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Editorial

Times of Change in the Energy Sector

Welcome to the 2016 CIS Zurich Newsletter, which focuses on energy politics. This is one of the political topics that dominated the news in 2015. The adoption of the United Nations Sustainable Development Goals and the UN Paris Climate Change Conference were two decisive global events for the energy sector in the past year. Both imply a massive and fast transition of energy systems. Meanwhile, in Switzerland energy and the Federal Energy Strategy 2050 remain important topics of debate. Of course, energy also continues to be an important issue for international security and diplomacy.

This issue documents the extensive study of energy topics within CIS. Nine essays discuss the many political facets of energy production, distribution, trade, and use. Tobias Schmidt, Assistant Professor of Energy Politics (ETH Zurich), and Sebastian Sewerin of his research team discuss the role of policy design and policy mixes in accelerating and re-directing technological change in the energy sector. Katharina Michaelowa, Professor of Political Economy and Development at the University of Zurich (UZH), discusses the role of energy in development during times of climate change. Daisuke Hayashi, who is associated with Katharina Michaelowa's group, provides an in-depth look into the role of policy in industry localization of renewable energy in large emerging economies. The role of international climate policy as a driver for national energy policy is the basis of the article by Thomas Bernauer, Professor of International Relations at ETH Zurich. He summarizes several studies from his group that assess public opinion on climate policy. In addition, Thomas Kurer, PhD student at UZH, and Thomas Widmer, Professor for Policy Analysis and Evaluation at UZH, have analyzed public acceptance of the Swiss Energy Strategy 2050. Philipp Hunziker, a postdoctoral researcher in the International Conflict Research Group at ETH Zurich, discusses the determinants of violence in oil-extracting countries. Sascha Langenbach, a PhD student at the Center for Security Studies (CSS), ETH, focuses on international conflicts and argues that in such conflicts energy resources are often used as a political bogus argument. Given the



Marco Steenbergen
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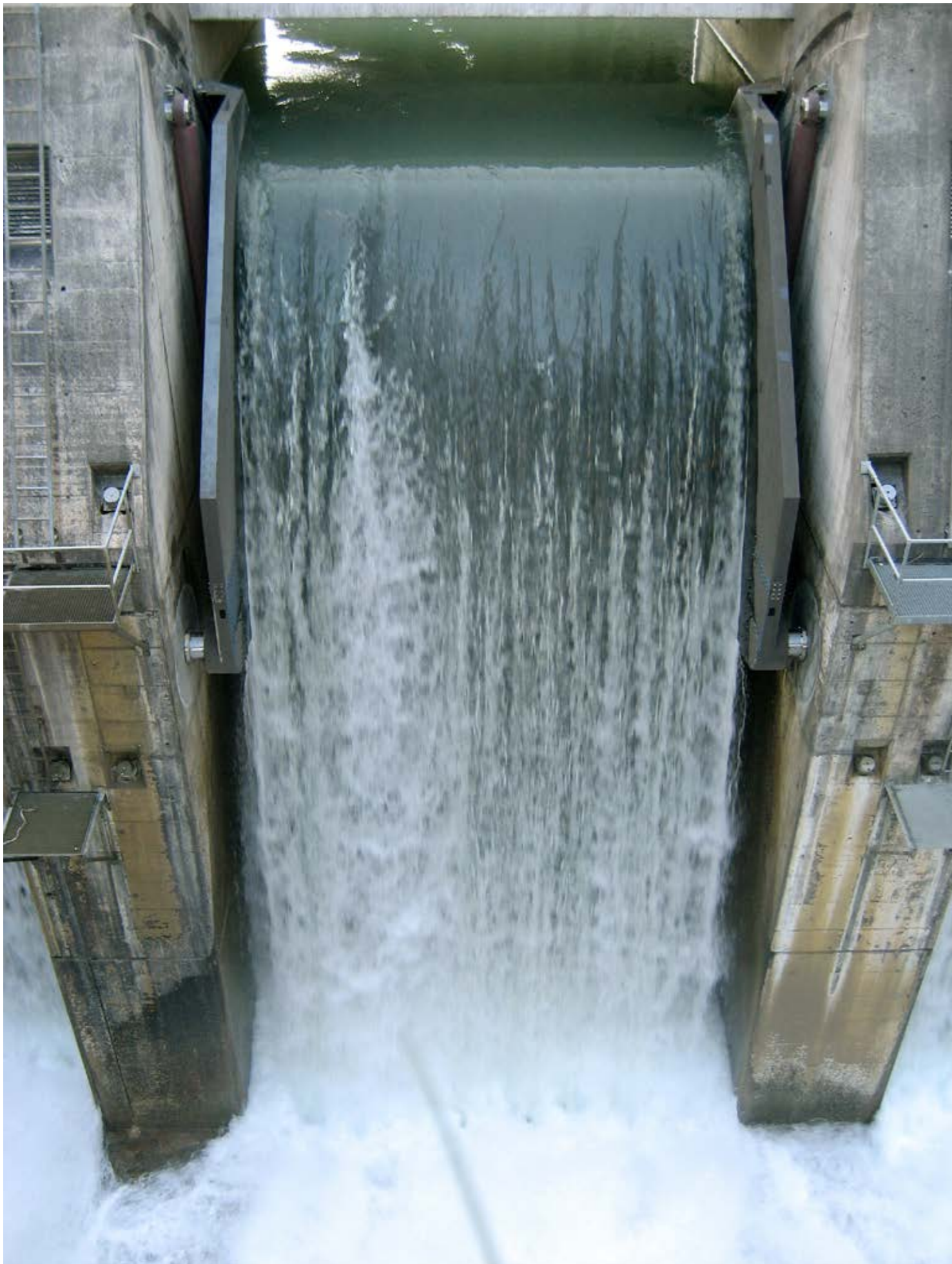


Tobias Schmidt
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correlation of energy and conflict, energy security is an important aspect of the European Union's energy strategy. In his analysis, Severin Fischer, senior researcher at CSS, summarizes the "Energy Union" of new Commission president Jean-Claude Juncker. He argues that the objectives of the member states differ too much to make a harmonized EU energy policy appear realistic in the short- to mid-term. The often-found inconsistencies in energy policy are also the topic of the final essay, by Sebastian Sewerin of ETH's Energy Politics Group. He shows the complexity and dynamics of energy policy mixes and presents ongoing research related to their measurement.

Aside from these essays, you will find information about important developments at CIS Zurich. CIS continues to be one of Europe's premier centers of political science, training excellent BA, MA and PhD students and retaining strong visibility in the major academic journals as well as in the relevant press. This is no small feat in an ever more competitive academic environment.

In this light, Marco Steenbergen has felt very honored to serve as the Director of CIS for the last two years. His term is ending in the spring of 2016. He wants to thank everyone who has made CIS Zurich such a great success, including his colleagues but also the administrative staff who put together this issue – Iwona Eberle and Maya Sela Mozafar.



56 percent of Switzerland's electricity is currently produced by hydroelectric power stations – among them Brügg power station in the canton of Berne. (photo: Christoph Hurni)

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How Energy Politics, Policy and Technological Change Interact

Tobias Schmidt (CIS, ETH) and Sebastian Sewerin (CIS, ETH)

Technological change (TC) in the energy sector, that is, the invention, innovation and diffusion of new technologies, is key to addressing environmental and societal challenges stemming from the use of incumbent technologies. Besides local pollution (e.g. air quality), many global challenges – with climate change being arguable the most prominent one – are strongly connected to the energy sector. Redirecting and accelerating TC has therefore become an additional energy policy objective – besides assuring affordability and security of supply. The academic debate on how to reach this objective is anything but settled. There is no consensus on the design of policy instruments (including implicit or explicit targets), their effectiveness and efficiency, and their interaction in complex policy portfolios. Also, it is hardly analyzed how these portfolios develop over time.

Selecting or avoiding single technologies?

One debate concerns the question whether support policies that alter the demand for technologies (deployment policies) should be designed in a technology-neutral or technology-specific fashion. Proponents of technology-neutral instruments argue that policy makers should avoid selecting single technologies for support and recommend implementing economy-wide price instruments that affect all technologies in a given area by altering market selection mechanisms (e.g. through a carbon tax or a cap-and-trade scheme). On the opposite side, supporters of technology-specific policies argue that it is exactly technology-neutral policy instruments that result in the early lock-out of promising technologies, as the technology that is most competitive once a new deployment policy is introduced will benefit most from that technology-neutral policy, while other technologies that are promising in the long term are locked out. A recent study led by Tobias Schmidt (2015) strengthens this second perspective but shows that the dichotomy between technology-neutral and technology-specific is false. Rather, the level of specificity of a policy matters – not only



Legislators are confronted with difficult choices in energy policy: debate in the National Council Chamber. (photo: Swiss Parliament)

regarding the technology but also regarding the applications supported. Markets select technologies depending on their competitive situation on different hierarchy levels and in different applications. If policy makers want to avoid “picking winners” early on, policies need to be designed in a way that several alternative technologies can compete for a certain time. This requires a precise understanding of technologies



Hydroelectric power is a challenging element of an energy mix as it requires long-term investments. Oberaarstausee, a hydroelectric reservoir in the Grimsel area in the Canton of Berne, commissioned in 1953, is a case in point. (photo: Christoph Hurnli)

and their competitiveness in various applications. It also requires constant monitoring of technological progress and adjusting policies if need be.

The challenge of measuring “energy policy”

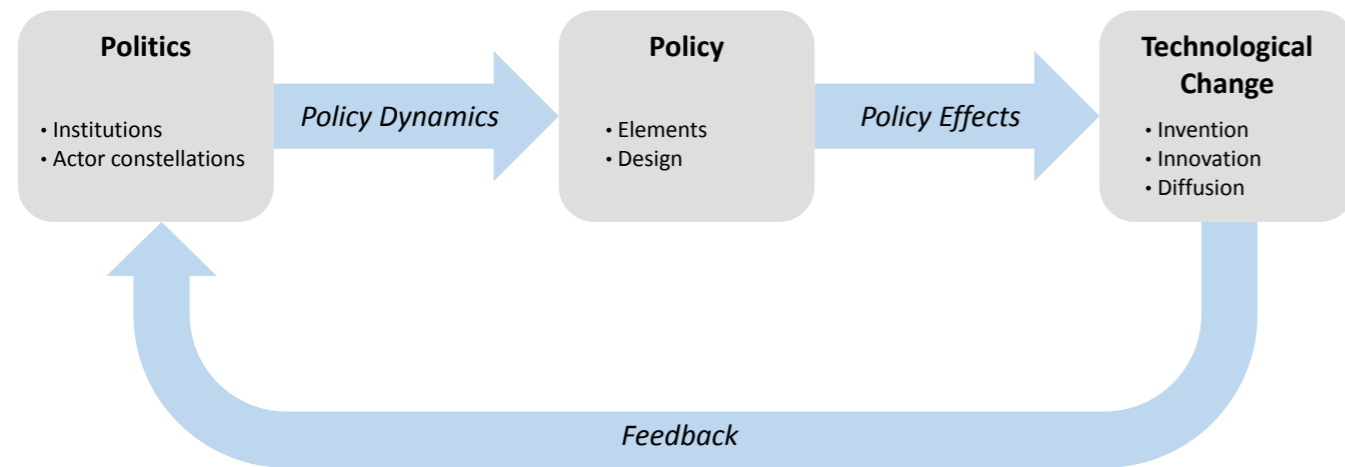
Another debate concerns long-term policy dynamics and how they unfold across different countries (and subnational levels). Policy is not static but is subject to constant change, which in turn affects TC. However, assessing countries’ differing energy policy portfolios (or mixes) is not an easy task given their growing complexity over time (in terms of instruments used and goals formulated). The lack of a common conceptualization and measurement of “energy policy” or “energy policy mix” is thus an important bottleneck in current research: Without defining this variable it is not possible to understand policy change over time, analyze its determinants and, most importantly, investigate its effect. In his article on page 28, Sebastian Sewerin describes our research group’s approach to address this challenge.

An important factor moderating policy dynamics can be technological change itself. Evolutionary economic theorists

stress that technology co-evolves with its supporting institutions, including public policy, and private and public sector actors. For instance, Germany’s renewable energy act, which is characterized by high technology specificity, resulted in the large scale diffusion of photovoltaic (PV) and wind installations (and other renewable energy technologies). The corporate actors profiting from this development included large parts of incumbent conventional equipment manufacturers. These actors formed strong advocacy coalitions, acting on further strengthening the policy (Jacobsson & Lauber, 2006). At the same time, due to the technological innovation set off by the Renewable Energy Act, policy could learn from and react to unforeseen developments in those technologies (Hoppmann et al. 2014). For instance, the much faster than expected cost reductions in PV made it necessary to adjust the subsidy level for this technology at a high rate.

Bridging the disciplinary divide

These two examples of technology feedback show how TC can influence policy dynamics. So far, though, the role of



Research framework of the Energy Politics Group at CIS, ETH Zurich. (figure: EPG/ETH)

TC in policy dynamics and policy change has been analyzed only in a few isolated studies. A systematic analysis of the co-evolution of policy and technology that endogenizes TC is lacking in the field of political science. One reason might be the lack of good measures to track policy change and relate it to TC and vice versa. Another reason could be the disciplinary divide, with innovation scholars focusing on the effects of policy on innovation (policy outcome), and political scientists focusing on the politics behind policy change and the resulting policy output.

Issuing recommendations for policy makers

At ETH Zurich's newly founded Energy Politics Group, we aim at providing systemic analysis on the co-evolution of technology and policy, considering the role of politics from various perspectives, as well as analyzing the role of institutions, path-dependency and actor constellations. The above graph provides an overview of our research framework. While focusing on the energy sector, we analyze various empirical cases (power generation, grid integration, storage) in multiple geographical settings (including developed and developing countries). With our research we also aim to derive recommendations for policy makers. Anticipating the feedback effects of technological change on the dynamics of the policy making process can help design more sustainable and long-term efficient policy portfolios at an early stage. Such a forward-looking perspective is particularly important in the energy sector, where technological change takes place over decades.

