

Tallinn University of Technology Doctoral Theses
Series I: Social Sciences, No. 33

**Policy Learning and Policy Transfer in Policy
Environments with Weak Policy Capacity:
Exploring Processes and Effects in the Domains of
Fiscal and Innovation Policies**

ALEKSANDRS CEPILOVS

TALLINN UNIVERSITY OF TECHNOLOGY

School of Business and Governance

Ragnar Nurkse Department of Innovation and Governance

This dissertation was accepted for the defence of the degree of Doctor of Philosophy in Public Administration with specialisation in Technology Governance on 01/09/2017

Supervisor:

Prof. Dr. Ringa Raudla
School of Business and Governance
Tallinn University of Technology
Tallinn, Estonia

Co-supervisor:

Dr. Veiko Lember
School of Business and Governance
Tallinn University of Technology
Tallinn, Estonia

Opponents:

Prof. Dr. Dorothee Bohle
Department of Political and Social Sciences
European University Institute

Dr. Leonardo Pataccini
Johan Skytte Institute of Political Studies
University of Tartu

Defence of the thesis: 10/11/2017, Tallinn

Declaration:

Hereby I declare that this doctoral thesis, my original investigation and achievement, submitted for the doctoral degree at Tallinn University of Technology has not been submitted for doctoral or equivalent academic degree.

Aleksandrs Cepilovs

signature



Copyright: Aleksandrs Cepilovs, 2017

ISSN 1406-4790

ISBN 978-9949-83-157-9 (publication)

ISBN 978-9949-83-158 (PDF)

Tallinna Tehnikülikool
Sotsiaalteadused I nr 33

**Poliitikate õppimis- ja ülevõtmisprotsess
madala poliitikakujundamise võimekusega
keskkondades: protsessid ja mõju
fiskaal- ja innovatsioonipoliitika valdkonnas**

ALEKSANDRS CEPILOVS

Contents

List of Publications	6
Abbreviations	7
1 Introduction	8
1.1 Focus and aim of the thesis.....	8
1.2 Methodological approach	13
1.3 Theoretical discussion: Policy transfer and policy capacity	16
1.3.1 Instruments of policy change: Europeanisation, transfer and learning	16
1.3.2 Policy capacity of government	19
1.4 Examining the processes and the effects of policy transfer and policy learning	22
1.4.1 Policy transfer in innovation policy – policy transfer as an independent variable	22
1.4.2 Policy transfer in innovation policy: policy transfer as a dependent variable	26
1.5 Concluding discussion and directions for future research	31
References	35
Kokkuvõte	46
Publications (Articles I-V)	51
Article I	51
Article II	91
Article III	117
Article IV	135
Article V	153
Annex Article VI	179
Curriculum vitae	209
Elulookirjeldus	212

List of Publications

- I **Cepilovs, A.** 2013. "Public Procurement for Innovation in Small States: The Case of Latvia." *Rivista di Politica Economica* 2, 99-136.
 - II **Cepilovs, A.** and L. Muižniece. 2016. "Latvia after European Union Accession: Weathering the Storm?" In L. Briguglio (ed.) *Small States and the European Union: Economic Perspectives, Europa. Economic Perspectives*. Abingdon, Oxon: Routledge, 87-110.
 - III Savi, R. and **A. Cepilovs.** 2016. "Central Decisions, Decentralized Solutions: Comparing the Implications of Central Cutback Policy for the Agency Level in Estonia and Latvia." *Journal of Comparative Policy Analysis: Research and Practice*, Vol.19, 2, pp.139-154. <http://dx.doi.org/10.1080/13876988.2015.1126946>.
 - IV Raudla, R., **A. Cepilovs**, V. Kuokštis and R. Kattel. 2016. "Fiscal Policy Learning from Crisis: Comparative Analysis of the Baltic Countries." *Journal of Comparative Policy Analysis: Research and Practice*. <http://dx.doi.org/10.1080/13876988.2016.1244947>.
 - V Karo, E., R. Kattel and **A. Cepilovs.** 2017. "Can Smart Specialization and Entrepreneurial Discovery be Organized by Government? Lessons from the Less-Developed Regions." In S. Radošević, A. Curaj, L. Andreescu, R. Gheorgiou and I. Wade (eds). *Smart Specialization Theory and Practice: Regional Planning and Development*. London: Academic Press, 269-292.
- Annex:
- VI Lember, V., **A. Cepilovs** and R. Kattel. 2013. "Demand-Side Innovation Policy in Estonia: Rationales, Limits and Future Paths." *Working Papers in Technology Governance and Economic Dynamics* 56. Available at <http://technologygovernance.eu/files/main/2013122012033838.pdf> (last accessed 31 August 2017).

Abbreviations

CEE	Central and Eastern Europe
GDP	Gross Domestic Product
EC	European Commission
ED	Entrepreneurial Discovery
EU	European Union
IMF	International Monetary Fund
NPG	New Public Governance
NPM	New Public Management
OECD	Organisation for Economic Cooperation and Development
RIS3	Research and Innovation Strategies for Smart Specialisation
R&D	Research and Development
SME	Small and Medium Enterprise

1 Introduction

1.1 Focus and aim of the thesis

The transformation¹ from planned socialist to market economies for the Baltic states has been more of a steeplechase than a sprint. While it is hard to deny the achievements of these economies in terms of establishing functioning democratic governance regimes as well as economies operating according to market principles within just twenty-five years, there were numerous challenges that had to be – and some still need to be – overcome for the Baltic states to converge with the old Europe, at least in terms of economic prosperity (see, e.g., Epstein 2014; Monfort et al. 2013; Reinert and Kattel 2007). In addition to the initial conditions, set out before the disintegration of the Soviet bloc, the paths of economic transformation, embodied in the approach to policy making and policy choices made subsequently, had a significant influence on the eventual outcomes of transformation. Some countries, such as Slovenia and the Czech Republic, that pursued more gradual change in the 1990s and developed stronger institutions for economic coordination, have performed reasonably well throughout the period of transformation and now have the highest GDP per capita in the countries of the former Socialist Bloc (see, e.g., Inotai 2000; Myant 2007). Other countries, like the Baltic States, resorted to a more *laissez faire* or neoliberal economic policy framework, resulting in a relatively weaker economic performance, especially in the aftermath of the financial crisis of 2008-2009 (Staeher 2015). While, undeniably, many factors influenced the success of economic transformation, policy choices adopted by different countries can at least in part explain the divergence in economic performance throughout the period of economic transformation (see, e.g., Myant and Drahokoupil 2012).

Despite the different pathways chosen in the aftermath of the collapse of the Berlin Wall, there is one experience that all CEE countries shared throughout the last twenty-five years: namely, they all were a real-life laboratory for policy transfer in its different guises. The Baltic states have gone through a period of intensive external pressure and extensive policy transfer, which resulted in very specific learning environments, as well as persisting policy routines. In order to better understand the processes of policy transfer and learning, and their effects on policy-making and policy outcomes, this thesis looks at the domains of fiscal and innovation policy in the context of the new EU Member States, with a special focus on Latvia. These two domains are interesting in this respect for a number of reasons. First, both policy areas have experienced significant external influence since accession to the EU (on fiscal policy, see, e.g., Coricelli 2004; on innovation policy, see, e.g., Suurna and Kattel 2010). Second, policy transfer happens differently in both areas: the dominant mode of policy transfer in the domain of fiscal policy has so far mainly been coercive transfer, while in the case of innovation policy it was a mix of transfer through persuasion (e.g. benchmarking) and negotiation with some elements of coercion, as was the case with the smart-specialisation agenda. Third, the two policy areas in the context of CEE countries differ significantly in regard to the evolutionary development that occurred in those throughout the last twenty-five years. Fiscal policy in the transition economies, and especially in the Baltic states has been influenced by the transfer of ideas and instruments throughout the transition period, as

¹ In the introductory chapter of this thesis, the terms “transformation” and “transition” are used interchangeably and refer to economic transformation and not to political transition.

part of the neoliberal reform programme. The continuous focus on fiscal discipline – a necessary precondition for maintaining a hard currency-exchange regime – helped develop a certain political culture, as well as institutions and organisational practices narrowly focused on containing public deficit and debt and not on proactive management of fiscal affairs (Kattel and Raudla 2013). This created a fertile environment for further transfer of fiscal policy ideas and instruments focused on budget discipline.

At the same time, also as a result of the same neoliberal reform package, economic policy across CEE countries, and in particular in the Baltic states, was left to the workings of the markets. Therefore, when innovation policy became part of economic policy, following the suggestions from the EU and other international organisations, it did not fit within the established political ideology, policy-making routines and institutions. As innovation policy for a long time remained outside of the political agenda, it did not receive the support for building institutions capable of dealing with innovation policy in a coherent and effective manner. Hence, the environment in the innovation policy domain has been less welcoming to foreign policy ideas and instruments. The last, but certainly not least, important factor determining the choice is the importance of both policy areas for economic development of countries, most of which still have a long way to go before they reach the average levels of economic output and prosperity in the EU.

This thesis focuses on policy transfer and policy learning in environments with weak policy capacity² – the case in point being the Baltic states – in the domains of innovation and fiscal policies. It does so by addressing the following research questions:

1. How does policy transfer work in immature policy environments, in particular in the domain of innovation policy?
2. To what extent can policy makers learn under conditions of external influence, and what are the mechanisms behind policy learning, in particular in the domain of fiscal policy?
3. What are the effects of policy transfer on policy-making in countries with weak domestic policy-making capacities and capabilities?
4. Does the nature of the policy domain shape the processes of policy transfer and policy learning in countries with weak domestic policy-making capacities and capabilities?

Policy capacity, along with policy transfer and policy learning is one of the key concepts in this thesis. Policy capacity of government, and in particular policy capacity located within the public administration, as will be elaborated below, has a great effect on the ability of policy makers to engage in effective policy learning, as well as effectively utilise policy transfer to produce the intended outcomes. The following paragraphs outline the processes of policy transfer and learning studied in this thesis.

Although both processes of policy transfer and policy learning took place continuously throughout the past two and a half decades, for analytical purposes this period can be divided in several periods. First, in the very immediate years after the fall of the Berlin

² Policy capacity or, in other words, the competences and capabilities necessary for effective policy-making (Wu et al. 2015) can be described as weak in the context of the Baltic states for the following reasons: first, strong policy capacity requires strong administrative capacity, which is often absent in small states (Randma-Liiv 2002); second, the Baltic states have only recently exited the transition phase and had relatively little time to develop strong administrative and political capabilities; third, the capabilities of other stakeholders involved in the policy process, as well as the coordination mechanisms, still remain largely underdeveloped in the Baltic states, thus further weakening government's policy capacity (see Karo and Kattel 2015b).

Wall and the collapse of the Soviet Union, all countries went through a period of establishing democratic and market-based institutions, often in conjunction with loans and financial assistance from international organisations and the related requirements for policy development, roughly based on ideas of the so-called Washington consensus (Rodrik 2006; World Bank 2005). These policy requirements attached to loans included the following: liberalisation of trade; creation of independent central banks; privatisation of state-owned enterprises; financial liberalisation and opening to international capital flows; strict fiscal discipline, especially in countries that decided to introduce a currency board or an analogous exchange-rate regime; broad deregulation across all sectors, however with a strong emphasis on competition policy; establishment of a private-property-rights regime and the rule of law and a number of other specific policy recommendations (for the original account, see Williamson 1990).

When, after a severe collapse of output, and, for some countries, following the “shock-therapy”-style economic reforms the countries returned to growth, another round of policy reforms was already on the horizon. This round was related to the accession to the European Union (EU), which first required the countries to comply with the standard EU conditionality, set out in the Copenhagen Conditions, which included the stability of democratic institutions, the rule of law and human rights, existence of a functioning market economy and adherence to the aims of political, economic and monetary union (European Council 1993).

This was followed by the transposition of the *acquis communautaire* into national legislation. The transposition of the *acquis* required the creation of institutions necessary for the implementation of the new regulations, for example in environmental protection, health and safety, customs, etc., but also training civil servants responsible for the implementation and enforcement of the new regulations (Dimitrova 2005; Grabbe 2006; Reinholde 2004). The instances of policy transfer briefly outlined above were similar across the Baltic states in terms of both the scope and depth of interventions. The role of policy transfer, however, varied across different policy areas, with some policy areas experiencing more extensive application of coercive forms of policy transfer (e.g. policies supporting the single market), while in others more voluntary forms were applied (e.g. justice and home affairs or innovation policy) (Bulmer and Padgett 2005). Along with policy transfer, policy learning has also been an important mode of policy change in some policy areas. In the domain of innovation policy, policy change has been largely driven by a combination of voluntary policy transfer and policy learning, largely based on the benchmarking exercises conducted by the European Commission, such as the Innovation Union Scoreboard (Kaderabkova and Radosevic 2011). These benchmarking exercises led to an updating of beliefs regarding causal relationships behind certain indicators of economic performance (e.g. R&D expenditure and innovativeness), as well as to the adoption of certain policy instruments on the basis of the updated beliefs (e.g. R&D support schemes) (Suurna and Kattel 2010).

The most recent instances of policy transfer experienced by the new EU Member States in CEE were either applicable to specific countries, such as changes in monetary and fiscal policy with the adoption of the Euro (IV, II)³, or applicable to a specific policy area, such as the concept of smart specialisation (hereafter – RIS3) in cohesion policy (V). Latvia and Hungary experienced additional pressure to implement specific policies as

³ So far not all CEE countries have joined the monetary union: Slovenia joined as early as in 2007, Slovakia followed suit in 2009, Estonia in 2011, Latvia in 2014 and Lithuania in 2015; Poland, the Czech Republic and Hungary remain outside the monetary union.

conditionality for receiving financial assistance from the IMF and the EU as a consequence of the most recent financial crisis of 2008-2009 (II).

One should not underestimate the positive influence of policy transfer across policy domains, given the relatively weak domestic policy-making capabilities in the Baltic states. However, it is also, at least in part, due to the weak domestic policy capacity and capabilities that policy transfer has often had a negative effect. In some areas, such as innovation policy, financial regulation or fiscal policy, for example, policies were transposed, not taking into account the diversity and contextual specificities of each candidate country (Grabbe 2001, 2002; Reinert and Kattel 2007). Thus, despite extensive policy transfer across a number of policy domains, one of the main aims of which was economic and institutional convergence, CEE countries have not reached the levels of economic prosperity, innovativeness and quality of life close to the levels of the older EU Member States (II, V).

The policy-transfer literature until recently has been largely concerned with the transfer of policy ideas and instruments between developed Western democracies (see, e.g., Dolowitz and Marsh 2000; Peters 1997; Walker 1999). However, since the accession of the new Member States to the EU in 2004 and subsequently, literature on external influence on domestic policy making – especially Europeanisation – in the new EU Member States has grown substantially (Randma-Liiv 2007; Randma-Liiv and Kruusenberg 2012; Savi and Randma-Liiv 2013; Schimmelfennig and Sedelmeier 2004, 2005).

The main body of the thesis is composed of five original articles. The article “Public Procurement for Innovation in Small States: The Case of Latvia” (I) provides a case study of an innovation policy instrument that has, in the recent decade, been widely perceived in the more developed EU Member States as well as by the EC, as one of the effective policy instruments to complement the innovation policy mix and drive innovation both in the public and the private sectors. However, the transfer of this policy instrument was impeded by a range of domestic institutional factors. This article is complemented by a working paper “Demand-Side Innovation Policy in Estonia: Rationales, Limits and Future Paths” (VI), which outlines the necessary, but not necessarily sufficient preconditions for the transfer of a wider range of demand-side innovation policy instruments, including public procurement of innovation. The article “Can Smart Specialization and Entrepreneurial Discovery be Organized by Government? Lessons from the Less-Developed Regions” (V) discusses the introduction of entrepreneurial discovery and smart specialisation as part of the cohesion policy, with a specific focus on innovation policy. The article “Fiscal Policy Learning from Crisis: Comparative Analysis of the Baltic Countries” (IV) focuses on policy learning in the field of fiscal policy in the aftermath of the crisis. The article “Central Decisions, Decentralized Solutions: Comparing the Implications of Central Cutback policy for the Agency Level in Estonia and Latvia” (III) focuses on the implication of certain externally-imposed policy choices on the agency level. The chapter “Latvia after European Union Accession: Weathering the Storm?” (II) in a compendium edited by Lino Briguglio takes a step back to look at how the size of the country and its transition experience influenced its further development.

The analysis of the diverse cases in this thesis allows one to make a more general claim that successful policy transfer and policy learning is only possible where local policy capacity and capabilities are already strong, while policy transfer to immature policy environments can fundamentally undermine the legitimacy of such policy interventions, thus potentially further weakening state-policy capacity. The main contribution of the

thesis is that through the comparison of policy transfer and policy learning in the domains of fiscal and innovation policy, the thesis shows that the nature of the policy domain has a significant impact on the nature of policy transfer and policy learning, as well as the resulting policy outcomes.

Some of the articles included in the current thesis are parts of research projects led by colleagues from the Ragnar Nurkse Department of Innovation and Governance and therefore have been co-authored with them. The author of this thesis was the sole author of article **I**. He was the lead author of article **II**, formulating an analytical framework, conducting data collection and analysis and writing a major part of the paper. In article **IV**, the author conducted empirical work (interviews) as well as wrote individual sections focusing on individual cases. In articles **III** and **V**, the author of this thesis collected empirical data on the Latvian case, analysed it and wrote the analytical description of the Latvian case and contributed to discussion and conclusions.

The introductory discussion of the thesis is structured as follows. First, the methodological approaches used in the individual contributions to the thesis are described. The overview of methodologies is followed by a theoretical discussion, focusing on policy learning, policy transfer and policy capacity – the core concepts of this thesis. Thereafter the discussion of the combined contribution of the articles included in this thesis is provided. The thesis ends with some suggested avenues for future research.

1.2 Methodological approach

As Evans (2009) has argued, any study of policy transfer should ideally utilise comparative methodology with a qualitative description of indigenous and non-indigenous policy environment. There is no doubt that quantitative analyses are valuable when the purpose is to provide a macro-perspective on the extensiveness of policy transfer, as, for example, in a study done by Peters, which examined the diffusion of administrative reform throughout the OECD countries (see Peters 1997; but also Simmons and Elkins 2004; and Gilardi 2010 on other quantitative studies of policy diffusion). However, quantitative studies are of little help when one aims at studying the very processes of transfer and learning, the roles of different actors and their perspectives, which can be particularly valuable for policy makers engaged in policy transfer or learning.

Thus, given that the primary purpose of this thesis is to explain why and how policy transfer and policy learning occur and what the implications of those are, a qualitative case study approach was applied in either a comparative or a single-case setting. Although civil servants are not the only actors involved in policy transfer and policy learning, where beside civil servants the other actors involved in policy transfer are politicians, think tanks and different experts, civil servants play an important role, especially in countries with no established culture of external policy advice (e.g. policy think tanks) (Campbell and Pedersen 2014, 2015; Howlett and Migone 2013). Although there are some differences across the Baltic states, it is still possible to argue that in specific policy domains bureaucrats can and do play a role not only as agents of political leaders, but also actively engaging in policy-making themselves (Page and Jenkins 2005). Thus, studying the views of bureaucrats on issues of policy transfer and implementation, as well as policy learning, are very much of relevance to advancing our understanding of the subject.

The empirical research conducted for this thesis was carried out using the following methodological approaches.

In the article on public procurement as an innovation policy instrument in the context of a small state (I), the author is interested in exploring the drivers and barriers to the implementation of the aforementioned policy instrument in a specific environment of Latvia. To reach the objective, a case study methodology is applied in order to make use of the variety of data sources to develop a thick description of the environment in which a specific policy instrument is being transferred. A range of data sources, including official government statistics, policy and legal documents, reports and evaluations were used for the purposes of this article. In addition to the sources described above, five semi-structured interviews were conducted. Interviewees were selected using purposive sampling (Jupp 2006). The interviews were conducted with civil servants on different levels of the organisational hierarchy as well as representing several organisations, including two interviews with policy makers responsible for innovation policy, two interviews with civil servants responsible for the implementation of public-procurement policy, as well as an interview with a civil servant engaged in the management of public procurement in healthcare.

The chapter analysing the effects of transition and European integration on Latvian economy (II) does so by relying on secondary sources of information, including official government statistics, policy and legal documents, as well as a review of academic literature on the subject.

The article discussing the implications of budget cutback decisions on agencies and street-level bureaucracy (III) applies a comparative case-study approach. To do so, the cutback management measures and decision-making patterns at the agency level are looked at and the dynamics of workload and task profile and coping strategies applied by the street-level bureaucrats engaged in service delivery are investigated in five agencies in Estonia and Latvia from 2008 until 2012. Given the qualitative and explorative nature of this analysis, the agencies and interviewees within those were selected using purposive sampling. The five agencies were selected for the study to map the largest possible variation in terms of before-and-after effects on organisational-level responses and coping strategies adopted throughout the implementation of cutback measures. All selected agencies were central to alleviating the effects of the crisis through service provision as they represent a range of regulatory and social policy domains directly and severely affected by the crisis via both budget cuts and increased demand for services; hence, the effects of the crisis were more pronounced in the selected agencies compared to other policy domains. The case studies draw on official policy and legal documents, press releases, media articles and 17 semi-structured expert interviews with officials on different levels of the agencies studied.

In the article dealing with fiscal policy learning (IV) we explicitly define policy learning as the updating of policy beliefs about policy by policy actors, and therefore we are primarily interested in their subjective interpretations rather than already implemented policy change. In order to do that, we conducted interviews with five officials representing the Ministry of Finance in each of the Baltic countries. In selecting interviewees, we used purposive sampling: we first identified the officials most immediately involved in fiscal policy making; we then also made sure that we interviewed civil servants from different levels of organisational hierarchy, in order to capture the potential diversity of viewpoints. The interviews were recorded, transcribed and translated into English (to increase inter-coder validity by allowing all authors from the three different countries to read the transcripts). The authors read through all the interview transcripts independently, used open coding to identify the main themes and then discussed the interpretations jointly to increase the validity of the findings.

In the chapter studying the implementation of research and innovation strategies for smart specialisation (hereinafter – RIS3) as a policy concept in CEE Member States and regions (V), RIS3 was treated as one of the many industrial and innovation policy concepts within the multi-level governance of economic policies in the EU that proposes one novel focus – entrepreneurial discovery – to complement already existing processes of policy-making (consensus-building, policy coordination, design of policy instruments and policy mixes, organisation of implementation). We analysed how policy makers have understood entrepreneurial discovery as part of RIS3, integrated it into policy-making processes and organised it administratively in the weaker-performing member states and regions from the CEE countries (the Czech Republic, Estonia, Latvia, Lithuania, Poland and Slovenia). In order to do that, a qualitative comparative case-study approach was used. For the empirical data, we relied on official documents relevant to the development and implementation of RIS3 in the respective countries, such as strategies and evaluation reports. Altogether 16 interviews with policy makers and experts involved in the process of implementing RIS3 were carried out. Desk research was conducted, relying on official policy documents, reports and academic research to triangulate responses gathered through interviews as well as provided supplementary information.

The author recognises the limitations posed by the application of a single case and small-N comparative case-study methodologies when compared to statistical analyses, as the former do not allow for statistical generalisation. However, following Flyvbjerg (2006; see also Yin 2003), beyond mere statistical generalisation, case studies can serve other research purposes. First, case-study research can be effectively used for identifying gaps in existing theories, identifying new variables, thus further refining and developing those and providing solid ground for further exploration, using quantitative methods or modelling that allows to make statistical generalisations (George and Bennett 2005). Comparative small-N case-study research is especially valuable as it allows to draw causal relationships from the comparison of several instances of one class of events that are grounded in a specific context, thus allowing to discern the influence of the contextual factors on the causal pathways that lead to similar results (*ibid.*). Second, well-selected case studies can contribute to theory-building by formally falsifying an existing theory on the basis of a strategic sample of cases. Besides, formal generalisation is only one way to accumulate knowledge about processes, and a descriptive phenomenological case study can be as valuable as a source of knowledge as results of a sophisticated multi-level regression analysis, just in a different way (Flyvbjerg 2006). Third, good case studies are important in teaching, as those provide detailed accounts of specific situations, which can be relevant for policy makers, for example when devising or implementing new policy initiatives, making them aware of possible challenges as well as opportunities. Such case studies are especially relevant in cases of policy transfer and policy learning, as they provide detailed accounts of contextual factors that affected the implementation of a specific policy (see, e.g., Walker 1999). In-depth single case and small-N comparative case studies are particularly suitable for the purposes of research conducted in this thesis, as those allow it to answer the following questions: how policy transfer and policy learning takes place; who the actors involved are and what their role is in policy transfer and policy learning; how policy transfer affects the policy environment and the domestic policy-making process.

1.3 Theoretical discussion: Policy transfer and policy capacity

1.3.1 Instruments of policy change: Europeanisation, transfer and learning

Different theoretical or conceptual lenses can be applied to understanding and explaining change in administrative arrangements, broader institutional adaptation, as well as change in specific policy domains and instruments applied, when studying developments within the EU. This set of lenses includes the literature on Europeanisation, the literature on policy diffusion and policy transfer, as well as policy learning. In this thesis, all three strains of literature are relevant, albeit to a different degree, for understanding and explaining the processes outlined in the main body of this thesis. The Europeanisation literature initially focused almost exclusively on the affairs of the old Member States, discussing the disadvantages of the Community method of decision-making and issues related to changes in domestic administrative and policy structures due to EU influence (see e.g. Börzel et al. 2000; Harmsen 1999; Knill and Lehmkuhl 1999), with some notable exceptions (Goetz 2001; Grabbe 2001). However, in the years following the enlargement of the EU in 2004-2007 the literature extended its scope to include the new member states (Grabbe 2006; Meyer-Sahling and Van Stolk 2014; Suurna and Kattel 2010). This strain of literature, as it developed, came to suffer from one ailment – it became diluted and all-encompassing, lacking a commonly shared definition and being used to describe and explain a wide variety of institutional and policy changes (Olsen 2002). In principle, this concept can be applied to any process of institutional or policy change that happens under the influence of European institutions, through a range of mechanisms, including policy diffusion, policy transfer, policy learning, institutional isomorphism or socialisation of actors (see, e.g., Grabbe 2001; Radaelli 2008; Schimmelfennig and Sedelmeier 2004).

The new EU Member States from CEE that joined since 2004 went through what can be defined as three periods of Europeanisation. First, there was the pre-accession period that required institutional, administrative and policy adjustments through the adoption of the *acquis communautaire* under conditionality, eventually leading to a high level of Europeanisation across policy domains (see, e.g., Meyer-Sahling and Van Stolk 2014; Schimmelfennig and Sedelmeier 2004, 2005). The second round took a milder form with the use of financial incentives in the form of Structural and Cohesion funds, as well as mechanisms of influence, such as benchmarking, peer reviews, international expert trainings as part of the Open Method of Coordination, especially in the more politically sensitive policy domains (e.g. education, social, research or health policy) (on OMC, see, e.g., Arrowsmith et al. 2004; on Cohesion policy, see, e.g., Dąbrowski 2012; Scherpereel 2010). The third round came after the financial crisis, covered a number of policy areas, including financial, fiscal and innovation policy (with the introduction of smart specialisation and entrepreneurial discovery processes – Foray and Rainoldi 2013; Kroll 2015; **V**), and came with substantial levels of coercion, as most of the policy transfer took the form of either bailout conditionality, as was the case with Latvia and Hungary (see, e.g., Bohle 2010; also **II**), or regulations and directives, as was the case with fiscal and financial policy domains (Juuse 2016, 2015; Spendzharova and Emre Bayram 2016; **IV**).

Europeanisation literature provides explanations for some of the processes of policy change and convergence in the countries studied in this thesis. However, it is not especially useful as a conceptual framework, as it does not help to understand policy change caused by specific mechanisms. These mechanisms include policy transfer, policy diffusion, policy emulation, lesson-drawing and policy learning, some of which can be

further divided into sub-types (see, e.g., Holzinger and Knill 2005, also Table 1). Some of the aforementioned mechanisms refer to the same processes, as is the case with lesson-drawing, rational policy learning from indirect experience, some types of policy diffusion and voluntary policy transfer, as in essence the mechanism represents a rational search for a solution to an identified policy problem. In the context of this thesis two mechanisms play the most significant role: policy transfer and policy learning.⁴

Mechanism	Stimulus	Response
Imposition	Political demand or pressure	Submission
International harmonization	Legal obligation through international law	Compliance
Regulatory competition	Competitive pressure	Mutual adjustment
Lesson-drawing	Problem pressure	Transfer of model found elsewhere
Transnational problem-solving	Parallel problem pressure	Adoption of commonly developed model
Emulation	Desire for conformity	Copying of widely used model
International policy promotion	Legitimacy pressure	Adoption of recommended model
Independent problem-solving	Parallel problem pressure	Independent similar response

Table 1: Mechanisms of policy convergence (source: Holzinger and Knill 2005)

Policy transfer can present itself in different guises, from entirely voluntary and based on rational evaluation to coercive (Dolowitz and Marsh 1996, 2000). Although Holzinger and Knill (2005) argue that it is sometimes difficult to distinguish between coercive and voluntary policy transfer (e.g. in case of regulatory competition), this distinction can serve as a good heuristic to understand the potential effects of certain policy interventions depending on the nature of policy transfer. The process and consequences of policy transfer can only be fully understood within the specific context by taking into account structural preconditions (i.e. changes in economic, technological, institutional or ideological structures), as these preconditions can provide space for and affect the process of policy transfer. Besides, given the intentionality of policy transfer, one should not underestimate the agency of actors involved (Evans and Davies 1999).

In the case of the new EU Member States, the context can be characterised by almost permanent change and uncertainty, which provide opportunity structures for policy transfer (Evans and Davies 1999). The period that started around 1990 can be roughly divided into four waves of change. First, the years of transition towards functioning

⁴ Institutional isomorphism is another lens through which one could look at these developments. Following DiMaggio and Powell (2000), there are three drivers of institutional isomorphism: coercive, mimetic and normative. In the case of coercive isomorphism, an organisation will likely become similar to an organisation upon which it depends. Mimetic isomorphism takes place when organisations imitate or copy other organisations in order to cope with uncertainty. Normative pressures that arise through epistemic communities or expert networks will lead to normative isomorphism (Radaelli 2000). Although these categories also serve as a useful device for understanding the processes studied in this thesis, I resort to a more dynamic view of policy transfer, focusing on the processes as much as on the results or outcomes.

market economies and democratic polities (1990-1998), followed by the three periods of Europeanisation described above. Throughout all four periods, although to a varying degree, policy transfer in the domains of fiscal and innovation policy often had some element of coercion attached to it, with either a financial incentive (e.g. EU Structural and Cohesion funds), or some mechanism of punishment (e.g. in case of Maastricht criteria and the Excessive Deficit Procedure). Although in the case of fiscal policy the predominant mode of transfer was coercion, in innovation policy the predominant mode of policy transfer was voluntary emulation and lesson-drawing with some elements of coercion.

An important aspect of policy transfer as a concept is that it can be used as either an independent or a dependent variable (Dolowitz and Marsh 2000). Thus, we can use policy transfer as an explanatory variable for explaining policy change and success or failure of policies, as well as look at policy transfer as a dependent variable and study the factors under which policy transfer is likely to occur and be more or less successful. As Marsh and Sharman (2009) argue, these approaches are not mutually exclusive and may indeed be necessary in order to provide a comprehensive explanation of policy change: whether policy transfer has happened; why it has happened; how it has happened; and what the effects were.

In addition to the body of literature described above, the literature on rational policy learning and “lesson-drawing” can shed some light on the processes of policy change. In this literature, it is frequently argued that experience need not necessarily be direct for policy learning to occur (May 1992; Rose 1993, 1991). One of the core assumptions of lesson-drawing as a process driving policy change is that policy makers engage in rational action, making decisions on the basis of indirect experience to attain the valued policy outcomes (Rose 1991). Another core assumption related to rational decision making is perfect information that policy makers can utilise in order to draw their lessons and make policy choices (James and Lodge 2003). Both assumptions are, however, rather difficult to justify in real-world environments. When lessons are drawn from indirect experiences or policy makers engage in policy transfer, transplanting policies from foreign environments, important contextual details can get lost in either translation or transmission (see, e.g., Paliokaitė et al. 2016). Besides, policies are often being transferred or emulated not to address a perceived problem, but for other reasons, such as ideology or fashion, in which case it is not problems that are in need of solutions, but policies searching for problems to address (Béland and Howlett 2016; IV). The latter case undermines the assumption about rationality in policy learning and policy transfer.

