Lovisa Persson

Essays on Politics, Fiscal Institutions, and Public Finance
ECONOMICS AT UPPSALA UNIVERSITY

The Department of Economics at Uppsala University has a long history. The first chair in Economics in the Nordic countries was instituted at Uppsala University in 1741.

The main focus of research at the department has varied over the years but has typically been oriented towards policy-relevant applied economics, including both theoretical and empirical studies. The currently most active areas of research can be grouped into six categories:

* Labour economics
* Public economics
* Macroeconomics
* Microeconometrics
* Environmental economics
* Housing and urban economics

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Abstract


**Essay 1 (with Mikael Elinder):** We show that house prices in general did not respond to a large cut in the property tax in Sweden. Our estimates are based on rich register data covering more than 100,000 sales over a time period of two and a half years. Because the Swedish property tax is national and thus unrelated to local public goods, our setting is ideal for causal identification of the property tax on house prices. Our result that house prices did not respond to the tax cut at the time of implementation cannot be explained by early capitalization at the time of announcement. Two other stories appear to explain our results. First, it is possible that house buyers expect an offsetting increase in the supply of housing. Second, house buyers might simply not understand how the tax cut affects total future costs of owning a house. Unfortunately, it has proven difficult to disentangle the two mechanisms, and we must therefore conclude that both may be relevant.

**Essay 2:** I investigate government consumption smoothing (sensitivity) under a balanced budget rule in Swedish municipalities. In general, I find Swedish municipalities to be highly consumption sensitive. Municipalities consume 87.6% out of predicted current revenues in the time period leading up to the implementation of the balanced budget rule, and they consume 76.3% out of predicted current revenue in the time period following the implementation. Fiscally weak municipalities are found to be more consumption sensitive than fiscally strong municipalities. Very weak municipalities have become more consumption sensitive compared with very strong municipalities since the implementation of the balanced budget rule. Thus, I find indicative evidence that both credit market constraints and formal budget rules such as balanced budget rules increase municipal consumption sensitivity.

**Essay 3:** Using the Swedish municipal sector as my political laboratory, I study the effect of a coalition partner on policy outcomes. I use a version of Regression-Discontinuity Design (RDD) specifically suited to proportional systems to define close elections, which can be used for identifying the effect of the Left Party as coalition partner to the Social Democrats. The Left Party is found to have a positive and medium sized effect on the municipal income tax rate. The positive effect is in line with what we expect given the policy preferences of Left Party representatives, but also given the predictions from political fragmentation theory. I find no effects on expenditures or debt, and the negative result for investments is not robust.

**Essay 4 (with Linuz Aggeborn):** In a model where voters and politicians have different preferences for how much to spend on basic welfare services contra immigration, we conclude that established politicians that are challenged by right-wing populists will implement a policy with no spending on immigration if the cost of immigration is high enough. Additionally, adjustment to right-wing populist policy is more likely when the economy is in a recession. Voters differ in their level of private consumption in such a way that lower private consumption implies higher demand for basic welfare services at the expense of immigration, and thus stronger disposition to support right-wing populist policies. We propose that this within-budget-distributional conflict can arise as an electorally decisive conflict dimension if parties have converged to the median voter on the size-of-government issue.

**Keywords:** Property taxation, housing market, fiscal institutions, balanced budget rule, local public finance, fiscal consolidation, political fragmentation, median voter model, regression discontinuity, citizen candidates, party effects, right-wing populism, welfare chauvinism.

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Dedicated to my grandparents
Grazie Signore! The Italian composer Antonio Salieri looks up from the piano and smiles blessedly at a crucifix. He is thanking God for giving him the gift to compose music, the most gratifying method of godly praise. The scene is from the movie Amadeus (1984). Salieri has just finished composing a welcoming march for Wolfgang Amadeus Mozart, who is making his first visit to the Austrian court, where Salieri is the designated court composer. At the welcoming ceremony, Mozart humiliates Salieri and publicly derides the simplicity of the welcoming march, forcing Salieri to face his own mediocrity. After this moment, Salieri’s gratitude is turned into bitterness, and the motivation of godly praise is replaced by a competitive rage. The fact that Salieri continues to be the Austrian emperor’s favourite composer is obsolete; Salieri has seen a far more superior genius personified in Wolfgang Amadeus Mozart.