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Tobias Schmidt (photo p. 3) is an Assistant Professor of Energy Politics at D-GESS. Originally trained as an energy engineer (TU Munich), he pursued a PhD in management, technology, and economics at ETH Zurich. During his postdoc, he spent time as a visiting scholar at Stanford University and acted as a consultant to the United Nations Development Programme (UNDP). In his research, he analyzes the interaction of energy policy and its underlying politics with technological change in the energy sector. His empirical focus includes developed and developing countries.

Sebastian Sewerin (photo p. 30) joined the Energy Politics Group as a Postdoctoral Researcher in October 2015. In his research, which has been published in *Policy Studies Journal* and *Environmental Politics*, he analyzes policy change in countries' energy policy portfolios and the impact of technological change on energy politics. Currently he works on a conceptual study of the logics of policy change in the energy sector.

Energy Policy, Development and Climate Change

An Overview of Research Projects at CIS

Katharina Michaelowa (CIS, UZH)

Energy is crucial for international development. "Ensure access to affordable, reliable, sustainable and modern energy for all" hence figures prominently within the UN's "Sustainable Development Goals" (SDGs) adopted in September 2015 (Goal 7).

First, there is a direct relationship between energy and economic development: Energy is required for economic growth, and energy is important for people's well-being. Imagine a context like India where about a quarter of the

population still does not have access to electricity and two thirds use traditional biomass (like cow dung and firewood) for cooking. This has strong effects on health, since black carbon emissions are clearly related to respiratory diseases. Not having light in the evening for working and not having cooling in the heat of Indian summers, for example, influences productivity. Second, there is a more indirect relationship between energy and development via climate change. The increase in the use of fossil-fuel based energy is a main driver of global climate change, which in turn negatively affects development.



China plans to increase its wind and solar power capacity by more than 21 percent in 2016. The Gansu Dunhuang Solar Park in North-West China was built and commissioned in 2009 as China's first solar power plant and has since then continuously been expanded. (photo: Feng Li/iStock)

On average, the effect is much stronger on poor than on rich countries due to their geographic location, their stronger economic dependency on agriculture, and a much more limited coping ability. One way to reconcile the strong and increasing energy needs of the developing world with climate change mitigation is the enhanced use of renewable energy and improved energy efficiency.

Reducing greenhouse gas in developing countries

Research at the Chair of Political Economy and Development (UZH) covers topics in all these areas. Axel Michaelowa contributed to the energy chapter in the 5th Assessment Report of the Intergovernmental Panel on Climate Change (Bruckner et al., 2014), particularly regarding the role of energy projects in the Clean Development Mechanism (CDM), a market mechanism that promotes greenhouse gas emission reduction in developing countries.

Generally, the CDM has been the focus of much of his research related to energy use. Earlier papers with Daisuke Hayashi (UZH and Ritsumeikan University), for instance, discuss how the standardization of baselines for the calculation of mitigation under the CDM can promote projects in the energy efficiency sector (Hayashi and Michaelowa, 2013).

Climate Change Convention as pivotal

Much of our research is embedded in the context of international negotiations, notably within the United Nations Framework Convention on Climate Change (UNFCCC). In an ongoing project funded by the Swiss National Science Foundation, Paula Castro and Katharina Michaelowa address the challenges imposed by institutional design choices within the international climate change regime (Castro, Hörnlein and Michaelowa, 2014). In the same context, Axel and Katharina Michaelowa (2015) discuss the new responsibilities taken up by developing countries.

In collaboration with Mark Daniel Jaeger (CSS, ETH), Daisuke Hayashi and Katharina Michaelowa contributed to

a two-year project on “Challenges of European External Energy Governance: Meeting Tiger, Dragon, Lion and Jaguar” funded by the German Volkswagen Foundation.

In this context, Mark Daniel Jaeger and Katharina Michaelowa focus on the consistency between domestic and international energy (and climate) policies. In particular, they examine the Indian negotiation position at the international level. It underscores the need for “development space” – and hence the right to further increase emissions to mitigate the still prevailing energy poverty – and its consistency with domestic efforts to effectively broaden access to energy for the needy (Jaeger and Michaelowa, 2015a and 2015b).

One way to reconcile the strong and increasing energy needs of the developing world with climate change mitigation is the enhanced use of renewable energy and improved energy efficiency.

One particularly contentious issue in this context is the reform of energy subsidies. It will be further examined in a PhD project by Martina Zahno (see interview on p. 47). In her work, she focuses on the political economic determinants of reform, both internationally and domestically.

Daisuke Hayashi assesses the role of international technology transfer for the Indian wind industry (Hayashi 2015). This will be part of his PhD project, which analyzes technology transfer regarding renewable energies more broadly, focusing on China as much as on India and on a comparison of the two (see separate contribution in this newsletter). The idea is to examine under which conditions such technology transfers can be facilitated, so that these



Info board of the Gansu Dunhuang Solar Park, which has a total capacity of over 5000 Megawatt planned. (photo: Katharina and Axel Michaelowa)

emerging economies can be effectively supported on their move towards a less emissions-intensive growth path.

Impressive investments in renewables

As shown by Paula Castro and Martin Stadelmann, domestic policies (renewable energy targets, feed-in tariffs, other financial incentives and framework policies) are also very important for the diffusion of renewable energies. As demonstrated by the photos on pages 9 and 11, some of the investments in renewables are truly impressive in scale (see also Buen and Castro, 2012). The picture on p. 9 shows how the Chinese desert is getting plastered with solar panels. At this particular site at Dunhuang in Gansu province, overall power generation capacity corresponds to about four standard nuclear power plants.

Finance as future driver

International factors such as climate finance have played a much more limited role for the diffusion of renewables so far (Castro 2014, Stadelmann and Castro, 2014). Yet, climate finance might become a much more important driver of the spread of renewable energy and energy efficiency in the future, given the recent establishment of the Green Climate Fund, substantial funding promises of industrialised countries in the context of the UNFCCC process, and the new focus of international development goals (i.e., the above-mentioned SDGs) on clean energy.

In earlier work, Axel and Katharina Michaelowa have already examined the composition of development assistance in this respect and analyzed its political-economic determinants as well as its general allocation (Michaelowa and Michaelowa, 2011a and 2011b).

In her dissertation, Chandreyee Bagchi now studies the determinants of the effective allocation of such aid and the implications for donor accountability. A wide range of issues related to climate finance and the carbon market mechanisms was assessed in the edited volume by Michaelowa (2012).

Efficiency in the Gulf Cooperation Council

Climate finance will also play an important role in funding the large number of Intended Nationally Determined Contributions (INDCs) developed for the UNFCCC Conference of the Parties in Paris in December 2015. These INDCs also include multiple measures to increase energy efficiency and the use of renewables.

Michaelowa et al. (2014) discuss how energy efficiency policies in the countries of the Gulf Cooperation Council can drive mitigation. In addition, the emerging “bottom-up” regime complex that drives INDCs has been assessed in a review paper by Michaelowa (2015). Axel Michaelowa also served as lead author in the IPCC 5th Assessment Report chapter on international climate policy instruments (Stavins et al., 2014).

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Governing Technological Catch-Up in Clean Energy Industries

A Comparative Analysis of the Wind Power Industry in China and India

Daisuke Hayashi (CIS, ETH)

In face of the rapidly increasing greenhouse gas (GHG) emissions from developing countries, it is essential to stimulate the effective use of low-carbon technologies in these countries. China and India are among the most significant contributors to global climate change. In order to avoid dangerous climate change, it is essential that policy provides incentives to de-carbonize the coal-dominant power sector of these countries, e.g. by accelerating the diffusion of renewable energy technologies.

Wind power on the upswing

The good news is that China and India offer impressive cases of technological catch-up in the wind power industry. The wind power market in China and India expanded rapidly in the last decade and these countries now rank first and fifth in the world in terms of the cumulative installed wind turbine capacity (GWEC, 2015). The rapid increase in wind turbine installations was accompanied by the emergence of successful local industries. Hence, a better understanding of the catch-up processes in the wind power industry in China and India is crucial to informing policy aimed at combating climate change.

Rise in productivity

Hayashi et al. (2015) examine how learning through the accumulation



China has become one of the world's biggest clean energy producers as with wind parks on the prairies. (photo: qingyi/iStock)

of experiences by technology users and manufacturers contributed to the productivity of wind power technologies in China. A panel data analysis is conducted on an original dataset of 258 Chinese wind power projects under the Clean Development Mechanism that operated between 2006 and 2011. The analysis demonstrates that learning from project developers' installation, operation and maintenance experiences, as well as learning from manufacturers' research and development activities is far from statistically significant at any conventional levels. This demonstrates

that productivity gains cannot be explained merely by an increase in experience levels.

Lack of quality orientation

During the market expansion phase from 2006 to 2011, "large scale" and "high speed" were the themes of China's wind power development (Li et al., 2012, p. 54). The overriding emphasis on quantity and efficiency may have resulted in a lack of quality orientation. Furthermore, the increasing number of domestic turbine manufacturers led to intense



China's economy still strongly depends on emission-intensive industries. (photo: bingdian/iStock)

cost competition, which could have encouraged cost savings at the expense of quality (Li et al., 2012). Also, China's wind power installations faced a widespread problem of wind power curtailment due to inadequate power grid infrastructure. Curtailment is when grid operators choose to "spill" wind generation, meaning it is not captured by the grid but essentially wasted. Such curtailment is usually done in order to preserve grid stability, but may be done for a variety of other factors, both technical and political. Whatever the motivation, curtailment results in foregone revenue to wind generators and has a large impact on the financial performance of wind projects.

International technology transfer

The Chinese wind-power case demonstrates how even unprecedented market expansion does not necessarily lead to technological learning in the absence of broader systemic support, including infrastructure development, wind resource assessment, an enabling policy environment, and coordination and cooperation among stakeholders.

International technology transfer plays a key role in technological catch-up by latecomers, and it is often one of the key motivations for international cooperation in climate and energy fields between industrialized and developing countries.

Hayashi (2015) analyzes the governance of international technology transfers, mainly looking at the patterns of wind power technology transfers between Europe and India. The success of technology transfers hinges on the technology recipient's capacity for absorbing the transferred technology. This in turn is strongly influenced by the domestic policy environment in the recipient country. As energy policies are mainly determined by domestic politics, useful lessons for technology transfers are likely to be found in the domestic energy governance of the recipient country.

Creating a sizeable home market

The experience of the Indian wind power industry shows that policy support should be designed to create a sizeable, predictable and performance-oriented home market in the recipient country. Foreign technologies flow into a market where the government is committed to providing long-term support for liberalizing the market for these technologies and for encouraging private investments along the entire value chain.

Moreover, policy incentives need to be provided on the basis of technology performance, but not on the basis of technology installation (e.g., provide a subsidy for the amount of wind power generated and supplied rather than for the capacity of wind turbines installed). The performance-based incentives attract foreign companies with high-quality technologies. It is also important to set

Even unprecedented market expansion does not necessarily lead to technological learning.

clear technology quality standards to avoid the widespread use of low-quality technologies and/or foreign technologies that are not suitable for operation in the recipient country.

IPRs as a bone of contention

Intellectual property rights (IPRs) can become a source of contention. For instance, the relationship between the joint venture partners of Enercon India, a major wind turbine manufacturer in India, became problematic around 2005 due to their different positions in the company's business strategy. In 2007, Enercon Germany cancelled a technology licensing agreement with Enercon India, which led to a legal dispute against the 12 patents held by Enercon Germany. The Intellectual Property Appellate Board in Chennai, India, issued a verdict in favor of Enercon India in 2010, nullifying the patents held by Enercon Germany. This has caused diplomatic tensions, at least in Germany, as the German Federal Ministry of Economy and Technology called this a "grave circumstance" (May and Röder, 2011, p. 93). However, the issue is not unavoidable with careful contractual arrangement. Moreover, technology licensing is a common business practice in mature clean energy technology fields such as wind power. Although IPRs are sometimes put high on the political agenda, this issue per se should not result in categorical rejection of technology transfers in clean energy fields.

International support is essential

The Chinese and Indian wind power cases show that technological catch-up does not take place in a vacuum. Effective catch-up requires systemic policy support for the creation of a sizeable, predictable and performance-oriented

market, which calls for the close coordination among various stakeholders. It is hence still and ever more essential to provide international support to developing countries for strengthening networks, partnership and capacity building for accelerating the pace of technological catch-up in low-carbon technology fields.

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Decentralized Architecture of Global Climate Policy – A Public Opinion Perspective

Thomas Bernauer (CIS/ISTP, ETH)

The Paris climate conference (COP) in December 2015 has formalized the emerging decentralized approach to global climate policy. The 1997 Kyoto Protocol, which expired in 2012 and was then patched up with an interim arrangement with very limited participation, had set specific greenhouse gas reduction (GHG) targets for most industrialized countries. Negotiations on a successor agreement based on a similar approach failed to produce consensus, despite around ten years of hard bargaining. The Paris agreement now simply bundles up unilateral promises by the participating countries

and subjects them to periodic review. And it records the intention of industrialized countries to support developing countries' efforts in the order of around 100 billion USD per year from 2020 onwards. Whether the shift from centralized top-down target setting to bottom-up internationally coordinated unilateralism will result in greater progress towards the 2 or 1.5 degrees warming target remains open.

Mixed answers from research

Current research, to which my group has contributed, provides rather mixed answers as to whether the Paris targets are realistic, but leaves some room for optimism.



"The People's Climate March" in Oslo, Norway, in September 2014 – one of 2,808 solidarity events in 166 countries. (photo: rrodcrickbeiler/iStock)

To illustrate this, let me offer a quick glimpse into some studies on public opinion related to climate change policy, which we have recently undertaken.