In addition, for evolutionary learning to occur, one needs to engage in reflection, which is the essential part of problem-based learning (see, e.g., Hung et al. 2008). In the case of policy learning, reflection would occur as a result of the final stage of the policy cycle, namely policy evaluation. It is through policy evaluation – an essential part of evidence-based policy-making, of course if it is substantive and not just a formality – that one can understand whether and to what extent policy measures transferred work and, if policy does not work, identify the factors that hamper the effective functioning of the policy instrument in question (Sanderson 2002, 2009). However, it is not only through formal policy evaluation that one can reflect on policy processes and engage in evolutionary learning. Feedback systems that exist in the policy process and provide causal evidence of what works, matter for policy outcomes, as does the way these feedback systems are designed (Karo et al. 2015; Kay 2006). Such feedback systems can take the form of engaging with academics in order to gather inputs into the policy

process, as well as involving different stakeholders relevant to a particular policy domain. In policy environments, where such feedback systems are either underdeveloped, poorly designed or poorly implemented, and where the formal evaluation culture is weak, opportunities for independent policy learning and the resulting development of policy capabilities and capacity will likely be limited (IV, V).

1.3.2 Policy capacity of government

If one were to follow the maxims of the proponents of New Public Management (NPM), one could abandon the idea of policy capacity of government as irrelevant, given that the perceived solution to all the ailments is not in making government act in a more informed and therefore also more rational manner, but to allow market rationality to satisfy public needs using the same means as used by businesses to satisfy private ends (Parsons 2004). As Peters argued two decades ago, governments of many countries around the world shared a common sentiment that they are no longer able to design, implement and evaluate policies, as they could during the golden age of government in the 1960s-1970s (Peters 1996). This erosion of government policy capacity had certainly something to do with the pervasive application of NPM practices, especially in the English-speaking world (Painter 2003). Over the last decade, however, it has been increasingly recognised that NPM, even if it works (Dan and Pollitt 2015), it works not as an overarching ideology, but as a certain set of tools in certain policy domains and in some countries (Drechsler and Randma-Liiv 2016). The adoption of business practices has failed to produce the expected outcomes in terms of better quality and price of public services across a broad range of policy domains, including education, healthcare, policing and prison systems, social services and so forth, but also across a broad range of countries (Drechsler 2005a; Hood and Dixon 2015; Lapsley 2009; Marginson 2013; Simonet 2015).

The shift from New Public Management to New Public Governance (hereinafter – NPG) has resulted in additional challenges to government policy capacity. Whereas the main focus of NPM is on the marketisation of public services and managerialism in government, NPG introduced collaborative arrangements into the public sector, emphasising the involvement of a multitude of actors in policy design and implementation, as well as public-service delivery (see, e.g., Osborne 2010; Pestoff et al. 2013). The concept of collaborative governance has in recent years become particularly important in innovation and regional policy with the advent of smart specialisation and entrepreneurial discovery as the core driving concepts behind innovation and regional policy in the EU (Coffano and Foray 2014; Foray 2015; V). Smart specialisation and entrepreneurial discovery require the establishment of new interactive arrangements that allow different actors to partake in the identification of regional economic advantages as well as the definition of policies to develop new areas of specialisation or strengthen the already existing ones. Ideally, the process of entrepreneurial discovery should involve representatives of all actors relevant to a particular sector: businesses, public administrations, education institutions, labour unions and workers' associations etc. (Foray 2015; V). While in some countries, such as the coordinated economies of Central Europe (e.g. Austria, Germany) as well as the corporatist Nordic economies (e.g. Sweden and Norway), such arrangements have developed historically and therefore allowed it to integrate the new concepts into policy-making without major adjustments, in other countries, such as Estonia and Latvia, for example, such coordinative arrangements were not present, requiring substantial institutional adjustments (Kroll 2015). Therefore, the introduction of the concept of entrepreneurial discovery provided additional challenges to state policy capacity in these countries, requiring the

development of functioning collaborative arrangements, which previously were largely formalistic (V).

On the basis of the arguments outlined above, the policy capacity of government becomes central to successful policy-making, also under the influence of external forces. Different authors define policy capacity differently, ranging from narrow definitions focusing on specific sets of skills necessary to devise policy, to wider definitions spanning the full policy cycle from policy advice through decision-making to implementation, and including a broader range of skills and resources as well as stakeholders, depending on their individual preferences and the focus of their analysis (Wu et al. 2015). Following Wu et al. (2015, 166), policy capacity in this thesis is defined as “the set of skills and resources – or competences and capabilities – necessary to perform policy functions.” Policy capacity is constituted of the following competences: analytical, operational and political (Wu et al. 2015). Following a similar analytical framework, Knill (2005) proposed the following evaluation criteria for evaluating policy capacity:

1. Capability to take policy decisions;
2. Ability to implement and enforce these policies; and
3. Quality of policy design.

The first criterion depends on the number of formal and factual and effective veto points that affect decision making and characterise the political system. In some CEE countries with more developed corporatist arrangements, different actors are likely to have the power to veto certain policy proposals (e.g. Hungary and the Czech Republic), whereas in unitary states with a strong executive government will have greater leeway in making independent policy choices (see Bohle and Greskovits 2012 for an overview of varieties of capitalism in CEE). In the case of policy transfer, the ability of policy actors to make independent policy choices will also be influenced by the degree of coercion involved in policy transfer (Dolowitz and Marsh 2000). In the case of coercive policy transfer, for example, the locus of policy decisions will be outside the realm of influence of national actors. The implementation and enforcement of policies, in turn, depends on the degree of fit and compatibility between the new policies and the existing regulatory approaches and structures and local policy capabilities that exist for their implementation (see, e.g., Randma-Liiv and Kruusenberg 2012; Stone 1999). Therefore, the effectiveness of the implementation of new policies will tend to decrease where extensive institutional adjustments in terms of norms, practices and routines are necessary (Knill and Lenschow 2000; also I; IV; V).

The quality of policy design will to a great extent depend on the ability of policy makers to understand causal mechanisms behind the problem policy makers are trying to address. However, the ability to understand these causal mechanisms will, in turn, depend on the policy-evaluation capacity, which has remained underdeveloped in the CEE countries, due to resource constraints as well as outsourcing of policy evaluation to international consulting companies under the influence of New Public Management ideas (Raudla 2013; Saint-Martin 2000; Stone 2004). This can be especially common in specific policy domains, where domestic expertise is either weak or non-existent, which can be frequently the case in small states (Kattel et al. 2011; Randma-Liiv 2002; Raudla 2013; I; IV; V). However, even in cases where the understanding of causal mechanisms behind policy problems has been developed, policy actors might have limited resources to plant their policy proposals on the agenda of decision makers. In both cases the policy initiatives eventually proposed will be unfit to deal with the underlying problem (Baldwin et al. 2012).

In addition, national policy capacity can be altered through the processes of Europeanisation in both positive and negative directions. This will depend on the institutional complementarities between domestic and EU-proposed policy initiatives. Where there is institutional fit and complementarities exist, new policy initiatives are likely to be implemented effectively and in a relatively short period of time, augmenting existing policy framework (see, e.g., Kroll 2015 for an example of the implementation of smart specialisation). However, where the proposed policy initiative does not fit the institutional environment, it will likely lead to disruption and take substantial amounts of time and resources to implement, and when implemented can still remain ineffective (Knill 2005).

The Baltic states share one additional set of constraints to policy capacity, which is related to the “small government” ideology that has been prevailing over the last two decades, in combination with NPM ideology that has gradually gained ground, while falling out of fashion in Old Europe (Drechsler 2005a, 2005b; Randma-Liiv 2008). Besides, the Baltic states face further constraints to policy and administrative capacity related to their relative smallness – geographical, economic – and therefore also the smallness of their bureaucratic apparatuses that are often expected to perform the dual function of policy-making and implementation (Randma 2001, 1999; Randma-Liiv 2002; I; IV; V).

The ways policy is made differ markedly both between countries and policy domains: while in some countries the legislature plays the central role in defining policy, in other countries it is the executive supported by the bureaucracy; similarly, in the more technical policy domains (e.g. environment, financial regulation) policy making will likely be dominated by experts (from either the private sector, think tanks or the public bureaucracy or a constellation of all of the above), while in the less technical policy domains policy will likely be defined by the politicians. The ability of public administration to influence policy will depend on two factors: the internal capabilities of the public administrations and the level of competition in the policy space between different actors trying to influence policy (effective legislature; strong think tanks or political parties with strong internal policy advice). Where competition between different policy actors is high, even highly capable public agencies can find it difficult to shape policy; however, when there is little contestation over policy ideas, even a less capable bureaucracy can find itself driving the policy agenda by providing policy advice to the executive (Peters 2015). The latter situation is rather common in the Baltic states for the following reasons. First, the Baltic states are small no matter how one looks at them: their geographical size, population as well as economies are relatively small. The size of the state, as has been argued by Randma (2001) and Sarapuu (2010), among others, often determines the size, capacity and capabilities of public administrations. The size of the state will also likely determine the diversity of interest groups involved in policy debates, as well as their competence. Second, the Baltic states are still relatively young democracies, where institutions of participatory governance are still in development and the involvement of stakeholders in policy debates is relatively weak. Third, there is no tradition of policy advice from research units within political parties nor affiliated or independent think tanks. The last, but not least important factor is weak analytical support from independent research units serving the legislature.

Given the relatively limited competition for influence in the policy arena, as well as the technically sophisticated nature of fiscal and innovation policy domains, bureaucrats tend to play a very important role not only in elaborating the ideas of their political masters, but also in putting the ideas on the table in the first place, although arguably

within the scope of possibilities that will likely have political approval (see, e.g., Colebatch et al. 2010; Hall 1993; Page and Jenkins 2005; Peters 2015). Civil servants play a central role in policy implementation, where their actions (or inaction) effectively determine what shape the policy eventually takes and what outputs it produces and outcomes it achieves (I). Besides, bureaucrats are also considered among the most important actors in policy-learning literature (Bennett and Howlett 1992; Hall 1993; Heclo 2010; Radaelli 2008). Often, especially in the case of street-level civil servants, they play a role in providing continuous input of information on the successes or failures of a policy, continuously updating a policy, as well as providing solutions for the issues that arise (III).

The arguments outlined above suggest that: first, not only in the case of indigenous policy making, but also in the case of policy transfer and policy learning will policy makers from these countries face significant challenges on the road to effective policy-making; second, civil servants play a central role in policy-making in the domains of fiscal and innovation policy, and therefore they are also a crucial link in the processes of policy transfer and learning.

The following section discusses processes and effects of policy transfer, relying on the empirical basis of the individual contributions included in this thesis.

1.4 Examining the processes and the effects of policy transfer and policy learning

This section provides an overview of the processes of policy transfer and policy learning in the domains of innovation and fiscal policy. It first addresses these processes in the area of innovation policy, which is followed by a discussion of policy learning in fiscal policy. In discussing policy transfer in the field of innovation policy, policy transfer is treated as both a dependent and an independent variable.

As already mentioned above, policy transfer in the new EU Member States appeared in a variety of forms along the continuum from voluntary to coercive. Frequently, policy ideas or instruments were transferred in the guise of “best practice”, especially in those cases where policy makers engaged in voluntary and therefore also rational policy emulation. However, as the empirical evidence collected in the articles included in this thesis suggests, introducing “best practice” through both voluntary and coercive means did not lead to better policy outcomes but instead to unintended consequences (e.g. severe boom-bust cycles resulting in prolonged periods of austerity, unemployment and emigration; II; III) or weak outcomes (e.g. relatively low innovativeness of enterprises I; V; IV), as well as the implementation of transferred policy ideas and instruments in form but not in substance (V). In cases where the proposed “best practices” did not fit the local policy environment – as in the case of public procurement of innovation in Latvia – policy ideas did not gain ground and were not taken up at all (I), although on the basis of both theoretical arguments elaborated in (I) and (VI), and the experiences of a range of countries (see, e.g., Lember et al. 2014), public procurement of innovation as a policy instrument could contribute to the innovation policy mix, making it more effective in reaching the objectives.

1.4.1 Policy transfer in innovation policy – policy transfer as an independent variable

Innovation policy is, arguably, the exemplary policy area that has been most affected by external influence in the Baltic states, including Latvia, over the last two decades. During the immediate years following the fall of the Berlin Wall and the break-up of the Soviet Union limited attention was paid to research and innovation policy. There are several

reasons for that. First, innovation policy as such, the way we currently understand it, was relatively under-developed even in the developed countries. At the time, given that the concept of innovation systems was itself in a relatively early development stage, innovation policy was still predominantly technology policy, with a linear understanding of the innovation process (i.e. science and research leading to innovation), and therefore with an explicit emphasis on support for research (Godin 2006). Second, given the overall political environment of the late 1980s and the early 1990s, when the ideas of Thatcher and Reagan on the role of government were still very much in vogue, any interventionist approaches to economic policy were perceived with caution to say the least. In fact, it took a long time before innovation policy gained even limited traction among policy makers in the post-communist states, with the acute memories of the interventionist Soviet regime, but also steeped in the ideas of free markets and laissez-faire economics as the dominant paradigm of the time (see, e.g., Sachs 1995 on Poland). Hence, innovation policy simply did not fit with the dominant economic policy paradigm of the time ideologically. The third, and perhaps most simple, explanation is that all the limited resources available to policy makers were utilised for the establishment of basic institutions necessary for the proper functioning of a democratic country and a market economy: drafting constitutions and basic laws and regulations; creating the new administrative apparatus of government; creating central banks and national currencies; reforming education systems, etc. Finally, given the inherent uncertainty related to innovation, as well as relatively high levels of corruption persistent in all new democracies (e.g. Karklins 2005), innovation policy was not on top of the list of policy makers, as it would not produce the immediate results necessary to boost electoral prospects. This list of explanations was not meant to be exhaustive, but to explain briefly why innovation policy did not find its place on the agenda of policy makers before the late 1990s in the Baltic states.

The first attempts to introduce innovation policy came in the early 2000s with the reform of the PHARE programme, which changed the focus from the PHARE programme on economic and social policy and the development of institutions to the implementation of Cohesion policy, which, in turn, included research and innovation policy (CEC 2003). By establishing independent implementation agencies for the administration of the EU funds, the Baltic states moved to a stage of more proactive management of economic policy, including innovation policy and industrial restructuring, compared to the earlier stage, when governments relied solely on free markets and foreign direct investment as drivers of economic development (Kattel et al. 2009).

However, when it came to the content of policy instruments and the development of institutions tasked with the implementation of these policies, candidate countries had limited say. First, the policies they had to implement as part of the *acquis* were compulsory, and therefore a limited scope for adaptation was provided. Second, organisational arrangements based on the ideas of decentralisation, autonomous agencies and networks were considered the state of the art of organisational arrangements for innovation policy and were implemented as proposed by the international experts (Bruszt 2002; Karo 2011; 2012). The network type of governance was also perceived as more suitable for the needs of the global, technologically-driven economy (Goldsmith and Eggers 2005 in Kattel et al. 2009). Institution-building also had a rather narrow definition within PHARE, as “strengthening the candidates’ capacity to enforce and implement the *acquis*” (CEC 2000 in Grabbe 2006, 81). What were perceived as the benefits of autonomous agencies, when introduced in the receiving countries,

turned out to be deficiencies, given the absence of cross-sectoral dialogue, a tradition of partnership and coordination between the public and private sectors, as well as between different levels of public administration (Kattel et al. 2009).

Besides the limited bargaining power on the side of the candidate countries, the adoption of the *acquis* was done within a relatively short time period, and therefore most of the EU legal acts and institutions were transposed directly without the consideration of local context (Hughes et al. 2004). Therefore, very limited time was allotted to develop policy capacity, and especially administrative capacity and capabilities within the public sector, necessary for an effective development and implementation of innovation policy. In addition, the managerialist approach emphasising administrative efficiency and accountability, and focusing on short-term results, reduced the space available for experimentation and learning, thus negatively affecting the long-term development of policy capacity within the agencies tasked with innovation policy (Karo and Kattel 2015a). The factors outlined above had a profound impact on the development of both formal and informal institutions that were subsequently involved in the implementation of innovation policy, among others (Karo 2011). This pre-accession stage of institution-building can be considered a first “wave” of policy transfer with a significant level of coercion.

The second wave of policy transfer from the EU to the now new Member States came with the first rounds of EU Structural and Cohesion funds, which were introduced in 2004 and are still available to the new Member States. Innovation policy in Baltic states after their accession to the EU strongly resembled those of the old Member States and focused on resolving the seeming mismatch between high-quality basic research and the lack of commercialisation (also termed as the European paradox, for a more detailed discussion on which, see Dosi et al. 2005). However, as Kattel and colleagues (2009) argued, this focus on R&D and technology transfer in innovation policy was largely based on a misconception about the economy, where an increase of exports in high-tech products was largely driven by FDI, with the main activity being the low value-added assembly of final products from imported parts. Thus, innovation policies implemented in the Baltic states initially were essentially R&D policies based on a linear understanding of innovation – from scientific discovery to marketable product (see, e.g., Karo 2010). This meant that innovation policies implemented across CEE countries, including the Baltic states, in the early 2000s focused mostly on technology transfer and research commercialisation, high-tech sectors and technology parks for start-ups (Radošević 2002; Radošević and Reid 2006). Most of the policies to support innovation at the time were of a horizontal nature, without specific sectoral priorities, and relied on market-based coordination mechanisms, without a long-term strategic view of industrial and economic development (Radošević and Reid 2006). Although in some CEE countries, such as the Czech Republic, Hungary and Slovenia, some changes occurred in the innovation-policy mix to address the needs of the more traditional low- and medium-level technology industries (e.g. automotive parts suppliers in Hungary and the Czech Republic), in the Baltic states so far limited attention has been paid to the traditional industries (V).

Despite the fact that innovation policy was not among the domains where member states had to follow the Commission guidance strictly, the Commission still had significant influence on the content of innovation policies through the negotiation of investment programmes with the member states, by, for example, arguing for horizontal policy measures and against instruments targeted at specific sectors (V). However, at this

stage, the Commission experts seemed to have realised the main issues pertinent to the improvement of innovation performance of the new Member States, suggesting the need to address the regional imbalances, the issue of low administrative capacity and weak strategic management, thus somewhat relaxing the assumption about rapid and symmetrical integration of the new Member States (Kattel et al. 2009).

Latvia can serve as an example of such Commission guidance. When negotiating investment priorities for the current financial perspective of 2014-2020, given the core strategic priorities of Horizon 2020, the EC insisted that Latvia along with other EU Member States should focus its efforts on R&D and innovation. As a result, 10.58 per cent of total allocations of the operational programme “Growth and Employment” were allocated to support R&D and innovation policies, with an allocation for supporting competitiveness and innovation of SMEs of just above 7 per cent. However, simple technology upgrading, necessary to support the competitiveness and innovation of SMEs (Radošević 2017), was not allowed by the Commission within the investment priority focused on R&D and innovation.

Most of the CEE countries are still running behind the old EU Member States in terms of labour productivity, value added in both manufacturing and service activities, composition of exports (mostly low and medium technology products), which suggests that policies to support technological development and productivity growth need to focus on the improvement of management practices, skills, quality assurance and simple technology upgrading (Radošević 2017). However, current policies prevalent across CEE countries are still largely focused on the support of R&D, university-industry collaboration and technology transfer and start-up development, despite the fact that the existing evidence suggests there is limited interest and ability within traditional and service industries to utilise results produced by domestic universities and research institutes (Karo and Lember 2016; Veugelers and Schweiger 2016). As Izsak et al. (2015, 793-794) suggest, the EU structural funding “has been decisive in assisting the convergence of these innovation policy mixes. In addition, the increased policy learning across the EU has led to the introduction into Member States of similar types of “fashionable” policy instruments, such as cluster policies, competence centres and innovation voucher schemes.

While important, the direct influence of the Commission on the innovation-policy mixes of the new EU member states was not the only mechanism of policy transfer. The more important instruments of policy transfer that have led to policy convergence between the policies applied in the new and the old Member States (Izsak et al. 2015; Karo and Kattel 2009) were the benchmarking tools included in the Innovation Union Scoreboard as well as international policy learning, peer review and transfer of best practices, commonly known as the open method of coordination (Arrowsmith et al. 2004). While it is hard to deny the positive role of cross-national comparisons for policy learning, the Innovation Union Scoreboard also had some unintended consequences. The EU remained focused on resolving the “European paradox”, putting great emphasis on R&D spending (with the main objective to reach 3 per cent of GDP in R&D spending), technology transfer, university-industry collaboration and similar indicators (Dosi et al. 2005). These indicators, given their relative simplicity, captured the attention of politicians in CEE countries, who, in turn, focused increasingly on improving the performance of their countries in these specific indicators by directing funding towards policy instruments that support R&D in high-tech industries and universities, as well as formal technology transfer (Izsak et al. 2015; Karo and Kattel 2009; Radošević and

Myrzakhmet 2009). The outcomes of these policies in terms of changes in economic structures, growth of competitive export-oriented industries, high value added, were far below expectations (Dosi et al. 2005; Kattel et al. 2009; Suurna and Kattel 2010; V).

Thus, on the basis of the arguments outlined above, policy transfer in the domain of innovation policy without considering the local economic environment (characterised by a prevalence of SMEs operating in industries and service activities with low added value) has led to a policy mix skewed towards R&D-intensive industries and thus having a limited effect on the structural transformation of the economy. The initial policy transfer in the domain of innovation policy helped develop certain institutional structures and approaches to policy-making that, as is elaborated in the following section, constrained the development and implementation of new policy instruments.

1.4.2 Policy transfer in innovation policy: policy transfer as a dependent variable

The institutional development in innovation policy in the Baltic states over the first decade of conscious innovation policy in existence led to a situation where certain policy instruments or initiatives did not fit the existing institutional arrangements and policy practices. Since the early 2000s, the Commission and individual Member States have been actively discussing the need to complement innovation policy mixes – at the time mostly horizontal and composed of supply-side instruments – with demand-side innovation policy instruments, which, among others, include public procurement of innovative solutions. This development was a result of the recognition of the systemic nature of innovation coming from innovation systems research (for an overview, see Edquist 2005).

However, while the older Member States were actively experimenting with demand-side innovation policy instruments, and most notably with public procurement in the areas of construction, healthcare or waste management (for a review of country cases, see Lember et al. 2014, 287-309), the new Member States struggled to introduce demand-side policy instruments into their policy mix. The analysis of public procurement of innovative solutions as an instrument of innovation policy in the case of Latvia (II) suggested that in order to introduce more complex policy instruments, such as public procurement of innovative solutions, a number of challenges related to administrative capacity, existing approaches to innovation policy-making, institutional arrangements and cross-sectoral coordination practices need to be addressed (see also VI).

The latest instance of interference in innovation policy of the new Member States from the side of the EU via conditionality came in advance of the current financial perspective of EU Structural funds that will run until 2020. All states receiving EU Structural funds for R&D and innovation were required to develop a smart-specialisation strategy, which was expected to transform innovation policy-making by more focused and context-specific interventions (Charles et al. 2012; McCann and Ortega-Argilés 2013; V). This development has been a radical departure from the innovation-policy ideas propagated by the EU throughout the previous decade. The idea of smart specialisation emerged from the recognition of an increasing productivity gap between the EU and North America, which, as policy analysts thought, was caused by the weak translation of new knowledge and ideas into innovative technologies, goods and services, and the application of those throughout the economy. The group of experts involved in the “Knowledge for Growth” think tank to support the European Commissioner for Research, led by Dominique Foray, proposed a policy-prioritisation framework to help tackle the deficiencies in knowledge dissemination and utilisation that persisted in Europe (Foray et al. 2009, 2011). Although initially the concept of smart specialisation was

geographically neutral, through implementation it developed into a place-based approach, focused on addressing the weak links in the innovation chain in specific regions (McCann and Ortega-Argilés 2013). Given the origins of the concept, it initially focused on R&D and high-technology sectors; however, the addition of a place-based approach to smart specialisation broadened the focus, including all industries with high potential that exist in a specific geographic locality (for a detailed account of the history of the concept, see McCann and Ortega-Argilés 2013).

One of the co-authors of the concept of smart specialisation operationalised it as follows: “A smart specialisation strategy emphasises the formation of capabilities and the design of institutions to support entrepreneurial discovery and the early growth of most promising activities that have been discovered” (Foray 2015, 11). One of the key innovations of smart specialisation as a policy concept was the introduction of entrepreneurial discovery (hereafter – ED) in the process of developing smart specialisation strategies and regional innovation policy. Thus, this new approach involved “putting in place a process whereby such dynamics can be facilitated through targeted interventions undertaken by the government in order to support in a preferential way the most promising new activities in terms of discovery, experimentation, potential spillovers, and structural changes” (Coffano and Foray 2014, 35). Although the objectives of the Commission introducing the concept as a “nudge” attached to EU structural funds were laudable, the implementation of this new policy concept in the new Member States did not take into account a range of contextual factors and therefore, at least so far, has not been particularly successful (V).

The implementation of ED was supposed to be undertaken by the Member States on the basis of intentionally vague guidelines regarding the content of the strategy and how the ED process should be implemented. The initial idea was that smart specialisation through ED will eventually lead EU regions away from the policy convergence experienced previously and towards place-based policy instruments. However, the initial results of smart-specialisation strategies developed and the specialisation areas identified by different regions converged around groups of domains closely linked to EU strategic priorities (Iacobucci 2014; Sörvik et al. 2015). The implementation of ED and smart-specialisation strategies was more difficult for the CEE regions (including the Baltic states) than it was for regions in the Nordic countries or Germany for that matter (see, e.g., Kroll 2015; V). First, the institutions for innovation-policy governance are only emerging in CEE countries and undergoing significant challenges in the face of the gradual neoliberalisation of the new Member States. Second, the relatively weak innovation performance of most CEE countries and regions (with some exceptions, such as the capital regions of Warsaw in Poland or Prague in the Czech Republic, for example) indicates that institutional thickness, cross-sectoral coordination and capabilities of actors involved in the innovation system (i.e. universities, companies and regional governments) remain insufficient. Thus, it is not only policy makers who may lack experience and skill sets necessary for the effective implementation of ED and the development of specialisation strategies, but also academic and industrial counterparts, who are expected to proactively engage and contribute to reflective policy learning (V).

1.4.3 Policy transfer and policy learning in the domain of fiscal policy

While in the domain of innovation policy, policy transfer had mixed results, and at most hampered the pace of economic development, the radical marketisation policies implemented during the transition period had a negative long-term effect on economic performance (Dale 2011; II for the case of Latvia). The majority of developing and

transition countries experienced some form of coercive policy transfer throughout the 1980s and 1990s, when under the guidance and strict oversight of the international institutions, such as the IMF and the World Bank, these countries implemented structural adjustments programmes in return for financial assistance (Evans 2004). Economic policies implemented throughout the early transition years, as well as policies adopted as part of the *acquis communautaire*, eventually contributed to a financial and economic crisis of unprecedented severity (see Kattel and Raudla 2013; Sommers and Woolfson 2014; Woolfson and Sommers 2016; II; III). The transition began with the implementation of the so-called “augmented” Washington Consensus (Rodrik 2006), focusing on institutional reforms with a primary focus on transformation into a Western-style liberal market economy. The reforms emphasised handing over the decision-making over the allocation of resources to the private sector, liberalisation of trade and capital flows, which was not, however, complemented by the development of a strong regulatory framework. These initial economic reforms, introduced during the 1990s, were later augmented by further reforms aimed at further economic integration into the common European market, by removing remaining barriers to trade or financial flows. This led to what Reinert and Kattel (2007) aptly called “An attempted economic suicide”, but also more pronounced business cycles and greater financial fragility, which ultimately resulted in the financial crisis of 2008-2009. The process of hollowing out the stabilising role of government (e.g. through counter-cyclical fiscal policy and the central bank’s function of lender of last resort) that has taken place in Estonia (Juuse 2016) has also taken place in Latvia and was facilitated by the processes of policy transfer and convergence over the last two decades (Bohle 2016, 2010; II). What followed after the financial crisis was a deep economic crisis, facilitated by fiscal austerity, which affected the provision of public services (III). The developments outlined above shaped the environment for policy transfer in the domain of fiscal policy, which is the second policy area addressed in this thesis.

The article discussing the implications of government cutback strategies on the agency and street level (III) engages in a comparative analysis of Estonian and Latvian case studies. In the case of Estonia, the government decided to self-impose radical austerity to temporarily improve fiscal position at a time when counter-cyclical fiscal policy was, arguably, more appropriate (Kattel and Raudla 2013; Raudla and Kattel 2011). What seems to be a clear case of self-imposed austerity was rather a result of the earlier experience with policy transfer, related to a decision to adopt a currency board and subsequently strictly follow Maastricht criteria in order to join the Euro zone in 2011 (Kattel and Raudla 2013; Raudla and Kattel 2011). In Latvia, the situation was somewhat different due to the decision of the government to bail out one of the biggest domestically-owned banks, which imposed on the government the need to borrow funds from external actors, such as the IMF and the EU, for sustaining its fiscal obligations, as well as for defending the currency exchange rate (Purfield and Rosenberg 2010). These actors, in turn, imposed a range of conditionalities, which broadly required strict fiscal austerity, but also directly prescribed a range of structural reforms, including reforms in public-sector compensation policies, welfare-state policies, specific budget cuts as well as tax-policy reforms. Article III deals with the implications of the cutback strategies adopted by the government under the external pressure on agencies and street-level bureaucracy. The main empirical finding of the article is that agencies tasked at implementing the proposed cuts, as well as front-line employees of these agencies, bear the costs of the cuts imposed, as well as provide solutions to issues caused by the

budgetary cuts. The study showed that street-level bureaucrats, while themselves suffering from the imposed cuts, can be part of the solution to the critical problems and public-policy goals. However, while the agencies and street-level bureaucrats were able to provide ad-hoc solutions in the midst of the crisis, the long-term consequences of the cutback strategies and reforms implemented have largely not been addressed so far to my knowledge.

The recent financial and subsequent economic and fiscal crisis provided ample opportunities for external actors, such as the IMF, the World Bank and the EC to embark on another round of coercive policy transfer (in the form of both new policy ideas, such as structural balance, and institutional arrangements, such as the establishment of the fiscal council). However, it also provided an opportunity for policy learning, in particular in those policy domains that were most affected by the crisis, such as financial regulation and fiscal policy (IV). Also in the case of policy learning, external actors facilitated and guided policy learning through a range of coercive measures, such as the requirements of the Fiscal Compact and the supervision mechanisms under the European Semester. One of the most crucial changes in the approach to fiscal policy that was introduced to the EU fiscal framework in the post-crisis years was the concept of structural balance and a broader view that fiscal policy should be counter-cyclical. There were, however, a couple of issues with this shift in policy ideology. First, after a very brief attempt at fiscal stimulus at least in some EU countries in the immediate aftermath of the crisis, Eurozone countries and those aspiring to join the club shifted to austerity as the main policy response, following the idea of non-Keynesian effects of fiscal contraction (or expansionary fiscal contraction). This effectively contradicted the ideas inscribed in the fiscal compact regarding structural deficit, which assumes counter-cyclical fiscal policy responses throughout the economic cycle. Second, although recognised as a positive development by policy makers, the requirement to follow structural and not nominal deficit rule was perceived by policy makers as complex and uncertain, given the difficulties with the estimation of the output gap. Thus, in Latvia, for example, despite the lessons learned regarding the need for counter-cyclical fiscal policy, during the early years of fiscal compact, policy makers continued to rely on nominal balance as a reference benchmark. This can be explained by path dependencies in fiscal policy, where the core policy framework has been the same for over 20 years, but also by the lack of policy capacity and capabilities to deal with more complex approaches to fiscal policy. Furthermore, the EU-mandated rules may have prevented some country-specific fiscal policy discussions and policy learning from taking place, thus not allowing to develop domestic policy responses and potentially negatively affecting policy outcomes in the future (IV).

What we can see from the comparison of policy transfer and policy learning in the two policy domains is that in the Baltic states, the development path for fiscal policy was pre-set already in the early 1990s with the adoption of currency boards or similar arrangements with fixed currency exchange rates (Korhonen 2000). This arrangement effectively constrained the governments' options, as excessive borrowing was perceived as a threat to the stable currency (on the relationship between currency boards and fiscal tightening, see Fatás and Rose 2001). Accession to the EU and the prospects to subsequently join the Eurozone further strengthened the importance of prudent fiscal policy, effectively eliminating any alternative policy pathways. Therefore, any new developments that would follow the already established path found a fertile ground and were adopted more or less successfully. In the domain of innovation policy, however,

the situation is radically different. Given that innovation policy remains largely in the hands of the nation-states and requires the adaptation of policy instruments to local conditions, policy development and implementation will to a large extent depend on the local capacities and capabilities of policy makers (both politicians and public administrations).

