nr.1.
- Hagem, C. and B. Holtsmark, 2001, "Kyotoavtale uten USA: Små miljøeffekter," *Økonomisk Forum* Nr 5.
- Hagem, C., 1997, "Klimaforhandlinger og Kostnadseffektivitet," *Sosialøkonomen* nr.8, 1997.
- Hagem, C., 1986, "Lønnsstatistikk for sosialøkonomer," *Sosialøkonomen* Nr. 1.

Reports in Norwegian

- Bye, B., C. Hagem, B. Halvorsen og B. M. Larsen, 2016, «Evaluering av virkemidler for å fremme energieffektiviseringen – en oversikt over økonomisk litteratur, Rapporter 2016/16, Statistisk sentralbyrå.
- Bjertnæs, G.H. M og C. Hagem, 2016, «Makroøkonomiske drivere for utviklingen i energiforbruket», Rapporter 2016/15, Statistisk sentralbyrå.
- Fæhn, T., C. Hagem og K. E. Rosendahl, 2013, "Norsk olje- og gassproduksjon – effekter på globale CO2 utslipp og energisituasjonen i lavinntektsland." Rapporter 31/2013, Statistisk sentralbyrå
- Hagem, C., 2008, "EUs mulighet for å utøve markedsrett i kvotemarkedet i et post-Kyoto regime." *Naturressurser og miljø* 2008, Statistisk sentralbyrå, s. 237-239.

- Bjertnæs, G.H., C. Hagem og B. Strøm, 2007, ”Beregninger av økonomiske konsekvenser av ulike klimapolitiske scenarier”. *Vedlegg 3 i NOU 2007:8 En vurdering av særavgiftene*.
- Bjertnæs, G.H., C. Hagem og B. Strøm, 2007, ”Økonomiske konsekvenser av ulike scenarier for nasjonale klimagassutgifter”, *Naturressurser og miljø 2007*, Statistisk sentralbyrå, s. 247-249.
- Golombek, R., C. Hagem and M. Hoel, 2006, ”Optimale strategier i et to-kvotesystem”, *Rapport 2/2006, Stiftelsen Frischsenteret for samfunnsøkonomisk forskning*.

Publications in Norwegian newspapers

- Bang, G. Guri Bang, Jan S. Fuglestad, Anne Therese Gullberg og Steffen Kallbekken, CICERO-CICEP, Snorre Kverndokk, Frisch-CREE, Knut Einar Rosendahl, NMBU- CREE, Taran Fæhn og Cathrine Hagem, SSB- CREE (2015): ”Den nye klimadebatten”, kronikk, *Dagens Næringsliv* 21.03.15
- Fæhn, T., C. Hagem, L. Lindholt og K. E. Rosendahl, 2014, ”Dyre klimatiltak?” Debattinnlegg, *Aftenposten*, 03. desember.
- Fæhn, T., C. Hagem og K. E. Rosendahl, 2013, ”Oljekutt og usikkerhet,” Debattinnlegg, *Dagens næringsliv*, 12. september.
- Fæhn, T., C. Hagem, L. Lindholt, S. Mæland og K. E. Rosendahl, 2013, ”Oljekutt og virkeligheten,” Debattinnlegg, *Aftenposten*, 7. august.
- Fæhn, T., C. Hagem, L. Lindholt, S. Mæland og K. E. Rosendahl, 2013, ”Oljekutt effektiv klimapolitikk,” Debattinnlegg, *Aftenposten*, 27. juni
- Fæhn, T., C. Hagem, L. Lindholt, S. Mæland og K. E. Rosendahl, 2013, ”Oljekutt er effektiv klimapolitikk,” Kronikk, *Aftenposten*, 19. juni.
- Hagem, C. and K. E. Rosendahl, 2011, ”Elsertifikater uten klare mål,” *Dagens Næringsliv*, 4. februar.
- Hagem, C. and K. E. Rosendahl, 2011, ”Grønne mål og virkemidler,” *Dagens Næringsliv*, 14. februar.
- Bruvoll, A., M. Greaker, B. Bye, T. Fæhn and C. Hagem, 2009, ”Kvotekutt ikke løsningen,” *Dagens Næringsliv*, 30. mars.
- Bye, B. og C. Hagem, 2008, ”Skal bensinavgiftene svinge i takt med råoljeprisen?,” *Aftenposten, Økonomi*, 12 juni.
- Hagem, C., 2008, ”Hva er galt med CDM-systemet?,” *Dagens Næringsliv*, 22. februar.
- Hagem, C. og B. Holtsmark, 2007, ”Klimadebatt uten faglig grunnlag,” *Dagens Næringsliv*, 20. juni.
- Hagem, C. og K. E. Rosendahl, 2007, ”Gavepakke tilgasskraft,” *Dagens Næringsliv*, 3. mai 2007.
- Hagem, C., 2007, ”Gratiskvoter ikke bare fordelingspolitikk,” *Dagens Næringsliv*, 12. februar 2007.
- Hagem, C., 2001, ”Liten effekt uten USA,” *Dagbladet* 19. juli
- Hagem, C., 2000, ”Gratiskvoter er ikke gratis,” *Dagens Næringsliv*, 24. april 2000
- Alfsen, K.H., B. Holtsmark and C. Hagem, 1998, ”CICERO, ECON, Kvoter og avgifter,” *Dagens Næringsliv*, 16. oktober 1998.
- Hagem, C., B. Holtsmark og M. Hoel, 1998, ”ECON, kvoter og flytting,” *Dagens Næringsliv*, 22. mai 1998.
- Hagem, C. og B. Holtsmark, 1998, ”Kvoter mot Flytting,” *Dagens Næringsliv*, 4. mai 1998.
- Hagem, C. og B. Holtsmark, 1998, ”Miljøeffekten av kvotehandel,” *Dagens Næringsliv*, 2. januar 1998.
- Hagem, C. og B. Holtsmark, 1997, ”Å handle med utslippskvoter,” *Dagens Næringsliv*, 1. desember 1997.