Public opinion is crucial

To start with, public opinion matters a lot for climate policy – an important facet of energy policy – despite the fact that climate policy is quite complex and technical, and thus perhaps poorly understood and perceived by the general public. Why? The answer is very simple: climate policy, very much like energy policy, has direct, manifest, and economically and socially important implications for every citizen. Because of that, greenhouse gas (GHG) mitigation measures need to be designed and implemented within the constraints set by the "will of the people." And this is why we need to understand what factors shape public support or opposition to ways and means for mitigating climate change and, in that context, moving towards a low carbon energy system. So let's take a quick look at four studies.

Impact of citizens' perceptions

One piece of good news is that economic downturns do not seem to have the widely expected negative effect on public support for ambitious climate policies. Aya Kachi, Thomas Bernauer, and Robert Gampfer, based on surveys in the United States and Germany, find that citizens' perceptions of their own economic situations have no significant effect on their climate policy support. Negative perceptions of the national economic outlook reduce support for climate policy in the US, but not in Germany. But the magnitude of this national economy effect in the US is small. Risk perceptions have a much bigger effect on climate policy support. Hence the state of the economy does not seem to trump climate risk considerations, unlike conventional wisdom often claims (Kachi et al, 2015).



Opposition to US President Obama's climate policy initiatives: yard sign in Ohio before the 2012 elections. (photo: Jeff St. Clair)

Towards unilateral climate policy

Based on conjoint and framing experiments embedded in representative surveys in the world's two largest democracies, India and the United States, Thomas Bernauer and Robert Gampfer find robust public support for unilateral climate policy in both countries. As noted above, in the absence of formal international emission targets, unilateral climate policy is at the forefront of current policy-making.

According to Thomas Bernauer and Robert Gampfer, support for unilateral climate policy, declines with increasing costs and increases with growing economic co-benefits and problem solving effectiveness. But they also find that policy conditionality and possible institutional design mechanisms against free-riding by other states (which make the policy "less unilateral" by providing for reciprocation) play no significant role when citizens form their preferences with respect to climate policy. Neither is public support affected by whether policies focus on adaptation (which restricts benefits to the investing country) or mitigation (which benefits all countries globally).

These findings suggest that governments of rich and poor countries could politically afford to push ahead with more ambitious unilateral climate policies (Bernauer and Gampfer, 2015). Currently ongoing survey work by Thomas Bernauer and Liang Dong in China suggests that, perhaps surprisingly, public support for unilateral climate policy there is similarly robust.

Big promises to poorer countries

Industrialized countries have promised in Paris to deliver around 100 billion USD in climate aid to poorer countries. Since the GHG emissions of developing countries and emerging economies are growing very fast, bringing them "on board" by means of positive incentives is of utmost importance. But motivating citizens of rich countries to support assistance to poorer countries in the mentioned order of magnitude is far from easy.

Robert Gampfer, Thomas Bernauer, and Aya Kachi examined what institutional design characteristics are likely to garner more public support for climate funding among citizens in key developed countries. They found that

Attitude of Swiss Citizens towards the Energy Strategy 2050

climate funding receives more public support if it flows to efficient governments, funding decisions are made jointly by donor and recipient countries, funding is used both for mitigation and adaptation, and other donor countries contribute a large share. Contrary to what one might expect, climate change damage levels, income, and emissions in/ of potential recipient countries have no significant effect on public support. These findings suggest that finance mechanisms that focus purely on compensating developing countries, without contributing to the global public good of mitigation, will find it hard to garner public support (Gampfer et al., 2014).

Attractive carbon offsetting

A recent study by Kevin Anderson and Thomas Bernauer focuses on carbon offsetting. Since many rich countries are finding it very difficult to achieve even their self-selected reduction targets, carbon offsetting becomes an attractive option. Carbon offsetting is a market mechanism that tends to make GHG reduction more cost-efficient. Most often, it is used in the context of cap-and-trade (emissions trading) systems. One of the most fundamental policy-design choices in government-led climate change mitigation is whether GHG emissions should be reduced at their source (say within a given firm or sector), or whether carbon offsetting domestically and internationally (funding the equivalent amount of emission reductions elsewhere) should be possible. Since public opinion imposes important constraints on such policy choices Anderson and Bernauer investigate how arguments regarding carbon offsetting's economic efficiency, effectiveness, and ethicality, which have been key points in the public debate on carbon offsetting, impact citizens' preferences.

Effectiveness is pivotal

Based on online framing experiment in the United States they find that citizens' support for international offsetting is stronger and support for reductions at the source is weaker when considerations of economic efficiency gains are at the

forefront. Support for offsetting declines when individuals are confronted with arguments about (in)effectiveness and ethicality of offsetting. These findings suggest that public support for carbon offsetting, which already is substantial, could still be enhanced via more information on efficiency gains and via measures addressing additional/ effectiveness concerns (Anderson and Bernauer). While this study focuses on government mandated carbon offsetting, the latter can also take place on a voluntary basis. Anderson, Bernauer, and Huber are currently implementing a field experiment on voluntary carbon offsetting among car-owners in the canton of Zurich. The idea is to find out what motivates or discourages people to voluntarily mitigate their GHG footprint.

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Thomas Kurer (CIS, UZH) and Thomas Widmer (CIS, UZH)

On 8 March 2015, the Swiss electorate voted on the first popular initiative of the relatively recent Green Liberal Party (GLP). The initiators suggested replacing the existing value added tax by a novel "energy tax." The claimed that strengthening the so-called "polluter pays principle" would help promote renewable energy and allow for a climate-friendly phasing out of nuclear energy. However, the Swiss electorate rejected the introduction of an energy tax in an unmistakably clear fashion: 92 percent of the participants voted against the initiative. Only once in the history of Swiss popular initiatives has an initiative been rejected more clearly – which was nearly hundred years ago (initiative on grain supply in 1929, 97.3% votes against)¹

Subsequent to the massive rejection of the energy initiative, voices were raised claiming that the defeat in the vote must be interpreted as a general rejection of the energy policy pursued by the Federal Council. In the aftermath of the nuclear disaster at Fukushima in 2011, the Federal Council had developed the "Energy Strategy 2050" to ensure that the phasing out of nuclear energy would take place in an orderly manner. Some voices thereupon asserted that the defeat in the vote that the GLP had suffered equalled a "collateral damage for the energy transition" in



Campaign poster by the Swiss Green Liberal Party for the popular initiative on 8 March 2015 about the introduction of an energy tax. (illustration: pad)

general. We took this interpretation as a reason to supplement the regular follow-up survey of the electorate (so called VOX-Analyse) with a specific question on the attitude of those surveyed towards the Energy Strategy 2050, in order to underpin the debate with numbers.

Nearly 1500 people were interviewed by telephone regarding their general attitude towards the Energy Strategy 2050. A majority of the population

generally supports the energy policy approach taken by the Federal Council. 56.6 percent of respondents either strongly or somewhat agree with the Energy Strategy 2050. A fifth of the respondents express skeptical views and only 8.2 percent strictly reject the strategy. The remaining 15.6 percent are undecided or did not answer the question, which is not surprising considering the complexity of the matter.

Table 1: General attitude towards Energy Strategy 2050

	number	percent	cum. percent
strongly agree	215	13.8	13.8
somewhat agree	666	42.8	56.6
somewhat disagree	305	19.6	76.3
strongly disagree	127	8.2	84.4
undecided	242	15.6	100.0
Total	1556	100	

* Statements weighted according to language region
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¹ <http://www.admin.ch/ch/d/pore/va/19290303/>

Unsinnig und teuer!



Energie-Steuer
NEIN

Campaign poster by a cross-party committee against the popular initiative of 8 March 2015 about the introduction of an energy tax. (illustration: pad)

In view of the vote on energy tax our interest focuses mainly on the approval of the Energy Strategy 2050 amongst nay voters. This distribution provides information on how much the rejection of this specific initiative can be interpreted as a general rejection of the long-term Energy Strategy 2050.

Majority backs Federal Council

Naturally, the Energy Strategy 2050 is more appealing to supporters of the introduction of an energy tax than to people who rejected the initiative. However, there is a majority on both sides of the electorate in support of the energy policy course of the Federal Council. Nearly 56 percent of nay voters generally agree with the Energy Strategy 2050, even though they opposed the initiative on the energy tax. Therefore, the attitude of nay voters towards the energy policy aim of Switzerland does not

substantially differ from the country's average attitude.

These findings support a differentiated interpretation of the initiative outcome of 8 March 2015. A clear majority of the population supports the medium- and long-term energy policy objectives of the Federal Council that are included in the Energy Strategy 2050. However, the nay voters strongly opposed the idea of replacing the value added tax with an energy tax. In fact, this proposal was widely regarded as a too strong and risky intervention for the – in general – well-functioning Swiss tax system.

In the eyes of the respondents, the steering effect of the energy tax would lead, in medium-term, to federal budget deficits or to exponentially rising energy prices. In this context, the voters chose to reject the initiative. The rejection, however,

is not tantamount to a fundamental change of the energy policy direction of the Federal Council. Despite the fizzling out of the “Fukushima effect” the long-term goal of the energy transition is supported by the majority.



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Thomas Widmer has been a Professor at the Department of Political Science of Zurich University since 2014. He studied political science, history and international law at the University of Zurich, where he earned his PhD in political science. His research focuses on evaluation. He was, among others, a member of the Swiss Evaluation Society, the European Evaluation Society.

Table 2: General attitude towards Energy Strategy 2050 according to vote

Attitude towards Energy Strategy 2050

Vote		agree	undecided	disagree	total
No	n	497	108	290	896
	%	55.5	12.1	32.4	100
Yes	n	56	9	14	79
	%	70.8	11.3	17.8	100
Total	n	553	117	304	975
	%	56.7	12.0	31.2	100

* Statements weighted according to language region

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Fueling Violence – New Evidence for the Oil Curse

Philipp Hunziker (CIS)

The public discourse on the sustainability of fossil fuels revolves mainly around their global environmental impact. The societal costs of global oil consumption may be similarly grave, as a large body of literature suggests. In particular, there is considerable statistical evidence in favor of an “oil-conflict” link: over the last decades, oil- and gas-producing states were significantly more likely to experience an outbreak of civil war than other countries.

While the existence of this “oil curse” is widely accepted, there is little consensus about why and under which conditions oil increases the risk of violence. Yet, identifying the relevant mechanisms is of key importance in order to prevent – or at least mitigate – the apparently dire political consequences of petroleum extraction.

Funds for rebels

One potential explanation for the oil-conflict link is that access to oil fields provides prospective rebels with the opportunity to fund their operations. Aspiring insurgents may steal oil and extort producers, thus acquiring the necessary “start-up” funds to buy weapons, recruit fighters,

ISIL is having difficulties keeping its oil fields operational due to a lack of engineers.

and effectively challenge the state. Thus, oil may assume a similar role as “blood diamonds” that gained notoriety when it was discovered that rebel organizations in various African countries have funded their operations by exporting gemstones.

This “funding” argument has recently attracted attention in the context of the ISIL insurgency in Syria and Iraq. Media have widely reported that the Islamist group is financing its



Smoke emerging from Iraq's largest oil refinery in Baiji after an attack by ISIL affiliates on June 17, 2014. (photo: USGS/NASA Landsat)

operations by selling petroleum from captured oil fields, prompting some to call the organization the “wealthiest terrorist group in history.”

Oil production too challenging

However, while evidence of this type indicates that oil revenue may indeed benefit rebel organizations in certain settings, it is doubtful whether this “funding” mechanism is able to explain the oil-conflict link. In fact, instances where insurgents benefit directly from oil revenue are relatively rare. Outside the current war in Syria and Iraq, large-scale oil theft by rebels has only been reported in the Niger Delta and Colombia. A likely explanation for the surprising lack of oil-fueled insurgents is that the extraction, refinement, and transport of hydrocarbon fuels exceed the logistical and political capabilities of most rebel organizations.

Maintaining oil production facilities requires trained personnel that rebel groups will find difficult to attract.

Further, insurgents will likely struggle to find states willing to allow the import of large quantities of illegally produced oil. Moreover, even if a potential buyer is identified, there remains the logistical challenge of exporting oil and gas from an active war zone. And finally, oil production facilities are particularly vulnerable military targets because they are immobile and of high value. Obviously, this holds true regardless of which side controls a given oil field but insurgents are particularly exposed because they often rely exclusively on light weaponry, whereas states may target oil infrastructure by more sophisticated means.

As a case in point, a number of recent publications have highlighted that ISIL is struggling with exactly these challenges. Apparently, the Islamist group is having difficulties keeping its oil fields operational due to a lack of engineers. Moreover, a growing number of extraction sites are being destroyed by air strikes, and the oil that is exported is sold at a considerable discount due to the security risks involved.

These arguments suggest that rebel organizations are only able to benefit from illicit oil sales if they reach a certain size, and even then, substantial challenges remain. It is thus difficult to explain the very emergence of rebel organizations – and the outbreak of conflict – purely in terms of funding opportunities.

Grievances against state rule

New research in our group (as well as the author's dissertation) suggests that there may be a different mechanism underlying the oil-conflict link.

We argue that oil extraction is particularly dangerous if it causes widespread grievances against state rule and promotes popular support for secessionist policies. This often occurs in cases where oil is produced in the settlement areas of ethnic minorities that lack meaningful representation in government.

In this setting, local residents will likely suffer under the local costs of oil extraction while seeing little of its financial benefits. If locals lack representation in government, the

Local residents will likely suffer under the local costs of oil extraction while seeing little of its financial benefits.

latter will have few incentives to enforce regulation that would prevent the often devastating externalities of oil production. This applies especially to densely populated regions relying on subsistence agriculture. There, oil pollution is particularly threatening to local livelihoods and public health. An exceptionally drastic example for the potential costs of underregulated oil production is the Niger Delta, which has experienced several hundred oil spills each year since the 1960s. Simultaneously, lacking representation in government, local residents are also unlikely to be compensated for their losses in the form of oil revenue. Governments will tend to redirect oil rents towards their co-ethnic constituencies rather than redistribute it to the minority that suffers the consequences of industrial oil extraction.