Thus, the success of smart specialisation and entrepreneurial discovery – the policy initiatives proposed by the EU to tackle relatively weak innovativeness and economic performance of the peripheral countries by focusing on their regional advantages – has in its initial phase been weakened by disregard to the institutional constraints, including lack of local policy and administrative capacity. Therefore, smart specialisation despite the major effort has so far had a limited effect on the performance of the Baltic states. Similar conclusions can be made about policy transfer in the economic policy domain, where a Washington-consensus style policy package resulted in a collapse of the economy with severe long-term repercussions that can still be observed across Baltic states. Of course, looking at the pace of developments across most of the new EU Member States, one cannot deny the positive effects of policy transfer, including the development of democratic and market institutions, public administrations and the rule of law. However, as argued in the current thesis, policy transfer, when detached from the context of the host country, can also have severe negative consequences.

As has been argued above and elsewhere (see, e.g., Hadjiisky et al. 2017) policy transfer is never as simple as the “copy” and “paste” functions in a word processor. First, a range of actors with different interests are involved in the transfer of policy, who through their agency will steer the process in a certain way. Second, the environment or context to which a certain policy is transplanted, and its specific characteristics (i.e. availability of resources, capacity and capabilities of policy makers, strength of institutions etc.), will affect both the process and the outcome of the transfer. Third, the reasoning underlying policy transfer (i.e. whether policies are transferred in order to solve a certain policy challenge or in order to satisfy the requirements of a donor) will likely affect the processes and outcomes of policy transfer. Therefore, when analysing policy transfer, as well as other processes of policy change, in one policy domain or another, one needs to take into account the sector-specific differences, such as the constellations of actors involved and their interests and intentions; institutional set-up and its evolution; as well as other sector-specific characteristics. This is especially important when conducting comparative studies of policy transfer in cross-sectoral research set-ups.

Similar to policy transfer, policy learning also only rarely happens in a fully rationalistic manner, where policy makers search for information in order to find a solution to an existing policy problem and thus update their policy beliefs. More often than not this process is mediated by other actors involved in the process of learning, such as epistemic communities supplying the necessary knowledge; by the environment in which the process of policy learning takes place; by the complexity and analytical tractability of the policy problem at hand; by the degree to which policy ideas in a specific domain are contested, etc. Thus, in some cases, under the influence of certain factors, policy learning will take place and also lead to policy change; in other cases, policy learning on the micro-level (individual actors) will take place, but it will not lead to an update of beliefs on the meso (organisations) or the macro level (states) and therefore will also not lead to policy change.

1.5 Concluding discussion and directions for future research

The CEE countries over the last 25 years went through a period of dramatic transformation in terms of their economic, social and political systems. Although some of this transformation was rooted in the local environment and driven by domestic initiatives, a significant part of this transformation was driven by external actors: first the international institutions, such as the World Bank, the IMF and, in some cases, the OECD; later as part of the accession negotiations by the EU. External agents used a broad range of instruments to implant both policy ideas and instruments, ranging from privatisation and liberalisation to smart specialisation. Those instruments of influencing policy included coercive policy transfer on one end of the continuum and voluntary policy emulation through benchmarking on the other, with a broad range of mechanisms in between. Although often well-intended, the policy ideas and instruments transferred – as argued in this thesis – had a broad range of unintended, and often severe, consequences.

To answer the first question posed, namely, “How does policy transfer work in immature policy environments, in particular in the domain of innovation policy?”, this thesis shows that when a certain policy concept, such as smart specialisation, developed on the basis of empirical analysis of specific regions in developed Western European countries, characterised by specific institutional environments, is transposed through conditionality into environments where certain necessary preconditions are missing, the initial response of the countries will be rather formalistic (**V**) and aimed at satisfying the requirements of the (financing) principals (the EU). Hence, at the initial stage – unless the policy concept or instrument that is being proposed is perceived as useful by the local policy makers – the new policy instrument or idea is likely to have limited effect on policy outputs and outcomes. However, the unintended long-term consequences of such intervention, as is the case with smart specialisation and entrepreneurial discovery, can be profound in a number of ways. First, by developing the local institutional set-up through the involvement of a broader range of stakeholders in the policy-making process creates feedback mechanisms in the policy process. Second, by subverting the predominant neoliberal or *laissez faire* policy rationale and proposing an alternative and more proactive approach to innovation policy, the state through its administrative machinery plays the role of an entrepreneur in tandem with the private sector (Mazzucato 2015). In order to reach this outcome, however, the policy concept needs to find the necessary fertile ground, as well as requires long-term commitment on the side of the policy makers (Karo and Lember 2016). Otherwise, it will likely become just another policy fad.

The same line of argument can also be extended to the case of public procurement of innovation, as an innovation policy instrument. Although well-known in the US with their extensive military procurement programmes that often led to the development of innovative technologies (see, e.g., Mazzucato 2015; Ruttan 2006), this policy instrument resurfaced on the agenda of policy makers in Europe in the early 2000s (Edler and Georghiou 2007), in part due to the recognition that supply-side measures are not sufficiently effective. Whereas in some countries, such as the UK, Denmark or the Netherlands, this new policy tool gained traction as part of a broader set of demand-side policy instruments (see Lember et al. 2014 for an overview), in some environments, such as Latvia (**I**), the new policy instrument did not find fertile ground. First, public procurement of innovation would need to become part of a targeted, sectoral approach,

aimed at developing specific industries, which did not fit into the dominant policy paradigm, based on a horizontal hands-off approach favouring pure competition without any strategic guidance from the public sector. Second, the small domestic market and openness to competition from the EU served as constraining factors. Last but not least important is the lack of capacity and capability in the public sector, necessary for dealing with complex policy instruments that inhibited the wider use of public procurement of innovation as an effective instrument for the innovation-policy toolbox (I; VI). The ability of civil servants to interpret, adapt and later also implement the policy ideas and instruments advocated by external actors therefore is central to the success of the policy idea or instrument.

Some of the policy ideas transferred throughout the period of economic transformation as well as under the influence of the EU, as argued earlier, led to the financial and the subsequent economic and fiscal crises of 2008/2009. Crises, it is often argued, open windows of opportunity for the re-evaluation of previous actions and a stimulus for policy learning (Hall 1993; Keeler 1993). This warrants a question: To what extent can policy makers learn under conditions of external influence, and what are the mechanisms behind policy learning. As argued in one of the contributions to this thesis (IV), policy makers do learn from the crisis, but their learning is mediated by a number of factors. First, given the difficulties involved in estimating the effects of fiscal policy on the economy – best shown in the discussion around structural balance requirement – drawing causal relations between policy choices and outcomes can be not straightforward. At the same time, domestic policy learning was to a significant extent influenced by the pressures emanating from the EU, leading to similar policy lessons in different countries despite different crisis experiences. Hence, the EU-mandated rules might have constrained local fiscal policy discussions and deeper learning.

As mentioned earlier, both innovation and fiscal policies are central elements of economic policy, with a great potential to influence the economic development of a country. Therefore, changes in these policy areas can have strong macro-level effects in terms of economic prosperity, employment, social well-being, as well as micro-level effects on public-service providers, including street-level civil servants, who, as we argue in one of the contributions to this thesis, can provide temporary or permanent fixes to the problems caused by the policies preceding the crisis (III). The micro-level effects of austerity policy, advocated by the institutions in the immediate aftermath of the crisis, lead to a decline in the quality of service provision, lower well-being and self-esteem of public-sector employees and the general environment of stress. The macro-level effects of the pre-crisis policies, including the *laissez-faire*-style innovation policy, to name just a few, included severe unemployment, destitution, mass exodus of working population, disruption of education and healthcare systems etc. This brings us to the third question posed: What are the effects of policy transfer on policy-making in countries with weak domestic policy-making capacities and capabilities? First, if policy instruments or ideas that are being transferred fit within the dominant ideology and existing policy routines, those will be adopted and will reinforce the existing policy routines. However, they will likely limit the scope for local policy learning. Second, policy transfer that does not allow for substantial adaptation will likely limit the space for policy experimentation and development of indigenous policy measures. Besides, policy transfer without adaptation to local conditions will likely result in solutions chasing non-existent problems, weaker policy outcomes and therefore waste of scarce resources. However, when policy transfer is supported by sufficient resources (both financial and human) and allows for adaptation

and experimentation, it will likely lead to better policy outcomes, deeper policy learning and therefore also stronger policy capacity and capabilities.

What insights does the comparison of policy transfer and policy learning in fiscal and innovation policy domains provide us? First, despite the different dominant modes of policy transfer (more coercive in the case of fiscal policy and more voluntary in the case of innovation policy), both policy domains have experienced extensive policy transfer. This can be, at least in part, explained by the weak domestic policy-making systems, which have been historically dominated by external advice. Second, in both cases policy learning has been relatively shallow, often not going beyond the transposition of the proposed policy instruments without evaluation and reflection on the potential short-term and long-term effects of the specific policy measures. Third, policy capacity and capabilities of policy makers are the central independent variables explaining why policy transfer and policy learning have often not reached the objectives posed. Finally, institutional environment plays a very important role in policy transfer and can facilitate policy transfer where the new policy ideas or instruments fit within the existing institutional environment (as in the case of fiscal policy; **IV**) or inhibit the successful implementation of new policy ideas (as was the case with smart specialisation policy; **V**; or public procurement of innovation).

This thesis provides some snapshots on the role and effects of policy transfer and policy learning in two policy domains and in a limited set of countries. Therefore, a more systematic analysis of the role and effects of policy transfer in fiscal policy across all new EU Member States would provide a better understanding of what role the EU, as the external actor, plays in fiscal policy-making. Given that the interviews for the article on fiscal policy learning were conducted at the time of major institutional change, following the introduction of the fiscal compact, as well as a broad range of norms and instruments to facilitate prudent fiscal policies in the EU, revisiting the same institutions when “the dust has already settled” and the policy makers got used to operating in the new framework may reveal a more nuanced picture of policy-learning processes in the domain of fiscal policy. The same applies to the study of public procurement as an innovation-policy instrument, which was conducted 5 years ago, making the empirical data somewhat outdated. Therefore, revisiting the study and extending it to a comparative study within the Baltic region or across the CEE countries will provide a better understanding of the processes of policy transfer and learning that have occurred since, as well as the outcomes of these processes. Similarly, also in the case of smart specialisation, more systematic comparative studies, analysing different factors influencing the implementation of smart specialisation and entrepreneurial discovery, are warranted. Particularly interesting would be comparative studies between transition countries in Europe and Latin American countries currently attempting to implement smart specialisation (for the first attempt, see Belen et al. 2017).

References

- Arrowsmith, J., K. Sisson and P. Marginson. 2004. "What can 'Benchmarking' Offer the Open Method of Co-Ordination?" *Journal of European Public Policy* 11, 311-328.
- Baldwin, R., M. Cave and M. Lodge. 2012. *Understanding Regulation: Theory, Strategy, and Practice*. Oxford: Oxford University Press on Demand.
- Beland, D. and M. Howlett, 2016. "How solutions chase problems: Instrumental constituencies in the policy process." *Governance*, 29(3), 393-409.
- Belen, B., G.P. Javier, P. Jonathan and P. Manuel. 2017. *Innovation and Regional Specialisation in Latin America*, JRC Technical Reports. Seville: Joint Research Centre.
- Bennett, C.J. and M. Howlett. 1992. "The Lessons of Learning: Reconciling Theories of Policy Learning and Policy Change." *Policy Sciences* 25, 275-294.
- Bohle, D. 2016. "East Central Europe in the European Union." In A. Cafruny, L.S. Talani and G.P. Martin (eds). *The Palgrave Handbook of Critical International Political Economy*. London: Palgrave Macmillan, 371-389.
- Bohle, D. 2010. "Countries in Distress: Transformation, Transnationalization, and Crisis in Hungary and Latvia." *Employment and Economy in Central and Eastern Europe*, Available at <http://www.emecon.eu/current-issue/bohle/> (Last accessed 5 September 2017).
- Bohle, D. and B. Greskovits. 2012. *Capitalist Diversity on Europe's Periphery*. Ithaca: Cornell University Press.
- Börzel, T.A., T. Risse et al. 2000. "When Europe Hits Home: Europeanization and Domestic Change." *European Integration online Papers* 4. Available at https://papers.ssrn.com/sol3/papers.cfm?abstract_id=302768 (Last accessed 5 September 2017).
- Bruszt, L., 2002. "Making markets and eastern enlargement: Diverging convergence?" *West European Politics* 25, 121-140.
- Bulmer, S. and S. Padgett. 2005. "Policy Transfer in the European Union: An Institutional Perspective." *British Journal of Political Science* 35, 103-126.
- Campbell, J.L. and O.K. Pedersen. 2015. "Policy Ideas, Knowledge Regimes and Comparative Political Economy." *Socio-Economic Review* 13, 679-701.
- Campbell, J.L. and O.K. Pedersen. 2014. *The National Origins of Policy Ideas: Knowledge Regimes in the United States, France, Germany, and Denmark*. Oxford: Princeton University Press.
- CEC, 2003. *The Phare Programme Annual Report 2001*. Brussels: Commission of European Communities, <http://eur-lex.europa.eu/legal-content/EN/TXT/?uri=CELEX%3A52003DC0097> (Last accessed 5 September 2017).
- Charles, D., F. Gross and J. Bachtler. 2012. "Smart Specialisation and Cohesion Policy: A Strategy for all Regions?" *IQ-Net Thematic Paper* 30. Available at <http://www.eprc.strath.ac.uk/iqnet/downloads/IQ->

- Coffano, M. and D. Foray. 2014. "The Centrality of Entrepreneurial Discovery in Building and Implementing a Smart Specialisation Strategy." *Scienze Regionali* 1/2014, 33-50, DOI:10.3280/SCRE2014-001003.
- Colebatch, H.K., R. Hoppe and M. Noordegraaf (eds). 2010. *Working for Policy*. Amsterdam: Amsterdam University Press.
- Coricelli, F. 2004. "Fiscal Policy in an Enlarged EU." *Revue de l'OFCE* 91(5), 191-208.
- Dąbrowski, M. 2012. "Shallow or Deep Europeanisation? The Uneven Impact of EU Cohesion Policy on the Regional and Local Authorities in Poland." *Environment and Planning C: Government and Policy* 30, 730-745.
- Dale, G. 2011. *First the Transition, then the Crash: Eastern Europe in the 2000s*. London: Pluto Press.
- Dan, S. and C. Pollitt. 2015. "NPM Can Work: An Optimistic Review of the Impact of New Public Management Reforms in Central and Eastern Europe." *Public Management Review* 17, 1305-1332.
- DiMaggio, P.J. and W.W. Powell. 2000. "The Iron Cage Revisited Institutional Isomorphism and Collective Rationality in Organizational Fields." In Baum, J.A.C. and F.Dobbin (eds.). *Economics Meets Sociology in Strategic Management*. Greenwich, CT: JAI, 143-166.
- Dimitrova, A.L. 2005. "Europeanization and Civil Service Reform in Central and Eastern Europe." In A. Dimitrova (ed.). *The Europeanization of Central and Eastern Europe*. Ithaca, NY: Cornell University Press, 71-90.
- Dolowitz, D.P. and D. Marsh. 2000. "Learning from Abroad: The Role of Policy Transfer in Contemporary Policy-Making." *Governance* 13, 5-23.
- Dolowitz, D. and D. Marsh. 1996. "Who Learns what from whom: A Review of the Policy Transfer Literature." *Political Studies* 44, 343-357.
- Dosi, G., C. Freeman, R. Nelson, G. Silverberg, L. Soete et al. 1988. *Technical Change and Economic Theory*. London: Pinter.
- Dosi, G., P. Llerena and M.S. Labini. 2005. "Science-Technology-Industry Links and the 'European Paradox': Some Notes on the Dynamics of Scientific and Technological Research in Europe." *LEM Working Paper Series*.
- Drechsler, W. 2005a. "The Rise and Demise of the New Public Management." *Post-autistic economics review* 33(14), 17-28.
- Drechsler, W. 2005b. "The Re-Emergence of 'Weberian' Public Administration after the Fall of New Public Management: The Central and Eastern European Perspective." *Administrative Culture* 6, 94-108.
- Drechsler, W. and T. Randma-Liiv. 2016. "In Some Central and Eastern European Countries, Some NPM Tools May Sometimes Work: A Reply to Dan and Pollitt's 'NPM Can Work'." *Public Management Review* 18, 1559-1565.
- Edler, J. and L. Georghiou. 2007. "Public Procurement and Innovation: Resurrecting the Demand Side." *Research Policy* 36, 949-963.

- Edquist, C. 2005. "Systems of Innovation: Perspectives and Challenges." In J. Fagerberg, D.C. Mowery and R. Nelson (eds). *The Oxford Handbook of Innovation*. Oxford: Oxford University Press, 181-208.
- Epstein, R.A. 2014. "Overcoming 'Economic Backwardness' in the European Union." *JCMS: Journal of Common Market Studies* 52, 17-34.
- European Council. 1993. European Council in Copenhagen: Presidency Conclusions.
- Evans, M. 2009. "Policy Transfer in Critical Perspective." *Policy Studies* 30, 243-268.
- Evans, M. (ed.). 2004. *Policy Transfer in Global Perspective*. Aldershot: Ashgate.
- Evans, M. and J. Davies. 1999. "Understanding Policy Transfer: A Multi-Level, multi-Disciplinary Perspective." *Public Administration* 77, 361-385.
- Fatás, A. and A.K. Rose. 2001. "Do Monetary Handcuffs Restrain Leviathan? Fiscal Policy in Extreme Exchange Rate Regimes." *CEPR Discussion Paper* 2692.
- Flyvbjerg, B. 2006. "Five Misunderstandings about Case-Study Research." *Qualitative Inquiry* 12, 219-245.
- Foray, D. 2015. *Smart Specialisation: Opportunities and Challenges for Regional Innovation Policy, Regions and Cities*. London/New York: Routledge.
- Foray, D., P.A. David and B.H. Hall. 2011. *Smart Specialisation: From Academic Idea to Political Instrument, the Surprising Career of a Concept and the Difficulties Involved in its Implementation*. Lausanne: EPFL.
- Foray, D., P.A. David and B. Hall. 2009. "Smart Specialisation – The Concept." *Knowledge Economists Policy Briefs* 9. Brussels: EC DG Research.
- Foray, D. and A. Rainoldi. 2013. "Smart Specialisation Programmes and Implementation." Policy Brief 02/2013. Seville: European Commission.
- Freeman, C. 1987. *Technology Policy and Economic Performance: Lessons from Japan*. London: Pinter Publishers.
- George, A.L. and A. Bennett. 2005. *Case Studies and Theory Development in the Social Sciences*. Cambridge, Mass: MIT Press.
- Gilardi, F. 2010. "Who Learns from what in Policy Diffusion Processes?" *American Journal of Political Science* 54, 650-666.
- Godin, B. 2009. "National Innovation System." *Science, Technology, & Human Values* 34, 476-501. doi:10.1177/0162243908329187.
- Godin, B. 2006. "The Linear Model of Innovation: The Historical Construction of an Analytical Framework." *Science, Technology, & Human Values* 31, 639-667.
- Goetz, K.H. 2001. "Making Sense of Post-Communist Central Administration: Modernization, Europeanization or Latinization?" *Journal of European Public Policy* 8, 1032-1051.
- Grabbe, H. 2006. *The EU's Transformative Power: Europeanization through Conditionality in Central and Eastern Europe*. Palgrave Studies in European Union Politics. Basingstoke: Palgrave Macmillan.

- Grabbe, H. 2002. "European Union Conditionality and the Acquis Communautaire." *International Political Science Review* 23, 249-268.
- Grabbe, H. 2001. "How does Europeanization Affect CEE Governance? Conditionality, Diffusion and Diversity." *Journal of European Public Policy* 8, 1013-1031.
- Hadjiisky, M., L.A. Pal and C. Walker (eds). 2017. *Public Policy Transfer: Micro-Dynamics and Macro-Effects*. Cheltenham: Edward Elgar Publishing.
- Hall, P.A. 1993. "Policy Paradigms, Social Learning, and the State: The Case of Economic Policymaking in Britain." *Comparative Politics* 25(3), 275-296.
- Harmsen, R. 1999. "The Europeanization of National Administrations: A Comparative Study of France and the Netherlands." *Governance* 12, 81-113.
- Heclo, H. 2010. *Modern Social Politics in Britain and Sweden*. Colchester: ECPR Press.
- Holzinger, K. and C. Knill. 2005. "Causes and Conditions of Cross-National Policy Convergence." *Journal of European Public Policy* 12, 775-796.
- Hood, C. and R. Dixon. 2015. *A Government that Worked Better and Cost Less? Evaluating Three Decades of Reform and Change in UK Central Government*. Oxford: OUP.
- Howlett, M. and A. Migone. 2013. "Policy Advice through the Market: The Role of External Consultants in Contemporary Policy Advisory Systems." *Policy and Society* 32, 241-254.
- Hughes, J., G. Sasse and C. Gordon. 2004. *Europeanization and Regionalization in the EU's Enlargement to Central and Eastern Europe: The Myth of Conditionality*. Basingstoke: Palgrave Macmillan.
- Hung, W., D.H. Jonassen, R. Liu et al. 2008. "Problem-Based Learning." *Handbook of Research on Educational Communications and Technology* 3, 485-506.
- Iacobucci, D. 2014. "Designing and Implementing a Smart Specialisation Strategy at Regional Level: Some Open Questions". *Scienze Regionali* 2014/1, 107-126.
- Inotai, A. 2000. "The Czech Republic, Hungary, Poland, the Slovak Republic, and Slovenia." In H. Tang (ed.). *Winners and Losers of EU Integration: Policy Issues for Central and Eastern Europe*. Washington, DC: The World Bank, 17-51.
- Izsak, K., P. Markianidou and S. Radošević. 2015. "Convergence of National Innovation Policy Mixes in Europe – Has It Gone Too Far? An Analysis of Research and Innovation Policy Measures in the Period 2004-12." *JCMS: Journal of Common Market Studies* 53, 786-802.
- James, O. and M. Lodge. 2003. "The limitations of 'policy transfer' and 'lesson drawing' for public policy research". *Political studies review* 1(2), 179-193.
- Jupp, V. 2006. *The SAGE Dictionary of Social Research Methods*. London, New Delhi: Sage.
- Juuse, E. 2016. "Regulatory Convergence, Financialization and Hollowing Out of the State: The Case of Financial System in Estonia." *Administrative Culture* 17, 19-46.
- Juuse, E. 2015. "Financial Regulation in Estonia: A 'World of "Dead Letters"'." In Kattel, R., J.Kregel and M. Tonveronachi (eds.). *Financial Regulation in the European Union*. Abingdon, Oxon: Routledge, 133.

- Kaderabkova, A. and S. Radosevic. 2011. "Innovation Policy in Multi-Tier Europe: Introduction." In S. Radosevic and A. Kaderabkova (eds). *Challenges for European Innovation Policy. Cohesion and Excellence from a Schumpeterian Perspective*. Cheltenham, UK: Edward Elgar, 1-8.
- Karklins, R. 2005. *The System Made me Do it: Corruption in Post-Communist Societies*. New York: ME Sharpe.
- Karo, E. 2012. "Modernizing Governance of Innovation Policy through 'Decentralization': A New Fashion or a Threat to State Capacities?" *Innovation* 14(4), 495-509.
- Karo, E. 2011. "The Evolution of Innovation Policy Governance Systems and Policy Capacities in the Baltic States." *Journal of Baltic Studies* 42, 511-536.
- Karo, E. 2010. "Improving Governance of Science and Innovation Policies or Just Bad Policy Emulation? The Case of the Estonian R&D System." *Halduskultuur - Administrative Culture* 11, 174-201.
- Karo, E. and R. Kattel. 2015a. "Innovation Bureaucracy: Does the Organization of Government Matter when Promoting Innovation?" *Papers in Innovation Studies* 38.
- Karo, E. and R. Kattel. 2015b. "Economic Development and Evolving State Capacities in Central and Eastern Europe: Can 'Smart Specialization' Make a Difference?" *Journal of Economic Policy Reform* 18(2), 172-187.
- Karo, E. and R. Kattel. 2009. "The Copying Paradox: Why Converging Policies but Diverging Capacities Development in Eastern European Innovation Systems?" *International Journal of Institutions and Economies* 2, 167-206.
- Karo, E. and V. Lember. 2016. "Emergence of Societal Challenges-Based Innovation Policies in Market-Based Innovation Systems: Lessons from Estonia." *International Journal of Foresight and Innovation Policy*, 11, 126-147.
- Kattel, R., T. Randma-Liiv and T. Kalvet. 2011. "Small States, Innovation and Administrative Capacity." In V.J.J.M. Bekkers, J. Edelenbos and B. Steijn (eds). *Innovation in the Public Sector: Linking Capacity and Leadership*. Basingstoke: Palgrave Macmillan, 61-81.
- Kattel, R. and R. Raudla. 2013. "The Baltic Republics and the Crisis of 2008-2011." *Europe-Asia Studies* 65, 426-449.
- Kattel, R., E.S. Reinert and M. Suurna. 2009. "Industrial Restructuring and Innovation Policy in Central and Eastern Europe since 1990." *The Other Canon and Tallinn University of Technology Working Papers in Technology Governance and Economic Dynamics* 23.
- Kay, A. 2006. *The Dynamics of Public Policy: Theory and Evidence*. Cheltenham: Edward Elgar Publishing.
- Keeler, J.T. 1993. "Opening the Window for Reform Mandates, Crises, and Extraordinary Policy-Making." *Comparative Political Studies* 25, 433-486.
- Knill, C. 2005. "The Europeanization of National Policy Capacities." In M. Painter and J. Pierre (eds). *Challenges to State Policy Capacity*. Basingstoke: Macmillan, 52-72.

- Knill, C. and D. Lehmkuhl. 1999. "How Europe Matters: Different Mechanisms of Europeanization." *European Integration online Papers* 3.
- Knill, C. and A. Lenschow. 2000. *Implementing EU Environmental Policy: New Directions and Old Problems*. Manchester: Manchester University Press.
- Korhonen, I. 2000. "Currency Boards in the Baltic Countries: What have we Learned?" *Post-Communist Economies* 12(1), 25-46.
- Kroll, H. 2015. "Efforts to Implement Smart Specialization in Practice: Leading Unlike Horses to the Water." *European Planning Studies* 23, 2079-2098.
- Lapsley, I. 2009. "New Public Management: The Cruellest Invention of the Human Spirit?" 1. *Abacus*, 45, 1-21.
- Lember, V., R. Kattel and T. Kalvet. 2014. *Public Procurement for Innovation Policy: International Perspectives*. Berlin: Springer.
- Lundvall, B.-Å. 1988. "Innovation as an Interactive Process: From User-Producer Interaction to National Innovation Systems." In G. Dosi, C. Freeman, R.R. Nelson, G. Silverberg and L. Soete (eds). *Technical Change and Economic Theory*. London: Pinter, 349-369.
- McCann, P. and R. Ortega-Argilés. 2013. "Smart Specialization, Regional Innovation Systems and EU Cohesion Policy." In Thissen, M., F. van Oort, D. Diodato, and A. Ruijs (eds.). *Regional Competitiveness and Smart Specialization in Europe*. Cheltenham: Edward Elgar, 23-32.
- Marginson, S. 2013. "The Impossibility of Capitalist Markets in Higher Education." *Journal of Education Policy*, 28, 353-370.
- Marsh, D. and J.C. Sharman. 2009. "Policy Diffusion and Policy Transfer." *Policy Studies*, 30(3), 269-288.
- May, P. 1992. "Policy Learning and Failure." *Journal of Public Policy*, 12(4), 331-54
- Mazzucato, M. 2015. *The Entrepreneurial State: Debunking Public vs. Private Sector Myths*. London: Anthem Press.
- Meyer-Sahling, J.-H. and C. Van Stolk. 2014. "A Case of Partial Convergence: The Europeanization of Central Government in Central and Eastern Europe." *Public Administration*. doi:10.1111/padm.12122.
- Monfort, M., J.C. Cuestas and J. Ordóñez. 2013. "Real Convergence in Europe: A Cluster Analysis." *Economic Modelling*, 33, 689-694.
- Muizniece, L., & A. Cepilovs. 2017. "SUPPORTING UNIVERSITY TECHNOLOGY TRANSFER-STRUGGLES AND BARRIERS IN LATVIA." *Ekonomiska misao i praksa*, 1, 321-342.
- Myant, M. 2007. "Economic Transformation in the Czech Republic: A Qualified Success." *Europe-Asia Studies* 59, 431-450.
- Myant, M. and J. Drahokoupil. 2012. "International Integration, Varieties of Capitalism and Resilience to Crisis in Transition Economies." *Europe-Asia Studies* 64, 1-33.
- Olsen, J.P. 2002. "The many Faces of Europeanization." *JCMS: Journal of Common Market Studies* 40, 921-952.

- Osborne, S.P. 2010. *The New Public Governance: Emerging Perspectives on the Theory and Practice of Public Governance*. London: Routledge.
- Page, E.C. and B. Jenkins. 2005. *Policy Bureaucracy: Government with a Cast of Thousands*. Oxford: Oxford University Press.
- Painter, M. 2003. "Policy Capacity and the Effects of New Public Management." In T. Christensen and P. Laegreid (eds). *New Public Management: The Transformation of Ideas and Practice*. Aldershot: Ashgate, 209-229.
- Paliokaitė, A., Ž., Martinaitis, and D. Sarpong. 2016. "Implementing smart specialisation roadmaps in Lithuania: Lost in translation?" *Technological Forecasting and Social Change* 110, 143-152.
- Parsons, W. 2004. "Not just Steering but Weaving: Relevant Knowledge and the Craft of Building Policy Capacity and Coherence." *Australian Journal of Public Administration* 63, 43-57.
- Pestoff, V., T. Brandsen and B. Verschuere. 2013. *New Public Governance, the Third Sector, and Co-Production*. Abingdon, Oxon: Routledge.
- Peters, B.G. 2015. "Policy Capacity in Public Administration." *Policy and Society* 34, 219-228.
- Peters, B.G. 1997. "Policy Transfers between Governments: The Case of Administrative Reforms." *West European Politics* 20, 71-88.
- Peters, B.G. 1996. "The Policy Capacity of Government". *Research Papers*, 18. Ottawa: Canadian Centre for Management Development.
- Purfield, M.C. and M.C.B. Rosenberg. 2010. *Adjustment under a Currency Peg: Estonia, Latvia and Lithuania during the Global Financial Crisis 2008-09*. Washington, DC: International Monetary Fund.
- Radaelli, C.M. 2008. "Europeanization, Policy Learning, and New Modes of Governance." *Journal of Comparative Policy Analysis* 10, 239-254.
- Radaelli, C.M. 2000. "Policy Transfer in the European Union: Institutional Isomorphism as a Source of Legitimacy." *Governance* 13(1), 25-43.
- Radosevic, S. 2017. "Upgrading Technology in Central and Eastern European Economies." *IZA World of Labor*, doi: 10.15185/izawol.338.
- Radosevic, S. 2002. "Introduction: Building the Basis for Future Growth – Innovation Policy as a Solution." *Journal of International Relations and Development* 5, 352-357.
- Radosevic, S. and M. Myrzakhmet. 2009. "Between Vision and Reality: Promoting innovation through Technoparks in an Emerging Economy." *Technovation* 29, 645-656.
- Radosevic, S. and A. Reid. 2006. "Innovation Policy for a Knowledge-Based Economy in Central and Eastern Europe: Driver of Growth or New Layer of Bureaucracy?" In K. Piech and S. Radosevic (eds). *Knowledge-Based Economy in Central and East European Countries: Countries and Industries in a Process of Change*. Basingstoke: Palgrave Macmillan, 295-311.