As a PhD student you constantly oscillate between playing the role of the grateful Salieri and the bitter Salieri – only on rare occasions do you feel like the misunderstood genius of Mozart himself! Competitiveness can be a source of energy if it is harnessed constructively. When the setbacks are fresh in mind, I have often found that I can count on my competitive side to draw me out of the wound-licking phase. But competitiveness cannot continuously add fuel to the fire for too long. For me it has been equally important to be able to return to a grateful state, and let the intrinsic motivation of informing better policies and finding out how the world works, guide the next step. During my years at the economics department in Uppsala, and while travelling to conferences and summer courses, I have gotten to know many people with backgrounds all over the world who share my motivation to increase our knowledge about social and economic issues. I hope that having this inspiring world ranging network continues to be the normal in my life and career.

I am now going to make an attempt to sufficiently thank one person who crucially encouraged me to accept the challenge that writing a thesis actually is, while at the same time also agreed to help me through the process. This person is of course my supervisor Professor Eva Mörk, who has been a decisive component to my academic career ever since I first took her public economics class ages ago. By doing research that is policy relevant, and that can make a difference for people who need it the most, you inspired me to continue study economics and to apply for the PhD programme. With your high standards on research you have motivated me to perform at my greatest ability. Thank you for advising not only research but also life and career.

The co-authorship with my second supervisor Mikael Elinder has taught me invaluable lessons about life and research. Thank you for being a candid
person that so often have had time for conversations about anything under the sun. In the many critical situations I have found myself in, you have offered me purposeful advice that have helped me master through. To my other co-author Linuz Aggeborn; the optimistic energy you have brought to the table has been critical for starting, continuing, and finishing this relatively high-risk project. We would have been completely lost if we didn’t have your sharp intuition about politics home and abroad to guide us! Together we have explored the world of theory!

I also would like to thank Matz Dahlberg and Heléne Lundqvist, who have had the role of commenting on my work at several occasions, and whose advice I have benefitted greatly from. I am also very grateful to Per Johansson and Mikael Lindahl for activating PhD students in open discussions on methodological issues at the econometric workshops.

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Thank you to all my friends, who have tolerated my social idiosyncrasies and my awkward – or sometimes even outright inappopriate – references to research results. My friend Erica Mattelin has witnessed my thesis writing process at a very close hand. Thank you Erica for helping me analyze and solve the different problems and situations that have come up over the years, and also, for opening up to me the world of psychology research and practice! Your personal engagement in what you do, and what you aspire to do, are an inspiration. Also thanks to Ingeborg Bjerlestatm, Tobias Carlsson, Helena Gudmundsson, Sven Gudmundsson, Maria Heijdenberg, Pontus Heijdenberg, Emmanuel Kulander, Kristofer Nord, Cecilia Nyberg, and Christer Nyberg. To Jonas Kiros I would want to say: I know it has become more and more difficult to convince me to stay out on those late nights. I can’t even remember the last time you asked! But we will always have Super Bowl!
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To all my cousins, uncles and aunts: thank you for being so enthusiastic and interested in what I am doing! The support I have needed and also gotten from my parents has been enormous. There simply would not be a thesis with my name on it if you had not raised me to have a joyful approach to learning. You have never put pressure on me to achieve, and this is the reason why it is possible for me to achieve something and still have a smile on my face. To my sister I would like to say thank you for keeping me steadily grounded by fiercely arguing with me on social, as well as historical and literary, issues. You are a role model to me in more than a hundred ways, and a safe haven during stormy patches. To Hedda and Boel, keep doing what you do!

It saddens me to say that my grandmother Ester Hullfors is not here to see the completion of this thesis. I dedicate this thesis to her, along with my other late grandparents.

Uppsala, October 15, 2015
Lovisa Persson
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Introduction

*It could be that the physicist’s traditional expectation of a single theory of nature is untenable, and there exists no single formulation. It might be that to describe the universe, we have to employ different theories in different situations.*

— (Stephen Hawking, *The Grand Design*).