Ground for secessionist demands

This setting provides a fertile breeding ground for secessionist demands. Secession is appealing to the local populace because it promises to end the exploitation of local resources by an "alien" government and ensures that local financial and environmental interests are taken into account by decision makers. However, as governments are unlikely to cede control over oil-rich regions easily, there is a high risk that secessionist sentiment escalates into violent conflict.

A particularly illustrative example of this mechanism is provided by the Indonesian province of Aceh, which experienced a devastating 30-year insurgency that only ended after the Boxing Day Tsunami of 2004. In the early 1970s, the region saw the rapid development of several large-scale gas extraction facilities, which quickly led to significant environmental issues affecting the local



Rice farmer in the Aceh region at the northern end of Sumatra where a rebel organization fought for independence of the region from Indonesia. During the so-called Aceh Insurgency from 1976 to 2005, over 15,000 lives are believed to have been lost. (photo: Worldfish/Flickr)

population. Shortly after the onset of gas production, GAM (the "Free Aceh Movement") emerged, a clandestine rebel organization with the explicit goal of gaining independence for the region of Aceh. The group explicitly called for fiscal autonomy for the region and demanded that Aceh's resources be distributed exclusively among the province's population. The Suharto government reacted to these demands with widespread repression, which quickly escalated into violent secessionist conflict.

Location of oil extraction crucial

Quantitative evidence further supports our argument. Using new geo-coded data on the location of oil and gas fields, we find that oil is indeed primarily associated with an increase in the risk of secessionist violence. Moreover, our results suggest that whether oil is dangerous depends crucially on where it is extracted. Consistent with our argument, petroleum production only appears to cause conflict if it occurs in regions populated by small ethnic minorities that lack meaningful representation in government.

It is important to note that these findings suggest policy recommendations that are critically different to those implied by the "funding" explanation for the oil-conflict link. Regarding the latter, it is argued that since oil causes conflict by providing nascent rebel organizations "start-up" funding, an effective prophylactic strategy might consist of governments investing in increased security around extractive infrastructure.

Our results, by contrast, suggest that such measures may turn out to be counterproductive. If oil promotes violence because it creates local grievances over "alien" state rule, there is a considerable risk that policies aimed

at "securing" extraction sites will be received as repressive and end up promoting secessionist sentiments. Under these circumstances, inclusionary policies are much more effective at ensuring lasting peace, that is, measures ensuring that local interests are reflected in government policies.

Threat of conflict in Africa

There is considerable evidence that oil production causes political violence. We believe that this fact should receive more weight in the discussion over sustainable energy production, all the more as the oil-conflict link is also likely to be relevant in the future. In particular, a number of East African governments have recently announced significant oil and gas discoveries, and some of these are located in exactly the type of setting that we identified as particularly risky in our analysis.



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South China Sea – It's about Politics, not Oil

Sascha Langenbach (CIS, ETH)

China and its coastal neighbors have long been involved in maritime disputes in the South China Sea. Beijing is engaged in prominent disagreements with several countries over the ownership of the Spratly Islands and the Paracel Islands, as well as over maritime jurisdiction in the surrounding waters. Diplomatic tensions have grown in recent years, especially between China on the one hand and the Philippines and Vietnam on the other. These disputes are occasionally seen as a contest over large offshore oil and gas resources, with Beijing intent on reducing its dependence on foreign energy imports. While petroleum plays a role in China's assertive stance in the South China Sea, however, energy is better regarded as a tool rather than an end in itself.

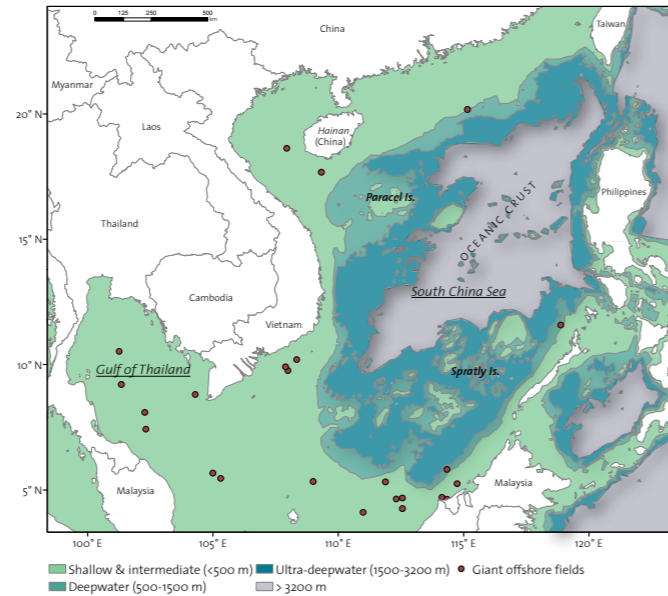
Limited hydrocarbon potential

Irrespective of some rather optimistic media reports, the hydrocarbon potential of the South China Sea remains limited and unclear based on current evidence. It is true that large offshore petroleum deposits are known in undisputed areas close to the coastlines of China and Vietnam, but this is not the case in the contested parts.

Hydrocarbons accumulate in sedimentary rock that consists of porous materials like sandstone or limestone. In the large oceanic crust of the South China Sea, these sedimentary layers are thin, which makes this area of little interest for oil and gas exploration to begin with (see map).

Sedimentary thickness is more promising in other disputed parts of the South China Sea, especially near the Spratly Islands. But extensive exploration campaigns have not been conducted there so far, in part due to the burdened political environment. Any reserve estimate must therefore be regarded as uncertain and preliminary.

Exuberant rhetoric also neglects a cost aspect. Future oil and gas operations around the Spratly and Paracel Islands would have to take place in remote areas and in the deepwater and ultra-deepwater operating range (indicated by the different colors in the accompanying map).



Offshore drilling depths in the South China Sea and the Gulf of Thailand, along with known locations of giant offshore fields. (source: Bathymetric data from NOAA, 2006, field data from Horn, 2010; graphics: Sascha Langenbach)

Development and production costs in these areas are high, which lowers the overall resource rents states can expect. This is all the more so if the South China Sea turns out to be rich in natural gas rather than oil, as current estimates suggest may be the case.

China dependent on foreign energy

The above is not to say that hydrocarbon exploration in the South China Sea is futile or that large deposits will never be found. It does mean, however, that oil from this region is unlikely to ever alter Beijing's dependence on foreign energy imports in a fundamental way (Owen and Schofield, 2012). For Vietnam and the Philippines, the economic situation is different. These smaller countries have much more to gain in relative terms from exploring the potential resource base in the South China Sea. Yet, Hanoi and Manila depend on a more forthcoming attitude from Beijing in order to create an investment-friendly environment. This scenario is unlikely.

Visible assertions of sovereign rights

And still: irrespective of how much petroleum will eventually be found in the South China Sea, the "energy card" already performs important functions for Beijing. By granting petroleum licences in disputed areas, and occasionally attempting to conduct oil exploration in them, China can press its claims and signal its commitment to the issue. Petroleum-related activities in the South China Sea also allow Beijing to probe the responses of other claimants as well as those of outside powers with an interest in the region – first and foremost the United States.

In short, oil operations in contested waters are highly visible assertions of sovereign rights, and can function as tools of maritime claim-making no matter how much petroleum eventually turns out to be there.

Securing a vital sea lines

Ultimately, Beijing's assertiveness in the South China Sea seems to be about things other than petroleum: protecting its national sovereignty and increasing control over vital sea lines in its own immediate neighborhood. The Chinese military posture has long been geared towards an "anti-access" capability that would make it costly for the United States to use its naval might close to Chinese shores, particularly in support of Taiwanese independence (see Haas, 2014). Recent construction of military installations in the disputed Spratly archipelago can be seen as part of this wider strategy.

To open the currently underexplored areas of the South China Sea up for more rapid investment, the claimant states could make use of Joint Development Agreements (JDAs). These have been used in several other maritime disputes, including those in the nearby Gulf of Thailand. Joint development, however, requires the firm commitment of the claimant states to shelve their legal disagreements for decades on end. This might be economically attractive for Vietnam and the Philippines, but for China far less so. For one thing, the high expected cost structures and uncertain petroleum potential of the South China Sea currently

Oil operations in contested waters are highly visible assertions of sovereign rights.

make large-scale exploration less than compelling for this economic power house. For another, the Chinese leadership is already making good use of the existing maritime disputes to score bonus points with nationalist audiences at home as well as to change perceptions of the regional balance of power abroad.

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Building an Energy Union – The Role of “Constructive Ambiguity” in the EU’s New Energy and Climate Policy Approach

Severin Fischer (CSS, ETH)

When Jean-Claude Juncker entered the office as EU Commission President in late 2014, he promised to transform the Commission into a more political institution. The bureaucracy should become an actor that launches initiatives and gives new impetus to existing policies. One of Juncker’s main projects in this context was the development of a European “Energy Union” that should lead to more internal cohesion and better outside representation of the EU in dialogues with big supplier countries. This initiative seemed to be timely, since the internal fragmentation on the balance between climate policy, energy security aspects, national sovereignty and EU guidance had reached a new peak just before the meeting of the 28 heads of states and governments in October 2014. Juncker tried to put the pieces of EU energy policy back together again and positioned the Commission as facilitator of this holistic approach.

Priorities not defined so far

Today, one year after this announcement, the results do not look too promising. Although there is a certain degree of consensus on the importance of the Energy Union project for EU integration and a reiteration of commitments among member state governments to develop the project further, concrete priorities of the energy union have not been defined so far. One of the reasons for the combination of high political salience with little measurable results is the use of the “constructive ambiguity” concept by the Commission. The Commission has managed to keep the dialogue about energy policies alive and has guaranteed the involvement of as many actors as possible, but has not set priorities and has tried to avoid concrete decisions.

The history of the term “Energy Union” already hints at the cause of the problems. It first appeared around the negotiations for the common EU energy and climate goals 2030 at the end of 2014. In this context, the Polish government tried to initiate a new approach for EU energy policy in order to balance – in their view – an environmentally

The Commission has been trying hard to sell past success stories as steps towards an energy union.

biased strategy during the preceding years. Poland asked for a strengthening of EU infrastructure policy and a common approach to buying natural gas from non-EU suppliers. In the wake of the Ukrainian crisis, this initiative was welcomed by many policy makers in the energy and security field. Poland and other Central and Eastern European member states could turn their vision of EU energy policy into a pro-European agenda without even mentioning climate and environmental policies in that context.

After the elections for the European Parliament, Juncker nominated the Slovak diplomat Maros Sefcovic for the position as a “Commission Vice-President for the Energy Union” not only to build a link to Central and Eastern European member states, but also to use his experience in interinstitutional affairs in the EU. But Juncker did not only hire a salesman for his Energy Union project, he also added the aspect of a “forward-looking climate policy” to the energy-centred Polish proposal in order to satisfy all intra-EU demands – at least on the surface. In this combination, the energy union is little more than the prolongation of the status quo of EU energy policy. Although the Commission is constantly signaling that something completely new has been invented, it is mainly the terminology that has changed. A big step for European integration or something really innovative is completely missing so far.

Since the beginning, the Commission has been trying hard to sell past success stories as steps towards an energy union. One of the many examples are the greenhouse gas emissions reductions which the EU was able to present ahead of the climate summit in Paris. The main reason



Ambitious task: Jean-Claude Juncker, the current EU Commission president, is trying to establish a European “Energy Union.” (photo: euranet_plus /Flickr)

for the positive climate policy balance sheet has been the economic crisis. Another example is the infrastructural integration of electricity and gas markets in Central and Eastern Europe that was mainly funded from the EU budget before 2010. In fact, the investment decisions have been taken long before the energy union became the talk of the town.

Resistance from Central and Eastern European states

Today it already seems clear that the success stories around deepening energy policy integration will become fewer and fewer in the near future. The reasons, however, are not to be found in Brussels, but rather in the 28 capitals of EU member states: The climate policy agenda has raised resistance from Central and Eastern European member states – a trend that is likely to become even more intense after the change of government in Warsaw. The new government is even more openly confronting the EU when it comes to existing climate policies. Similarly, questions of future governance and coordination of energy policy will be strongly influenced by the UK government. It seems hard to imagine that the necessary transfer of responsibilities for energy policy is

going to happen before the referendum on the British future in the EU takes place. Finally, even the core topic of EU energy policy, the further integration of the internal energy market, is more and more under pressure from national regulatory interventions of different member states. Price-building mechanisms are undermined and macroeconomic benefits of market integration become hostage to national security of supply instruments and technological choices.

Critical implementation phase

The Commission’s success in using the concept of “constructive ambiguity” to establish the energy union last year is now running into the critical phase of implementation. Communicating the whole range of the EU’s challenges as reasons for creating the energy union in order to give something to every member state, company and environmental organization in the first project phase was relatively simple. The second phase will include tough policy decisions in legal decision-making processes. If the Commission manages to protect the level of integration in the internal energy market and the basic direction in climate policies, it will already have achieved a lot.

Further reading

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What's the Difference? The Challenge of Comparing Complex Energy Policy Portfolios

Sebastian Sewerin (CIS, ETH)

Policies come in all shapes and sizes – and not only that, they come in increasingly complex portfolios (or mixes) and undergo constant change as well. Admittedly, assessing the long-term development of policy portfolios is not a brand new task for political scientists, but arguably a decisive one, for it impacts our ability to understand policy change over time, analyze its determinants and investigate its effects. Thus, behind the prosaic label of the “dependent variable problem in the study of policy change” (Howlett and Cashore, 2009, Capano, 2009) lies a pivotal challenge, namely assessing policy portfolios in a consistent and comparable manner that provides data for subsequent systematic analyzes.

In principle, this challenge is the same for any policy sector, be it health or agriculture. Yet, renewable energy policy provides an especially interesting case for addressing this challenge, as it represents a rather new field of political activity that has nonetheless quickly risen to prominence in terms of political attention and relevance. It is also very interesting as it is deeply interwoven with technological change and thus ideal to study the co-evolution of technology and policy.