- Randma-Liiv, T. 2008. "New Public Management versus Neo-Weberian State in Central and Eastern Europe." *Journal of Public Administration and Policy* 1, 49-71.
- Randma-Liiv, T. 2007. "From Policy Transfer to Policy Learning in Central and Eastern Europe." In D. Coombes and L. Vass (eds). *Post-Communist Public Administration: Restoring Professionalism and Accountability*. Bratislava: NISPAcee Press, 27-36.
- Randma-Liiv, T. 2002. "Small States and Bureaucracy: Challenges for Public Administration." *Trames* 6, 374-389.
- Randma, T. 2001. "A Small Civil Service in Transition: The Case of Estonia." *Public Administration and Development* 21, 41-51.
- Randma, T. 1999. *Civil Service Careers in Small and Large States: The Cases of Estonia and the United Kingdom*. Doctoral Dissertation. Loughborough University of Technology.
- Randma-Liiv, T. and R. Kruusenberg. 2012. "Policy Transfer in Immature Policy Environments: Motives, Scope, Role Models and Agents." *Public Administration and Development* 32, 154-166.
- Raudla, R. 2013. "Pitfalls of Contracting for Policy Advice: Preparing Performance Budgeting Reform in Estonia." *Governance* 26, 605-629.
- Raudla, R. and R. Kattel. 2011. "Why did Estonia Choose Fiscal Retrenchment after the 2008 Crisis?" *Journal of Public Policy* 31, 163-186.
- Reinert, E.S. and R. Kattel. 2007. "European Eastern Enlargement as Europe's Attempted Economic Suicide?" *The Other Canon and Tallinn University of Technology Working Papers in Technology Governance and Economic Dynamics* 14.
- Reinholde, I. 2004. "Challenges for Latvian Public Administration in the European Integration Process." In A. Dimitrova (ed.). *Driven to Change: The European Union's Enlargement Viewed from the East*. Manchester: Manchester University Press, 163-178.
- Rodrik, D. 2006. "Goodbye Washington Consensus, hello Washington Confusion? A Review of the World Bank's Economic Growth in the 1990s: Learning from a Decade of Reform." *Journal of Economic Literature* 44, 973-987.
- Rose, R. 1991. "What is Lesson-Drawing?" *Journal of Public Policy* 11, 3-30.
- Rose, R. 1993. *Lesson Drawing in Public Policy: A Guide to Learning Across Time and Space*. Chatham, N.J.: Chatham House
- Ruttan, V.W. 2006. *Is War Necessary for Economic Growth? Military Procurement and Technology Development*. New York: Oxford University Press.
- Sachs, J.D. 1995. "Shock therapy in Poland: Perspectives of five years." *Tanner Lectures on Human Values* 16, 265-290.
- Saint-Martin, D. 2000. "The Formation of the New Entrepreneurial State and the Growth of Modern Management Consultancy." In D. Braun and A. Busch (eds). *Public Policy and Political Ideas*. Cheltenham: Edward Elgar, 82-97.
- Sanderson, I. 2009. "Intelligent Policy Making for a Complex World: Pragmatism, Evidence and Learning." *Political Studies* 57, 699-719.

- Sanderson, I. 2002. "Evaluation, Policy Learning and Evidence-Based Policy Making." *Public Administration* 80, 1-22.
- Sarapuu, K. 2010. "Comparative Analysis of State Administrations: The Size of State as an Independent Variable." *Halduskultuur* 11(1), 30-43.
- Savi, R. and T. Randma-Liiv. 2013. "4 Policy Transfer in New Democracies." In P. Carroll and R. Common (eds). *Policy Transfer and Learning in Public Policy and Management: International Contexts, Content and Development.* Abingdon, Oxon: Routledge, 67-79.
- Scherpereel, J.A. 2010. "EU Cohesion Policy and the Europeanization of Central and East European Regions." *Regional & Federal Studies* 20, 45-62.
- Schimmelfennig, F. and U. Sedelmeier. 2005. *The Europeanization of Central and Eastern Europe*. Ithaca: Cornell University Press.
- Schimmelfennig, F. and U. Sedelmeier. 2004. "Governance by Conditionality: EU Rule Transfer to the Candidate Countries of Central and Eastern Europe." *Journal of European Public Policy* 11, 661-679. doi:10.1080/1350176042000248089.
- Simmons, B.A. and Z. Elkins. 2004. "The Globalization of Liberalization: Policy Diffusion in the International Political Economy." *American Political Science Review* 98(1), 171-189.
- Simonet, D. 2015. "The New Public Management Theory in the British Health Care System: A Critical Review." *Administration & Society* 47, 802-826.
- Smits, R. and S. Kuhlmann. 2004. "The Rise of Systemic Instruments in Innovation Policy." *International Journal of Foresight and Innovation Policy* 1, 4-32.
- Sommers, J., and C. Woolfson. (eds.). (2014). *The contradictions of austerity: The socio-economic costs of the neoliberal Baltic model*. Abingdon, Oxon: Routledge.
- Sörvik, J., A. Kleibrink et al. 2015. *Mapping Innovation Priorities and Specialisation Patterns in Europe*. Seville: Institute for Prospective and Technological Studies, Joint Research Centre.
- Spendzharova, A.B. and I. Emre Bayram. 2016. "Banking Union through the Back Door? How European Banking Union Affects Sweden and the Baltic States." *West European Politics* 39, 565-584.
- Staehr, K. 2015. "Economic Growth and Convergence in the Baltic States: Caught in a Middle-Income Trap?" *Intereconomics* 50, 274-280.
- Stone, D. 2004. "Transfer Agents and Global Networks in the 'Transnationalization' of Policy." *Journal of European Public Policy* 11, 545-566. doi:10.1080/13501760410001694291.
- Stone, D. 1999. "Learning Lessons and Transferring Policy across Time, Space and Disciplines." *Politics* 19, 51-59.
- Suurna, M. and R. Kattel. 2010. "Europeanization of Innovation Policy in Central and Eastern Europe." *Science and Public Policy* 37, 646-664.
- Veugelers, R. and H. Schweiger. 2016. "Innovation Policies in Transition Countries: One Size Fits all?" *Economic Change and Restructuring* 49, 241-267.

- Walker, R. 1999. "The Americanization of British Welfare: A Case Study of Policy Transfer." *International Journal of Health Services* 29, 679-697.
- Williamson, J. 1990. "What Washington Means by Policy Reform." In J. Williamson (ed.). *Latin American Adjustment: How Much Has Happened?* Washington, DC: Institute for International Economics, 90-120.
- Woolfson, C. and J. Sommers. 2016. "Austerity and the Demise of Social Europe: The Baltic Model versus the European Social Model." *Globalizations* 13(1), 78-93.
- World Bank. 2005. *Economic Growth in the 1990s: Learning from a Decade of Reform*. Washington, DC: World Bank Publications.
- Wu, X., M. Ramesh and M. Howlett. 2015. "Policy Capacity: A Conceptual Framework for Understanding Policy Competences and Capabilities." *Policy and Society* 34(3-4), 165-171.
- Yin, R.K. 2003. *Case Study Research, Design and Methods*. London, New Delhi: Sage Publications.

Acknowledgements

Crises provide opportunity not only for policy change. In my particular case, it was the financial crisis of 2008-2009 and the subsequent economic crisis that provided me with an opportunity to set-off on a journey that lasted 7 years and brought me where I am now. If not for the crisis, I would, in all likelihood, still be managing construction projects somewhere in Latvia. This long journey would not be possible without all the wonderful people that I encountered on the way, who first provided me with a new perspective on the social world, provided me with the tools to study processes and events, but also provided with ample opportunities to apply the knowledge and the tools in practice in a variety of projects.

I would very much like to thank my co-supervisors Prof. Dr Ringa Raudla and Dr Veiko Lember, for their support throughout my PhD studies, for their trust in my abilities as well as for providing me with the opportunity to contribute to different projects. Although doing a PhD requires further specialisation, I managed to escape this path and remain a generalist curious about many different things at a time. For this opportunity to remain true to one's nature I would like to extend my thanks to the supportive environment and colleagues at Ragnar Nurkse Department, who with their own experience show that it is possible to be an academic and remain curious about different subjects and disciplines, frequently spanning their boundaries.

I would like to extend my gratitude to the colleagues at the Ragnar Nurkse Department (in no specific order) – Dr Riin Savi for fruitful collaboration and a supportive hand when it was most needed, to Dr Piret Tõnuri and Olga Mikheeva for intellectually challenging discussions and camaraderie, to Dr Erkki Karo for valuable comments throughout my studies, to all co-authors without whom this thesis would not have been possible and to Piret Kähr for her support in administrative issues. Special thanks also to Dr Egert Juuse and Dr Külli Sarapuu for providing valuable feedback at the very last stage of my work on this dissertation. I would like to thank those colleagues not mentioned by name here, but who provided their support at some point in time.

Last, but not least, a very special thank you goes to those closest to me – my friends and family. First, I would like to thank my father, who supported my decision to leave the family business and continue learning, who is not here to witness the result. I would like to thank my mother and my brother for their support throughout this endeavour. Riaz, who was a mentor and an inspiration for me over the years and remains a friend. Most of all I am grateful to Liza, who happened to share this journey and who supported me in times high and low.

Research conducted in this thesis has received financial support from the following financial sources: EU FP7 project VFP597 "Learning from innovation in Public Sector Environments (LIPSE)"; PUT1142 "Developments in the Fiscal Governance of European Countries: Impacts of the Crisis and Future Prospects"; ETAG13160 "Understanding policy change: Financial and fiscal bureaucracy in the Baltic Sea Region"; B26 "Understanding Policy Change: Financial and Fiscal Bureaucracy in the Baltic Region"; LMIN16086 "Monitoring of procurements supporting innovation"; ETF9395 "Public-private partnerships and public service delivery: impact on economic development".

Kokkuvõte

Poliitika õppimise ja ülevõtmise protsess madala poliitikasuutlikkusega keskkonnas: protsessid ja mõju fiskaal- ja innovatsioonipoliitika valdkonnas

Üleminek sotsialistlikult plaanimajanduselt turumajandusele on Balti riikides toimunud võiduajamise tempos. Kuigi ei saa alahinnata nimetatud riikide viimase 25 aasta saavutusi toimiva deokraatliku riigikorralduse ja turumajanduse ülesehitamisel, oli ja on siiani mitmeid väljakutseid, mis Balti riikidel tuleb seljatada, et olla samal tasemel vana Euroopaga, vähemalt majanduslikus mõttes. Lisaks riikide lähtepositsioonile, mis kujunes välja enne Nõukogude Liidu lagunemist, avaldasid üleminekuprotsessi tulemustele olulist mõju majanduse ajakohastamiseks valitud reformipoliitika ja taasiseseisvumise järgselt tehtud poliitikavalikud.

Osa Kesk- ja Ida-Euroopa (KIE) riike, nagu Sloveenia ja Tšehhi Vabariik, valisid 90ndatel järk-järgulise muutuste tee ja rajasid majandusliku koordinaatsiooni teostamiseks tugevad institutsioonid. Need riigid on kogu üleminekuperioodi vältel olnud üsna edukad ja saavutanud endise sotsriikide seas tänaseks kõige kõrgema SKT taseme. Teine osa riike, nagu näiteks Balti riigid, valisid pigem teadliku mittesekumise või neoliberaalse majanduspoliitilise raamistiku, mille tulemuseks oli suhteliselt nõrgem majandus, eriti vahetult peale 2008-2009 rahanduskriisi.

Eitamata, et majanduse ümberkujundamise edukus sõltub väga paljudest erinevatest faktoritest, võib siiski osa erinevustest majandusliku edu vallas üleminekuprotsessi vältel kanda tehtud poliitiliste valikute arvele. Siiski on hoolimata erinevatest valikutest, mida riigid peale Berliini müüri langemist tegid, midagi, mis ühendab kõiki KIE riike läbi 25 aasta: nimelt olid nad kõik omal moel poliitika ülekande protsessi katsepolügooniks. Balti riikidel on seljataga väga intensiivse välissurve ja poliitika ülekande periood, mis tõi kaasa üsna spetsiifilise õpikeskkonna, aga samas ka püsivad poliitikarutiinid. Et paremini mõista poliitika ülekande ja õppimise protsessi ning selle mõju poliitika kujundamisele ja tulemustele, keskendub käesolev väitekirj fiskaal- ja innovatsiooni valdkonna poliitikale Balti riikides, lähemalt uuritakse Lätit. Väitekirj püstitab alljärgnevad uurimisküsimused:

1. Kuidas toimib poliitika ülekande vähearenenud poliitikakeskkonnas, konkreetsemalt innovatsioonipoliitika valdkonnas?

2. Mil määral on poliitikakujundajad võimelised õppima välise surve all ja millised on poliitikakujundamise oskuse omandamise mehhanismid, seda just fiskaalpoliitika valdkonnas?

3. Milline on poliitika ülekande mõju poliitikaloomele riikides, kus siseriiklik poliitikakujundamise võime ja suutlikkus on madalad.

4. Kas poliitikavaldkonna sisu määrab selle, milline on poliitika ülekande ja õppimise protsess madala poliitikakujundamise võime ja suutlikkusega riikides

Poliitikasuutlikkus kõrvuti poliitika ülekande ja poliitika õppimise protsessiga ongi käesoleva väitekirja võtmeteema. Valitsuse ja konkreetsemalt riigiparaadi poliitikaloome suutlikkusel, nii nagu seda ka allpool näeme, on suur mõju poliitikakujundajatele selles, kui võrd nad kaasuvad sisulisse poliitika õppeprotsessi nagu ka selles, kas nad kasutavad efektiivselt poliitika ülekannet, et saavutada soovitud tulemusi.

Kuigi nii poliitika ülekande kui ka õppimise protsess vaadeldavates riikides on kestnud jätkuvalt viimased 25 aastat, on see periood parema analüüsi huvides jagatud

lühemateks ajavahemikeks. Esiteks periood vahetult peale Berliini müüri langemist ja Nõukogude Liidu lagunemist, mil kõik riigid läbisid demokraatia ja turumajanduse ülesehitamise faasi, tuginedes paljuski rahvusvahelistelt organisatsioonidelt saadud laenudele ja välisabile, mida anti koos tingimuslike nõuetega rakendatava poliitika osas, mille aluseks olid Washingtoni konsensuse postulaadid nagu kaubanduse liberaliseerimine, sõltumatute keskpankade loomine, riigiettevõtet erastamine, finantsliberaliseerimine, range eelarveditsipliin, valdkondadeülene deregulatsioon ja eraomandi õigusliku kaitse kehtestamine.

Järgmiseks etapiks oli *acquis communautaire* ülevõtmine siseriiklikku õigusse. Ühenduse õigustiku ülevõtmine eeldas aga uute regulatsioonide elluviimiseks vajalike institutsioonide loomist, seda nt keskkonnakaitse, tervihoiu, tolli jt valdkondades, aga samuti riigiametnike väljaõpet, kes järgiksid uute seaduste jõustamist ja poliitikameetmete rakendamist. Näited poliitikaülekandest, mida eespool sai põgusalt kirjeldatud, olid kõikides Balti riikides mastaabilt ja sisulise sekkumise ulatuselt üsna sarnased.

Siiski oli valdkondlikke erinevusi selles, kuivõrd suur roll poliitika ülekandel oli: valdkondade kõrval, kus kohustuslik poliitikaülekanne oli rangem (nt ühisturgu edendav poliitika), oli teisi valdkondi, kus nõudmised üks-üheseks poliitikaülekandeks nii rangeid ettekirjutusi ei teinud (nt justiits- ja siseküsimused või innovatsioon). Mitmetes poliitikavaldkondadeks on ka poliitika õppimine olnud ülekande kõrval oluliseks muutuste käivitajaks. Innovatsioonipoliitika valdkonnas on muutused poliitikas toimunud suuresti just vabatahtliku poliitika ülekande ja poliitika õppimise koostoisest, millele on andnud peamise tõuke Euroopa Komisjoni võrdlev hindamine, mille üheks väljundiks on iga-aastane innovatsioonitegevuse tulemustabel (Innovation Union Scoreboard). Tänu võrdleva hindamise protsessile hakati värske pilguga vaatama ka põhjuslikke seosesid erinevate majandusarengu indikaatorite vahel (teadus- ja arendustegevuse (T&A) rahastamine ja innovatiivsus), samuti tekkis muutus üldistes arusaamades, mis viis teistsuguste poliitikavahendite kasutuselevõtuni (nt T&A toetuste süsteem).

Kõige värskemad näited poliitika ülekandest EL uutes KIE liikmesriikides põhinevad konkreetsetes riigis või konkreetsetes valdkonnas toimunud protsessidel, nagu näiteks muudatused rahandus ja eelarvepoliitikas seoses euro kasutuselevõttuga (IV, II) või nutika spetsialiseerumise kontseptsioon (edaspidi RIS3) ühtekuuluvuspoliitikas (V). Peale viimast majanduskriisi 2008-2009 sai Lätile ja Ungarile osaks täiendav surve spetsiifiliste poliitikameetmete rakendamiseks eeltingimusena IMF ja EL finantsabi saamiseks (II).

Alahinnata ei maksaks ka poliitikavaldkondade vahelise ülekande positiivset mõju, eriti Balti riikide suhtelise madala poliitikaloome suutlikkuse kontekstis. Siiski on vähemalt osaliselt tulenevalt puudulikkust riigisisese poliitikaloome võimest ja suutlikkusest, poliitika ülekandel olnud ka negatiivne mõju. Mõnes valdkonnas nagu innovatsioon, finantsregulatsioon või eelarvepoliitika kohaldati poliitika ilma, et oleks arvestatud kandidaatriikide riikide erinevusi ja kohalikku konteksti. Seega ei ole hoolimata ulatuslikust poliitika ülekandest paljudes poliitikavaldkondades saavutatud üht põhilist ühenduse eesmärki, majanduslikku ja institutsionaalset ühtekuuluvust, teisisõnu, KIE riigid ei ole jõudnud majandusliku jõukuse, innovatsiooni ja elukvaliteedi näitajatelt vanemate liikmesriikidega samale tasemele (II,V).

Väitekirja põhiosa moodustavad viis algupärast artiklit. Artikkel "Innovatsiooni toetavad riigihanked väikeriikides. Läti näide" (I) käsitleb viimasel kümnendil on nii arenenud majandusega EL liikmesriikide kui ka Komisjoni poolt üheks tõhusaimaks

avaliku ja erasektori innovatsiooni edendavaks poliitikainstrumendiks peetud meetme rakendamist Lätis.

Siiski takistas kõnealuse poliitikainstrumendi ülevõtmist rida riigisiseseid institutsionaalseid asjaolusid. Artiklit täiendab uurimus “Nõudluspõhine innovatsioonipoliitika Eestis: loogika, piirangud ja edaspidised arengud”, mis on toodud väitekirja lisa (VI) ja mis toob välja vajalikud, kuid mitte alati piisavad eeltingimused erinevate nõudluspõhise innovatsioonipoliitika meetmete ülevõtmiseks, sh innovatsiooni toetavad riigihanked.

Artikkel “Kas valitsusel on võimalik korraldada nutikat spetsialiseerumist ja ettevõtete uuenduslikkust? Vähemarenenud piirkondade õppetunnid” (V) käsitleb ettevõtete uuenduslikkuse ja nutika spetsialiseerumise lisamist ühtekuuluvuspoliitika meetmete hulka, fookusega innovatsioonipoliitikal. Artikkel “Kriisi õppetunnid fiskaalpoliitika osas: Balti riikide võrdlev analüüs” (IV) keskendub poliitika õppimisele fiskaalpoliitika valdkonnas vahetult peale majanduskriisi. Artikkel “Keskset otsused, detsentraliseeritud lahendused: kärpepoliitika mõju võrdlus ametiasutuste tasandil Eestis ja Lätis” (III) on võtnud vaatluse alla väljaspoolt ettekirjutatud poliitiliste lähenemiste mõju riigiasutustele. Peatükk “Läti peale liitumist Euroopa Liiduga. Võitlus tormiga?” (II) astub sammukese ajas tagasi, et vaadata, kuidas suurus ja üleminekuaja kogemus on riigi arengut mõjutanud.

Vastates esimesele küsimusele “Kuidas toimib poliitika ülekanne vähearenenud poliitikakeskkonnas, konkreetsemalt innovatsioonipoliitika valdkonnas?” toob väitekirja välja, et kui teatav poliitika kontseptsioon, nagu näiteks nutikas spetsialiseerumine, mis põhineb arenenud majanduse ja väljakujunenud institutsionaalse ülesehitusega Lääne-Euroopa riikide mõnede konkreetsete regioonide empiirilisel analüüsil, kirjutatakse tingimuslikuna ette sellisele keskkonnale, kus mitmed vajalikud eeldused ei toimi, on seda poliitikat rakendama pidavate riikide esmane reaktsioon pigem formalistlik (V), asi tehakse ära näitamaks, et väljaspoolt, st EList, seatud tingimusi (nt finantsabi saamiseks) täidetakse. Seetõttu on esimeses etapis – välja arvatud juhul, kui ettekirjutatud poliitika kontseptsioon või instrument paistab mõttekas ka kohalikele poliitikakujundajatele – uuel poliitikainstrumendil või ideel tõenäoliselt üsna piiratud mõju poliitika väljundile ja tulemustele. Siiski on sellisel sekkumisel ka mitmeid ettekavatsemata ja kaugeleulatuvaid tagajärgi, nagu näeme nutika spetsialiseerumise ja ettevõtliku uuendusmeelsuse puhul.

Esiteks, kohaliku institutsionaalse raamistiku loomise käigus paljude erinevate huvirühmade kaasamine poliitikaloomesse võimaldab kujundada tänuväärse poliitika tagasisidestusmehhanismi. Teiseks, kõigutades domineerivaid neoliberaalseid või teadlikku mittesekkkumist soosivaid poliitikapõhimõtteid ning pakkudes alternatiivset ja proaktiivsemat lähenemist innovatsioonipoliitikale, toimib valitsus riigiparaadi vahendusel initsiatiivika ettevõtjana, tegutsedes koostöös erasektoriga. Selle tulemuseni jõudmiseks on aga siiski vaja, et strateegia langeks viljakale pinnasele ja et sel oleks poliitikakujundajate kindel ja püsiv toetus. Püsiva sisulise toetuse puudumisel on antud strateegia lihtsalt üks mööduv trend.

Sama loogikat võib laiendada ka innovatsioonimeetmena rakendatava innovatsiooni toetavate riigihangete puhul. Kuigi see suhteliselt uudne poliitikameede leidis hea vastuvõtu kui täiendav nõudluspõhine poliitikainstrument Ühendkuningriigis, Taanis või Hollandis, siis teistes riikides, nagu näiteks Lätis (I), ei sobitunud see meede kuidagi olemasolevate poliitikaloome rutiinide ja institutsioonide konteksti. Esiteks peaksid innovatsiooni toetavad riigihanked olema integreeritud üldisesse valdkondlikusse suunavate meetmete raamistikku, mille eesmärgiks on konkreetse tööstusharu

arendamine. See ei läinud aga kokku valitseva horisontaalse mitte-sekkuva lähenemise poliitika loogikaga, mis soosib puhast konkurentsi ilma igasuguse avaliku sektori strateegilise suunamiseta. Teiseks toimusid piiravate teguritena kohaliku turu väikus ja avatus EL konkurentstile. Lõpuks mängis oma rolli ka avaliku sektori ebapiisav haldussuutlikkus, mis teeb keeruliseks keerukate poliitikameetmete kasutamise ja takistab innovatsiooni toetavate riigihangete kasutamist mõjusa innovatsiooni kannustava vahendina (**I, VI**). Ametnike suutlikkus mõista, kohandada ja hiljem ka jõustada väljaspoolt soovitatud strateegiaid ja poliitikameetmeid on seega poliitika elluviimisel ja konkreetsete meetmete sisulisel rakendamisel võtmetähtsusega.

Osa poliitikatest, mida rakendati majanduslikul üleminekuperioodil ja hiljem ka EL-i mõjudest tulenevalt, viisidki 2008.-2009. aastatel esmalt rahandus- ja seejärel majandus ja eelarvekriisini. Sageli öeldakse, et kriisid on võimalus senitehtu ümberhindamiseks ja kogemusest õppimiseks poliitiliste valikute osas. Siinkohal aga tõstatub küsimus: Mil määral on poliitikakujundajad võimelised õppima välise surve all ja millised on poliitikaloo oskuse omandamise mehhanismid, seda just fiskaalpoliitika valdkonnas? Nagu üks selle väitekirja osadest sedastab (**IV**), poliitikakujundajad küll õpivad kriisidest, aga õpiprotsessi mõjutavad veel mitmedki muud tegurid. Esiteks arvestades, kui keerukas on hinnata fiskaalpoliitika mõju majandusele – ja see tuleb eriti selgelt välja struktuuralse tasakaalu nõuet käsitlevas osas – ei ole põhjus-tagajärg seoste määratlemine valitud poliitika ja saavutatud tulemuste vahel sugugi lihtne. Kohaliku tasandi poliitika õppimise protsessi mõjutas oluliselt ka surve EL-ilt, millest johtuvalt olid hoolimata erinevast kriisikogemusest riikide õppetunnid sarnased. Seega võib hoopis olla nii, et EL ettekirjutatud regulatsioonid hoopis pärssisid fiskaalpoliitika valdkonna sisukat siseriiklikku arutelu ja kogemustest õppimist.

Nagu öeldud, on nii innovatsioon kui ka fiskaalpoliitika majanduspoliitika kesksed elemendid, mille võimuses on avaldada ulatuslikku mõju riigi majandusarengule. Seetõttu on nendes poliitikavaldkondades tehtud muudatustel märkimisväärne mõju nii makrotasandil – riigi jõukus, tööhõive ja sotsiaalne heaolu, aga ka mikrotasandil – mõju avalike teenuste pakkujatele ja rea-ametnikele, kes, nagu eespool mainitud, saavad pakkuda ajutisi või püsivaid lahendusi probleemidele, mis tekkisid tulenevalt kriisielsetest poliitikast (**III**). Vahetult peale kriisi kiitust pälvinud kärpepoliitika tulemused mikrotasandil viisid teenuste kvaliteedi langusele, avaliku sektori töötajate heaolu ja enesehinnangu vähenemisele ning üldisele kõrgendatud stressifoonile. Kriisieelse poliitika, sh teadliku mittesekkumise lähenemisega innovatsioonipoliitika tagajärgedeks makrotasandil oli muuhulgas töötuse määra märkimisväärne kasv, vaesus, tööealise elanikkonna massiivne väljaränne ning probleemid haridus- ja tervishoiusüsteemis.

See toobki meid kolmanda uurimisküsimuse juurde: milline on poliitika ülekande mõju poliitika kujundamisele riikides, kus siseriiklik poliitikakujundamise võime ja suutlikkus on madalad? Esiteks, kui need poliitikameetmed ja lähenemine, mis tuleks üle võtta, sobituvad kokku olemasoleva ideoloogia ja kehtivate rutiinidega, võetakse uus lähenemine omaks ja see tugevdab olemasolevaid rutiine. Siiski on tõenäoline, et selliselt ülevõetud poliitika pärsib kohalikku poliitika õppimist (**IV**). Teiseks, selline poliitika ülekanne, mis ei võimalda kohandamist olemasoleva kontekstiga, hakkab tõenäoliselt piirama poliitikavalikutega eksperimenteerimise võimalusi ja originaalsete poliitikameetmete leidmist. Liati võib poliitika ülekanne, mida ei kohandata kohalikele oludele, hakata tegelema pseudoprobleemidega, olla vähemõjus ja seetõttu raisata niigi piiratud ressurse (Muižniece and Cepilovs, 2017). Juhul kui aga poliitika ülekannet toetavad piisavad vahendid (nii rahaline kui ka inimressurs) ja ülekantavat poliitikat on

võimalik kohandada ning testida, on suurem tõenäosus, et tänu ülevõetud poliitikale saavutatakse paremaid tulemusi, õpitakse kogemusest ja jõutakse uuele poliitikasuutlikkuse tasemele.

Mida on õppida poliitika ülekande ja poliitika õppimise protsesside võrdlusest fiskaal ja innovatsioonipoliitika valdkonnas? Esiteks, vaatamata erinevatele poliitika ülekande viisidele (jõulisemad ettekirjutused fiskaalpoliitikas ja pehmem suunamine innovatsioonipoliitikas), on mõlemad valdkonnad teinud läbi laiaulatusliku poliitika ülekande protsessi. Seda võib vähemalt osaliselt seletada vähesuutliku poliitikaloome süsteemiga, kus on traditsiooniliselt domineerinud välisnõustajad. Teiseks on mõlemal juhul olnud poliitika õppimisprotsess üsna pinnapealne, piirdudes sageli vaid ettekirjutatud poliitikameetme üks-ühese ülevõtmisega, ilma, et oleks hinnatud ja arutletud ülevõetava poliitika võimalike lühiajaliste ja pikaajaliste mõjude üle. Kolmandaks, poliitikasuutlikkus ja poliitikakujundajate võimekus on peamised tegurid, mille poole tuleks vaadata, kui poliitika ülekanne ja poliitika õpiprotsess ei ole toonud kaasa soovitud tulemusi. Lisaks mängib poliitika ülekandes väga olulist rolli ka institutsionaalne keskkond, mis aitab kaasa poliitika ülevõtmisele, kui uued poliitilised lahendused ja vahendid sobituvad juba olemasoleva institutsionaalse keskkonnaga (nagu see on fiskaalpoliitika puhul, **IV**) või hoopis takistab uute poliitiliste lahenduste rakendamist, nagu nägime nutika spetsialiseerumise (**V**) või innovatsiooni toetavate riigihangete puhul (**I**).

Publications (Articles I-V)

Article I

Cepilovs, A. 2013. "Public Procurement for Innovation in Small States: The Case of Latvia." *Rivista di Politica Economica* 2, 99-136



Public Procurement for Innovation in Small States. The Case of Latvia[◇]

Aleksandrs Cepilovs*

Tallinn University of Technology, Tallinn

Policy-makers in the EU have recently increasingly emphasised public procurement as a policy instrument to stimulate innovation. Public procurement is seen as an instrument able to fill in the gaps in the existing innovation policy-mix, thus helping to maintain competitive advantage of EU Member States in global competition. Public procurement has been widely covered in research, however, its application in a context of a small state has remained largely uncovered. This paper thus aims at bridging this gap, by analysing the potential smallness-related constraints to implementation of public procurement as a policy instrument. The empirical part introduces the case study of Latvia.

[JEL Classification: H57; L53; O25; O31; O38].

Keywords: public procurement; innovation; small states; Latvia; case study.

[◇] Paper presented at XVII IRSPM Conference in Prague, April 10-12, 2013. The usual disclaimer applies.

* <aleksandrs.cepilovs@ttu.ee>, Ragnar Nurkse School of Innovation and Governance.

Acknowledgements: the author thanks the anonymous referees for their helpful comments on the earlier drafts of this article and all of the interviewees who contributed to the research. Research for this study was partially supported by the Estonian Science Foundation grants no. ETF9395 and ETF8423, and the European Social Fund through the Estonian Research and Innovation Policy Monitoring Programme.



1. - Introduction

This paper concerns the role of public procurement as an innovation policy instrument, which has been increasingly emphasised over the last decade by both academics and policy makers (see e.g. Georghiou, 2007; Commission, 2009; House of Lords, 2011). Using public procurement as a multi-objective policy instrument is, however, anything but new (see e.g. McCrudden, 2004). Similarly, Japan, France, Germany, the US, and Sweden, among others, have used public procurement as an instrument of industrial policy, supporting development of industries ranging from military aircrafts in Sweden (Eliasson, 2010), to hearing aids (Lotz, 1992), with different degrees of success (see Overmeer and Prakke, 1978). Perhaps, some of the most notable examples of the effects of public procurement on innovation originate from the US: diffusion of micro-processing technology, creation of the Internet, as well as development of the Global Positioning System (Cabral *et al.*, 2006; Ruttan, 2006).

Since the early 2000s, with the recognition that the 3 per cent target for research and development (R&D) expenditure cannot be attained with the standard policy measures, policy makers in the European Union (EU) have been increasing their focus on the demand-side instruments, where public procurement has been seen as an instrument with high impact potential. “Innovation Union” initiative serves a clear example of this shift in thinking about innovation policy-making. There, particular emphasis is put on the necessity for a more strategic approach to innovation policy, including strategic use of massive procurement budgets of the EU member states, which amount to some 17 per cent of the EU’s gross domestic product (GDP). Beside the possible positive effects of public procurement for innovation (PPFI) on innovation in the private sector, procurement of innovative goods and services can also bring about significant improvements in the quality and efficiency of public services when the public sector faces significant demand for its services, as well as substantial budgetary constraints (see EC, 2010). Public procurement of innovative goods and services has recently been also suggested as a policy instrument complementing the policy mix within the framework for national or regional research and innovation strategy for smart specialisation (Foray *et al.*, 2012).

In this paper, public procurement of innovation is defined as all “purchasing activities carried out by public agencies that lead to innovation” (Rolfstam, 2012, page 5). This definition allows including all stages of procurement process that contribute to innovation, from pre-procurement phase up to the procurement evaluation stage



after the formal tendering process has been concluded and the contract has been delivered. This definition also takes into account all possible types of innovations (*i.e.* product, process, organizational, marketing) as well as the role public procurement can have throughout the life-cycle of the product or service procured (*i.e.* from pre-commercial procurement through to diffusion, market consolidation and includes market destruction phases of the life-cycle) (Rolfstam, 2012).