*We feel that even if all possible scientific questions are answered the problems of our life are not yet at all affected.*


Yes, Economics is a science, proclaims Harvard Economics Professor Raj Chetty in a 2013 New York Times column. He is defending against claims from other social sciences that economics fails to live up to its own scientific ideal. “Why do two economists give two different – sometimes mutually exclusive – answers to the same question?” the critics ask, while pointing to a recent example where Eugene F. Fama of the University of Chicago and Robert J. Shiller of Yale got to share the Swedish Riksbank Prize in Economic Sciences; two researchers with two seemingly opposing views on how financial markets function. Chetty admits that there are broad questions in economics that are yet unresolved, but to completely focus attention on these gives an unfair description of a field which is continuously developing new and promising empirical methods to answer precise questions on important social and economic issues. These (quasi-)experimental methods will improve our policy decisions and decrease our reliance on theoretical assumptions that may well be grounded in ideology instead of facts.

The quarrel between economists and other social sciences is not the main focus of this introduction, although there are definitely areas of difference that deserve a deeper investigation. An outside perspective that juxtaposes the methodological approaches in economics with other large areas of the social sciences can however be illuminating on its own. In a recently published paper we are invited to a sociological perspective on the economist trade. Fourcade, Ollion, and Algan (2015) describe economists as having “...far-reaching scientific claims linked to the use of formal methods...”. We also read about how economists in the post-World War II period began to emulate the methodological approaches of the natural sciences, which at the same time distanced
economics from the more “discursive social sciences”. Fourcade, Ollion, and Algan (2015) refer to economists as saying that the strength of economics partly lies in its rigorous language, which allows them to abstract to higher levels.

The received view on science – the one that economists are more preoccupied with emulating than the other social sciences – can be traced back to the philosophical school of logical positivism. The two positivistic pillars can be formulated as follows: (1) logical propositions need to be formulated in such a way that it is possible to see whether they follow from the premises, and (2) empirical hypotheses need to be formulated in a way such that they can be tested with data. With these analytical methods scientists can unravel the laws of nature: unrestricted generalizations as opposed to accidental regularities (Boumans and Davis 2010).

Many economists are largely in comfortable agreement with the above pillars, and indeed, the merits of the papers in this thesis can be evaluated according to them. Chapters 1-3 are empirical papers on political economic and public finance issues. The least we should expect of these papers is that the empirical approaches allow me to get a meaningful result, one that will be either in accordance or disagreement with an empirical statement. These empirical statements can in their turn be an operationalization of a theory, a theory that will be either falsified or verified depending on whether its empirical predictions obtain or not (Boumans and Davis 2010). Under a persuasive identification strategy\(^1\) in Chapter 1, me and my co-author conclude that the standard capitalization theory for the housing market is falsified. The standard theory predicts that housing prices should increase if property taxes decrease, and since we do not observe this outcome in the data, we interpret this as a rejection of the standard theory. In Chapter 3 I have a similar structure for testing the median voter model for politician behavior. If the median voter model is correct, we should observe no differences in policy outcomes between municipalities that have different governments. My empirical results, however, indicate that there is a difference in policy outcomes. I can thus conclude that the median voter model is falsified. According to philosopher Karl Popper, this is as far as science can get, to falsifying theories. The positivists, however, allowed for verification of theories as well (See Bowie 2003, Cartwright 2007, and Boumans and Davis 2010) As the readers of my empirical chapters soon will realize, verifying alternative explanations turns out to be more difficult. The theoretical paper in this thesis, Chapter 4, should according to the positivistic approach be judged on its internal logic; that all the derivations and propositions follow from the assumptions. The theory is only meaningful if its theoretical terms can be given observational consequences. The prediction

\(^1\)In economic empirical methodology, to have “identification” means that you can say with some confidence that your empirical approach has isolated a causal effect; that the effects of all other “meddling” factors can been ruled out.
we make: that established politicians will adopt right-wing populist policies if the relative cost of immigration is high enough, and that this adoption is more likely in a recession, should be measurable or observable in some way.