Dr. Polit. thesis

- Hagem, C., 1997, "Climate Agreements under Limited Participation, Asymmetric Information and Market Imperfections," *Økonomiske Doktoravhandling*, Sosialøkonomisk Institutt, Universitetet i Oslo, no 34-1997.

Unpublished Discussion papers/Reports/Manuscripts

- Hagem, C and B. Holtmark, 2001, From small to insignificant: Climate impact of the Kyoto Protocol with and without US, *CICERO Policy Note 2001:1*
- Hagem, C and H. Westskog, 2000, "National Climate policy, Firm Survival and Investments," *CICERO Working paper 2000:8*.
- Hagem, C., 2000, "Climate policy, asymmetric information and firm survival," *Nota di Lavoro 10.2001, Fondazione Eni Enrico Mattei*.
- Hagem, C. and B. Holtmark, 1998, "Emission Trading under the Kyoto Protocol- a Nordic perspective," *CICERO report no.1*.
- Hagem, C. and B. Holtmark, 1997, "Tradable quotas for greenhouse gases: An option also in favor of the environment?," *CICERO Policy note 1997:4*
- Hagem, C., 1996, "Climate Agreements under Limited Participation, Asymmetric Information and Market Imperfections" – a summary of a Dr. polit. thesis-, *CICERO Report no.6*.
- Hagem, C., 1996, "The value of information and the design of a climate contract under asymmetric information both before and after the contract is signed," *CICERO Working paper no. 1*.
- Torvanger, A., J.S. Fuglestad, C. Hagem, L. Ringius, R. Selrod and H.A. Aaheim, 1994, "Joint Implementation under the Climate Convention: Phases, Options and Incentives," *CICERO report No. 6*.

International conference participations with papers

- European Association of Environmental and Resource Economists' 22th Annual Conference, ETH Zurich, June 2016.
- World Congress of Environmental and Resource Economists, Istanbul, Turkey, June 28- July 2, 2014.
- European Association of Environmental and Resource Economists' 20th Annual Conference, June 26-29, 2013, Toulouse, France
- CESifo Area Conference on Energy and Climate Economics, 9-10 November 2012, Munich, Germany.
- CESifo Area Conference on Energy and Climate Economics, 16-17 October 2009, Munich, Germany.
- International Institute of Public Finance, 65th Annual Congress, Cape Town, South Africa, 2009.
- European Association of Environmental and Resource Economists' 17th Annual Conference, Amsterdam, the Netherlands, 2009.
- European Association of Environmental and Resource Economists' 16th Annual Conference, Gothenburg, Sweden, 2008.
- European Association of Environmental and Resource Economists' 15th Annual Conference, Thessaloniki, Greece, 2007.
- Third World Congress of Environmental and Resource Economists, Kyoto, Japan, 2006.
- European Association of Environmental and Resource Economists' 13th Annual Conference, Budapest, Hungary, 2004.
- European Association of Environmental and Resource Economists' 12th Annual Conference, Bilbao, Spain, 2003.
- Second World Congress of Environmental and Resource Economists, Monterey, CA, USA, 2002.

- The European Economic Association's 16th Annual Congress, Lausanne, Switzerland, 2001.
- Eleventh Annual Conference on Environmental and Resource Economics, Southampton, England, 2001.
- Tenth Annual Conference on Environmental and Resource Economics, Crete, Greece, 2000.
- First World Congress of Environmental and Resource Economists, Venice, Italy, 1998.
- Sixth Annual Conference on Environmental and Resource Economics, Umeå, Sweden, 1996.
- The European Economic Association's Tenth Annual Congress, Prague, The Czech Republic, 1995.
- The European Economic Association's Ninth Annual Congress, Maastricht, The Netherlands, 1994.

Peer-reviewer for

Ecological Economics, Energy Economics, Energy journal, Environmental and Resource Economics, Environment and Development Economics, International Environmental Agreements: Politics, Law and Economics, Journal of Development Economics, Journal of Economics, Journal of Environmental Economics and Management, Journal of Regulatory Economics, Resource and Energy Economics, The B.E. Journal in Economic Analysis & Policy, The Scandinavian Journal of Economics.

Teaching and evaluation

- Frequently oral examiner, University of Oslo.
- Second supervisor for Ph.D student Hanne Marit Dalen 2010-2011.
- Member of the Programme Committee for the 16th, 17th, 19th, 23th Annual Congress of Environmental and Resource Economists, 2008-2017.
- Supervising five Master Thesis, University of Oslo, 2002-2011.
- Member of the Programme Committee for the Fourth World Congress of Environmental and Resource Economists (2010).
- Lecturer in Environmental and Resource Economics, Master and Bachelor level, University of Oslo. 2002-2006.
- Seminar leader in applied microeconomics, Master and Bachelor level, University of Oslo. 2002-2006.
- First opponent PhD Thesis, (Margrethe Aanesen), University of Tromsø, 2006.
- First opponent PhD Thesis (Kristina Mohlin), University of Gothenburg, 2013.
- PhD committee of Shumin Yu, Wageningen University, The Netherlands

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