The impact of demand-side activities of the public sector, including public procurement, has been widely discussed, providing both case-study (see *e.g.* Rolfstam *et al.*, 2011; Rolfstam, 2006; Lember *et al.*, 2011; Yeow *et al.*, 2011) and survey-based (*e.g.* Aschhoff and Sofka, 2009) analyses. The role of both formal and informal institutions as enabling or retarding factors in implementation of PPFI have also been discussed and analysed (see *e.g.* Rolfstam, 2006, 2009; Rolfstam *et al.*, 2011). There is however still a certain gap in understanding of the implications that the country size has on implementation of PPFI as an innovation policy instrument (with an exception for Georgiou *et al.*, 2010).

Prior to the last two waves of European enlargement in 2004 and 2007 respectively, the EU was clearly dominated by a small number of comparatively large states (*i.e.* Germany, France, Spain and Italy), with a few smaller ones (*i.e.* Denmark, Finland, Belgium, Ireland, etc.). However, with enlargement towards East and accession of twelve Central and Eastern European countries (CEECs), the balance shifted considerably. Small states, at least quantitatively, constitute the dominant majority, thus pointing to the need to integrate the issues of small states into the demand-side innovation policy debate.

There is no consensus on whether smallness of a particular state should be defined on the basis of geographic, demographic, economic, institutional or resource-based parameters, or some combination of thereof (Smith *et al.*, 2005). However, despite the differences, the literature suggests that there is a consensus that size matters and small states all face similar challenges in international relations, as well as in economic development (see Neumann and Gstöhl, 2006; Steinmetz and Wivel, 2010). The relational understanding of smallness provided by Steinmetz and Wivel (2010, page 7), suggests that

«...being a small state is tied to a specific spatio-temporal context, not a general characteristic of the state. A small state is not defined by indicators such as its absolute population size or size of GDP relative to other states. Instead, a small state is defined by being the weak part in asymmetric relationship».



This definition provides the necessary flexibility to apply the concept of “smallness” to Latvia as the subject of the case study suggesting a flexible approach to policy making, allowing the definition of a specific set of policy-related problems, and defining particular spheres where the notion of smallness is important (*ibid.*). By looking at the factors peculiar to the context of small states, this paper aims at identifying the possible size-related constraints on the way to successful design and implementation of PPFI, thus expanding the understanding of PPFI as an innovation policy instrument when applied in different conditions.

This paper looks at Latvia as a subject of a case study, which being one of the weakest EU Member States in terms of innovation performance (EC, 2013), represents a critical case good for analysis of the nature of constraints for design and implementation of innovation policy and development of the national innovation system (NIS). Therefore, the analysis can provide useful insights for countries facing similar conditions. It should be noted, however, that apart from the effects of smallness, economic transition from socialist to market economy and policies implemented throughout the transition period can have additional impact on design and implementation of PPFI, thus complicating the constraints induced by the size of the state.

2. - Small States: Smaller Size, but not Problems

The size of the state as an explanatory variable has not attracted much attention in the mainstream economic theory. Nevertheless, there are limitations that small economies face in terms of availability of material and human resources, thus narrowing down the range of policy choices and limiting the ability to develop strong organisational and institutional capabilities. The combination of factors makes small states more politically and economically vulnerable, if compared to larger states. As a number of authors argued, a highly capable state is necessary for successful development of innovative capabilities, and thus of innovative and productive economy, particularly so in the conditions of increasing globalisation of economic activities (see e.g. Evans, 1995; Wade, 1990; Amsden, 1992; Reinert, 1999). This section provides an overview of different state size-related effects on economic development, innovation policy and public administration capacity.

Innovation, as the literature suggests, originates from the times of late *Renaissance*, when in 16th and 17th centuries, city-states of Venice, Florence, Delft and others were very successful in combining knowledge and putting it into practice,



making it possible to outcompete, in terms of economic and military capacity, much larger and resource-abundant states (Hall, 1999; Reinert, 2007; in Kattel *et al.*, 2010). In the 1960s, Kuznets (1960), however, suggested that size can have an adverse effect on economic development of the state. Since then some authors tried to vindicate the hypotheses proposed by Kuznets (see e.g. Easterly and Kraay, 2000; Laurent, 2008). However, the view that seems to dominate the discourse on small states and development suggests that smallness does impose numerous limitations on innovation and economic development. Main constraints induced by smallness are summarized in the following table:

TABLE 1

SMALLNESS-INDUCED CONSTRAINTS

Small size of domestic market	Does not allow attaining the critical mass of domestic demand necessary in order to reach a minimum efficient size of the production facility. It also exposes domestic market to adverse effects of monopoly or oligopoly.
Limited domestic resource base	Makes a small state vulnerable due to price volatility on commodities' markets. However, even if natural resources are abundant, there might be a limited variety of those. Also capital necessary to finance extraction of resources might not be available domestically.
Concentration of domestic output and exports	Due to limited supply of labour and lack of economies of scale, leads to overall dependence on a limited number of economic activities; this exposes the economy to exogenous shocks caused by demand and price volatility.
The high degree of openness to trade	Caused by limited possibilities of sourcing necessary goods and services domestically will lead to significant asymmetry in the patterns of domestic production and consumption (Kuznets, 1960; in. Armstrong and Read, 2003).
Scarcity of human resources	While forcing small states to engage in capital intensive activities (which may be beneficial under certain conditions), requires investment in education, training and skill acquisition. Limited financial capabilities together with limited human resources will limit the possibility to invest in science, research and development, hence targeting and favouring specific industries and technologies will be necessary precondition for successful policy measures.
Administrative capacity constraints	Limit the ability of small and, particularly so, small developing states to target specific industries effectively.

Source: Author's compilation on the basis of ARMSTRONG - READ, 2003; KATTEL R. *et al.*, 2010; THORHALLSSON B. - WIVEL A., 2006.





The limited pool of human resources directly affects administrative capacity and poses a challenge for creation of effective administrative systems necessary for development and implementation of policy measures, including innovation policy. There are some specific aspects related to smallness which have significant influence on the development and operation of public administration in small countries. As Randma-Liiv (2002) argues, principles of traditional bureaucratic models are not suitable for building public administration in small countries, which require a much more flexible public administration, for a number of reasons (Table 2).

TABLE 2

LIST OF REASONS WHY TRADITIONAL BUREAUCRATIC MODELS ARE NOT
SUITABLE FOR SMALL STATE PUBLIC ADMINISTRATION

The boundary between politics and administration is blurred, or in worst cases non-existent. Flow of professionals between politics and administration is considerable due to lack of highly qualified personnel. Some professionals perform multiple functions thus mixing politics with bureaucracy and other functions that they assume in their professional life (Bray, 1991 in Randma-Liiv, 2002). The prevalent pattern of interpersonal relationships is that of multiple overlapping roles played by the same individuals (see e.g. Benedict, 1966);

In traditional bureaucracies appointments to civil service are made on the basis of merit and are impartial. In tightly-knit societies of small states, where relationship networks can span different spheres, it is difficult to control for impartiality, while selection on the basis of merit is often difficult due to small pool of human resources;

Small labour markets push for more flexibility and multi-functionalism on the side of civil servants. While one person can specialize in one area, multi-functionalism requires knowledge in a range of fields, thus reducing the abilities of civil servants to go deep into one field. Flexibility also means prioritization, meaning that for a highly qualified professional her particular area of interest or specialisation will be prioritized over other functions, which might well be important for the organisation (Randma, 2001);

Shortage of qualified personnel often results in flexible job definitions, or drafting of job descriptions for a particular employee, which might make subsequent evaluation of performance difficult. For the same reason candidates not suitable are often appointed or promoted to a position just because the position was open;

Mismatches in terms of skills and qualifications between people and jobs can result in intensive churn, career development problems (which often is perceived as one of the important motivational factors of employment in the public sector), lower productivity, or lack of leadership in the organisation, thus leaving a void for potential political influence;

Short career ladder and fast advancements of highly-skilled employees makes it difficult to develop strong civil service, as it can lead to potential "brain drain". To avoid this organisations are forced to create special positions for high-level civil servants, sometimes without subordinates. As development of specialist skills requires significant time, it can be considered as waste of resources in small organisations;

Multi-functionalism is possible not only across public organisations, but also between public and private organisations, thus leading to a potential conflict of interests, as well as problems of accountability;

Problems of accountability, management and control can also arise when there is very limited amount of specialists able to evaluate performance of another specialist, therefore making it possible for underperforming individuals to get through.

Source: RANDMA-LIIV T. (2002).





The overview of factors related to the size of a country suggests that small countries do face peculiar constraints which require development of contextually appropriate administrative apparatuses capable of developing and implementing policies tailored to fit the context of a particular country. At the same time, innovation has captured the agendas of a number of more traditional fields, such as education, regulation, and procurement, which have other primary objectives (Nauwelaers and Wintjes, 2008). This process of “widening” (the scope of innovation policy expands into realms previously not considered) and “deepening” (introduction of new and more sophisticated policy instruments) of innovation policy (Borrás, 2009) has led to an increasingly complex innovation policy mix, that requires highly capable state actors able to ensure strategic action and coherence within and between different policy measures. Vertical and horizontal policy coordination becomes ever more important as the number of interrelated policy measures, different initiatives, actors involved, and objectives to pursue increases the risks of overlapping or contradictory policy measures, which can result in waste of scarce resources. The complexity of innovation policy mix combined with the constraints imposed by the size of the state make development of capacities and capabilities in the public sector a precondition for successful action.

3. - Case Study: Public Procurement for Innovation as an Innovation Policy Tool in Latvia

3.1. Method

Case study methodology is used for the empirical part of the paper. One of the strengths of the case study methodology, as argued by Denscombe (1998), is the possibility to use a combination of different sources. Yin (1994) suggests a range of six main data sources suitable for case study research: archival records, documents, interviews, direct observations, participant observations and physical artefacts. The first three are used presently. Data sources and interviewees were selected using purposive sampling (Jupp, 2006). In addition to desk research, semi-structured interviews with a number of civil servants, representing different areas and different levels of public administration, were conducted in order to provide information on the perspective of policy stakeholders, substantiate the claims made theoretically as well as through desk research, and, also hope to discover aspects previously not discussed. Altogether five semi-structured interviews were conducted with civil servants directly related either to public procurement





or innovation policy-making: head of the Procurement Monitoring Bureau; head of procurement department of the Riga Eastern Clinical University Hospital; State Secretary for the Ministry of Economics; head of Innovation Unit at the Ministry of Economics; and head of Department of Electronic Procurement System at the State Agency for Regional Development.

3.2. *Introduction*

Latvia is a relatively small Eastern European economy, with a population of 2.04 million (Eurostat, 2012), and also comparatively small in terms of its geographical size. Besides the size-related constraints, Latvia is also a new EU member state with accession and compliance obligations, and formerly a transitional economy with comparatively weak economic and innovation performance¹. Latvia, as a small state, also has a comparatively weak bargaining position in the EU and other multi-lateral institutions (see e.g. Thorhallsson, 2006; Thorhallsson and Wivel, 2006). Thus, according to the definition of a small state provided earlier, Latvia can be considered as being a weak part in the asymmetric relationship and therefore, a small state.

Since August 1991, when Latvia together with the neighbouring countries Estonia and Lithuania re-established its independence from the Soviet Union, it has gone through two decades of constant change and reforms in all spheres, including numerous reforms with direct impact on the economy: reform of the pension system (Vanovska, 2006), reform of the civil service² (Hesse, 1993; Nunberg, 2000), as well as local government reform. Most of the economic reforms undertaken across *post-socialist* Eastern European countries (including Latvia) were focused on macroeconomic stabilisation and privatization. The implicit assumption was that as soon as the economy was stabilised and the ownership system restructured, the industrial restructuring and economic development would be ensured by the mechanisms of open market economy (Radošević, 1998, page 77). Therefore, no attempts of direct intervention of the state in technological and industrial restructuring were undertaken prior to the accession to the EU.

¹ In the latest Innovation Union Scoreboard for 2013, Latvia was placed among the four modest innovators, or countries with weakest innovation performance in the EU.

² TÖMRRISON and RANDMA-LIIV T. (2009) argued that during the transition period in the early 1990s for the CEE countries the question was not so much about reform or restructuring of public institutions, but more of building public sector from the ground up in the first place.





3.3. *Development of National Innovation System in Latvia*

A number of scholars have argued that inefficiencies and ineffectiveness of a NIS may be attributed to path-dependencies³ and lock-ins (Niosi, 2002), which to a certain degree can be understood by analysing the historical context. Thus, in this section an overview of the development of Latvian NIS is provided, including a brief overview of the early years of post-soviet restructuring, a time-line of the major decisions taken in relation to the NIS, as well as innovation policy development.

Beside the Soviet legacies, there were other processes that influenced innovation policy-making in Latvia since the very beginning. For the catching-up countries⁴ of the 1960s-80s, the main recipe for creating the capabilities for technological and economic development was the creation of Weberian-type of public administration, which made possible development of institutional memory, long-term policy planning, thus reducing information and transaction costs for the private sector. This way of governing the state⁵ allowed for active interaction between private and public sector, development of learning mechanisms, and therefore more contextually-relevant policy-making (Karo, 2011). Late catching-up countries of the CEE began developing innovation policies in a context dominated by the neo-liberal agenda of the Washington Consensus (WC) policies, as well as influenced by the processes of increasing globalisation and spread of information and communication technologies, constraining the policy spaces and making policy choices much more difficult, complex and increasingly dependent not only on domestic but also external socio-economic circumstances (Karo and Kattel, 2010; Karo, 2011; Evans, 2008; Perez, 2002). Beside the de-contextualized approach to innovation policy, based on a linear approach to innovation and exaggerating the importance of basic science, WC-influenced thinking pushed for downsizing of bureaucratic apparatuses and outsourcing significant parts of competencies, thus reducing the administrative capabilities of states (Manning, 2001; Drechsler, 2004). Therefore, from the very early stage of innovation policy development Latvia and other candidate states were put in unfavourable conditions, limiting the opportunities for fast catching-up.

³ «Most generally, path dependence means that where we go next depends not only on where we are now, but also upon where we have been» (LIEBOWITZ S.J. - MARGOLIS S.E., 2000, page 981).

⁴ Catching-up countries – countries lagging behind the technological frontier (ABRAMOVITZ M., 1986).

⁵ These ideas about governing the state were the result of analysis of economic development in East- and South-East Asian catching-up countries, such as South-Korea, Taiwan, Singapore (EVANS P. - RAUCH J.E., 1999; WADE R., 1990; EVANS P., 1995; AMSDEN A.H. 1992).



Since the mid-1990s numerous attempts were made to develop and implement an industrial development programme in Latvia, with an emphasis on re-industrialisation. However, due to volatile political situation, with numerous changes in the government⁶, as well as generally unstable government coalition, the industrial development programme had to undergo several amendments, before the Industrial Development Guidelines of Latvia were finally adopted by the government in 2001. The document recognized the limitations for Latvia as a small country in terms of variety of industrial sectors (information technologies; biotechnologies, wood chemistry; specific chemical and pharmaceutical sectors; and sub-sectors of material technologies) that could be supported and suggested that targeted support should be provided to sectors with higher value added. The Guidelines also emphasized the necessity of development of high-technology industries with high demand for skilled labour. Selection of the sectors was based on evaluation of the capabilities already developed in these sectors, as well as taking into account the research priorities already in place. These same sectors were on the agenda of policy makers in developed countries. While the selected target sectors were mostly comprised by high-tech knowledge-intensive sectors, the dominant share of business enterprises were operating in sectors with low knowledge and innovation intensity.

In the early stages of development of Latvian NIS a number of white papers were delivered to the Cabinet of Ministers, as well as numerous development plans, strategic documents and national programmes were developed and, to a certain degree, implemented⁷. The list of policy measures was entirely comprised of supply-side policy instruments, ranging from financial support to SMEs, grants to market-oriented research, financial guarantees for high-tech SMEs, development of quality assurance infrastructure, information infrastructure, as well as creation of business incubators and enterprises. However, it was emphasized that coordination of activities and policy measures targeting innovation were weak due to non-existent public body responsible for such activities. A working group responsible for innovation policy was comprised of the representatives of almost all ministries, on an *ad hoc* basis, without dedicated departments and, arguably,

⁶ In the period from 1996-2002 there were 6 shifts in the Government. Since the re-independence in 1991 there were 16 different Governments.

⁷ Most related to the development of NIS were National Programmes on: quality assurance, development of energy sector, foreign trade, 'informatics', as well as on regional development (KRISTAPSONS J. *et al.*, 2003).

without deep involvement in solving innovation policy related issues (Kristapsons *et al.*, 2003). This not only reduced the efficiency and effectiveness of innovation policy development and implementation cycles, but also limited the opportunities for active learning among public servants involved, accumulation of expertise, and development of specific capabilities necessary for successful deployment of innovation policies.

Linear thinking about innovation process, that dominated innovation policy-making from early on, put strong emphasis on science-industry interaction. Even though the Inno-Policy Trend Chart and Erawatch reports recognised that the overall level of absorptive capacity of business enterprises was comparatively low, and that most of innovative companies produced innovations through collaboration with their partners and customers (see e.g. Kristapsons *et al.*, 2007; Adamsons-Fiskovica *et al.*, 2009), thus suggesting strengthening the demand-side of the policy mix. Innovation policy thinking, however, influenced to a large extent by very few representatives of the scientific community and high-tech sector, pushed for strengthening the university-industry interaction. This resulted in more supply-side measures, such as development of science and technology parks, funding for collaborative research projects, as well as additional funding for education, focused on supporting a very narrow range of enterprises, thus neglecting the potential for innovation in low and mid-tech sector.

The direction of development of innovation policy in Latvia, as well as principles upon which this IP was being developed, to a large extent depended on the guidelines provided by the EU, as well as on the EU funding since the very early phase as Latvia embarked on development of IP in pre-accession period to the EU. This limited the opportunities for experimentation with policy measures, as there was a general trend towards harmonisation of legislation. This can be seen in the objectives of the innovation policy on the early stage, where a range of broad measures targeting improvement of business environment clearly dominate (Table 3):

TABLE 3

PRIORITIES OF INNOVATION POLICY IN LATVIA 2000-2003

		2000	2001	2002	2003
I	Fostering an innovation culture	19	15	15	14
1	Education and initial and further training	1	3	5	5
2	Mobility of students, research workers and teachers	3	4	3	2
3	Raising public awareness and involving those concerned	4	2	2	3
4	Innovation and management of enterprises	4	1	1	0
5	Public authorities	3	3	1	1
6	Promotion of clustering and co-operation for innovation	4	2	3	3
II	Establishing a framework conducive to innovation	2	16	17	14
1	Competition	0	1	2	1
2	Protection of intellectual and industrial property	1	3	4	2
3	Administrative simplification	0	4	3	2
4	Legal and regulatory environment	0	5	4	2
5	Financing of innovation	1	1	2	3
6	Taxation	0	2	2	4
III	Gearing research to innovation	19	9	8	12
1	Strategic vision of research and development	1	3	3	1
2	Strengthening research carried out by companies	0	0	1	4
3	Start-up of technology-based companies	6	2	1	3
4	Intensified co-operation between research, universities and companies	4	2	2	1
5	Strengthening the ability of SMEs to absorb technologies and know-how	8	2	1	3
	Total Points	40	40	40	40

Source: Author's compilation on the basis of European Trend Chart of Innovation country reports.

By 2004, with the establishment of dedicated governance structures, such as the Innovation division and Steering Council of the National Programme on Innovation, some progress has been achieved in terms of efficiency in policy co-ordination, as well as in dealing with fragmentation of innovation policy across numerous departments and ministries. Policy development process has also become more open, involving different actors from both public and private sectors in discussions regarding development and implementation of innovation policy measures (Kristapsons and Adamsone-Fiskovica, 2005). In 2004, government decided on gradual increase of R&D funding from the state side by 0.15 per cent every year until the target of 1 per cent is reached by 2010 (Kristapsons and Adamsone-Fiskovica, 2005). Up to this day this, however, has not been achieved. Poor performance in terms of implementation of innovation policy as well as

R&D funding can be attributed to changes in the government, recent financial and ensuing fiscal crises, as well as lack of policy learning identified in INNO-Policy Trend Charts.

Since joining the EU in 2004 and with absorption of the EU structural funds, state funding for R&D has increased, however, other challenges, such as increasing business expenditure on R&D, increasing number of science and engineering graduates, and effective exploitation of existing research results, have remained unresolved. R&D expenditure on the business side of the economy is mainly constituted by a few large actors in the fields of pharmaceuticals and ICT, predominantly with foreign capital shares. The rest of business economy by the year 2006 was considered non-innovative, with very low levels of R&D expenditure. When proposing solutions on how to increase business expenditure on R&D (BERD), a few supply-side measures were suggested, such as revision of tax policy with respect to companies involved in national research programmes and projects, as well as risk sharing schemes between public and private sector. Demand side measures were not considered. In order to increase effectiveness of exploitation of public R&D research results, requirement for industrial partnerships was proposed as a solution, in order to increase collaboration between public research organisations and businesses, putting emphasis on market-oriented research. This proposition, however, neglected the suggestions of previous studies, which clearly indicated lack of absorptive capacity among the majority of enterprises, as well as their dominant mode of innovation – user(customer)-driven innovation. Interviewees also supported the view that innovative capabilities of domestic enterprises are often weak, with one of the interviewees, a policy-maker, stating that “the general level of technological and innovative capacities of Latvian enterprises is still at the level where we adopt, absorb innovations produced elsewhere.”

The new planning period of the EU Structural Funds for 2007-2013 complemented the existing innovation policy mix with additional measures aimed at addressing identified shortcomings in the NIS⁸, including such measures as: development of SMEs in specially supported territories; liaison offices for technology transfer; attraction of highly qualified work force; employee training; support for development of new products and technologies; enhancing export potential; competence centres; and business incubators (Kristapsons *et al.*, 2007). At this stage, similarly to what had been experienced before, innovation policy-making

⁸ Lack of innovative capabilities of the enterprise sector; lack of qualified science and engineering work force; weak innovative performance of the regions (KRISTAPSONS J. *et al.*, 2007).

was dependent on the guidelines regulating appropriation of EU SF, thus making a more strategic and long-term oriented approach difficult, limiting the time span of a particular policy measure to a time span of the particular EU SF planning period, which can undermine continuity in policy making process.

In 2008, with the recognition of substantial imbalances in the economy, deceleration of the growth rate and still growing inflation, an Action Plan for Stabilisation of Macroeconomic situation for 2008-2009 was devised, where one of the main points of emphasis was promotion of innovative start-ups, once again emphasizing lack of entrepreneurial activity and innovation in SMEs. By doing this, the emphasis was maintained on supply-side measures, such as tax incentives for start-ups, provision of seed funds, grants and state-supported loans, education and awareness-raising and the like.

The financial crisis had a severe impact on Latvian economy in general, resulting in negative GDP growth for three consecutive years (with decrease of 17.7% in 2009), a persistently high unemployment rate, reduction of public funding for R&D and innovation (by 40 per cent), as well as reduction of public budgetary expenditure in general, in order to satisfy the demands of the international credit institutions that provided financial assistance. The experts involved in development of measures to support Latvian economy suggested that involving more people in entrepreneurial activities would be one of the alternative solutions to resolve the unemployment issue. The proposal introduced by the Ministry of Economics (MoE) for mid-term recovery plan, however, showed the aspirations of the MoE to engage in more strategic and active policy-making. It highlighted that despite all the policy-measures devised and implemented thus far, predominant share of Latvian enterprises still operate in sectors with low value added, and emphasized that market mechanisms do not guarantee a shift of entrepreneurs towards more productive and profitable activities; but quite the opposite, it could lock-in in low value added, low productivity and less remunerative activities. Therefore the MoE suggested a more active response to the possibility of a low-productivity trap, by targeting specific sectors with high potential of productivity growth and general development. The following sectors were provisionally indicated as priority targets for policy measures: food industry, wood-processing, chemical industry, electric and optical machinery and metal processing. None of the indicated sectors belong to the so-called high-tech, but to the productive mid-tech, thus indicating a significant shift in thinking among policy-makers related to innovation policy. However, this proposal has been attacked from side of the business community, with one of the main opponents



being the Latvian Chamber of Commerce and Industry that challenged the notion of the state setting the priorities for future development of industries.

Even though demand-side measures were actively debated among the policy-makers on the EU level, and some countries⁹ were already implementing demand-side innovation policy measures, in Latvia there was hardly anyone to bring demand-side measures on innovation policy agenda. The only two attempts to introduce demand-side innovation policy instruments are “green procurement” and national research programmes. Both policy measures have not as yet been evaluated, thus any substantive conclusions are difficult to make. However, in case of national research programmes, which are in essence similar to pre-commercial procurement, the major issue is limited involvement of private enterprises in these programmes, which officially are organised on a competitive basis, but are clearly dominated by public educational and research institutions. One of the latest stages in the innovation policy-making process in Latvia was the elaboration of the “Sustainable Development Strategy of Latvia until 2030” (also called *Latvija 2030*) (Laboratory for analytical research and strategies, 2008), which suggested the following as the main priority areas for public support: user-driven innovation, open innovation practice, innovative entrepreneurship, and mass innovation culture. The programme for procurement of innovations suggests that public bodies should on a yearly basis dedicate budgets for procurement of innovative products and services designed to satisfy their needs, thus public bodies could work as catalysers and facilitators of innovative entrepreneurship.

The current edition of the mid-term action plan (2014-2020) for implementation of the Latvia 2030 strategy (CCSC, 2012) suggests that public procurement of innovation in its explicit form was abandoned as a policy measure, and is discussed only in relation to green procurement in terms of increasing the share of local sourcing when procuring goods and services for public organisations. The interviewees largely confirm that public procurement has not been considered as a policy instrument, for example stating that «Public procurement as a policy instrument hasn't been discussed. Not in a framework of improving public pro-

⁹ Most active in terms of implementation of demand-side policy measures, including PPFI from the very beginning, were the Nordic countries, Netherlands and the UK (some of the Nordic countries as well as Netherlands and the UK were actively involved in three pilot Public Procurement Networks aiming at industrial innovations in protective textiles, sustainable construction and health care. See http://ec.europa.eu/enterprise/policies/innovation/policy/public-procurement/pp-networks_en.htm). While in other countries policy documents were discussed and developed.



curement system, not when discussing development of state-owned companies, not when discussing public expenditure structure. Maybe only in an intellectual discussion, somewhat conceptually...».

3.4. *Public Procurement System: Development and the Current State of Affairs*

Public procurement is an administrative task, with the primary objective being to procure goods and services which would satisfy the needs of the public organisation, while making sure that the resources are used with maximum efficiency. However, as Lember and Kalvet (forthcoming) argue, it is influenced not only by the current economic conditions, but also by a range of institutional factors. Some of the influence upon decisions made by the policy-makers, and other parties involved in implementation of policies, can be attributed to path dependencies, some to already developed organisational routines and organisational memory in general, therefore suggesting a more critical approach to rational behaviour.

Since the early 1990s, when Latvia stepped on the reform path and a range of complementary reforms in political, economic and social spheres were initiated, policy-makers heavily relied on neo-liberal *laissez faire* ideology. Apart from the legislation adopted to regulate public procurement combined with adherence to the principles of a free market economy, as well as persistently comparatively low government budget revenue, have influenced the way public procurement system operated throughout the last two decades, since it originally was devised. Similarly to the situation in Estonia (Lember and Kalvet, forthcoming), active policy-making of an interventionist-type, mostly originating from the EU, as conditionality supplementing EU structural funds and other kinds of support. Active policy-making from within would require strong collaboration between actors from all three sectors – public, private and non-governmental organisations (NGOs). More importantly, effective interventions would require strong engagement of social partners (*i.e.* trade unions, employer/business associations, NGOs). As Kalnins (2004) suggests, becoming a member of the European Union had had a complex effect on democratic processes in Latvia, on the one hand strengthening the general democratic culture, whereas on the other hand exacerbating already existing imbalances in power between resource-rich and resource-poor lobbying groups. Thus making those in possession of resources, both financial and social (in terms of tight networks, personal relationships), more influential in the process of public policy-making. All these factors combined influenced the development



of policy-making in general, and development of public procurement system in particular.

The current public procurement system in Latvia is not a product of a long-term gradual development through constant adjustment, but a product of rapid development and perpetual change. As during the Soviet era, public procurement system was not necessary (*i.e.* due to an integrated planned economy), similarly to the rest of the *post*-Soviet countries (e.g. Estonia in Lember and Kalvet, forthcoming), after re-acquiring the independence a public procurement system had to be re-created from scratch.

The development of the public procurement system in Latvia can be roughly divided into 6 stages according to the legislative documents adopted as well as changes in the broader institutional context. The very first law on “Works and supplies for government needs” was accepted during the first period of Latvian independence in 1927. However, with the annexation of Latvia by the Soviet Union in 1940, planned economy was introduced, making procurement for the public sector as a separate system redundant. The period between 1991 until the adoption of the law on “Central and local government procurement” in 1996 can be described as chaotic, with no particular laws and regulations formalizing the process of public procurement, except for the regulation on “Works and supplies for government needs” which represented a slightly modified version of the regulation adopted in 1927, outlining public procurement regulation in very general terms.

The adoption of the law on “Central and local government procurement”¹⁰ in 1996 signified the beginning of the new stage in development of the procurement system, which coincided with the development of the UNCITRAL¹¹ Model Law on Public Procurement of Goods, Construction and Services, which was adopted in 1993/4, and later served for a number of countries in the developing world as well as transitional countries in CEE as a template to follow when reforming the regulatory systems of public procurement (Arrowsmith, 2004). The basic rationales upon which the adopted law was devised were as follows: ensure efficient use of public moneys; ensure the broadest possible participation of suppliers and contractors in public procurement; ensure free and fair competition among suppliers and contractors; ensure transparency, publicity and accountability, in order to improve the perception of the society regarding public procurement contracts. While it is difficult to argue against the positive aspects of the

¹⁰ Accessible here (in Latvian): <http://www.likumi.lv/doc.php?id=41265>.

¹¹ United Nations Commission on International Trade Law.



introduced law, such as the desire to ensure accountability and transparency, or efficient use of resources, the new procurement law restricted the space for public procurement to be used as a policy instrument. The trend towards free market and purely competitive tendering, based on price, was strengthened by generally neo-liberal approach to economic policy-making.

The EU pre-accession period marked another stage in the development of public procurement system. Accession to the EU required institutional convergence with the rules existing in the EU, thus the law on “Procurement for the needs of the state and local government” was adopted, following a set-up of institutions in accordance with the requirements of the EU. During these pre-accession years harmonisation with the EU regulations on public procurement led to direct transposition of the ideas of the EU single market and WTO GPA¹², leading to effective opening-up of procurement markets to competition from abroad. As Lember and Kalvet suggest in their analysis of Estonian procurement legislation reform (Lember and Kalvet, forthcoming), the early 2000s were the years in which the innovation policy was in its gestation phase and at the same time public procurement was regaining its strength as an innovation policy instrument. Nevertheless, public procurement of innovation was not introduced to the innovation policy agenda. The situation in Latvia in that sense was similar, public procurement was not recognized as an innovation policy instrument and focus of procurement regulation was maintained on ensuring transparency, and efficiency of public expenditure. This, in turn, resulted in adverse effects on procurement culture, developing an understanding of procurement as an exercise in efficiency and lowest price competition. As argued by a respondent, «the problem [currently] is not in the legislation. Directives and national regulations allow using different procedures and mechanisms which would allow procurement of innovation. There might be problem with financing... But the main problem is in culture. I really don't know how would you explain and prove to the Ministry of Finance, because you will need a really long time span to prove the economic effectiveness and economic value of a product or a solution which initially is more expensive, but then allows you to save on maintenance, etc. There you have to change the mode of thinking».

The final stage in the reform of public procurement legislation was the adoption of the “Public procurement law” in 2006/7 which signified the end of the transformation period and brought Latvian public procurement system into full

¹² World Trade Organisation Agreement on Government Procurement.



compliance with EU public procurement legislation. Legislation on public procurement was devised in a manner suggested by the EU procurement directives 2004/18/EC¹³ and 2004/17/EC¹⁴, thus creating separate regulation for the so-called “classical” sector (*i.e.* institutions of central and local government, as well as related institutions), and public utilities sector. At the same time, in line with the European Commission (EC) directives, new procurement procedures were introduced (*i.e.* competitive dialogue, as well as the possibility to use functional and performance specifications) that allowed more flexibility for the procuring side to devise the contract award criteria in a way that allowed innovation. The newly introduced procurement procedures, however, had no effect on the way procurement was organized.