The positivistic manifesto was radical at the time when it was written in 1920's Vienna, and still is, for what it wishes to exclude from not just scientific practice but also from the philosophical domain. Meaning and truth can only be logical or empirical. Propositions about values, feelings, and aesthetics cannot be proven to be true, and are consequently referred to as “nonsense” by the German philosopher Ludwig Wittgenstein, a philosopher with great influence on the Vienna Circle (Bowie 2003). The positivistic guidelines can be said to constitute everyday necessary conditions for doing economics research. At the same time, many (if not most) economists would agree with the statement that economics is not an exact science as the natural sciences are, and not all agree that discussions on ethics should be excluded from economics research (see for instance Sen 1987). To say that economists follow the positivistic received view on science is thus a simplification, albeit a meaningful one, at least when comparing to the other social sciences.

Has not the received view served economics well? In a way, following the epistemological approach has shown itself to be a double-edged sword. As is observed in Fourcade, Ollion, and Algan (2015), economics seems to be at the top of the pecking order among the social sciences. One illustration is the citation asymmetry between economics and other social sciences. For instance, articles in *American Political Science Review* cite the top 25 economics journals more than five times as often as *American Economic Review*-articles cite the top 25 political science journals. This dominance could either be an exertion of power on the part of economists, through differences in social composition and its scientific rhetoric (the sociological view), or it could be a legitimate hierarchy that is indicative of some underlying worth to the economic methodological approach (the economic view), see Fourcade, Ollion, and Algan (2015). The downside with following the epistemological approach is that when economists openly disagree, or when their predictions do not play out, they become highly vulnerable to public criticism. Not only because of the high standard they have put themselves out to emulate, but also because of the power they are perceived to occupy.

The methodological approaches economists use have several advantages. Our formalized models might have strong assumptions as their building blocks, but most economists would probably argue that formalization contributes to more transparency. We make simplifications, but are we not also honest about them? Our views on causality and identification is the foundation on which economists have built strong experimental methods that are now used broadly by researchers to pin down which policies that work, and those that do not.

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2See Blaug (1992) for an inclusive stance to epistemology in economics, and see McCloskey (1994) for a critical approach.
But due to the difference between the subject of study in economics and in the natural sciences, objections have been raised in terms of the potential in the experimental approach. What is the sort of evidence that we obtain with these experimental approaches and how can we make it work for policy makers?

Evidence for Use

In the social sciences, our observational unit cannot be reduced further than to the individual, and individuals are conscious decision makers who are governed by inner complex psychological processes. This is pointed out by Robert Shiller (2013) in a response to Chetty’s column. Shiller maintains that the need for approximation is much stronger in economics than in physics, which also makes the process of rejecting or verifying models more difficult. And by the way, Shiller does not seem to think that the science-word is important, but instead prefers to describe economics as more like engineering since all the knowledge that it produces has instrumental value, i.e. it is judged according to whether it can be put to use.

How easily can we then put our evidence to good use? Lucky for us, there is a philosopher, Nancy Cartwright, who has thought deeply about this very question. There is a practical guide (Cartwright and Hardie 2012) based on Cartwright’s scientific philosophy, where anyone interested in implementing and evaluating policy can follow her very clear argument: economists have good methods for warranting causes but our methodology falls short when it comes to using them. For instance, economists increasingly make use of randomized control trials (RCTs) and quasi-experimental approaches in order to warrant (identify) a casual effect. However, what we are left with is a collection of evidence that is partly specific to different situations. The result we have: that it worked somewhere does not simply translate into it will work here. The foundation underneath this argument is a philosophical view that the law-like behaviour we would like to pin down only hold under certain arrangements. In different contexts we observe different combinations of factors that could play a role for the effect that we are estimating.3 This view is also interesting in the light of the proposition made by Stephen Hawking (2010), that the unifying theory that physicists are hoping for could turn out to be a patchwork of locally applied theories, see the introductory quote.

But let us now get back to the world of policy and the advice of Cartwright and Hardie (2012)! The information we as researchers or policy makers need to have if we are to draw conclusions about what will work in a given situation is information about causal roles and support factors. To think about causal roles is simply to think about the mechanism through which the policy intervention will have its effect, and to think about support factors is simply to

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3Those who are interested can read more about Cartwright’s philosophy of science in Cartwright (1999) and Cartwright (2007).
take note of what is needed to be in place if the policy is to have its effect at all. Without going into any practical examples here in this very text, what this advice means is that going into the gory details of your policy situation will have to be done at some point. After doing this work, you will be in a better position to say if the intervention will have an effect in your situation. The lowest level of detail will not help you in this conclusion, instead you must travel upwards and find the level of abstraction that identifies a relevant and common causal role; a causal role that is abstract enough such that it can travel between different contexts, but at the same time not too abstract such that it is without substance.