Rocky road to common conceptualisation

Although research into policy change and policy dynamics in general has seen considerable progress over the last few years (Baumgartner et al., 2011), the development of a common toolbox with a unified conceptualisation and measurement of policy change has not progressed further, despite attempts to systematically compare specific on-the-ground measures or policy fields (McDermott et al., 2010). Comparative studies in the field of energy policy seem to shy away from addressing the dependent variable problem completely: Studies either apply context-specific conceptualisations of policy change in isolated qualitative in-depth case studies, make use of proxies, e.g. actors' perceptions of the magnitude of change (Fischer, 2014), or – by far the largest number of articles – rely on a binary assessment of policies

being present or absent (Matisoff and Edwards, 2014, Sommerer and Lim, 2015). Clearly, this lack of a common conceptualisation and measurement of energy policy is an important bottleneck in current research as it is not possible to understand policy change over time, analyze its determinants and, most importantly, investigate its effect without a comparable database.

Operationalising policy intensity

To overcome this bottleneck, two colleagues and I have developed the Index of Policy Activity (IPA), which is currently being further refined by the Energy Politics Group at ETH Zurich, and is currently being further refined at ETH Zurich's Energy Politics Group (Schaffrin et al., 2014). Relating to discussions about the need to differentiate between policy “density” (i.e., the number of policy instruments) and “intensity”, i.e., their content (Knill et al., 2012), and theoretically drawing on a taxonomy of components of policy output (such as objectives, settings, calibrations, and instrument logic), we suggest a unified conceptualisation and generally applicable operationalisation of policy intensity. We define policy intensity as the amount of resources, effort and activity that is invested in or allocated to a specific policy instrument.

Comparative studies in the field of energy policy seem to shy away from addressing the dependent variable problem completely

To determine intensity we establish six measures incorporated by each policy instrument with varying degree of distinctiveness: (1) integration, (2) scope, (3) objectives, (4) budget, (5) implementation, and (6) monitoring. On this basis, a content-based coding procedure was developed

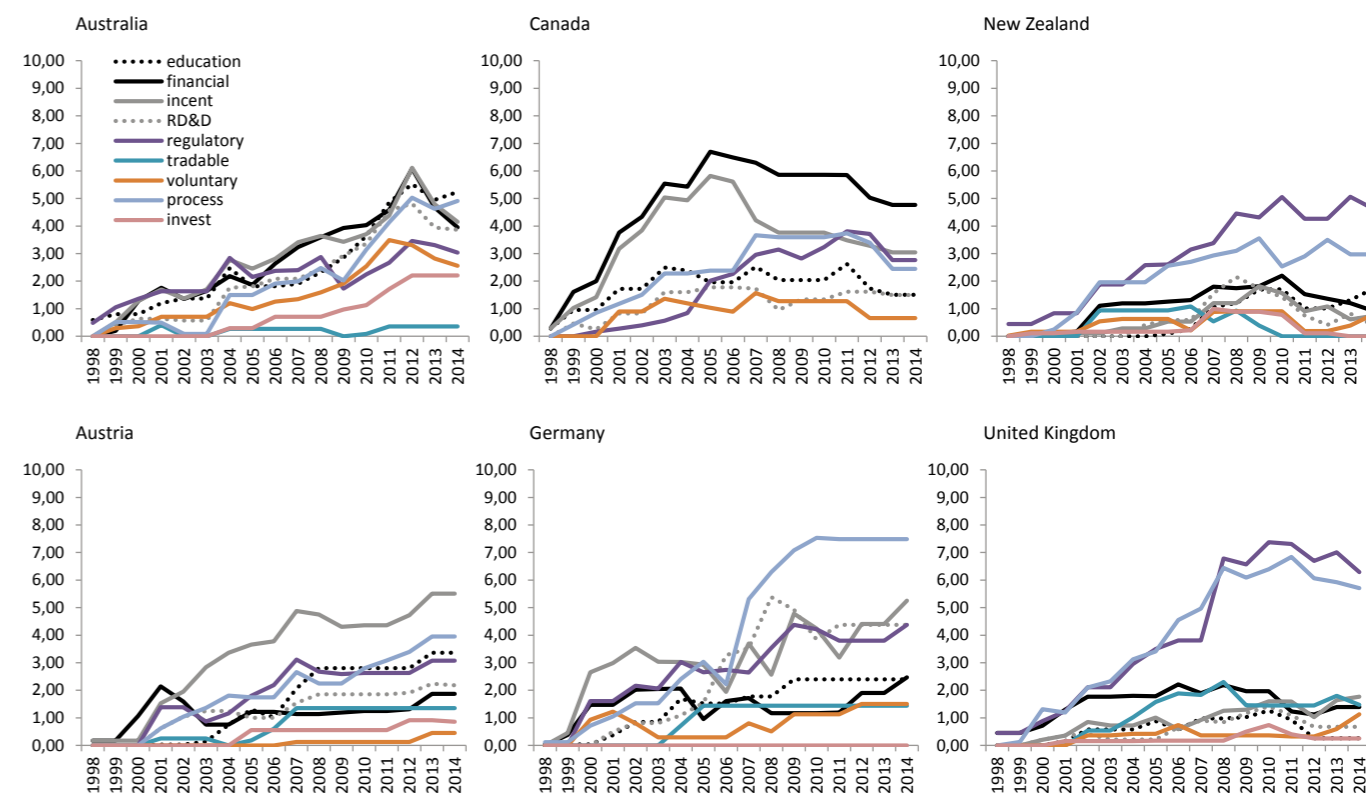


Figure 1: Index of policy activity (IPA) per policy type (time series) (source: EPG, ETH Zurich)

that is applied to each policy instrument in the policy sector and country under investigation, allowing researchers to calculate an intensity score.

To increase measurement validity, each policy instrument is coded independently by three individual coders and differences in the assessment of a policy instrument are settled in group discussion. The scores of all policy instruments are then added to an annual score for the overall policy portfolio.

Thus, it is possible to investigate long-term policy dynamics: new policy instruments are enacted, existing ones abolished, or established policy instruments' intensity scores changed. Understanding these dynamics is highly important for better anticipating the implications of policy design decisions (e.g. the introduction of a new support mechanism). The approach also allows for the inclusion of additional information, namely the type of policy instrument – the combination of different types of policy instruments in a country's policy portfolio reflects on the prevalent instrument logic – as well as their technology specificity. In sum, the approach allows for a precise taxonomy of policy mixes' complexity and thus contributes to assessing the optimality of complex policy mixes (Howlett and del Rio, 2015).

Differing long-term dynamics

Figure 1 shows our current IPA measurements for renewable energy policy mixes in six countries (Australia, Austria, Canada, Germany, New Zealand, United Kingdom) from 1998 to 2014. Without going into any detail, the findings clearly show that long-term policy dynamics are very different across the cases, suggesting distinct determinants. Another general finding should also be highlighted: as described, IPA is a measure of policy intensity; comparing overall IPA scores with policy density (number of policy instruments) therefore reveals the effectiveness of policy design in different settings.

Figure 2 presents three diverging patterns for Germany, Australia, and New Zealand: In Germany, the gap between density and intensity remains fairly narrow until around 2007, suggesting that afterwards strategic policy planning could not keep up with the continued design of new policies. In Australia, the gap is large from the beginning and continues to increase until peaking in 2012, indicating a complete lack of strategic planning. In the third case, New Zealand, the gap between policy density and intensity is drastically reduced after 2009, suggesting a concentration on fewer, but clearly defined policy instruments.

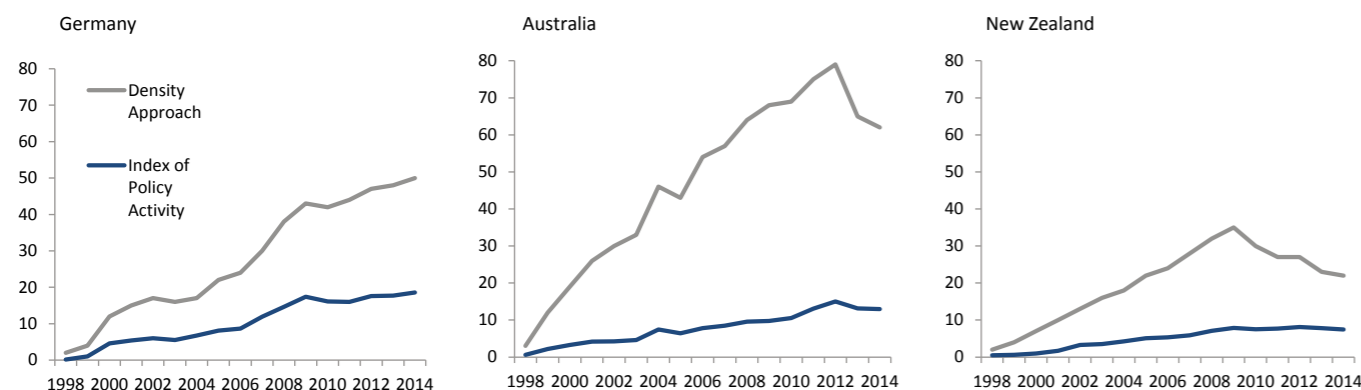


Figure 2: Index of Policy Activity (i.e., policy intensity) vs. Density Approach (i.e., number of policy instruments). (source: EPG, ETH Zurich)

Assessing policy mixes' effectiveness

By producing a systematic and comparable dataset, IPA can help to answer a number of important research questions, foremost the question of policy mixes' effectiveness in facilitating the energy transition. At the Energy Politics Group, we will begin to tackle this decisive question once the dataset is large enough to apply statistical inference. Further research topics include policy mixes' innovativeness (Schaffrin et al., 2014). And the effect of integrated policy strategies on long-term policy processes (e.g. "layering", "drift", "conversion", "replacement") which are discussed in the literature but have rarely been analyzed on a systematic data basis. Although to date IPA has only been applied to energy policy, it is designed to assess any policy, regardless of the policy field or context and provide comparable datasets. Consequently, IPA will be applied for a comparative study on the impact of the financial crisis on environmental policy (broadly defined) as well as for an analysis of the effect of clientelism on social policy in Mexico, currently conducted by CIS's Saskia Ruth from the University of Zurich.

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Sebastian Sewerin joined the Energy Politics Group as a Postdoctoral Researcher in October 2015. In his research, which is published in *Policy Studies Journal* and *Environmental Politics*, he analyzes policy change in countries' energy policy portfolios and the impact of technological change on energy politics. Currently, he works on a conceptual study of the logics of policy change in the energy sector.

Looking Back at a Year of Great Talks

CIS Colloquia 2015

SPRING SEMESTER 2015

13.02.15	Philipp Roessler, College of William and Mary	The Societal Origins of Powersharing: Ethnic Geography, Threat Capabilities, and Horizontal Accountability in Weak States
19.02.15	Nikolay Marinov, University of Mannheim	Does Social Media Promote Civic Activism? Evidence from a Field Experiment
26.02.15	Armin Schäfer, Max-Planck-Institute for the Study of Societies	The Poor Representation of the Working Class
05.03.15	Rainer Bauböck, European University Institute	Three Principles of Democratic Inclusion
12.03.15	Jan Rovny, University of Gothenburg	Communism, Federalism and Ethnic Minorities: Explaining Party Competition Patterns in Eastern Europe
19.03.15	Noam Lupu, University of Wisconsin-Madison	What Good is a College Degree? Education and Leader Quality Reconsidered
10.04.14	Andreas Dür, University of Salzburg	How and When Interest Groups Manage to Sway Public Opinion
28.04.15	Alois Stutzer, University of Basel	Voting Rights and Migrant Integration: Evidence from a Natural Experiment
30.04.15	Michael LaCour, UCLA	When Persuasion Works, Lasts and Spreads: Evidence From Longitudinal Field Experiments on Gay Equality and Abortion
07.05.15	Cedric Dupont, Graduate Institute Geneva	Uncertainty and the Design of Regime Complexes
12.05.15	Kyle Beardsley, Duke University	The UN and Intrastate Armed Conflict Prevention
21.05.15	Arthur Lupia, University of Michigan	Political Knowledge: What Citizens Need to Know, and How to Teach Them

FALL SEMESTER 2015

18.09.15	Kaare Strom, University of California, San Diego	Powersharing and Democratic Consolidation
24.09.15	Robert Luskin, University of Texas, Austin	Deliberative Distortions? Homogenization, Polarization, and Domination
01.10.15	Erin Jenne, Central European University	Nested Security: Lessons in Conflict Management from the League of Nations and the European Union
08.10.15	John Ahlquist, University of California, San Diego	Slouching Towards Authoritarianism? Evidence from Survey Experiments Around the 2014 Hungarian Elections
15.10.15	James Holloway, Graduate Institute Geneva	Old Tie, New Tie: Interdependent Episodes of Environmental Cooperation
22.10.15	Sergi Pardos-Prado, Merton College, Oxford	Corruption and Support for Fiscal and Political Decentralisation
29.10.15	Robert Johns, University of Essex	Brexit? Assessing the Malleability of British Public Opinion on EU Membership
05.11.15	Waltraud Schelkle, LSE European Institute	The Political Economy of Monetary Solidarity
12.11.15	Christelle Dumas, University of Fribourg	Shocks and Child Labour: The Role of Markets
19.11.15	Katerina Linos, University of California, Berkeley	Designing Effective National Human Rights Institutions: Interrogating Form and Function
26.11.15	Daniel Mügge, University of Amsterdam	The Political Economy of Inflation Measurement
03.12.15	Jane Gingrich, University of Oxford	Do Cutbacks in the Welfare State Shape What Citizens Want From It? A Cohort Analysis of Welfare Attitudes
04.12.15	Charles Ragin, University of California, Irvine	Using Fuzzy-Sets to Study Configurations of Conditions and Outcomes
08.12.15	Gary Goertz, KROC Institute	The Puzzle of Peace: The Evolution of Peace in the International System
17.12.15	Elias Dinas, Oxford University	Interrupted Continuities: Historical Legacies and the Politics of Crisis in Greece

Roundup of Developments

Thomas Bernauer published a guest commentary in NZZ Online about the UN Climate Change Conference of November 2015 in Paris. The title was "Taktgeber oder nur Begleitmusik? Sollte die COP keine Verhandlungsfortschritte bringen, stehen der Klimapolitik magere Zeiten bevor" (1 December 2015). The full text was published in the "Zukunftsblog" of ETH Zurich the following day.