Thus, it can be concluded that the development of public procurement system in Latvia was almost entirely influenced by external expertise or external conditions, such as harmonisation with EU legislation prior to the accession to the EU, emphasizing the aspects of openness, transparency and non-discrimination, therefore significantly restricting the scope for application of public procurement as a policy instrument. One could, however, only speculate on whether less restrictive rules would stimulate more active and “creative” use of public procurement to achieve specific socially or economically desirable outcomes.

The current procurement system can be characterized as a centralized procurement model, where two central bodies exist: the Ministry of Finance is responsible for public procurement policy in general, as well as for control of public expenditure, while Procurement Monitoring Bureau (PMB) is the body responsible for oversight of procurement procedures from initiation to the award of the contract. PMB is also responsible for training of procurement professionals, maintaining statistics on public procurement and other administrative tasks.

Some public procurement contracts are co-ordinated by a central procurement body – Electronic Procurement System, operating under the State Agency for Regional Development, which itself is a part of the Ministry for Environmental Protection and Regional Development. The Electronic Procurement System manages a significant share of procurement contracts in information and communication technologies, office equipment and furniture, pharmaceuticals and medical care products, as well as food and beverages. It functions on the basis of framework agreements with suppliers.

¹³ Procurement contracts for public works, supplies and services.

¹⁴ Procurement in the utilities sector (water, energy, transport and postal services).



The rest of public procurement decision-making is decentralised, which results in potential lack of expertise when organising complex procurement procedures in small municipalities (or other public entities with limited expertise), unexploited economies of scale where those are possible, as well as ineffective supervision (Lember and Kalvet, forthcoming). Lack of expertise and capabilities among procurement professionals was emphasised by all respondents, arguing that “the problem is not legislation... the problem is lack of expertise, lack of knowledge and lack of will to buy not just the cheapest, easiest and fastest, but also try to engage in more complex procedures, to write more comprehensive contract specifications, which would more precisely define quality and other parameters of the product or service.” Suggesting that there is a strong need for additional training for procurement professionals.

In order to strengthen control over public expenditure and effectively impose principles of fairness, transparency and non-discrimination, national thresholds introduced, which have to be abode by below the EU thresholds. National thresholds above which the use of regulated procurement procedures is mandatory are: ca. EUR 28,500 for supplies and services, and ca. EUR 170,700 for public works¹⁵. For purchases of supplies and services in a range ca. EUR 4,200 - 28,500, and contracts for public works in a range ca. EUR 14,200 - 170,700, a special procurement procedure applies, which nevertheless requires publication of public procurement notices on the website of PMB, and open competitive tendering. These national thresholds put additional pressure on public procurement professionals in terms of drafting contract documentation, as well as evaluating numerous tenders and complaints. Recent guidelines on prevention of corruption risks in procurement exempted from mandatory use of procurement procedures as defined by the Public procurement law, published by the Corruption Prevention and Combating Bureau¹⁶, suggest that there are still frequent occasions of corruption and abuse of exemptions granted by law for certain types of procurement. The risks related to the abnormally low prices were also brought up by the interviewees, the justification for which is often difficult to challenge, as no unified criteria for evaluating abnormally low-priced tenders exist, and the position of procurement professionals against suppliers is often viewed by public procurers

¹⁵ Public procurement law, Article 8, Section 2: <http://www.likumi.lv/doc.php?id=133536> (in Latvian).

¹⁶ www.knab.gov.lv/uploads/free/knab_vadlinijas_korupcijas_riski_iepirkumu_iznemumos.pdf

themselves as weak.

Public procurement is one of the least professionalized areas of public administration. The main criteria for employment as a procurement professional often is a legal degree, as well as experience in the public sector. Often, particularly in small local governments and small public organizations with limited staff and budgets, functions of public procurement professional are performed on an *ad hoc* basis by an employee responsible for legal or financial issues. Public procurement professionals are not defined as a separate group of civil servants, and no particular certification system exists for public procurement professionals in Latvia.¹⁷ As emphasised by one of the interviewees, “procurement often is not even the second-rate responsibility of a civil servant, particularly in small municipalities and organisations, where organising procurement procedures can be assigned even to an accountant. We do not have a proper definition of who is a “public procurement professional” even.”

One of the important aspects influencing professionalization of public procurement is availability of training in procurement. In Latvia no formal university training in procurement is available. However, Latvian School of Public Administration provides training for civil servants on following issues: basics of public procurement law; drafting public procurement documents; latest issues in the regulation of procurement in public supplies/works/services; choice of procurement procedure and drafting relevant documentation; issues and guidelines in implementation of public procurement law; possibilities to optimize and modernize public procurement according to public procurement law; latest issues in the utilities’ procurement regulation; drafting documentation for “small procurements”; covering the current praxis in PMB. As course subjects suggest, the focus of training in procurement is solely on legal issues, not covering any technical aspects in relation to specific complex procedures, such as competitive dialogue or application of functional or performance specifications. PMB also provides training in procurement, with main focus on the latest changes in public procurement legislation, dealing with under-priced tenders and complaints¹⁸, as well as peculiarities of procurement of information and communication technology-related products, and aspects of procurement procedures for projects funded from EU funds. Focus on legal aspects of public procurement, not covering the strategic

¹⁷ On the basis of author’s analysis of procurement notices published by public procurement bodies.

¹⁸ From the interview with the Head of the Procurement Monitoring Bureau.

and management side of it, limits the possibilities of procurement professionals to procure innovative goods or services using more complex procurement procedures. Since the adoption of the latest public procurement law in 2007, competitive dialogue procedure has not been used, suggesting that there are limitations in capacity and capabilities of public procurement professionals. One of the interviewees, on the question why, for example, competitive dialogue is not used explicitly stated that “the simple answer is lack of experience. You have to be first of all an equal partner in this dialogue for it to be successful. You have to be competent. We have a very decentralised procurement system, where there are a lot of organisations or municipalities that do not have the necessary expertise to organise any complex procurement.” Beside the general focus on legal aspects of public procurement, the opportunities for introduction of more complex concepts and procurement procedures into training are constrained by fast turnover of employees in the public sector. As emphasised by interviewees, every time they have training on procurement, they are forced to cover the very basics, as there are numerous people in the audience, which require the very basics of the legal aspects of public procurement.

Another important aspect characterising public procurement system in Latvia is overreliance on open competitive procedure as a main contracting procedure. As statistical data provided by the PMB suggests, not only in case of contracts below EU thresholds, but also above EU thresholds, in the period 2004-2010 open competitive procedure was used in 85 to 95 per cent of occasions. The second most common procedure is negotiated procedure often used for more complex works and services contracts. In case of negotiated procedure the value of average contract is significantly higher than that of the average contract value under open competitive procedure. Competitive dialogue has not been used since the procedure was included in the public procurement law in 2007. As suggested by one of the interviewees: “There is a kind of general understanding, particularly in the most recent years, when government budget in Latvia is under constraint, that you must accept the lowest bid, and the lowest price as the main evaluation criteria. Yes, public budget is the main constraint. We have to buy the cheapest.”

In terms of procurement indicators as well as the structure of the procurement system, Latvia appears a normal EU country. According to the most recent data, public sector expenditure on works, suppliers and services in Latvia constituted

¹⁹ EU public procurement indicators http://ec.europa.eu/internal_market/publicprocurement/docs/indicators_2010_en.pdf

20 per cent of the GDP (EUR 3.6 billion)¹⁹, which is slightly above the EU average, but is also a result of the decline in the GDP since the financial crisis of 2007/2008. However, in terms of openness of public procurement markets (if evaluated by the percentage of tenders published in the Official Journal), Latvia is a clear outlier not only on the general EU level, but also among the small EU member-states (Table 4).

TABLE 4

OPENNESS OF PUBLIC PROCUREMENT MARKET BASED ON THE SHARE OF
PUBLIC PROCUREMENTS ADVERTISED ON TED

	2007	2008	2009	2010
Latvia	63	61.1	42.1	57.3
Small EU member states	27.04	24.11	33.13	30.98
Total EU 27	16.9	17.4	18	18.6

Source: EU PP indicators, 2010: http://ec.europa.eu/internal_market/publicprocurement/docs/indicators2010_en.pdf.

Note: Small EU member states include countries with population below 6 million: Cyprus, Denmark, Estonia, Finland, Ireland, Lithuania, Luxembourg, Malta, Slovakia, Slovenia.

Regarding the distribution of public procurement expenditure across sectors, it is dominated by construction works, financial services and insurance, transport equipment, fuel and energy and medical equipment, and business services (including architectural and construction services) which altogether constitute 60 per cent of total public purchases on average over the period 2005-2011 (Table 5), and 7.23 per cent of GDP. This, in turn, suggests that strategic procurement of innovative goods or services in a limited range of sectors.

TABLE 5

MAIN PUBLIC PROCUREMENT CATEGORIES IN LATVIA ACCORDING TO CPV,
ON AVERAGE OVER THE PERIOD 2005-2011

CPV divisions	2005-2011 average (EUR million)	2005-2011 average (% of registered public procurements)	2005-2011 average (% of GDP)
Construction works	1138.16	36.0%	4.33%
Financial and insurance services. including 67000000-7 for 2005-2008	276.79	8.8%	1.05%
Transport equipment and auxiliary products to transportation	157.23	5.0%	0.60%
Petroleum products, fuel, electricity and other sources of energy	119.75	3.8%	0.46%
Medical equipment, pharmaceuticals and personal care products, including laboratory, optical and precision equipment (38000000-5) for 2008-2000	111.48	3.5%	0.42%
architectural, construction, legal, accounting and business services: combined 71000000-8, 79000000-4 & 78000000-7 for 2005-2008	96.61	3.1%	0.37%
agricultural, forestry, horticultural, aquacultural and apicultural services	88.32	2.8%	0.34%
Office and computing machinery, equipment and supplies, including software and information systems (48000000-8)	53.31	1.7%	0.20%
Transport services (excl. Waste transport), including 61000000-5 and 62000000-2 for 2005-2008	56.45	1.8%	0.21%

Source: Latvian procurement monitoring bureau, <https://www.iub.gov.lv/node/52>.

4. - Discussion

The Latvia case study provided the necessary contextual information that helps understanding and differentiating the effects of smallness and those that arise due to the nature of pre-existing institutions, which influence the process of policy-making through such effects as path dependency as well as institutional inertia. PPFi is a policy instrument capable of addressing (at least to some extent) a number of innovation system failures by improving the level of awareness of policy-makers about the current conditions in which businesses operate, innovative and

technological capabilities of businesses, as well as their demands; providing a market for innovative solutions that can be signalling to the private sector about the feasibility of these innovative solutions. However, in order to apply PPFI in practice, a number of constraints need to be overcome. According to the theoretical discussion provided in the first section, limitations for successful design and implementation of PPFI can have different origins, ranging from the small size of domestic market to lack of necessary capabilities and capacities in the public sector.

Firstly, what is crucial for design and implementation of PPFI, is a strategic approach to policy making and coordination between different policy domains and, therefore, different ministries and agencies. The results of the case study, however, that these are the main deficiencies in the system. Lack of strategic approach to innovation policy-making, and in particular to PPFI, which is entirely neglected, was emphasised by policy-makers as an acute problem. Coordination between domains of different ministries and agencies, as the responsibilities for innovation policy distributed between Ministry of Economics, Ministry of Education and Science and Ministry of Environmental Protection and Regional Development, is another critical bottleneck that sometimes leads to conflicting objectives and negative outcomes, or general inefficiency in using scarce resources. Coordination issue becomes particularly important when it comes to PPFI, as it involves additional actors (e.g. procurement body, oversight authority, etc.), requiring additional coordination capacity. As a result of this complexity, more time and organisational resources are required to launch complex procurement contracts, as they have to be negotiated and approved in numerous instances (e.g. if competitive dialogue procedure is to be applied). Thus the whole process to a large extent depends on the availability or indeed development of capacities and capabilities in the civil service in order to make all the complex policy design, implementation and related coordination activities possible.

Besides coordination capacities, successful PPFI requires a “smart” customer on all stages of procurement process. First, a procurement entity should be capable of acknowledging and expressing the needs and requirements for the product or service to be procured. Secondly, it should be capable to draft the specification in a way conducive to innovation, on the one hand not constraining innovation by overly prescriptive specification, and on the other hand devising a specification that is precise enough for a developed solution to satisfy the needs. And lastly, but not less important, procurement professionals should be capable of evaluating the functional performance of a proposed or delivered product or service. All this combined requires a set of skills and capabilities ranging from purely adminis-

trative skills, such as project management, technical skills when the procured solution is highly technologically complex, as well as strategic management and planning skills.

Here the two limitations induced by the smallness of the state, but also somewhat magnified by the effects of transition are related to scarcity of human resources and the resulting constraints on administrative capacity of the public sector, become highly relevant. The case study suggests that development of capabilities is still an important issue, which is compounded by the lack of opportunities for career advancement intrinsic to small states; comparatively low pay for highly qualified professionals; and possibilities for labour mobility provided by the open European labour market; all stimulating brain drain. Lack of existing capabilities and the acute need for development of capabilities and capacities in the public sector was identified as the key constraint on the way to successful implementation of PPFI as a policy instrument, both theoretically and in the case study. These issues are also under-explored in the context of PPFI research.

For transitional economies of CEE, the context for development of public administration was radically different from that in the Western European countries with bureaucratic traditions lasting for decades if not centuries. The nature of the process was not of gradual change, but of radical transformation from dictatorship to democracy in political sphere, from centralisation to decentralisation in governance structures, from planned to market economy, and so forth (Goetz, 2001). Former elites had to be dealt with and former administrative apparatuses radically reformed, thus requiring not just adjustment in administrative culture and practices, but introduction and development of new public administration and management systems from the ground up. Institutional reforms were pushed rather swiftly, however, due to the domination of neo-liberal (economic) thinking and general distrust towards the state as a legacy of Soviet period, the understanding of the concept of the State was lacking. As Randma put it: "While quite successfully introducing market reforms, it has often been forgotten *that market economy does not function without a well-functioning state.*" (Randma, 1998, page 17; in Drechsler, 2003, page 12)

Formal implementation of reforms was not an issue, as drafting laws mostly on the basis of legal practice of Western democracies did not require much time. What made the actual implementation of reforms difficult was lack of well-qualified civil servants that were not part of the previous system and thus would not bring along embedded practices (Drechsler, 2003). Lack of qualified professionals was exacerbated by a number of other widely-recognized obstacles, including,

inter alia, communist legacies; general resource shortages, both financial and organisational; immediate economic, political and social issues overwhelming decision-makers, thus limiting their ability to prioritize the on-going reforms; conflicting and sometimes contextually inappropriate external advice; and inevitable time-lags between formal reform implementation and actual institutional transformation, which takes considerably more time (Goetz, 2001).

While usually bundled together all CEE economies, although certainly moving towards achieving similar objectives, have chosen different paths in reform of their public administration systems. The reform strategy adopted in Latvia was of a mixed type, introducing some elements of Weberian-type hierarchical administration and adding some NPM-type reforms on the later stages of public administration reform, primarily during the EU *pre*- and *post*-accession period (Nemec *et al.*, 2011). Building a classical Weberian-type civil service based on merit, legality, hierarchy and division of labour would however, even if desirable, be hardly attainable due to the smallness-related constraints. Here limited pool of qualified professionals becomes the central restraint, as the demands for the basic institutions in small states are similar to those of their larger counterparts, thus requiring a certain degree of multi-functionalism on the part of civil servants in sacrifice of division of labour and specialisation (Randma-Liiv, 2002).

Development of public administration in CEECs was marked by another peculiarity – even before appropriate administrative capacities were established and capabilities developed, discussions on “downsizing” the government were ignited across the CEECs, particularly in countries with the political sphere dominated by the liberal parties. To some extent it was also a reaction to weak economic performance, which significantly limited public expenditure (*ibid.*).

Similarly, as Grabbe (2001) argued, in case of CEECs transformational power of European integration on national administrative systems was much stronger than it was the case with Western European Countries. This, as Goetz (2001) suggests, can be explained by a number of reasons: delegitimized and weak pre-existing institutions; policy and institutional “voids” in public administration (PA) making integration of new policies and practices easier; substantial pressure and explicit attention of the EU to national administrative capacities, and particularly to the ability to administer the *acquis communautaire*; very short time periods in which CEECs were supposed to transform their institutions according to EU standards, as adjustments were required before the accession.

Beside all the positive effects of europeanisation of PA, such as training and experience exchange in PA, it also had a range of adverse effects on the development

of the administrative apparatus. Firstly, EU integration required adjustment of institutions that were still in the early development phase, thus disrupting previously started reforms and bringing additional pressure on civil servants, which even without new requirements struggled to deal with their day-to-day objectives. Secondly, negotiation of EU accession and subsequent implementation of the *acquis* in CEE promoted relatively small groups of politicians and officials on the career ladder, thus creating enclaves of officials distinguished by their professional competences (Lippert *et al.*, 2001). Consequently, institutions related to EU accession differed markedly from the rest of the public administration in both quality and efficiency; also their employees had higher status, better education and skills as well as higher remuneration (Nunberg, 2000). Thus, Nunberg (*ibid.*) suggests, the creation of enclaves of professionals dealing with EU accession-related issues could have been harmful for the PA in general. Due to limited availability of qualified personnel, "...EU talent has largely been siphoned off from core public administration tasks. Continuing demand for EU skills will further deplete professionals from the larger public administration." (Nunberg, 2000, page 21)

Besides all the previously discussed problems, one of the central reasons for comparatively weak domestic administrative and policy capabilities and capacities, particularly in the domain of innovation policy, was that CEECs never actually developed policies, but throughout the *post*-Soviet period were policy takers. First from the international institutions²⁰ in the early 1990s; and later from the EU (Karo and Kattel, 2010*b*). The recent financial and ensuing economic and fiscal crises only exacerbated the issues already in place. The austerity measures imposed by the Latvian government between 2008 and 2012 concerned mostly operational expenditure of agencies and ministries, thus requiring cuts in the number employees in the public sector, as well as reduction in remuneration for the remaining staff up to 30 per cent.

PPFI thus entered innovation policy discourse in Latvia at a time when local capacities and capabilities might be insufficient for effective policy design and implementation. Beside already mentioned institutional issues, currently pressing problems that make development of capabilities difficult, made vocal by respondents, included: significant employee turnover in the public sector due to comparatively low pay; lack of human and financial resources for policy-relevant research; and central to performing PPFI, lack of professionals in performing pro-

²⁰ The World Bank, European Bank for Reconstruction and Development, the International Monetary Fund.

curement functions, as well as lack of general professionalization of procurement functions across the public sector and particularly in smaller organisations. The small country effects are related to the size of public procurement markets in absolute terms in combination with diversity of the needs of the public sector that is comparable to the diversity in larger countries, limited number of local suppliers, as well as the level of innovative capabilities of local suppliers. Diversity of public procurement does not allow attaining the necessary minimal scale sufficient to have any substantial effect on innovation among suppliers. Lack of local suppliers can potentially lead to cross border spillover effects of domestic policies, particularly considering the openness of public procurement markets in Latvia.

Some of the arguments against application of PPFI in context of Latvia, however, suggest a rather narrow perspective on PPFI as a policy instrument that persists among policy makers in Latvia. PPFI is perceived more in terms of pre-commercial procurement than in terms of a whole product life cycle, where innovations can be developed on different stages, thus allowing to improve performance characteristics of even the most standardized products²¹. Same arguments made by the respondents also suggest that PPFI is not perceived as a part of a comprehensive innovation policy mix that includes other demand- and supply-side measures. Considering diversity of public procurement, it still can be suggested that public sector can be a lever in a number of sectors, such as construction, financial and insurance services, as well as health care and information systems, where the public sector constitutes a significant share of domestic demand. In fact, the most important sector where public procurement is used as a policy instrument currently is construction, where some attempts were made to stimulate demand for new more sustainable solutions through “green procurement” (Kristapsons *et al.*, 2011). The results of these initiatives in terms of innovation in the construction industry, however, need to be studied in detail in order to make any specific conclusions. Apart from numerous examples of successful innovative procurement originating from comparatively small countries of Northern Europe, the case of information technology procurement in Estonia, while being not conscious policy to support innovation, still provides a good example

²¹ Here one of the good examples of innovative procurement of standardised goods could be procurement of environmentally sustainable furniture and other goods in the Netherlands, which are produced according to the principles of Cradle-to-Cradle, thus reducing the environmental impact of public procurement as well as providing the necessary scale for further development and distribution of Cradle-to-Cradle practices also to the private sector (see e.g. NL AGENCY, 2010).

of successful procurement of innovative solutions for the needs of public sector²² (For an overview see Kalvet, 2012; Lember and Kalvet, forthcoming).

Besides the constraints induced by smallness, a number of other constraints were identified. Firstly, as discussed earlier, procurement practices based on price competition were institutionalised in procurement organisations, creating a procurement “culture” dominated by open competitive tenders and auctions where price is if not the only, then always the main criteria for selection of a winning bid. This culture was grounded in the procurement legislation based at first on UNCITRAL and later on the earlier versions of EU procurement directives, where the main principles of openness, transparency and non-discrimination, coupled with price competition constituted the core. The culture of lowest price tendering was strengthened by persistently low procurement budgets, as well as low level of capabilities in the public sector. Over-reliance on open competitive tendering can also be partially explained by generally risk-averse behaviour of civil servants involved in public procurement. As expressed by an interviewee, due to general perception of public procurement as a good environment for potential corruption, it is often used to displace public officials that are unsuitable politically. This affects the choices of officials, who decide to rely on more transparent procedures in order to stay in office. One of the interviewees involved in public procurement at the operational level, suggested that open auctions, if allowed, would be a preferable procedure, allowing attaining the minimal possible price, thus suggesting persisting lack of understanding of possible positive long-term effects of innovative solutions on performance of an organisation in terms of effectiveness and efficiency. Lack of information regarding the possibilities to engage in procurement of innovative solutions was also mentioned by the respondents as an important retarding factor.

The high rate of employee turnover present in the public sector, emphasized by the respondents, is yet another factor limiting the opportunities to engage in PPFI. This effectively makes it difficult to provide information about the most recent developments in the EU public procurement policy, because most of the effort, particularly under fiscal constraints, is dedicated to provision of training to newly recruited procurement professionals and other public sector employees entering the public procurement system. Thus education of public sector employees in public procurement matters, which should not be confined solely to procurement professionals, but involve broader spectrum of civil servants from

²² Especially in the implementation of e-government and e-governance.



different fields, as well as provision of information on the most recent trends in EU procurement policy remains a very important challenge for development of capabilities.

5. - Conclusions

This study explored the potential of public procurement for innovation as an innovation policy instrument in the context of a small country. In the recent years the EC has been putting more emphasis on the use of procurement budgets to stimulate innovation, suggesting that EU member states “should set aside dedicated budgets for pre-commercial procurements and public procurements of innovative products and services” (EC, 2010, page 17). However, under the conditions identified in this case study, use of public procurement as an innovation policy instrument can face certain barriers that can weaken or eliminate altogether the potential positive effects on innovation capabilities of suppliers. The results of the study confirm the conclusions suggested by Georghiou and colleagues (2010) in their study of public procurement in small European countries, particularly their proposition on centrality of development of administrative capacities and capabilities necessary for effective design and implementation of PPFi as a policy instrument. The study also suggests that some of the constraints identified theoretically and substantiated empirically are related not only to the size of the state but also to the effects of transition and policy context which has developed over the last two decades since re-independence. These limitations on PPFi as an innovation policy instrument are in line with the argument developed by Kattel and Lember (2010) on the issues that might arise when trying to apply PPFi as an industrial policy tool in the context of a developing country. Additionally to the issues mentioned earlier, the research emphasises the importance of path-dependency and organisational practices that develop throughout time also affects the thinking of policy makers when devising new policy mixes. The research suggested that there was general tendency among policy-makers to favour supply-side mechanisms as those are already tried out and do not require additional competencies, while at the same time the policy makers are reluctant to engage in designing and integrating in the policy mix new, previously unexplored policy measures. On the operational level of public procurement the same effects of path dependencies and institutionalised practices, such as preference for open and competitive procedures as well as price as the main criteria for evaluation of



tenders, were identified as factors that might potentially limit the possibilities for implementation of PPFI.

The case provides a range of implications for policy. First of all, prior to setting aside budgets for pre-commercial procurement and procurement of innovative goods and services, a thorough analysis of existing domestic capacities and capabilities, as well as analysis of the public procurement market needs to be undertaken, in order to identify the priority sectors where public procurement can have maximum potential effect. This suggestion goes in line with the recent research on smart specialisation. Secondly, domestic policy capacity and capabilities need to be strengthened, allowing for a more active approach to innovation policy-making. Furthermore, both vertical and horizontal coordination, as well as coordination among the set of measures constituting the innovation policy mix is necessary in order to maximize the effects of innovation policy. Lastly, but not least important, the expertise of public procurement professionals needs to be developed and maintained on a high level; and public procurement culture needs to be adjusted to the needs of PPFI, allowing for more risk taking and encouraging more innovative solutions.

Nonetheless, there are limitations to this study. The results of this qualitative single-case study cannot be generalised easily to other small countries; however, the case still provides a perspective on the potential constraints. Furthermore, this case study provides only one perspective on PPFI as a policy instrument in a context of a small state, focusing first of all on a small transitional country, and also on different levels of civil service. The research can be taken further in a number of different directions. Firstly, a comparative study of a small transitional country (e.g. Latvia) and a small developed country (e.g. Finland) could potentially be helpful in distinguishing the effects of smallness and the effects of transition. Another direction to take is to study procurement practices on the organisational level, including small local municipalities and public utilities, as it could provide a more detailed account on procurement practices and perceptions of procurement professionals on procurement of innovative goods and services in a small country. Further research is necessary to provide a perspective on impact of public procurement on innovation in enterprises operating in small states, as well as general perception of businesses on the possibility of public-private cooperation in development of innovative goods or services through procurement.



BIBLIOGRAPHY

- ABRAMOVITZ M., «Catching Up, Forging Ahead, and Falling Behind», *Journal of Economic history*, no. 46(2), 1986, pages 385-406.
- ADAMSONE-FISKOVICA A. et AL., *ERAWATCH Country Report 2009. Analysis of Policy Mixes to Foster R&D Investment and to Contribute to the ERA*, 2009.
- AMSDEN A.H., *Asia's Next Giant: South Korea and Late Industrialization*, Oxford University Press, US, 1992.
- ARMSTRONG H.W. - READ R., «The Determinants of economic Growth in Small States», *The Round Table*, no. 92 (368), 2003, pages 99-124.
- ARROWSMITH S., «Public Procurement: An Appraisal of the UNCITRAL Model Law As a Global Standard», *International and Comparative Law Quarterly*, no. 53 (1), 2004, pages 17-46.
- ASCHHOFF B. - SOFKA W., «Innovation on Demand - Can Public Procurement Drive Market Success of Innovations?», *Research Policy*, no. 38(8), 2009, pages 1235-1247.
- BENEDICT B., «Sociological Characteristics of Small Territories», *The Social Anthropology of Complex Societies*. *Edinburgh: Tavistock*, 1966, pages 23-35.
- BORRÁS S., «The Widening and Deepening of Innovation Policy: What Conditions Provide for Effective Governance?», [online], available from: http://www.circle.lu.se/upload/CIRCLE/workingpapers/200902_Borras.pdf (Accessed 9 October 2012), 2009.
- BRAY M., «Education in Small States: Growth of Interest and Emergence of a Theory», *Prospects*, no. 21(4), 1991, page 503-516.
- CABRAL L. et AL., «Procuring Innovations», in NICOLA D. et AL. (eds.), *Handbook of Procurement*, UK, Cambridge University Press, 2006, pages 483-528.
- CCSC, «National Development Plan of Latvia for 2014-2020», [online], available from: http://www.nap.lv/images/NAP2020%20dokumenti/NDP2020_English_Final.pdf (Accessed 5 January 2013), 2012.
- DENSCOMBE M., *The Good Research Guide for small-scale social research projects*, Buckingham, Open University Press, 1998.
- DRECHSLER W., «Governance, good governance, and government: the case for Estonian administrative capacity», *Trames*, no. 8(4), 2004, pages 388-396.
- . , «Managing Public Sector Restructuring: Public Sector Downsizing and Redeployment Programs in Central and Eastern Europe», [online], available from: <http://idb-docs.iadb.org/wsdocs/getdocument.aspx?docnum=623667> (Accessed 3 October 2012), 2003.
- EASTERLY W. - KRAAY A., «Small states, small problems? Income, growth, and volatility in small states», *World Development*, no. 28 (11), 2000, pages 2013-2027.





- EC, «Exploring Public Procurement as a Strategic Innovation Policy Mix Instrument», [online], available from: http://www.technopolis-group.com/resources/downloads/reports/public_procurement.pdf (Accessed 5 January 2013), 2009.
- EC, «Europe 2020 Flagship Initiative Innovation Union COM(2010) 546», [online], available from: http://ec.europa.eu/research/innovation-union/pdf/innovation-union-communication_en.pdf (Accessed 7 September 2012), 2010.
- . , «Innovation Union Scoreboard 2013», [online], available from: http://ec.europa.eu/enterprise/policies/innovation/files/ius-2013_en.pdf (Accessed 5 January 2013), 2013.
- ELIASSEN G., «Advanced Public Procurement as Industrial Policy: The Aircraft Industry as a Technical University», *Economics of Science, Technology and Innovation*, vol. 34, Heidelberg, Springer, 2010.
- EUROSTAT, «Population at January 1», [online], available from: <http://epp.eurostat.ec.europa.eu/tgm/table.do?tab=table&init=1&language=en&pcode=tps00001&plugin=1>, 2012.
- EVANS P., *Embedded Autonomy: States and Industrial Transformation*, NJ, Princeton University Press, 1995.
- . , «In Search of The 21st Century Developmental State», in *The Centre for Global Political Economy*, Brighton, University of Sussex, [online], available from: <http://www.sussex.ac.uk/cgpe/documents/cgpe-wp04-peter-evans.pdf> (Accessed 24 September 2012), 2008.
- EVANS P. - RAUCH J.E., «Bureaucracy and Growth: A Cross-National Analysis of the Effects of “Weberian” State Structures on Economic Growth», *American Sociological Review*, 1999, pages 748-765.
- FORAY D. *et AL.*, *Guide to Research and Innovation Strategies for Smart Specialisations*, 2012.
- GEORGHIOU L., «Demanding Innovation. Lead Markets, Public Procurement and Innovation», [online], available from: <http://www.nesta.org.uk/library/documents/demanding-innovation.pdf> (Accessed 9 October 2012), 2007.
- GEORGHIOU L. *et AL.*, «Public Procurement for Innovation in Small European Countries», [online], available from: <http://ec.europa.eu/environment/gpp/pdf/Public%20Procurement%20for%20Innovation%20in%20Small%20European%20Countries.pdf> (Accessed 9 October 2012), 2010.
- GOETZ K.H., «Making Sense of Post-Communist Central Administration: Modernization, Europeanization or Latinization?», *Journal of European Public Policy*, no. 8(6), 2001, pages 1032-1051.
- GRABBE H., «How Does Europeanization Affect CEE Governance? Conditionality, Diffusion and Diversity», *Journal of European public policy*, no. 8(6), 2001, pages 1013-1031.
- HALL P., *Cities in Civilization: Culture, Innovation, and Urban Order*, New York, Pantheon Books, 1999.
- HESSE J.J., *Administrative Transformation in Central and Eastern Europe: Towards Public Sector Reform in Post-Communist Societies*, Oxford, Blackwell Publishers, 1993.