Cartwright and Hardie (2012) are serious about external validity. Naturally, there are economists who have engaged in this discussion and with similar arguments. The newest recipient of the Swedish Riksbank Prize in Economic Sciences, Angus Deaton, is one of them. He refers directly to the work by Nancy Cartwright, and calls for a renewed focus on investigating “potentially generalizable mechanisms”, similar to the notion of causal roles that travel over situations. The question of why an intervention works is as important as whether it works. In other words, we need a causal model. Angus Deaton refers to several papers that are already working with integrating causal models and RCTs. One example of the kind of thinking that Cartwright and Hardie, and Deaton, calls for is found in Banerjee and Duflo (2011):

It seems that in order to work, an information campaign must have several features: it must say something that people don’t already know (general exhortations like “No sex before marriage” seem to be less effective); it must do so in an attractive and simple way (a film, a play, a TV show, a well-designed repost card); and it must come from a credible source (interestingly, the press seems to be viewed as credible).

Banerjee and Duflo (2011) seems to be giving an account of support factors or causal principles that they have found to travel across different contexts. Examples of the principles are given in parenthesis, indicating the different contextual operationalizations of the more abstract principles which we can take from one context to the other.

Concluding Thoughts – Economics as Effective Theory

According to Stephen Hawking, economics is at best an effective theory, a low order approximation of the physical laws of quantum theory, or of higher order approximations such as chemistry. To predict human behaviour with the help of physics or chemistry would however be all too impractical since we would need to solve a gazillion number of equations for the positions of all the molecules in our bodies. Since we are practically constrained in predicting what decisions people will make using the laws of nature, we instead use an effective theory that people have free will. Accepting free will as if it is
meaningful to human behavior is probably necessary for society to work in a desirable way. For instance, without free will there can be no notion of crime and punishment.

Adding the rationality assumption to free will gives us the effective theory of economics (Hawking 2010). Even though economics does not describe actual law-like relationships, should we conduct our research as if it does? The positivistic dream of “unrestricted generalizations” is not attainable in economics, and perhaps not even in physics – at least not in the sense that physicists were hoping for. But we can still look for causal roles that are abstract enough such that they travel over different contexts. If we are to learn from experiments, as Chetty suggests, we need to search in every experimental setting for the relevant level of abstraction, for the principles that we can bring to the next situation.

I earlier concluded that I falsify two theories in this thesis. In light of what has been discussed here, these falsifications do not travel to every possible setting. In the case of the standard capitalization theory for instance, we can take different adjustments to the theory as being support factors. If the property tax reduction is to have an effect on house prices, there needs to be a relatively inelastic supply of housing, and actors on the housing market need to be aware of the incentives of the reduction. Unfortunately, we cannot establish which of these factors that are missing for the reform to have an effect. For now we are left with a somewhat context-specific (Stockholm) explanation of our varying house price responses.

An effective theory is useful if it can make predictions and increase our knowledge apart from the particular context-dependent details of a situation. Hawking (2010) suggests a pragmatic approach to theory, which he refers to as model-dependent realism. What matters is whether the predictions of the model agree with observation, and not whether the model describes the reality of something. For instance, whether or not we live in the matrix is a moot question for science. Science can only construct models to be tested against observations within the model world that we conceive as real. This reminds me of the second introductory quote to this introduction. Wittgenstein, Hawking, and the positivists seem to agree that science cannot answer deep questions about the problems or meaning of our lives. Bowie (2003) interprets Wittgenstein to say that those questions that seem to be most important to human beings, are also the questions that we have no methodology for answering. But economics takes place in the human domain, and as such, is there really no place for reasoning around the full human experience? Again, this is a disputed area where mainstream approaches in economics differ from approaches in other social sciences, and the humanities. Perhaps there is reason to get back to this dispute at another time.
References