Jørgen Bølstad, Post-doc at CIS, has accepted a position as an Assistant Professor at ARENA – Center for European Studies at University of Oslo February per 2016.

Sarah Bütikofer, Fabrizio Gilardi and **Georg Lutz** started their Swiss National Science Foundation (SNSF) Agora Project, a new online-platform that aims to promote the spread of knowledge, as well as the exchange of views and perspectives about research in political and social science.

Paula Castro received a grant from the Swiss National Science Foundation (SNSF) for organizing an International Exploratory Workshop about "Understanding data frontiers in climate governance research" in February 2016. Furthermore, Paula Castro was offered a postdoctoral fellowship at the Centre for Global Cooperation Research at the University of Duisburg, starting in March 2016.

Lars-Erik Cederman was invited to give two lectures: "Inequality, Grievances and Conflict" (Presentation at Expert Group Meeting) at the United Nations Human Rights Office, in Geneva, 8–10 July, and, with **Philipp Hunziker**, "Modeling Political Violence: New Tools and Techniques" at a Swiss Re PRI Event, on July 8.

Lars-Erik Cederman, Kristian Gleditsch and **Halvard Buhaug** obtained the ISA Best Book Award 2015 from the International Studies Association for the book "Inequality, Grievances and Civil War."

Francis Cheneval received funding from the Swiss National Science Foundation (SNSF) for his research project "The Anatomy of Systemic Financial Risk: Combining Ethical, Political and Economic Dimensions for Public Policy," with **Dirk Helbing, Didier Sornette** and **Stefanie Walter**. It investigates systemic financial risk (SFR) from the perspectives of economics, political science and ethics.

Kimberly Cowell-Meyers was an academic guest at **Fabrizio Gilardi's** chair. She is Assistant Professor of Government and affiliated faculty with the Women and Politics Institute at American University. Her work focuses on the politics of gender, religion and identity, including the role of gender in institutions such as legislatures and political parties.

Fabrizio Gilardi received two grants from the Swiss National Science Foundation (SNSF) for the projects "Politica: A Political Science Online Platform" and "Role Models and the Supply Side of Women's Representation." He is collaborating with Charles R. Shipan, University of Michigan, on a further project, "Measuring Policy Diffusion with Automated Content Analysis," and with Nils Weidmann, University of Konstanz, on the project "Democratic Diffusion and the Arab Spring."

Cristina Gherasimov from Rutgers University was an academic guest at CIS in September 2015. Her research focus was Post-Accession Democratic Backsliding in the New Europe.

Lukas Haffert was awarded the Otto Hahn Medal by the Max Planck Society for his thesis "Freiheit von Schulden – Freiheit zum Gestalten? Die Politische Ökonomie von Haushaltsüberschüssen." His thesis also won him the second prize in the German Thesis Award (Deutscher Studienpreis) by the Koerber Foundation. Since July 2015, he has been a post-doctoral researcher at the Chair for Swiss Politics and Comparative Political Economy (IPZ).

Jonas Hagmann received an Ambizione Fellowship grant from the Swiss National Science Foundation (SNSF). The research project examines how

urban security dispositives are turned towards an integrated management of local, national and international dangers of all sorts. It analyzes how this process includes use of new tools and actors, and integration and internationalization of existing ones, and how it is influenced by political systems, technological access, cultural influences and traditions of urban planning.

Since February 2015, **Dominik Hangartner** leads the new research group "Migration and Integration Policy" and the associated Migration and Integration Policy Lab (MIPL) at IPZ.

Dominik Hangartner and **Marco Steenbergen** received a grant of CHF 243,000 from the Swiss National Science Foundation (SNSF) for their project "Public Attitudes toward Asylum across Europe." It studies public opinion toward asylum seekers and asylum policies by conducting a large-scale survey in fifteen European countries.

Philipp Hunziker was honored with an ETH Medal for his PhD dissertation "Civil conflict in petroleum-producing regions." His supervisor was **Lars-Erik Cederman**.

Silja Häusermann is collaborating with Bruno Palier on the project "World Politics of Social Investment" (2015–2019). It analyzes the determinants of reform agendas and reform outputs in the field of social investment in Europe, Latin America and South East Asia.

Silja Häusermann, Hanspeter Kriesi, Gerold Schneider and **Bruno Wüest**, hosted a symposium on "New Frontiers of Automated Content Analysis in the Social Sciences," 1–3 July 2015, at ETH and UZH Zurich.

Silja Häusermann, Denise Traber and **Thomas Kurer** received funding over CHF 350'000 from the Swiss National Science Foundation (SNSF) for their project "Hard Choices: Trade-Offs and Reform Opportunities in Swiss Pension Politics" (2015–2018). They will examine the conditions under which welfare states can be reformed, and, more specifically, how established social policy programs can be adapted to changing demographic, economic and social constraints.

Lea Heyne, with **Alice el-Wakil** and **Lukas Peter**, obtained the Graduate Campus Grant by the UZH Graduate Campus for the event series "Democracy – Bridging Facts and Norms."

The International Conflict Research (ICR) group had a very productive year. The full update of the Ethnic Power Relations dataset, which extends from 2009 to 2013, was completed in March 2015 [see Vogt et al. 2015, Journal of Conflict Resolution]. In April, it hosted a two-day workshop on inequality and conflict, with the European Network of Conflict Research and help from CIS. In September, the ICR group obtained the J. D. Singer Data Innovation Award for the GROWup data portal from the APSA Conflict Processes Section. Work progressed in a number of projects, including the R4D Project "Ethnic Power Relations in Fragile States," "Ethnic Inclusion and Power-Sharing Institutions," "Civilian Victimization and Conflict Escalation," and "Causes and Consequences of Irredentism."

Andreas Kaufmann won the Semester prize of the University of Zurich for his MA thesis "UN Multidimensional Peacekeeping: A Double Edged Sword for Democratization?," supervised by **Daniel Bochsler**.

Andreas Kern visited the Chair of International Relations and Political

Economy of **Stefanie Walter** for three months in summer. He is Visiting Assistant Professor at the McCourt School of Public Policy at Georgetown University. His research focuses on international relations with special emphasis on the role of various political and economic risks in shaping macroeconomic and financial stability.

In October, the UZH-ETH Network for Interdisciplinary Climate Research and Zurich Carbon Market Association, with **Axel Michaelowa, Paula Castro** and **Markus Ohndorf**, hosted the one-day workshop "What Ambition for Paris?"

On November 9, 2015, **Katharina Michaelowa** hosted a workshop together with the German Development Corporation (GIZ) at IPZ. She welcomed a delegation of Vietnamese public officials and researchers, who sought information on the transformation of the Swiss economy into a "Green economy."

Katharina Michaelowa and **Isabel Günther** held a PhD Workshop for the Development Economics Group of the German Economic Association 11–12 November 2015.

Santiago Lopez-Cariboni and **Irene Menendez** are collaborating on the project "Explaining the Rise of Non-Contributory Cash-Transfer Programmes in the Developing World."

Raphael Reinke won the Linz-Rokkan Prize for the best thesis in political sociology, awarded by the European University Institute, Florence. His dissertation carries the title "The Politics of Banking Bailouts" and was supervised by **Stefanie Walter**.

In January 2015, **Frank Schimmelfennig** was nominated as the President of the European Community Studies Association of Switzerland.

Tobias Schmidt obtained a grant by the ETH Foundation for his Seed Project, titled "Enabling Deployment while Leaving Room for Experimentation: Toward a Framework for Renewable Energy Financing in Emerging Economies."

Nadim Schumann was awarded the IPZ Dissertation Prize by the Institute of Political Science of the University of Zurich for his research on "Human Capital, Labor Markets and Remittances in Francophone Sub-Saharan Africa: An Analysis Using Education and its Impact in Senegal", supervised by **Katharina Michaelowa**.

Livia Schubiger won the SIAF Award 2015 for the best social science dissertation at ETH/UZH during the past three years. Her thesis' title is «Repression and Mobilization in Civil War: The Consequences of

State Violence for Wartime Collective Action». It was supervised by **Lars-Erik Cederman**. The award is endowed with CHF 10,000. Livia Schubiger has meanwhile joined the London School of Economics' Department of Government as an Assistant Professor in Comparative Politics (tenure track).

Hanna Schwander, former doctoral student at IPZ, currently at University of Bremen, will return to IPZ in Summer 2016, to the group of **Fabrizio Gilardi**, since she has won an Ambizione Fellowship with the SNF.

Stefanie Walter chaired the CIS Spring and Fall Colloquia (see p. 31), which address post-doctoral researchers, doctoral students and student assistants of the chair. She is currently collaborating with Mark Copelovitch and Jeffry Frieden on the project "The Political Economy

of the Euro Crisis" (2013–2016), and with Elias Dinas, Ignacio Jurado, and Nikitas Konstantinidis about the "Crisis Politics in Greece."

Thomas Winzen was a Visiting Fellow at Maastricht University in June 2015. In September 2015, he was nominated as a Member of Editorial Board of the Journal of European Public Policy. From September 2015 to February 2016, he was as a Fellow at the Minda de Gunzburg Center for European Studies at Harvard University.

David Willumsen joined IPZ as an academic guest. At the University of Munich, he works on a DFG-funded research project on the effects of staggered membership renewal on parliamentary behavior.



Letting ideas flow in Ticino

A change of scenery can boost scientific initiative. This is why, in June 2015, the International Relations Chair of Thomas Bernauer spent three days in Castasegna in Ticino, Switzerland, to recharge, brainstorm and exchange research ideas. Their retreat hike led them to this impressive waterfall close to Caroggia. It was already for the third time that the group had come to the picturesque village of Castasegna close to the Swiss-Italian border to enjoy the tranquility, the relaxing walks in the nearby chestnut forest - giving the village its name - and to enjoy the great hospitality at Villa Garbald. *qun* (photo: pad)

CIS Publications

Bamert, J., Gilardi, F., & Wasserfallen, F. (2015). *Learning and the diffusion of regime contention in the Arab Spring*. *Research & Politics*, July-September 2015 (1–9).

Battke, B., & Schmidt, T. S. (2015). Cost-efficient demand-pull policies for multi-purpose technologies – The case of stationary electricity storage. *Applied Energy*, 155, 334–348.

Bening, C. R., Blum, N. U., & Schmidt, T. S. (2015). The need to increase the policy relevance of the functional approach to Technological Innovation Systems (TIS). *Environmental Innovation and Societal Transitions*, 16, 73–75.

Beramendi, P., Häusermann, S., Kitschelt, H. & Kriesi, H. (2015). *The Politics of advanced capitalism*. Cambridge: Cambridge University Press.

Bernauer, T., & Gampfer, R. (2015). How robust is public support for unilateral climate policy? *Environmental Science and Policy*, 54, 316–330.

Bernauer, T., Jahn, D., Kuhn, P., & Walter, S. (2015). *Einführung in die Politikwissenschaft*. (3rd ed.). Baden-Baden: Nomos/UTB.

Betz, R. S., & Schmidt, T. S. (2015). Transfer patterns in Phase I of the European Union Emissions Trading System: A first reality check based on cluster analysis. *Climate Policy*.

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Blum, N. U., Bening, C. R., & Schmidt, T. S. (2015). An analysis of remote electric mini-grids in Laos using the "Technological Innovation Systems" approach. *Technological Forecasting and Social Change*, 95, 218–233.

Bochsler, D. (2015). Bending the rules: Electoral strategies under mixed electoral systems. *Representation*, 51(2), 261–7.

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Germann, M., Mendez, F., Wheatley, J., & Serdült, U. (2015). Spatial maps in voting advice applications: The case for dynamic scale validation. *Acta Politica*, 50(2), 214–238.

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Word Cloud of CIS PhDs

The Most Frequently Used Words of CIS PhDs of the year 2015



[Source: Abstracts of CIS PhD theses 2015, see p. 39ff.; graphics: www.wordle.net]

PhDs in 2015

Don't steal my steel: How interest groups systems impact iron and steel policies

Ruth Beckmann

Supervisor: Prof. Dr. Stefanie Walter



Interest group researchers have just begun to take into account contextual factors. This

has inspired my research question: Do some countries' institutional configurations of interest group systems make it easier for such groups to achieve favorable policies? I distinguish between pluralist interest group competition and corporatist interest group coordination.

I argue that countries that exclusively show competition or coordination in their interest group system show less special interest policies than countries with mixed interest group systems.

The argument is tested through fuzzy-set qualitative comparative analysis (fsQCA) and comparative case studies of Germany and Belgium. The domain of iron and steel policies is used as an application for interest group friendly policies because such industries can be found in industrialized and industrializing countries opening the sample from OECD countries to include Brazil, Russia and India as well. The findings support the argument and enable insights into the mechanism of interest group influence in coordinated interest group systems.

Modernity: From Mohammed to Atatürk – An analysis of the Turkish path into modernity based on the theory of communicative action by Jürgen Habermas

Ali Demir

Supervisor: Prof. Francis Cheneval



Especially today there seems to be a total antagonism between Islam and modernity. My

take on modernity is based on a theory advocated by Jürgen Habermas, according to which individual ideas and interests in the form of universally valid general legal principles immerse into a communication with culturally pre-existing visions of the world. According to Emile Durkheim, not only Christian people but human beings in general establish communication with extraordinary powers within religion. It is a form of communication that humans use for the development of abstract principles.