- HOUSE OF LORDS, «Public Procurement as a Tool to Stimulate Innovation. Oral and Written Evidence», [online], available from: <http://www.publications.parliament.uk/pa/ld201012/ldselect/ldsctech/148/14802.htm> (Accessed 9 October 2012), 2011.
- JUPP V., *The SAGE Dictionary of Social Research Methods*, Thousand Oaks, London, New Delhi, Sage, 2006.
- KALNINS V., «The Impact of Partial Interests on Policy Making in Latvia: Challenges for a New Democracy and a Policy Proposal», in *Proceedings of the International Conference*, 2004, Riga, LU, Academic Publishing, 2004, pages 157-160.
- KALVET T., «Innovation: A Factor Explaining E-Government Success in Estonia», *Electronic Government, an International Journal*, no. 9(2), 2012, pages 142-157.
- KARO E., «The Evolution of Innovation Policy Governance Systems and Policy Capacities in the Baltic States», *Journal of Baltic Studies*, no. 42(4), 2011, pages 511-536.
- KARO E. - KATTEL R., «Coordination of Innovation Policies in the Catching-Up Context: A Historical Perspective on Estonia and Brazil», *International Journal of Technological Learning, Innovation and Development*, no. 3(4), 2010a, pages 293-329.
- .-, «The Copying Paradox: Why Converging Policies but Diverging Capacities in Eastern European Innovation Systems?», *International Journal of Institutions and Economies*, no. 2(2), 2010b, pages 167-206.
- KATTEL R. - LEMBER V., «Public Procurement as an Industrial Policy Tool an Option for Developing Countries?», *Journal of Public Procurement*, no. 10 (3), 2010, pages 368-404.
- KRISTAPSONS J. - ADAMSONE-FISKOVICA A., *Annual Policy Trends and Appraisal Report for Latvia 2004-2005*, 2005.
- KRISTAPSONS J. et AL., *INNO-Policy Trend Chart-Policy Trends and Appraisal Report for Latvia*. 2007
- .-, «Innovation Policy in Seven Candidate Countries: The Challenges. Innovation Policy Profile: Latvia», [online], available from: http://www.innovation.lv/ino2/publications/final_report/latvia_final_report_march_2003.pdf (Accessed 25 September 2012), 2003.
- .-, «Mini Country Report/Latvia. Under Specific Contract for the Integration of INNO Policy Trend Chart with Erawatch (2011-2012)», [online], available from: http://ec.europa.eu/enterprise/policies/innovation/files/countryreports/latvia_en.pdf (Accessed 29 October 2012), 2011.
- KUZNETS S., «Economic Growth of Small Nations», in ROBINSON E.A. (ed.) *The Economic Consequences of the Size of Nations: Proceedings of a Conference Held by the International Economic Association*. London, Macmillan, 1960, pages 14-32.
- LABORATORY FOR ANALYTICAL RESEARCH AND STRATEGIES, «Sustainable Development Strategy of Latvia until 2030. Refined first draft. November 2008. (in Latvian)», [online], available from: http://www.latvija2030.lv/upload/lia_1redakcija_pilnv_final.pdf (Accessed 27 September 2012), 2008.



- LAURENT E., «Economic Consequences of the Size of Nations, 50 Years On», [online], available from: <http://www.ofce.sciences-po.fr/pdf/dtravail/WP2008-26.pdf> (Accessed 29 October 2012), 2008.
- LEMBER V. *et al.*, «Urban Competitiveness and Public Procurement for Innovation», *Urban Studies*, no. 48(7), 2011, pages 1373-1395.
- LEMBER V. - KALVET T., «Public Procurement Policy for Innovation in Estonia», in LEMBER V. *et al.* (eds.), *Public Procurement for Innovation Policy: International Perspectives*, Berlin, Springer, Forthcoming.
- LIEBOWITZ S.J. - MARGOLIS S.E., «Path Dependence», in *Encyclopedia of Law and Economics*, Cheltenham, Edward Elgar Publishing, 2000, pages 981-998.
- LIPPERT B. *et al.*, «Europeanization of CEE Executives: EU Membership Negotiations as a Shaping Power», *Journal of European Public Policy*, no. 8(6), 2001, pages 980-1012.
- LOTZ P., *Demand-side Effects on Product Innovation: The Case of Medical Devices*, Samfundslitteratur, 1992.
- MANNING N., «The Legacy of New Public Management in Developing Countries», *International Review of Administrative Sciences*, no. 67(2), 2001, pages 297-312.
- MCCRUDDEN C., «Using Public Procurement to Achieve Social Outcomes», *Natural Resources Forum*, no. 28, 2004, pages 257-267.
- NAUWELAERS C. - WINTJES R., «Conclusions and Perspectives: Adapting old Policy Institutions to New Challenges», in NAUWELAERS C. - WINTJES R. (eds.), *Innovation Policy in Europe: Measurement and Strategy*, Cheltenham, Edward Elgar Publishing, 2008.
- NEMEC J. *et al.*, «Public Administration and Management Reforms in CEE: Main Trajectories and Results», *The NISPAcee Journal of Public Administration and Policy*, no. 4(1), 2011, pages 9-32.
- NEUMANN I.B. - GSTÖHL S., «Introduction. Lilliputians in Gulliver's World?», in INGEBIRSEN C. *et al.* (eds.), *Small States in International Relations*, Reykjavik, University of Iceland Press, 2011.
- NIOSI J., «National Systems of Innovations Are "X-Efficient" (and X-Effective): Why Some Are Slow Learners», *Research policy*, no. 31(2), 2002, pages 291-302.
- NL AGENCY, «Cradle to Cradle and Sustainable Public Procurement», [online], available from: http://www.agentschapnl.nl/sites/default/files/bijlagen/Publicatie_C2C_ENG_291110.pdf (Accessed 25 October 2012), 2010.
- NUNBERG B., *Ready for Europe: Public Administration Reform and European Accession in Central and Eastern Europe*, vol. 23, World Bank Publications, 2000.
- OVERMEER W. - PRAKKE F., *Government Procurement Policies and Industrial Innovation*, Delft, Strategic Surveys TNO, 1978.
- PEREZ C., *Technological Revolutions and Financial Capital: The Dynamics of Bubbles and Golden Ages*, Cheltenham, Edward Elgar, 2002.



- RADOŠEVIĆ S., «The Transformation of National Systems of Innovation in Eastern Europe: Between Restructuring and Erosion», *Industrial and Corporate Change*, no. 7(1), 1998, pages 77-108.
- RANDMA T., «Opening», in JABES J. - MEINIGER M.C. (eds.), *Proceedings from the First Civil Service Forum*, IIAP, Paris, NISPAcee, 1998.
- RANDMA T., «A Small Civil Service in Transition: The Case of Estonia», *Public Administration and Development*, no. 21(1), 2001, pages 41-51.
- RANDMA-LIIV T., «Small States and Bureaucracy: Challenges for Public Administration», *Trames*, no. 6(4), 2002, pages 374-389.
- REINERT E.S., *How Rich Countries Got Rich... and Why Poor Countries Stay Poor*, London, Constable, 2007.
- . , «The Role of the State in Economic Growth», *Journal of Economic Studies*, no. 26(4/5), 1999, pages 268-326.
- ROLFSTAM M., «Public Procurement and Formal Institutions as External Limiting Factors of Design for Innovation: The Case of Innovative Procurement of Maritime Radio Technology», in *DRUID-DIME Academy Winter PhD Student Conference*, Skørping, 2006, pages 1-28.
- . , «Public Procurement as an Innovation Policy Tool: The Role of Institutions», *Science and Public Policy*, no. 36(5), 2009, pages 349-360.
- . , «Understanding Public Procurement of Innovation: Definitions, Innovation Types and Interaction Modes», [online], available from: http://papers.ssrn.com/sol3/papers.cfm?abstract_id=2011488 (Accessed 19 May 2012), 2012.
- ROLFSTAM M. et AL., «Public Procurement of Innovations, Diffusion and Endogenous Institutions», *International Journal of Public Sector Management*, no. 24(5), 2011, pages 452-468.
- RUTTAN V.W., *Is War Necessary for Economic Growth? Military Procurement and Technology Development*, New York, Oxford University Press, 2006.
- SMITH N. et AL., «Size Matters: Small States and International Studies», *International Studies Perspectives*, no. 6(3), 2005, pages ii-iii.
- STEINMETZ R. - WIVEL A., *Small States in Europe: Challenges and Opportunities*, Aldershot, Ashgate Publishing Company, 2010.
- THORHALLSSON B., «The Size of States in the European Union: Theoretical and Conceptual Perspectives», *European Integration*, no. 28(1), 2006, pages 7-31.
- THORHALLSSON B. - WIVEL A., «Small States in the European Union: What do we Know and What Would we Like to Know?», *Cambridge Review of International Affairs*, no. 19(4), 2006, pages 651-668.
- TÖNNISSON K. - RANDMA-LIIV T., «PUBLIC MANAGEMENT REFORM: ESTONIE», in Bouckaert G. et AL. (eds.), *Public Management Reform in Central and Eastern Europe*, Bratislava, NISPAcee Press, 2009, pages 93-118.





VANOVSKA I., «Pension Reform in Latvia», *Pension Reform in the Baltic States*, 2006, pages 143-265.

WADE R., *Governing the Market: Economic Theory and the Role of Government in East Asian Industrialization*, NJ, Princeton University Press, 1990.

YEOW J. *et AL.*, «Sustainable Innovation through Public Procurement: The Case of “Closed Loop”», *Recycled Paper*, 2011.

YIN R.K., *Case Study Research, Design and Methods*, 2nd edition, Newbury Park, Sage Publications, 1994.



Article II

Cepilovs, A. and L. Muižniece. 2016. "Latvia after European Union Accession: Weathering the Storm?" In L. Briguglio (ed.) *Small States and the European Union: Economic Perspectives, Europa. Economic Perspectives*. Abingdon, Oxon: Routledge, 87-110.

4 Latvia after European Union accession Weathering the storm?¹

Aleksandrs Cepilovs and Lauma Muižniece

1 Introduction

Latvia is located in the North-Eastern part of Europe, on the eastern shore of the Baltic Sea, sharing its borders with Estonia, Lithuania, Russia and Belarus. The population of Latvia in 2015, according to Eurostat, amounted to approximately two million persons – it has been declining during the first two decades of Latvia's independence from its maximum of approximately 2.7 million in 1991. Latvia is relatively sparsely populated with a density of 31 inhabitants per square kilometre, spread across 64,589 square kilometres. Latvian, an Indo-European, and more specifically a Baltic language, is the official language of Latvia and one of the official languages of the European Union (EU).

Due to its strategic location and a relatively large and prosperous trading hub Riga, Latvia has over the centuries been conquered by various powers. First by the Teutonic order, then by the Polish-Lithuanian Commonwealth, by Sweden, and more recently by the Russian Empire. During the Second World War, Latvia was first briefly occupied by the Soviet Union in 1940, and invaded and occupied by Nazi Germany less than a year later, in July 1941. At the end of the war in 1944–1945 Latvia was yet again occupied by the Soviet Union, remaining a part of the Soviet Union for almost five decades, until the dissolution of the Soviet Union.

Latvia is one of the smaller economies in the European Union. With the gross domestic product (GDP) of €24,059 million (current prices, 2014), as shown in Table 4.1, Latvia is the fourth smallest EU member state, after Malta, Cyprus and Estonia.

Also in terms of per capita income, Latvia is one of the weakest performers in the EU, ranking 24th out of 28 countries, with GDP per capita of roughly €12 thousand (current prices, 2014). Latvia has a relatively high level of human development, with a rank 48th out of 187 countries in the 2014 UNDP Human Development Index.² According to the World Bank's income classification,³ Latvia was classified as a upper-middle-income country up to 2012, but according to the new classification, it has joined the club of the rich, being ranked as a high-income country. As we argue below, one needs

Table 4.1 Latvia: some economic indicators

<i>Parameter</i>	<i>Value</i>
Population (2015)	1.986 m.
Area	64 589 km ²
GDP (2014)	€24,059 million
GDP per capita (2014)	€12100
Government debt/GDP (2014)	40%
Government budget balance/GDP (2014)	−1.4%
Balance of trade/GDP (2014)	−0.8%
Unemployment (2014)	10.2%
Employed persons/Working age population (16–64 years)	66.3%

Source: Eurostat (<http://ec.europa.eu/eurostat/data/database>) and Central Statistical Bureau of Latvia (<http://www.csb.gov.lv/en>).

only scratch the surface to see that Latvia is far from being part of the high-income club.

Latvia has not thus far attracted much attention in the literature on small states.⁴ Most published studies on Latvia cover three periods, with the first relating to the collapse of the Soviet Union (e.g. Lejiņš and Ozoliņa, 1997), the second to Latvia's EU accession (e.g. Mikkell and Pridham, 2004; Schimelfennig, Engert and Knobel, 2003), and the third and most important to the recent financial crisis and the resulting economic and fiscal crises (e.g. Aslund and Dombrovskis, 2011; Blanchard, Griffiths and Gruss, 2013; Kattel and Raudla, 2013; McCollum et al., 2013; Sommers and Woolfson, 2014). The post-crises literature covered different aspects from fiscal policy to migration to neoliberalism and economic policy more generally. Only a few studies have, implicitly or explicitly, used small country size as an explanatory variable (e.g. Cepilovs, 2014; Panke, 2010).

This chapter attempts to look at Latvia's EU accession in the wider context, by referring to the economic structure and performance of Latvian economy, covering three broad periods, starting from the country's independence (1918–1940), the Soviet period, and the pre-EU-accession years. The chapter also refers to Latvia's specific opportunities and constraints as a small country.

The chapter is organized into six sections. Section 2, which follows this introduction, deals with the structure and performance of the Latvian economy between 1918 and 1991, the year when Latvia gained its independence from the Soviet Union. Section 3 discusses the pre-accession period (1992–2004), while Section 4 deals with the consequences of Latvia's EU membership, culminating in the most recent financial and resulting economic and fiscal crises. Section 5 considers the positive and negative aspects of Latvia as a small state. Section 6 concludes this chapter with some remarks on future prospects of the Latvian economy.

2 The Latvian economy before 1991

2.1 Before the Soviet annexation

Before the Second World War, the level of economic development in Latvia, as well as its productive structure were comparable to that of Finland. The agrarian reform implemented in the early years of the first period of independence, which lasted from 1918 until 1940, helped develop a relatively productive agricultural sector. Between 1933 and 1935 Latvia had the third highest per capita level of grain production in Europe (Shteinbuka, 1993). By the end of the 1930s Latvia was running a trade surplus, to which exports of agricultural products to Western Europe contributed substantially. Thus, in 1938 exports of agricultural products reached 46.7% of total exports, of which exports of butter alone contributed 23.9%. Exports of timber as well as plywood accounted for a high share of non-agricultural exports, and these products still constitute a significant share of Latvia's exports today. At the same time imports were to a significant extent dominated by manufacturing equipment and machinery, fuel as well as artificial fertilisers (State Bureau of Statistics, 1939).

While agricultural commodities constituted the bulk of exports, Latvia did produce some sophisticated equipment relying mostly on German technology. Thus in the 1930s a radio and telephone equipment manufacturer VEF⁵ was established and produced the smallest film camera in the world at the time – VEF Minox – designed by an Estonian engineer. The very same factory produced telephone exchanges that quickly substituted imported switches, and were also exported. In the mid-1930s Latvia began producing automobiles and trucks. While important on the domestic market, those goods did not constitute a significant share of exports at the time. As we argue below, the Latvian economy has gone full circle and after the collapse of the Soviet Union – it has returned to a productive structure very similar to that of the first Republic, namely one based on the export of commodities and products with relatively low value added.

Looking at the composition of the external trade of Latvia in the late 1930s, it is clear that Latvia depended to a great extent on its two main trade partners, Germany and the United Kingdom, that were jointly responsible for roughly 67% of Latvian exports and 64% of imports. The UK – the main trade partner at the time – was alone responsible for 39% of imported goods and consumed close to 40% of Latvian exports. Therefore, one can argue, the Latvian economy was already deeply integrated with the core European economies in the early twentieth century. This also made Latvia potentially vulnerable to external shocks, given its export structure, which was concentrated on very few commodities as well as on very few key trade partners.

2.2 The annexation by the Soviet Union

With the annexation by the Soviet Union, as the then existing trade relations were cut, the Latvian economy went through a gradual process of restructuring

and integration into the Soviet economy. As specialization patterns across the Soviet Union were to a certain degree based on comparative advantage, Latvia retained some of the manufacturing capabilities that were developed earlier (e.g. telecommunication and radio equipment, manufacturing machinery).

After the Second World War, with Latvia forming part of the Soviet Union, the country went through a process of rapid industrialization, transforming itself from a predominantly agricultural into a predominantly industrial economy. A number of large enterprises were created, some of which developed and supplied parts for the soviet military industry that was spread throughout the entire Soviet Union. Most of the companies located in Latvia depended on the rest of the Soviet Union for both supplies of raw materials as well as markets. The structure of the economy changed substantially during the 1950s through 1960s, and went through a period of relatively rapid industrialization, retaining a more or less stable economic structure in the decades before the collapse of the Soviet Union.

The total share of industry in the Latvian economy by 1980 was estimated at 56%, which subsequently declined to roughly 50% in 1990. By 1990, Latvia was still ahead of every other Soviet republic but one – Estonia – in terms of industrial production per capita. Table 4.2 shows the sectoral composition of industrial production in that year.

Table 4.2 Sectoral composition of industrial production (1990)

	<i>Share in industrial output (%)</i>	<i>Number of firms</i>	<i>Employment (% of industrial employment)</i>
Total	100	407	100
Heavy industry	56	240	70
Electric power	1.6	1	1.8
Fuel	0.4	10	0.7
Steel and other metal manufacturing	1.6	4	0.9
Chemicals	7.4	15	5.7
Machinery	27.9	87	38.9
Wood processing, pulp and paper	5.4	55	9.6
Construction materials	3.1	30	4.6
Glass and porcelain	0.6	6	1.5
Light industry	18.6	74	17
Food	24.7	89	12.7
Others	0.7	4	0.3

Source: Central Statistical Bureau of Latvia (1990) and Eurostat (<http://ec.europa.eu/eurostat/data/database>).

In some sectors Latvia held monopolistic or dominant positions in the entire Soviet Union. This was the case, for example, in railway passenger cars (100% of the total production in the Soviet Union), telephone sets (53%), motorcycles (57%), but also in electric devices for the automotive industry, agricultural machinery, pharmaceutical products, small construction machinery and instruments.

In some industrial branches most of the goods produced were exported to other Soviet republics. For example, 98% of automatic telephone exchanges, 93% of motorcycles, 89% of washing machines, 79% of radio sets and other consumer audio equipment, as well as diesel engines and diesel electric power generators produced in Latvia in the late 1980s were exported to the other members of the Soviet Union. On the one hand it meant stability of demand as long as the Soviet Union existed, on the other it yet again made Latvia dependent on a very few markets and thus vulnerable should there be problems in the core markets.

Given a relatively high share of industrial activities in the economy, many of which were with relatively high value added, and also given the availability of mass education, Latvia had a well-educated and skilled workforce, especially when compared to other Soviet republics. Another two distinctive features of the Latvian labour market were a high participation rate of women in the labour market, as well as ethnical segmentation, which meant that the majority of Russian speakers were employed in industry, whereas the majority of Latvians were employed in agricultural activities (Shteinbuka, 1993).

The production system of the Soviet Union was well adapted to the dominating techno-economic paradigm of mass production. Production specialization patterns were driven to a large extent by considerations of both existing manufacturing capabilities and economies of scale, as well as agglomeration effects, given that integration into large scale vertically and horizontally integrated conglomerates was a fundamental principle of the Fordist paradigm (Perez, 2002). It was not, however, well-suited to the requirements of the contemporary paradigm of information and communication technologies, where five-year plans and vertical integration lose their relative importance due to much faster pace of technical change as well as possibilities for distributed manufacturing provided by all-pervasive information and communication technologies.

By the end of the 1980s a significant share of Latvian exports consisted of consumer goods, where Latvia's trade was in significant surplus. However, most of the goods produced were exported to other Soviet republics. Therefore, when the Soviet Union finally collapsed, Latvia, similarly to other Soviet Republics, found itself outside the existing supply chains and with no markets to sell to. While one can only speculate, whether it was the shift of techno-economic paradigms that provided the basis for dissolution of the Soviet Union, it is clear that the economies that broke away in the early 1990s, found themselves in an environment where they had to transform themselves almost entirely in order to remain afloat, or else be submerged by the wave of competition from both East and West.

3 The post-Soviet period

3.1 *Latvia regains independence*

Latvia followed a liberal trade regime from the very first years after regaining independence in 1991. By submitting a Trade Memorandum in preparation for accession to the World Trade Organization (WTO) and engaging in negotiations with WTO members, Latvia clearly signalled its willingness to abandon any remaining restrictions on trade and to participate in international markets on equal terms. In early 1995, a free trade agreement with the EU became effective, eliminating tariffs on the majority of industrial goods, as well as defining a schedule for reduction of tariffs on a range of agricultural products over the next five years. Liberalization of trade reached its climax in 2004 when Latvia together with nine other countries joined the EU, in which Latvia has since been an equal partner. The question, however, is whether this has led to convergence towards European levels of productivity and welfare, or whether, conversely, this has led to increasing divergence and long-term unsustainability of the Latvian economy.

3.2 *The restructuring of the economy*

Latvia and its northern neighbour Estonia were perhaps the most ardent proponents of shock therapy⁶ as a means of restructuring the economy away from a rigid system of Soviet planning and towards a free market economy. It was, however, a shock without the subsequent therapy. Most of the Central and Eastern European (CEE) countries set off on a reform path in the early 1990s, focusing on a standard set of reforms often propagated by the Western institutions including the International Monetary Fund (IMF) and the World Bank, complemented by a range of reforms of institutional nature – the so-called ‘Augmented’ Washington Consensus (Rodrik, 2006). The primary emphasis of the reforms was on the liberalization of the economy. There was a clear and widely shared understanding that a move away from the past public ownership strategy towards a market economy was necessary. The reforms thus primarily focused on handing over the allocation of resources to the private sector, which was met with increasing enthusiasm both among the elites and population more generally.

The other side of the reforms was focused on containing inflation and ensuring wage and price stability, reducing the tax burden and in general strengthening the workings of the market. Following a spurt of inflation in 1991, after 1992 the Government of Latvia focused on anti-inflationary policy as part of the programme supported by the IMF. The programme, widely advocated in countries across the post-soviet space, emphasized price liberalization as well as strict fiscal, monetary and incomes policies, as a basis for economic development. These policies were effective in reaching the objectives posed. Thus, by late 1992 the consumer price index was stabilized, with

the Bank of Latvia strengthening the Latvian rouble (temporary currency introduced as a passage from the Soviet rouble to Latvian lats), as well as gradually reducing interest rates for commercial lending. These policies also helped to turn both the current account and the trade balance positive, as well as keep the state budget balanced. However, while the financial conditions were showing signs of stabilization, the real economy was facing a steep cliff. At the time not many realized that rapid and deep liberalization of prices, trade barriers and elimination of state intervention would ultimately result in the collapse of output, a spike in unemployment, poverty and subsequent depopulation. Between 1990 and 1993, following the collapse of the Soviet Union, Latvia experienced a GDP per capita drop of 40% in real terms and since then lost more than 20% of the population along the way.

While many analysts ascribed the decline of output to a typical Keynesian recession, fuelled by decline in consumption (e.g. Berg et al., 1992), Calvo and Coricelli (1993) argued that it was not a normal Keynesian recession, but an effective ‘trade implosion’, as a result of the break from the old system of economic coordination and production. This argument served as grounds for development of the theory of optimal transition speed (e.g. Aghion and Blanchard, 1994; Tiits et al., 2008).

3.3 Trade in the aftermath of the Soviet period

Before the break-up of the Soviet Union, Latvia depended on a few Soviet republics for its exports. With the break-up of the Union, demand for goods produced in Latvia in the post-Soviet space collapsed almost instantly. The shift to world market prices for energy, oil and other raw materials resulted in adverse terms of trade with the former Soviet Union countries – the main suppliers of raw materials as well as consumers of products produced in Latvia. Sharp increases of prices on energy and raw materials resulted in rapid increases in production costs, which further exacerbated the fall of output. The volume of industrial production fell sharply, in 1992 it represented only 65% of the level of output in 1991. A similar situation could be observed in agriculture, where in 1992 output constituted just 70% of that in 1991, while at the same time prices continued to grow faster than expected. By 1993 GDP was 40% lower than the 1990 GDP (see Figure 4.1) with the largest decline in the construction industry (-65.4%).

Due to their small domestic markets, small countries are significantly more dependent on exports than larger ones. With the increasing liberalization of trade regimes across the world, larger countries have also been increasing their share in international trade, especially during the 1980s and in the following decades. This resulted in increasing competition on international markets and, as a result, a much more difficult environment for a small state like Latvia.

As Reinert and Kattel (2007, 2004) argue, the earlier wave of European integration that brought the southern countries of Greece, Italy, Spain and Portugal into the union, allowed these countries to go through a gradual

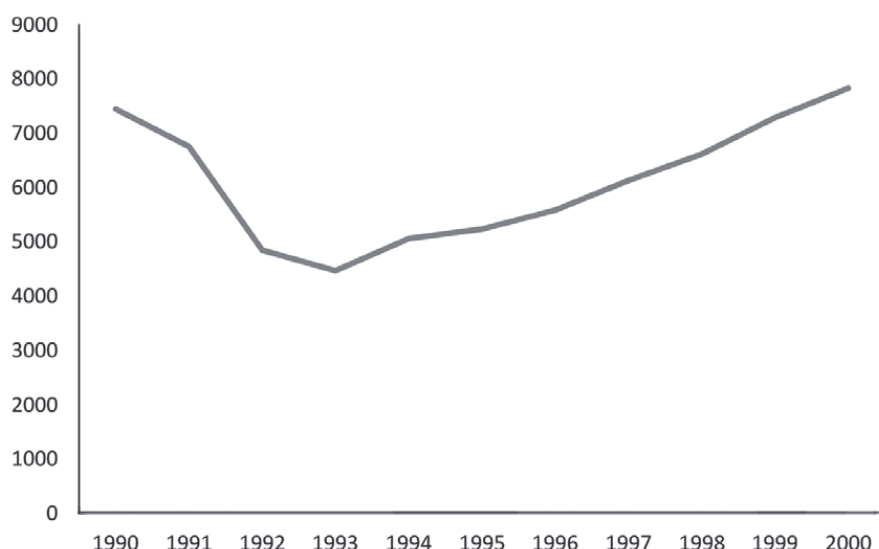


Figure 4.1 GDP at current US\$ (millions)

Source: United Nations (UN) DATA and World Development Indicators (http://data.un.org/Data.aspx?d=WDI&f=Indicator_Code%3ANY.GDP.MKTP.CD), the World Bank.

adjustment process. The above-mentioned Southern European states (perhaps with the exception of Greece) were able to develop productive structures similar to those of the core countries through a period of gradual and relatively slow liberalization of their trade regimes. The integration of the Southern-European states was not however an absolute success, particularly given the effects of the recent financial crisis. They do, however, still exhibit higher levels of GDP per capita, value added and productivity than Latvia. Integration of the Southern-European states was similar to the upgrading of the East Asian countries, which went through a process of sequential technological upgrading – the so called flying geese pattern of development (see e.g. Ozawa, 2003). In the case of the Nordic countries, to use a taxonomy of integration devised by Reinert and Kattel (2004), integration was symmetrical, as all countries were at a relatively similar level of technological development, and their economies were largely built upon increasing returns activities. In the case of the Baltic States, including Latvia, and more generally across the rest of the former Socialist countries, integration was of a rather different nature.

In contrast to the previous wave of integration, Latvia opened its markets almost instantly, which did not allow for a gradual transition and restructuring of the economy. Neither did it allow Latvia to maintain and further develop the manufacturing capabilities it had in place at the time of the disintegration of the Soviet Union. By the late 1990s the proportion of GDP contributed by manufacturing declined from above 50% to around 30%.

Latvia along with other CEE countries, was integrating into a union made up of countries with substantially higher productivity levels, and thus the Latvian companies that operated in the same markets as companies from Germany or Denmark were not competing on a level playing field. This led to a so-called Vanek–Reinert effect, meaning that in the case of rapid liberalization of trade and markets between countries (or regions, as in the case of integration of East Germany with the West) with significantly different levels of development, the first to suffer will be the most advanced industries in the least advanced country (or region) (Reinert, 2004). This is what effectively happened in Latvia during the 1990s. As Figure 4.2 suggests, over the last decade, productivity in all Baltic States, including Latvia, has improved only marginally and has remained at significantly lower levels than in the more advanced European countries, but also below the EU average. Therefore, convergence of the Baltic States with the rest of Europe in terms of productivity remains a long-term objective.

While one could argue that this was an effect of the tertiarization of economy, similar to what has happened across the developed world since the 1970s, data suggest this was not the case. For high quality knowledge-intensive services to develop, manufacturing is absolutely essential, as it ensures the domestic demand necessary for development of such services (Reinert and Kattel, 2007). The deindustrialization of the 1990s did not lead to the development of knowledge-intensive services, with the exception of consumer banking, which was driven in part by the influx of non-resident finance from the East as well as the entry of several Scandinavian banks onto the market. Value added data suggest that Latvia did not develop any significant knowledge-intensive services with export potential.

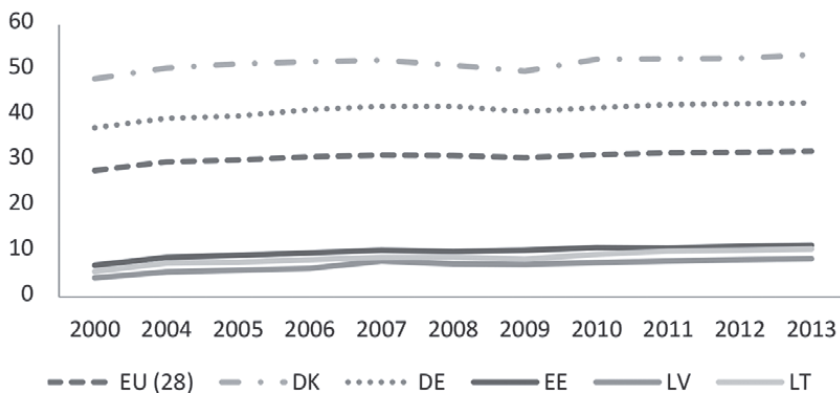


Figure 4.2 Labour productivity per hour worked (in euros)

Note: DK – Denmark; DE – Germany; EE – Estonia; LV – Latvia; LT – Lithuania.

Source: Eurostat (available at: <http://ec.europa.eu/eurostat/en/web/products-datasets/-/TSDEC310>).

During the 1990s the share of industrial employment and value added declined, whereas the share of services in both employment and value added increased. This structural change led to significant trade imbalances, which was, however, offset by inflow of foreign direct investment, which gradually picked up from the mid-1990s onwards.

3.4 FDI as a development strategy: promises not fulfilled

As from the early 1990s Latvian policy makers focused their attention on the attraction of foreign direct investment (FDI) as the single most important policy instrument for economic development. Many believed at the time, as many still do, that by creating an environment favourable to FDI primarily through lowering taxation and weakening regulation of business activities, FDI would instantly flow in and transform the economy, ultimately leading to prosperity. The common view was that FDI would not only bring the financial resources necessary to restructure the newly liberalizing economies, but would also provide the necessary managerial and accounting skills, technology and knowledge, as well as access to new markets that would not be accessible otherwise. It was thus argued that FDI would inevitably lead to faster economic development in countries that opened their borders to it (Porter, 1990).

Latvia was not alone in favouring such a strategy. A number of countries relied on FDI to a lesser or greater extent in order to drive the structural transformation of their economies. FDI can serve both as a source of finance to balance the current account, as well as a source of technology and knowledge necessary for economic transformation. One such mechanism for technological upgrading through foreign direct investments is integration in global value chains. However, as Tiits et al. (2008) suggest, this strategy does not necessarily and always lead to success. Unlike larger countries that are able to pool capital to achieve the minimum necessary scale, smaller countries face greater challenges as they cannot rely solely on domestic savings in order to finance development and industrialization and therefore often have to depend on foreign investment as the core source of funds.

Some countries, such as Singapore and Ireland, managed to utilize FDI as a development strategy more or less successfully (for Ireland see Buckley and Ruane, 2006; for Singapore, Lim and Pang, 1991). History offers examples of both positive and negative effects of FDI on economic development. What historical examples also suggest is that FDI operating within a broader context of government strategy or a development plan is more effective as a means to industrialization than an approach that relies on private sector driven FDI choices only.

The Latvian government did not opt for a strategic approach to FDI, but rather allowed the market actors to decide on this matter. The specific policy measures to attract FDI focused on a relatively standard set of instruments, such as tax incentives. An important factor during the early 1990s was

privatization of state-owned enterprises, which, however, was not as successful as in Estonia, given the powerful domestic interests that often created obstacles for strategic foreign investors willing to invest in Latvia. Relatively low taxation was accompanied by low levels of regulation of business activity – two important FDI attractions. Other attractions offered by Latvia in this regard were the possibility of a new market and the relatively inexpensive production inputs, including labour, energy and some raw materials (Johansen, 2000).