I do not subscribe to the Protestant theory of ethics by Max Weber but share the view that Islam also has the capacity for the development of non-hierarchical interactions. In this context, I explain, with reference to e.g. Al-Fârâbi (872–951 A.D.), the development of the philosophy, the inner-worldly asceticism by e.g. Farîd ad-Dîn Attâr

(1150–1230 A.D.) and the mysticism within Islam by e.g. Ibn Arabi (1165–1240 A.D.). I also show that these favorable conditions did not lead to modernity in the Ottoman Empire.

The opposite was the case, and within three centuries, the legacy of the Islamic Caliphate degenerated into a state of waging wars. The state took control of the coordination of its citizen's daily activities. The Ottomans turned to modernity only in the 19th century thanks to the French Revolution. Society began to prefer democracy and the rule of law to the Islamic ethics. The state's reaction were projects of modernization leading to national independence movements. Paradoxically, the Turks had to face the fact that as a people, they had shrunk from an imperial world power to a minority within borders defined by Western powers. The answer of the Turks was total warfare on the one hand and the total separation of religious ethics from state interests (laicism) on the other hand. From that point on, modernity represented political inclusion and exclusion of Western culture at the same time: inclusion because it promised the paradise on its territory and because by defining itself, it created "the other," and exclusion because its territory had to be defended against invaders with high fences.

“Zwischenstadtland Schweiz” – The local governance of suburban development in nine Swiss municipalities

Lineo Devecchi

Supervisor: Prof. Daniel Kübler



I focus on ongoing suburban development processes in Switzerland. I investigate

different forms of local planning governance and provide reasons for different paths of spatial development – that is, rapid urban sprawl versus intensified densification processes.

My main contribution lies in the formulation of a descriptive typology which includes observations of a liberal-passive, an interventionist and an active type of local governance that can be distinguished by different sets of adopted policy instruments and policy agendas. In liberal municipalities, the planning and realisation of development projects are mainly pursued by private investors on the basis of general zoning plans. In interventionist and active municipalities, public actors intervene much more in privately planned projects. As compared to liberal-passive municipalities, such intervention is carried out on behalf of publicly discussed goals and with the benefit of more public (green) spaces, infrastructure for slower moving traffic, and denser new housing areas. A necessary condition for interventionist and active governance is a certain degree of administrative-political professionalization (professional and strategic public planning or full-time mayors).

The role of trust in European monetary union

Christoph Elhardt

Supervisor: Prof. Frank Schimmelfennig and Prof. Andreas Wenger



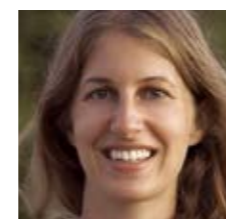
The aim of this dissertation is to engage the growing theoretical literature on trust in

international relations and to analyze the role of trust within European Monetary Union (EMU). In the two single-authored papers in the first part of the dissertation, it is shown that both the creation and institutional design of EMU depended on a considerable amount of trust among Europe's governments. The two co-authored papers in the second part investigate to what extent policy makers on the national and European level were able to gain and preserve bond markets' trust during the Eurozone crisis. The findings suggest that national governments were not able to gain or preserve investors' trust through their reform efforts and crisis measures. By contrast, markets mainly reacted to signals coming from the European level as they questioned the capacity of the Euro's periphery to implement the necessary reforms to remain solvent.

The quality of representation in plural societies: An analysis of the causes and consequences of policy responsiveness towards ethnic minorities

Miriam Hänni

Supervisor: Prof. Daniel Bochsler



What are the causes and consequences of policy responsiveness towards ethnic minorities?

The literature suggests that most democracies are reasonably responsive towards their citizens. However, it overlooks still existing limits of policy responsiveness as it predominantly focuses on responsiveness towards the median and ignores responsiveness towards minorities. I address this gap in literature. I argue that the primacy of the median voter is normatively problematic in plural societies. I then focus on the causes and consequences of policy responsiveness towards ethnic minorities, arguing that it is higher when groups are descriptively represented in parliament by members of their own group. I then focus on the consequences of policy responsiveness for democratic stability. I argue that groups who are dissatisfied with the way the government responds to their preferences are more likely to lose trust in the political system and to engage in protest against the state. These hypotheses are then tested with novel data on “Ethnic Minorities in Democracies” that extends previous datasets in space and time.

The political economy of microfinance

Aliya Ali Khawari

Supervisor: Prof. Katharina Michaelowa



Macroeconomic infrastructures and conditions alone fail to enable the provision of successful

microfinance services to low income populations. The main focus of this dissertation is to show that microfinance institutions' (MFIs) social embeddedness and closely associated factors like social institutions, cultures, norms and the social life of microcredit increasingly shape the demand for microfinance. How and to what extent does the conflict of preferences of various communal groups and actors within the operational spheres of MFIs affect their success?

The study analyzes specific aspects of this question at several levels: at the aggregate household level and within the social and political milieus of the communities within which MFIs operate. One of the focal points of the analysis is the role that the familial and social spheres of women MFI clients play in their decision to take out a loan and become an MFI client and in their journey toward some level of financial independence. To this end, it makes use of the bargaining framework theory to analyze how power positions and decision making is negotiated and contested within households and communities targeted by MFIs.

The qualitative empirical analysis focuses on uptake of loans provided to women by two South Asian MFIs, one based in India and the other in Pakistan.

Contents of the politicization of European Integration: Actor positions and selective emphasis at the level of EU sub-issues

Simon Maag

Supervisor: Prof. Hanspeter Kriesi



European integration is one of the globalization-related issues that has

been become increasingly politicized since the 1990s. Most recently, debates about the management of the Euro zone and European asylum policy have raised the topic to the top of political agendas. Against this background, my thesis addresses two main questions: How do political actors position themselves towards European integration sub-issues in public debates? And which facets of European integration do they emphasize or avoid in these debates? These and other questions are examined in three cross-country comparative papers.

The thesis relies on quantitative data based on coded newspaper content. It demonstrates that present-day public debates are dominated by a crude opposition between strictly Eurosceptic niche parties and vaguely pro-European mainstream parties. However, it also shows that mainstream parties actually hold elaborated, competing visions of the future European Union.

Thus, there is an unexploited potential for a less disruptive debate should mainstream parties be willing to shape controversies over Europe more actively.

Protest during regime change: Comparing three democratizing countries in (South-) East Asia, 1985–2005

Linda Maduz

Supervisor: Prof. Katharina Michaelowa



Recent waves of mass demonstrations in the Arab world have attracted renewed

scholarly and political attention to the question of the role of grass-root movements in political change. Political scientists traditionally looked at mass movements as being passive actors in the political transition process, which can be mobilized and de-mobilized by the political elite. The thesis challenges this view and aims at combining the political science literature with insights from other disciplines. The experience of newly democratized countries in East and Southeast Asia provides an interesting empirical basis to study how key stages in the transition process are related to mass mobilization. Relying on a newly constructed dataset of protest events (1986–2005), the study analyzes similarities and differences between mass mobilization and respective actions and responses by elite actors in three countries, namely Indonesia, Thailand and South Korea. The parameters of comparison with regard to protest mobilization are the composition of actor groups participating in the protest activities, their aims and targets, as well as the forms of protests chosen. It is shown that movement actors are active actors in the course of transition, having their own means and goals in influencing the transition process.

To trade or not to trade: Examining the social foundations of individual trade policy preferences

Quynh Nguyen

Supervisor: Prof. Thomas Bernauer



Numerous protests and movements around the free trade debate show that popular support

for or against international trade can have considerable impact on trade policy decisions. The question of which factors determine individual trade preferences has established itself as a central area of inquiry in the political economy literature.

Analyzing the micro-level foundations of trade policy, this dissertation focuses on two closely related questions. The first is whether trade attitudes mirror individuals' evaluation of trade's impact on their personal material welfare or their assessment of trade's effects on their country as a whole. The second question explores the extent to which non-material considerations play a role in individuals' trade preference formation in contrast to the standard approach of conceptualizing international trade effects exclusively in terms of material gains and losses.

Overall, the findings from the individual chapters highlight the importance of a broader understanding of how individuals perceive and process the effects of international trade.

Public demand and climate change policy-making

Bianca Oehl

Supervisor: Prof. Thomas Bernauer



Developed countries have implemented policies varying widely in range and ambition over time and

across countries in order to limit climate change. Can this variation in policy-making be explained by differences in the typically taken for granted – but empirically often neglected – influence of public demand for climate protection?

Public demand is addressed from different angles in this thesis. First, the influence of the business cycle on public demand for climate protection is examined for 27 countries between 2004 and 2013. The results indicate that neither consumer confidence indicators nor unemployment rates could explain rises in demand for climate protection. I then focus on the convergence of newspaper content and examine reporting on climate change in six countries between 1995 and 2010. The findings confirm that convergence is moderated by the media system types. The third part proposes to take published opinion and media salience as proxies for public demand. Finally, the fourth part examines if and under which conditions they impact climate policy making in six countries between 1995 and 2010. The results show that both influence the sheer number of policies adopted but only the salience matters for the scope of climate change legislation.

Careers, candidacy strategy and gender: Individual legislative behaviour in the German Bundestag

Tamaki Ohmura

Supervisor: Prof. Stefanie Bailer



What drives an MP's legislative behavior in a party-dominated system? I investigate this question from

three different perspectives.

First, from a career-oriented perspective, I analyze the pre-parliamentary career path of MPs and their subsequent success within parliament as well as the activity levels according to MPs' career stage. Second, the thesis analyzes the effects of the mixed-member proportional electoral system on legislative decision-making, in the tradition of rational-choice institutionalism. Third, my thesis considers personal characteristics, specifically gender, in an MP's choice to actively engage in and influence legislation on women's issues. Female MPs are shown to not only be more proactive but are also more willing to cross party lines to further legislation improving women's position in society.

This thesis illustrates the insights that are to be gained by studying MPs at the individual level, even when they are active in a highly regulated institutional and party group dominated setting such as the German Bundestag.

Knowing democracy – A pragmatist account of the epistemic dimension in democratic politics

Michael Räber

Supervisor: Prof. Francis Cheneval



This thesis provides a pragmatist-inspired interpretation of the notion “democracy

tracks the truth,” a metaphor that goes to the heart of what epistemic democrats hold, namely that democratic deliberation and decision-making procedures tend to get it right. In particular, this thesis argues that by establishing a partial equality in epistemic authority and by including many diverse (disagreeing or dissenting) viewpoints into deliberative environments, such environments tend to give rise to a higher epistemic quality of individual and collective judgments.

What seems like a contradiction in terms turns out to be one key element for a proper interpretation of the idea that democracy via deliberation has “truth-tracking” capability. As ramified as the now rich debate under the header “epistemic democracy” has become, what is still lacking in the debate is a clearly stated and thoroughly developed conceptual elucidation of the epistemic underpinnings that are at stake here. And these underpinnings have extensive consequences for how we can reasonably talk about the epistemic dimension of democratic deliberation. The aim of this thesis is to fill this lacuna in the literature.

Human capital, labor markets and remittances in francophone sub-Saharan Africa: An analysis of education and its impact in Senegal

Nadim Schumann

Supervisor: Prof. Thomas Widmer



The thesis sets out to analyze a number of education-related questions in Francophone

Sub-Saharan Africa using data from Senegal. While the region has seen some progress in the recent past, there is much scope for quantitative and qualitative improvements. A distinct feature are high grade retention rates that can be costly to households and governments. I analyze the effect of retention on student achievement and do not find a positive relationship between the two. Investigating further the relevance of human capital, I look at the flow of remittances into Senegal which make up an important share of the country's GDP, analyzing the effect of remittances on employment types depending on the education level of recipients. More highly educated men are more likely to be self-employed when they receive remittances. However, this is apparently not the case for women. Finally, I examine the possibility of a virtuous circle where remittances increase child schooling and more schooling could then lead individuals to have better labor market choices. The results, however, suggest that remittances do not lead to an increase in child education.

Policy design, innovation and diffusion: Evidence from cantonal public health policies in Switzerland

Cornelia Stadler

Supervisor: Prof. Katharina Michaelowa



What difference do the attributes of innovative policies make? Do certain attributes

render policy adoption more likely? Addressing such questions, my thesis focuses on aspects that have been largely ignored in research.

In conceptual terms, it studies attributes that are inherent in the particular design of each policy, including the designated beneficiaries, degree of intervention, complexity and costs. In empirical terms, it traces the patterns of adoption of innovative public health policies among the Swiss cantons between 1993 and 2013. Statistical analyzes are based on event history models. The most important finding is that the Swiss cantons are more likely to adopt complex and costly policy innovations if other cantons in the region have done so before. In contrast, in the case of policies that are low in complexity and costs, the cantons are found to innovate independently of each other.

Thus, interdependent decision-making appears to arise from the motivation to reduce the financial risks associated with the adoption of costly innovations and to lower the investment of technical expertise that the adoption of complex innovations requires.

CIS on a Mission in Paris

Hosting Side Events at the UN Climate Change Conference

Abhishek Malhotra (CIS)

Several CIS members of both UZH and ETH attended the United Nations Climate Change Conference in Paris (COP21) in December 2015. The climate negotiations resulted in an agreement of 196 countries to limit greenhouse gas emissions to an extent that allows to stay well within the 2° global warming limit.

Two official side events were organized by UZH and ETH and additional talks were given at other occasions. UZH together with ETH also set up an info kiosk at the COP.

Audience magnets

The side event "Effective climate finance and carbon market solutions for INDC implementation" was convened by the University of Zurich, the Government of Vietnam and the German Emissions Trading Association on Dec. 3, 2015. It attracted 200 participants – a record level in the history of the University of Zurich COP side events. Representatives of the Vietnamese government provided insights into the design of Vietnam's INDC, while Stephan Hoch (Perspectives) discussed how the lessons from development of programs of activity under the CDM could inform allocation of funding by the Green Climate Fund. Christian Huggel (UZH) showed how funding for adaptation projects could be structured taking into account various levels of governance.



The UZH-ETH Network for Interdisciplinary Climate Research – with, from left to right, Abhishek Malhotra, Chandreyee Bagchi, Tobias Schmidt, Katharina Michaelowa and Axel Michelowa and, not in photo, Paula Castro – were hosts at a side event and booth at the UN Climate Change Conference of November 2015 in Paris. (photo: Katharina and Axel Michaelowa)

The side-event "Scaling-Up Investment in Clean Energy in Developing Countries" was co-organized by ETH Zurich's Energy Politics Group (EPG) together with the UK-based Institute of Development Studies (IDS) and the Renewable Energy and Energy Efficiency Partnership (REEEP). It attracted around 60 participants and discussed the role of policy and politics in making renewable energy investments in developing countries attractive for the private sector. CIS

PhD student Abhishek Malhotra provided insights in the EPG study on portfolio de-risking for off-grid electrification projects, while Tobias Schmidt (EPG, ETH Zurich) moderated the event.

Welcoming New Staff



Tobias Schmidt

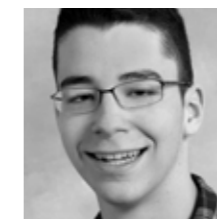
Assistant Professor for Energy Politics

Tobias Schmidt joined ETH Zurich as Assistant Professor for Energy Politics in February 2015. He has an interdisciplinary background covering engineering, management/economics and public policy – all with a focus on innovation.

His research – published in journals such as Nature Climate Change, Research Policy, Technological Forecasting and Social Change, Applied Energy, Energy Policy and Climate Policy – focuses on the interaction of energy policy and its underlying politics with technological change in the energy sector.

In his leisure time, Tobias Schmidt enjoys singing in a choir, ski touring, hiking and catamaran sailing. He lives in Zurich near ETH. *ps*

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Basil Dias

Commercial Apprentice

Basil Dias joined CIS in August 2015 for a three-year commercial apprenticeship (KV).

He works in the office of Susi Boehm, who supervises him together with Benita Cserépy, and follows classes at KV Zürich Business School. As a language lover, he has chosen the extended profile with two foreign languages.

Basil lives in Wädenswil and enjoys playing wheelchair basketball, reading fiction of all sorts and listening to audiobooks. *ebi*

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A Warm Farewell



Maya Sela Mozafar Office Management and Communications

From April 2010 to December 2015, Maya Sela Mozafar ran the CIS office, organized the Spring and Fall Colloquia, the Annual Colloquia at Uetliberg and Zurichberg and edited "CIS News." Her serene and cheerful manner and constructive collaboration were deeply appreciated by staff and students. Maya Sela Mozafar has left CIS to make time for her new family member Ava Linnéa, who was born on 15 January 2016 as the third child of her family.

From January to the end of April 2016, Iwona Eberle is handling Maya Sela Mozafar's tasks. *ebi*

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Selina Oggier Commercial Apprentice

After three years at CIS, Selina Oggier successfully completed her commercial apprenticeship in August 2015. The CIS News editorial team offers her their warm congratulations! Selina has moved to the ETH Accounts-Payable Department. *ebi*

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“There are so many pressing social problems”

Hiba Asad from Lahore, Pakistan, is a second-year MACIS student. She is driven by an urge to solve social problems, both in the world and in her home country.

Iwona Eberle

You have literally come a long way, from Pakistan and the US to the UK and now Switzerland. Why have you chosen MACIS?

Hiba Asad: I felt that this course was designed for me. I have always had a humanistic instinct, which was not satisfied in my BSc studies, that is Economics and Finance, or in my MSc in Human Resources Management and Industrial Relations. There are so many pressing social problems, like illiteracy, lack of access to or poor healthcare or violent extremist ideologies. I would like to contribute to solving them, perhaps by starting my own NGO, building a school or hospital in my home country of Pakistan. I hoped this course would give me knowledge and skills to help people.

And how is the program going for you?

It is very interesting. I'm struggling a bit to keep up, though, because I had a baby in November last year. My husband is in the last year of his PhD, so he can't help much, and childcare absorbs a lot of time and energy.

What has been your favorite MACIS course so far?

I liked the elective course on Public Institutions and Policy Making Processes because I gained insights into the structure and characteristics of bureaucracy, its problems and contributing factors. Another favorite course was the one on Political Violence. It made me see to what extent conflicts are governed by political agendas.

How do you experience life at CIS?

The professors are very approachable and friendly. Being a Muslim and wearing a headscarf, I have never felt out of place at CIS. I have been somewhat surprised, though, that there is not much knowledge about Muslim customs here in Switzerland, for example food taboos. That was different in the UK. I would appreciate more opportunities for cultural dialogue within the MACIS program.



Hiba Asad, MACIS-Student (second year). (photo: pad)

Are there any other changes you would like to see in the program?

I feel like there should be more group projects and group presentations. The exchange of perspectives would broaden students' horizon and increase solidarity amongst them. There should also be more extracurricular activities on the campus, for example movie or pot luck nights! Everybody leaves at five o'clock, and the library is closed, so you can't have study dates. Basically, everybody fend for themselves.

Where would you like to go after MACIS?

I would love to work for the United Nations or any other international and multicultural organization one day, and make a difference. However, no matter where I end up, my ultimate goal in life is to make myself useful and benefit the maximum number of people around me.

LPG, Petrol and Kerosene

Are there alternatives to energy consumption subsidies? And how do they prevent the development of renewable energies? Martina Zahno from IPZ, UZH, is looking at such questions within her PhD research.

Iwona Eberle

What is your PhD research about?

Martina Zahno: I'm examining why fossil fuel subsidies are so important in developing countries and why they are so difficult to reform or to replace by more reasonable systems.

How come you are interested in fossil fuels?

Before my PhD, I worked in the Swiss Federal Department of Finance for four years. One of the main projects was about an incentive system, based primarily on energy and climate taxes. So I already had a professional interest in energy politics.

Why have you chosen to focus on India?

India is facing huge energy challenges. It is growing fast and the government wants to satisfy the energy needs of the population. Energy consumption subsidies have played a big role in this respect, and they have also been used to support the domestic industry. They have, though, become a heavy burden on the national budget, and they do not work socially. Energy is very unequally distributed in the population.

What do you mean inequality regarding energy?

The rich consume much more cooking gas and petrol. Only a small part of all the subsidy money benefits the poorest shares of the population. This is why

subsidies for petrol and diesel have been eliminated in recent years. And the subsidies for Liquefied Petroleum Gas or LPG, which is a widely used cooking fuel, were at least replaced by another mechanism, the so-called "Direct Benefits Transfer".

Can you elaborate on India's direct benefits system?

Indian people cannot buy LPG at low, subsidized prices anymore. Instead, they pay the full price. Then households with a registered connection get money directly back into their bank account. This is supposed to reduce leakages, that is, prevent businesses, which are not eligible, and falsely registered households from benefitting from the subsidized LPG. The government is now also planning to introduce this system for kerosene, which is the most important fuel for the poorest part of the population. Now, 50 percent of kerosene seeps away to the black market illegally, mainly because wholesalers branch it off. My Indian project partners and I plan to study the acceptance of the kerosene reform in the population and environmental impacts of potential subsidy reforms.

Does your work also involve a field study?

Yes, we conduct interviews to learn what people who use Kerosene think about reform options, in particular about replacing the current subsidies by unconditional cash-transfers. The



Martina Zahno, PhD-Student at IPZ, UZH. (photo: pad)

study will also involve an experiment. People who use kerosene will be presented with alternative scenarios of the reform. They will take their pick and explain the rationale behind it. This allows us, for instance, to examine whether the populations' response to such measures is related to a lack of experience with the formal banking system or rather to mistrust of government agents or to other factors.

What have been the main challenges of your PhD research so far?

Data collection is a bit of a challenge. There is no international definition of subsidies, for example. So the authorities that gather data use different criteria. Funding is also a hard to raise, particularly for the field study. Doing a reality check is crucial, though. With this topic, you can't just sit at a desk analyzing data, you need to get your hands dirty (laughs).

“The EU is a UFO” and Other Insights

Two CIS Master’s degree (MACIS) students’ reports about their exchange semester at the Graduate Institute Geneva

Anna Sigrist

There are these few lessons in our lives as students that somehow stick to our memory. I experienced one such lesson during my exchange semester at the IHEID, where I learned the following: the EU is a UFO. And the reason why I remember this so well has to do with the somewhat low confidence a certain Professor has in his drawing skills. But let me start from the beginning.

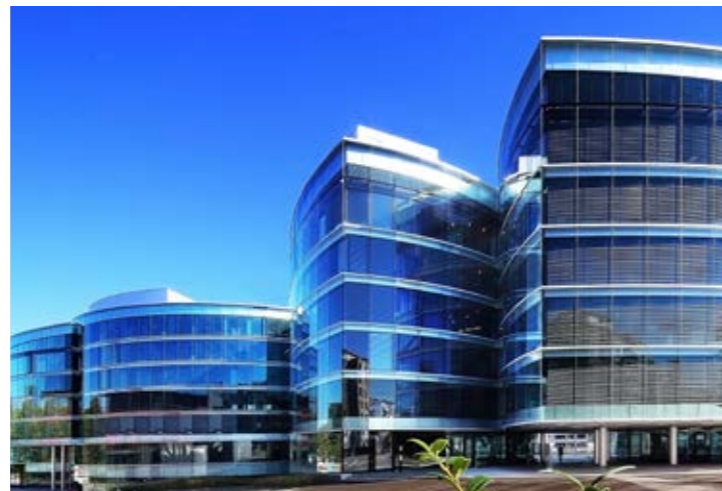
Mind-boggling doodles

It was our first session in a rather intense block seminar stretching over four days. The course dealt with the EU’s role in International Relations and was taught by a person who could be said to have some experience in this area: Professor José Manuel Barroso, former President of the EU Commission. When we entered the class room, a UFO and two hats were drawn on the white board. Later in class these two drawings were used to explain the unique characteristics of the EU to the fascinated students. Despite describing the EU as a UFO was an interesting analogy, this alone might not have been memorable as such.

It was Barroso’s excitement that made this moment special. “Oh thank you so much, you help me to overcome my drawing-complex that I have since elementary school,” he called out with delight. Whether real or not, his enthusiasm for our skills in interpreting his drawings and the little UFO on the white board will stick with me.

Rubbing shoulder with all sorts

That lesson also stands for what made the semester in Geneva such a positive and enriching experience for me: gaining new perspectives and broaden my knowledge through contacts with a broad variety of people, from public figures to experts and the professors teaching at the institute themselves. Being in Geneva and studying at the IHEID helped me to gain further insights into various issues, not only in the regular courses but also through panel discussions, briefings and lectures. Last but not least,



The Maison de la Paix in the center of Geneva is the main campus of the Graduate Institute Geneva. It was opened in 2013. (photo: pad)

I found the Institute with its very international student body to be a very stimulating learning environment. And of course I deepened my knowledge on the European Union and its uniqueness, which I will never forget.



Anna Sigrist holds a Bachelor’s degree in political science and history from the University of Lucerne. As part of her BA program, she spent one semester at the Ewha Womans University in Seoul, South Korea, where she focused on the politics and history of East Asia. After her BA degree, she worked for six months as an intern in the diplomatic section of the Swiss Embassy in Jakarta, Indonesia. She started the MACIS program at ETH, Zurich, after her return to Switzerland in September 2014. Anna Sigrist grew up and lives in Zurich.

Alessandra Romani

The exchange program at the IHEID has been a fruitful opportunity for both intellectual and personal growth for me. The academic environment has provided great complementarity to the competencies acquired at the ETH, as the offer of policy-oriented classes has comprehensively enriched the theoretical and methodological skills developed during the first year at MACIS.

The possibility to choose among the courses from all the departments of the Institute has further enabled me to enjoy the experience, both because the wide variety of backgrounds and interests of students has been thrilling and because the different perspectives through which relevant topics are analyzed have better defined the design of my Master thesis.

At a personal level, the location of the IHEID at the heart of international Geneva has been extremely motivating; besides the irreplaceable opportunity to discover the prominent organizations and institutions of global governance, the chance to attend seminars and conferences held by some of the most influential personalities of today – such as Kofi Annan or José Manuel Barroso – has challenged and inspired me at the same time.

Moreover, the combination of the recurring organization of career events and the presence of a lively community of PhD students have helped me address potential concerns about future perspectives and refine my post-Master prospects in a consistent way.

Stimulating multiculturalism

It is worth stressing that, although the general structure of IHEID programmes is more practice-oriented than the one at MACIS, the existence of different research centers (namely, the four centres on conflict, development and peacebuilding, on finance and development, on trade and economic integration and on international environmental studies) further extends the chance for intellectual specialization and creativity.

What I have appreciated is the multiculturalism that characterizes IHEID: Not only the variety of nationalities and ages has rendered the sharing of experiences and ideas extremely stimulating, but the organization of cultural nights has also contributed to my personal growth.

Moreover, the extensiveness of the exchange programmes offered by the Institute creates a constant flow of students from all over the world, thereby increasing your connections in many outstanding academic institutes.

I am genuinely satisfied with this semester abroad and that I warmly recommend it to whoever is interested in international issues.



Alessandra Romani is a second-year student in the MACIS program at ETH Zurich. After graduating in Economics at the University of Pavia in Italy, she obtained a Diploma in Humanitarian Emergencies and Interventions at ISPI Milan. She spent an exchange semester at the Graduate Institute of International and Development Studies in Geneva from September to December 2015. Her main research interests are international political economy and economic policy.

Impressions

Congratulation to Our Graduates

MACIS Graduation 2015



1 Carl v. Schweinitz
2 Frederic Hans and Prof. Lars-Erik Cederman
3 Benita Csérepny and Guy Schvitz
4 Nathalie Faoro and Prof. Lars-Erik Cederman
5 (left-right) Alper Baysan, Guy Schvitz, Nathalie Faoro, Frederic Hans, Jonas Schmid, Justus Bamert, Clint Claessen, Carl v. Schweinitz

(Photos: Frank Brüderli)

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