The Nordic countries from early on perceived the Baltics as part of their home markets, resulting, since the mid-1990s, in an increasing presence of Nordic financial companies, as well as wholesale and retail operations in Latvia and the other Baltic States. Some of the companies entered Latvia directly, for others Estonia became a platform for entering the other Baltic markets, as well as Russia (Tiits, 2006). As Figure 4.3 suggests, throughout the two decades after re-independence, FDI in manufacturing remained relatively low in Latvia, staying at around 20% until 2003 and then declining steadily, as FDI flowed in the FIRE (finance, insurance and real estate)

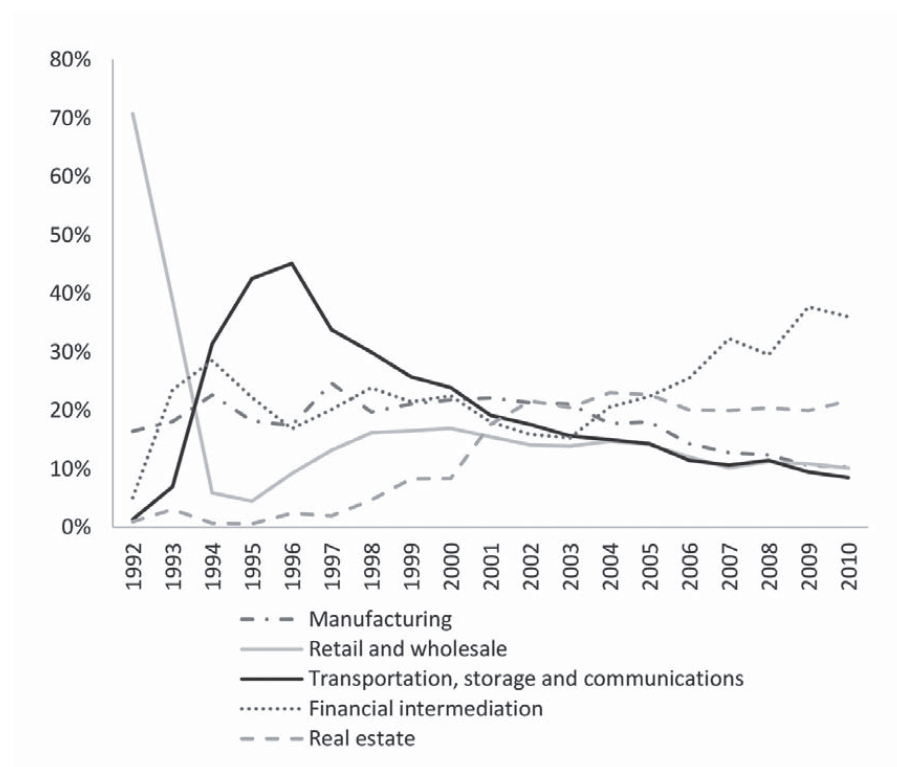


Figure 4.3 Cumulative FDI by type of activity, 1992–2010

Source: Central Statistical Bureau of Latvia (<http://www.csb.gov.lv/en/statistikas-tema/s/investment-database-30534.html>).

sector. In manufacturing, most of foreign direct investment in Latvia went into relatively resource-intensive low-tech industries, such as wood processing, food processing, as well as textiles and clothing, and to a much lesser extent into mid-tech or high-tech manufacturing, such as electronics (Tiits, 2006). Similarly to other countries that liberalized their markets, Latvia had quickly developed substantial current account deficits and FDI played an important role in balancing both trade and current account deficits, which Latvia would not have been able to balance through exports alone.

By focusing on low taxation and low cost of inputs as the main advantage for attracting FDI, Latvia was competing on the market with a number of developing countries around the world. While Latvia did have a relatively well-educated workforce, it did not focus enough on upgrading skills and human capital more generally. It is, however, difficult to sustain a low-cost strategy in the long term, whilst at the same time trying to increase the standard of living, given that at some point the costs of inputs will eventually increase. Most of the CEE countries, including Latvia, had experienced difficulties in providing the skills necessary for enterprises operating in global production networks. The earlier experience of East and South East Asian economies suggests that focusing on the development of specific skills that are considered important for future industries is crucial to both sustaining the inflow of FDI as well as developing local industries. This also, to a degree, explains the pattern of FDI in Latvia, where most of the FDI inflow was in finance, insurance and real estate sectors, as well as retail and transportation, with a relatively small share going into low- and medium-tech manufacturing.

The inflow of FDI fuelled consumption expenditure and construction, at a time when the Latvian labour force was contracting, and this therefore led to rapid wage increases. The major European industrial countries relying on the mechanisms of a coordinated market economy,⁷ managed to contain growth of labour costs at relatively low levels. This, together with growing productivity, led to divergence and not convergence of competitiveness between the 'old' and the 'new' EU member states (Hancké, 2013). As Figure 4.4 suggests, while labour costs in the 'core' countries of the EU kept stagnating, in Latvia they were growing steadily most of the years between the break-up of the Soviet Union and the financial crisis of 2008, thus severely affecting the competitiveness of local industry as well as Latvia's attractiveness as a low cost destination for FDI.

The approach adopted initially – welcoming all kinds of FDI in all industries – failed to take into account the aspects discussed above, thus failing to utilize FDI for domestic industrialization and therefore also creating a system relying on foreign capital inflows in order to balance the current account. The massive inflow of foreign investment that began in the years leading to accession to the EU, and subsequently continued until 2008 driving the consumption and real estate boom, had effectively destabilized an already fragile system.

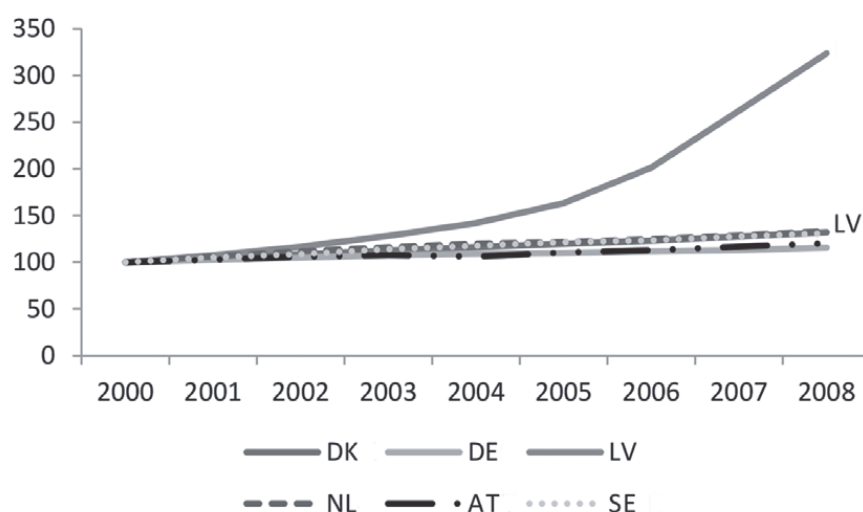


Figure 4.4 Labour cost index in Latvia compared to selected market economies (2000=100%)

Note: DK – Denmark; DE – Germany; LV – Latvia; NL – Netherlands; AT – Austria; SE – Sweden.

Source: Eurostat (available at: <http://ec.europa.eu/eurostat/web/labour-market/labour-costs/main-tables>).

4 Latvia as an EU member

4.1 The prelude

With the benefit of hindsight it can be said that Latvia entered the EU from a policy environment that determined the subsequent outcomes. Certain policy decisions made over the first decade of independence created a path which it was politically difficult to leave. First, it was a conscious choice to rely on liberal economic policies without creating an institutional environment necessary for the normal functioning of a market economy. Second, the decision to maintain the currency peg did not allow Latvia to develop internal capacity for effective monetary policy. Third, the choice to have a relatively low tax burden effectively limited the power of government when dealing with financial and economic crises.

During the first decade after re-gaining independence, Latvia had to re-create a market economy from scratch. However, given the already mentioned lack of resources – both financial and human – Latvia faced severe difficulties in creating an institutional environment to support the effective and efficient functioning of a market economy. The insolvency and bankruptcy law was underdeveloped, and the court system lacked, and arguably still lacks, the necessary resources in order to effectively carry out its duties. Regulations of financial markets and institutions were lax, and the capacity and capabilities

of regulators were weak, resulting in a number of banking crises in the 1990s, 2008, and 2011. This, in turn, led to a very unstable economy. In contrast to its northern neighbour, Estonia, from the early 1990s Latvia developed its own oligarchy, which affected the process of privatization, the functioning of state-owned enterprises, as well as the political system. Latvia also had relatively high levels of tax evasion, which had a negative effect on both public service provision and the efficiency of the Latvian economy more generally. Therefore, EU membership offered an opportunity to strengthen the institutional environment and thus improve the efficiency of the economy.

Since the very early years of the new republic, there had been a commitment to maintain the currency peg, first to the currency basket, and later to the euro. The exchange rate at which the lats was pegged to the SDR⁸ in 1994 was relatively high, which in turn had two effects on the Latvian economy: first, to the benefit of consumers, imports became relatively cheap; second, to the disadvantage of the exporting producers, their exports became more expensive, making them less competitive in their export markets. The conditions under which Latvia was integrating into the wider Europe therefore strongly resembled the conditions under which Eastern Germany integrated with Western Germany with somewhat similar consequences (see e.g. Pohl, 1991).

There was also the commitment of centre-right governments to maintain low tax burden over the last two decades, with the average tax burden fluctuating somewhere close to 30%, substantially limiting the scope of instruments at the government's disposal in case of a major economic crisis.

4.2 *Latvia accedes to the EU*

Latvia acceded to the EU in 2004, together with nine other countries, seven of which were Central and Eastern European countries and two Mediterranean island states. Following accession, the average annual growth rate between 2004 and 2007 was 10.3% – a growth rate Latvia had never experienced before. Growth, however, has not been organic or sustainable, as it was to a large extent based on foreign lending which fuelled the real estate market. It was also accompanied by a double-digit inflation, a housing boom with housing prices tripling in just five years between 2003 and 2007 (European Commission, 2010), and an appreciating real exchange rate (see Figure 4.5), all which signalled an overheated economy.

Throughout the boom years, unemployment went down from 14% in 2000 to 6% in late 2007. Labour market imperfections⁹ in Latvia led to unprecedented wage increases throughout the pre-crisis years, in the whole economy, and particularly in sectors related to real estate.

The rapid wage rate increases could also have been caused by the relatively high emigration rates as surplus labour left the country (for a detailed account see Woolfson, Sommers and Juska, 2015). According to the most recent census of 2011, Latvia lost close to 15% of its population over the prior decade and this trend has continued since (see Figure 4.6).

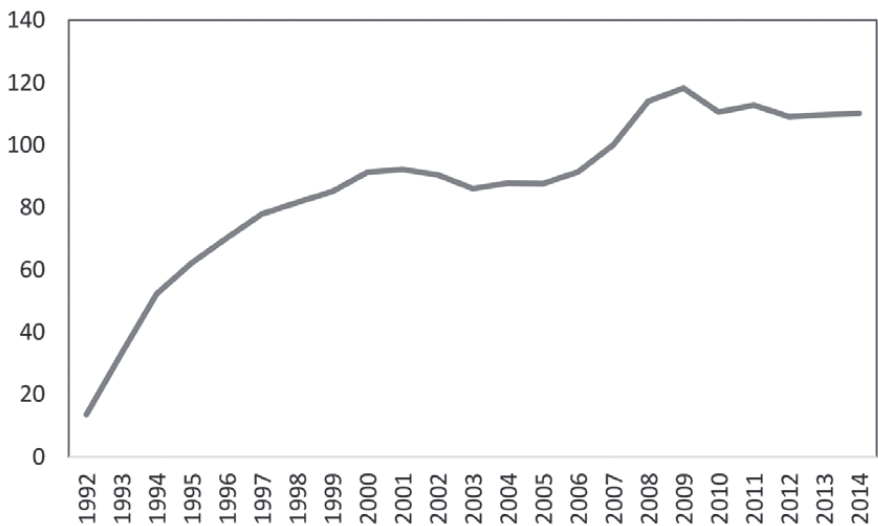


Figure 4.5 Real effective exchange rate (CPI-based) 67 trade partners
Source: Bruegel database (available at: <http://bruegel.org/publications/datasets/real-effective-exchange-rates-for-178-countries-a-new-database/>).

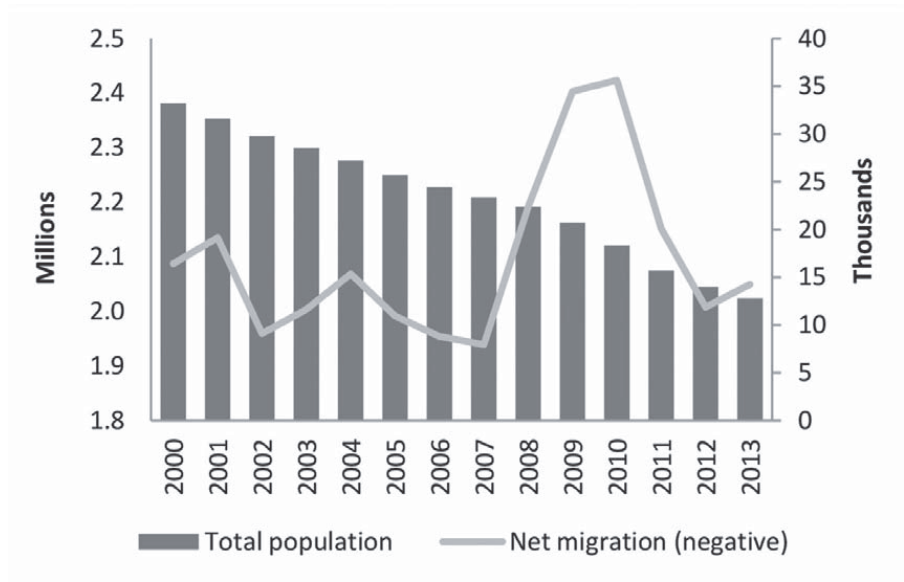


Figure 4.6 Population dynamics
Source: Eurostat – Population change – Demographic balance and crude rates at regional level, NUTS 3 (available at: http://ec.europa.eu/eurostat/en/web/products-datasets/-/DEMO_R_GIND3).

Wage growth significantly exceeded productivity growth and led to a deterioration of the competitiveness of domestic exporting industries and of those producing for the local market. This in turn led to growing trade deficits in the balance of payments.

There are different strategies available for adjustment to the balance of payments imbalances. Some countries, including Latvia, tightened monetary policy through interest rates (foreign lending was already very limited at the time) and cut public spending. These measures, in combination, led to a severe recession, with substantial losses of output (over 20% of GDP over three years from 2008–2010).¹⁰ Other countries, such as Poland or Iceland used external devaluation in order to deal with the crisis. (Iceland is a special case here, being a member of the EEA, but not a member of the EU.) Hungary went for a combination of both – currency depreciation and budget cuts. There are different explanations for the variation in choices between different countries, but what is clear is that policy makers' choices in terms of macroeconomic policy responses to this kind of crises are not determined solely by rational economic considerations, but also by path dependencies, existing commitments, political considerations and certain ideas dominating policy discourse. This was the case in Latvia with regard to the policy decision as to whether internal devaluation, by adjusting unit labour costs, was to be preferred over external devaluation, by adjusting the exchange rate of the domestic currency.

While in theory currency devaluation could have helped exporting industries, it would not have helped those industries where the import content of produced goods was high. At the same time currency depreciation would have hurt those individuals and firms owing debt denominated in foreign currencies. One of the possible solutions to avoid bankruptcies would have been to legislate debt re-denomination according to the new currency exchange rate. However, this would have been politically difficult given that most of the banks that would have been negatively affected were Swedish banks, and Sweden was one of the bilateral partners providing part of the rescue funds in 2009. Arguably, Sweden could have also blocked both IMF and EC funds if necessary, as was the case with the UK and the Netherlands when these countries blocked an IMF rescue package for Iceland (see e.g. Boyes 2009). Thus here again factors that could have limited policy options for Latvia were the small size of the country and the corresponding weakness in political and economic clout.

As Kuokštis and Vilpišauskas (2010) argue, internal devaluation was a preferred policy choice grounded in the consensus of both policy makers and expert communities. They suggest that even though the policy of external devaluation was proposed by a number of prominent economists, such as Krugman (2008) and Roubini (2009), this policy option was not given any substantial thought. As Raudla and Kattel (2013) further argue, adoption of the euro was viewed as an exit strategy by governments of all Baltic states, hence giving up the peg would have meant giving up – at least for the time being – the adoption of the euro, and therefore also losing a real, almost tangible objective of policy action. In addition, given the history of monetary

policy in Latvia, the Central Bank had no experience with managing a free-floating currency, and thus no competences to manage a non-automatic currency system (Raudla and Kattel, 2011).

5 Latvia as a small state

5.1 *Integration – not simply an economic problem*

While it is clear that integration into the wider Europe was essential for Latvia for purely economic reasons, there was certainly more to it than just economics. Small countries have been seeking for some kind of economic, political or military protection for centuries (Alesina and Spalaore, 2005), mostly through bilateral arrangements, in order to compensate for their weakness (Handel, 1990). In the twentieth century with the establishment of a number of international organizations in the aftermath of the Second World War, small states turned to multilateral arrangements to provide them shelter. These states, some of which had gained their independence from colonial powers in the 1960s, sought economic protection in such multilateral organizations as the International Monetary Fund, the World Bank, and the World Trade Organization.

The small Western European countries also utilized multilateral organizations in order to compensate for their weaknesses – the Organisation for Economic Co-operation and Development, the Organization for Security Co-operation in Europe (OSCE), as well as NATO and the EU. Nordic countries formed their own alliance – the Nordic Council – in order to increase economic well-being through cooperation and enhance their political power.

As Thorhallsson (2011) argues, small states can adopt different approaches to dealing with the effects of the globalized economy coming in the form of financial or economic crises, or both. Some small states, following Katzenstein (1987, 1985), rely on a domestic buffer in order to deal with the effects of economic openness. This domestic buffer comes in the form of domestic corporatist arrangements and development of a comprehensive welfare state and active labour market policies, as was the case in the Nordic countries facing economic uncertainty in the mid-1980s.

Given that small countries can be hit by a crisis swiftly and particularly hard due to their high degree of trade openness, especially when their most important exporting industry suffers a blow, this kind of corporatist and welfare arrangement can help soften the shock and manage the crisis, thus containing the potential long-term damages. These arrangements, Thorhallsson (2011) argues, worked well at the time of the Bretton Woods system, which regulated capital flows, thus effectively limiting the effects of the crisis to the level of an economic sector or, at worst, a national currency. With the liberalization of international financial flows that ensued after the break-up of the Bretton Woods system, these internal arrangements have become increasingly less effective as a mechanism for containing financial or economic shocks.

A major challenge in the case of countries with small open economies is managing an independent currency. In spite of limitations relating to policy capacity and currency reserves necessary, even a relatively small country can successfully manage its own currency, as the examples of Norway and Sweden suggest. However, for some countries, having their own currency can at times be more of a disadvantage. One such example is Iceland, which suffered a substantial currency depreciation after its recent financial crisis (see e.g. Boyes, 2009; Thorhallsson and Kattel, 2012). This was also the case with larger countries such as the UK in 1992 and a number of Asian countries in 1997 (for an account of such financial crises see Eichengreen, 2004).

On the economic front, as Latvia was transferring to a free market economy and restructuring its industry, there were many unknowns with regard to the policies most suitable for the creation of a sustainable economy that would be capable of weathering both internal and external shocks. The new system required both new political leadership, capable of steering a nascent market economy, as well as a new bureaucracy, capable of implementing the policies. As domestic capacity to effectively manage change was very limited, Latvia had no other option but to seek external support in both carrying out the reforms, and in ensuring external security.

5.2 *National security considerations*

Latvia also found itself in a system with too many unknowns on both economic and political fronts. Until 1994 Latvia still had a Russian military presence on its territory, posing an immediate threat from within. However, Latvia was successful in exploiting its membership in international organizations such as the UN and the OSCE in order to put pressure on Russia to move its military forces out of Latvian territory.

National security was at the core of the process of integration. Latvia, being itself a small state, was surrounded by other small states – most of them sharing a similar post-Communist background. At the same time Latvia, along with Estonia and Finland was (and still is) sharing a border with Russia – a rather unpredictable neighbour, especially in the light of the war in the Chechen Republic (see e.g. Baumanis, 1996). Latvia's expenditure on defence remained around 1%, rising up to 1.4 in the post-accession and pre-crisis years of 2004–2007. Both its Southern neighbour Lithuania and Northern neighbour Estonia spent substantially more, at around 3% and 2% respectively. However, given the size of the countries, their independent military spending in absolute terms is so minuscule that without an external partner they can hardly protect themselves in case of military aggression from the East. Thus, for Latvia, joining international organizations such as the EU and NATO was a question of national security and therefore of paramount priority (see e.g. Apinis and Lejiņš, 1995, 1996; Baumanis, 1996; Lejiņš and Bleiere, 1996).

Thus in addition to the neoliberal economic ideology dominating within the political elite, which was the main force driving economic integration, it was also the uncertain security situation that served as an additional stimulus for faster integration into the wider union.

5.3 *Latvia's small size and EU accession*

In large part, it was the size of Latvia that limited the scope of available policy options. Thus, lack of local capacity and capabilities within the public sector, often found in small countries (see e.g. Randma-Liiv, 2002), affected the quality of policy making in all areas. Here, integration in the EU had a positive effect, improving policy-making at least in some areas. Weak regulation of the financial sector, with regulators unwilling or unable to take an active stance, resulted in a fragile system, which, in turn exacerbated the effects of the recent global financial crisis. A passive approach to economic policy-making, marked by unwillingness to engage in strategic steering of the economy, resulted in a productive system that is still relying on cost of inputs as the main competitive advantage – hardly a sustainable strategy for a small open economy.

The same unwillingness to prioritize and focus resources in certain strategically important areas of science and research, resulted in a fragmented science and research system, with too few resources available in order to reach the critical mass. Even the process of implementation of the concept of smart specialization (see e.g. McCann and Ortega-Argilés, 2013), which has specialization at its core, resulted in the selection of areas of specialization defined so broadly as to include all industrial and scientific branches. Smart specialization is a regional concept and is used as such in large countries, however, in smaller countries, such as Latvia, it is used on a national level. Yet again, one can see that smallness affects policy choices – policy makers fear specializing in certain sectors or industries as there is the possibility that the wrong one might be chosen.

6 Conclusions

The objective of this chapter was to point out the challenges faced by Latvia during the pre-accession period, the impact of EU integration on the Latvian economy, and to define the context within which the changes took place. Covering all aspects of European integration within the confines of a single chapter is something we did not intend to do; instead we focused on economic challenges. Of course, addressing economic challenges should also have included a discussion of the Latvian research and innovation system and the challenges pertinent to it. The idea that innovation is essential for sustainable economic growth and development is no longer on the margins of economic thought and policy-makers across the world, and especially in the EU, place strong emphasis on innovation as one of the main drivers of the economy. Science

and research thus become essential, as they are the main sources of inputs into both the knowledge and human resources necessary for innovation in the public and private sectors. However, due to space limitations, we decided to avoid this discussion altogether. The chapter also discussed some implications associated with Latvia's small size.

We argued that some policy choices made before accession to the EU to a great extent predetermined the policy landscape within which new policies were and are being designed and implemented. We also argued that, to a large extent, it was the size of Latvia that limited the scope of available policy options.

As to the advantages and disadvantages of Latvia's accession to the EU there are, as always, two sides to the argument. One can only speculate, what would have happened to Latvia had the country not chosen to join the EU – it is after all impossible to run experiments on such a scale. Integration in the EU provided a sense of security. It also provided a source of investment in infrastructure, which Latvia most likely would not have been able to secure on its own. It also improved policy making in no small way, especially when it comes to fiscal and financial policy making in the post-crisis years. But it also had its negative effects, leading to deindustrialization and the resulting substantial emigration – mostly of those most needed in the economy, and also contributing to the severe economic crisis that Latvia went through following the global financial crisis. It therefore remains to be seen whether Latvia will find its own path for sustainable development or remain dependent on the rest of Europe in future.

Notes

- 1 Acknowledgement: the authors thank Riaz K. Tayob for comments on the earlier draft of the chapter. All remaining mistakes and omissions remain the authors' responsibility. Research leading to these results has received funding from the Estonian Science Foundation grant No. 9395, Estonian Research Council grant No. PUT1142, and the Norwegian Financial Mechanism 2009–2014 under project No. EMP264.
- 2 Available here: <http://hdr.undp.org/en/composite/HDI>.
- 3 Information about the World Bank classification of countries into income-group categories is available at: <http://data.worldbank.org/about/country-and-lending-groups>. The World Bank periodically revises the income per capita thresholds.
- 4 Some studies on Latvia as a small state were published by the Latvian Institute of International Affairs and the Bank of Finland Institute for Economics in Transition.
- 5 Valsts elektrotehniskā fabrika is the Latvian State Electro-technical Factory.
- 6 This refers to the rapid implementation of a comprehensive set of reforms aimed at transforming a post-socialist into a normal market economy (see also e.g. Sachs, 1995).
- 7 Varieties of capitalism typology are suggested by Hall and Soskice, 2001.
- 8 Special Drawing Rights – a reserve asset, created by the IMF on the basis of four international currencies.
- 9 On the role of labour market institutions in explaining the outcomes of the crisis for the members of the euro zone see Hancké (2013).
- 10 For dissenting views see Blanchard, Griffiths and Gruss (2013) and Walter (2013).

References

- Aghion, P. and Blanchard, O.J. (1994) 'On the speed of transition in Central Europe', in S. Fischer and J.J. Rotemberg (eds), *NBER Macroeconomics Annual 1994*, 9: 283–330. Cambridge, MA: MIT Press.
- Alesina, A. and Spalaore, E. (2005) *The Size of Nations*. Cambridge, MA: MIT Press.
- Apinis, P., Lejiņš, A. (eds) (1995) 'The Baltic States on their Way to the EU (Security Aspects)', Conference Proceedings. Riga: Latvian Institute of International Affairs.
- Apinis, P., and Lejiņš, A. (eds) (1996) 'NATO and EU Enlargement: The Case of the Baltic States', Conference Proceedings. Riga: Latvian Institute of International Affairs.
- Aslund, A. and Dombrovskis, V. (2011) *How Latvia Came through the Financial Crisis*. Washington, DC: Peterson Institute.
- Baumanis, T. (1996) *Latvijas integrācija Eiropas struktūrās – drošības politikas risinājums* (Latvian integration in the European structures: The security politics solution). Riga: Latvian Institute of International Affairs.
- Berg, A., Sachs, J., Baldwin, R.E. and Flemming, J. (1992) 'Structural Adjustment and International Trade in Eastern Europe: The Case of Poland', *Economic Policy*, 7(14): 118–173. Available at: <http://www.earth.columbia.edu/sitefiles/file/about/director/documents/EconomicPolicyApr1992withBergStructuralAdjustmentandInternationalTradeinEasternEuropetheCase.pdf> (accessed 23 January 2016).
- Blanchard, O.J., Griffiths, M. and Gruss, B. (2013) 'Boom, bust, recovery: forensics of the Latvia Crisis', *Brookings Papers on Economic Activity*: 325–388. Available at: http://muse.jhu.edu/login?auth=0&type=summary&url=/journals/brookings_papers_on_economic_activity/v2013/2013.2.blanchard.html (accessed 23 January 2016).
- Boyes, R. (2009). *Meltdown Iceland: Lessons on the World Financial Crisis from a Small Bankrupt Island*. Pittsburgh: Bloomsbury. Retrieved from: <http://media.economist.com/media/pdf/meltdown-iceland-boyes-e.pdf> (accessed 23 January 2016).
- Buckley, P.J. and Ruane, F. (2006) 'Foreign Direct Investment in Ireland: Policy Implications for Emerging Economies', *The World Economy*, 29: 1611–1628.
- Calvo, G.A. and Coricelli, F. (1993) 'Output Collapse in Eastern Europe: The Role of credit', *Staff Papers – International Monetary Fund*, 40 (1): 32–52.
- Central Statistical Bureau of Latvia. (1990) *Statistical Yearbook of Latvia*, State Committee for Statistics of the Republic of Latvia.
- Cepilovs, A. (2014) 'Public Procurement for Innovation in Small States. The Case of Latvia', in F. Decarolis and M. Frey (eds), *Public Procurement's Place in the World: The Charge Towards Sustainability and Innovation*, Basingstoke: Palgrave Macmillan, 93–130. Available at: https://www.researchgate.net/profile/Aleksandrs_Cepilovs2/publication/265417495_Public_Procurement_for_Innovation_in_Small_States._The_Case_of_Latvia/links/550fbb520cf21287416bf10c.pdf (accessed 23 January 2016).
- Eichengreen, B.J. (2004) *Capital Flows and Crises*. Cambridge, MA: MIT Press.
- European Commission (2010) 'Cross Country Study: Economic Policy Challenges in the Baltics', *Occasional Papers No. 50*. Brussels: European Commission.
- Hall, P. and Soskice, D. (2001) *Varieties of Capitalism: The Institutional Foundations of Comparative Advantage*. Oxford: Oxford University Press.
- Hancké, B. (2013) *Unions, Central Banks, and EMU: Labour Market Institutions and Monetary Integration in Europe*. Oxford: Oxford University Press.
- Handel, M. (1990) *Weak States in the International System*. London: Frank Cass.

- Johansen, H. (2000) 'Nordic Investments in the Former Soviet Baltic Frontier: A Survey of Firms and Selected Case Studies', *Geografiska Annaler* (Human Geography), 82: 207–219.
- Kattel, R. and Raudla, R. (2013) 'The Baltic Republics and the Crisis of 2008–2011', *Europe-Asia Studies*, 65: 426–449.
- Katzenstein, P. (1985) *Small States in World Markets*, Ithaca: Cornell University Press.
- Katzenstein, P. (1987) *Corporatism and Change: Austria, Switzerland, and the Politics of Industry*. Ithaca: Cornell University Press.
- Krugman, P. (2008) 'Latvia is the New Argentina (Slightly Wonkish)', *New York Times Blog*, 23 December. Available at: <http://www.forbes.com/2009/06/10/latvia-sweden-imf-swedbank-danske-devaluation-opinions-columnists-roubini.html> (accessed 23 January 2016).
- Kuokštis, V. and Vilpišauskas, R. (2010) 'Economic Adjustment to the Crisis in the Baltic States in Comparative Perspective', Presented at the 7th Pan-European International Relations Conference, Stockholm. Available at: <http://eisa-net.org/be-bruga/eisa/files/events/stockholm/Economic%20Adjustment%20to%20the%20Crisis%20in%20the%20Baltic%20States%20in%20Comparative%20Perspective.pdf> (accessed 23 January 2016).
- Lejiņš, A. and Bleiere, D. (eds) (1996) *The Baltic States: Search for Security*. Riga: Latvian Institute of International Affairs.
- Lejiņš, A. and Ozoliņa, Ž., (1997) *Small States in a Turbulent Environment: The Baltic Perspective*. Riga: Latvian Institute of International Affairs.
- Lim, L.Y.C. and Pang, E.F. (1991) *Foreign Direct Investment and Industrialisation in Malaysia, Singapore, Taiwan, and Thailand*, Singapore: Research Collection Lee Kong Chian School of Business.
- McCann, P. and Ortega-Argilés, R. (2013) 'Smart Specialization, Regional Growth and Applications to European Union Cohesion Policy', *Regional Studies*, 49(8): 1–12.
- McCollum, D. and Shubin, S., Apsite, E., Krisjane, Z. (2013) 'Rethinking Labour Migration Channels: The Experience of Latvia from EU Accession to Economic Recession', *Population, Space and Place*, 19: 688–702.
- Mikkel, E. and Pridham, G. (2004) 'Clinching the "Return to Europe": The Referendums on EU Accession in Estonia and Latvia', *West European Politics*, 27: 716–748.
- Ozawa, T. (2003) 'Pax Americana-led Macro-clustering and Flying-geese-style catch-up in East Asia: Mechanisms of Regionalized Endogenous Growth', *Journal of Asian Economics*, 13: 699–713.
- Panke, D. (2010) 'Good Instructions in No Time? Domestic Coordination of EU Policies in 19 Small States', *West European Politics*, 33: 770–790.
- Perez, C. (2002) *Technological Revolutions and Financial Capital: The Dynamics of Bubbles and Golden Ages*. Cheltenham: Edward Elgar.
- Pohl, G. (1991) 'Economic Consequences of German Reunification', Working Paper, Policy Research. Socialist Economies Reform. Geneva: The World Bank.
- Porter, M.E. (1990) *The Competitive Advantage of Nations*. New York: Free Press.
- Randma-Liiv, T. (2002) 'Small States and Bureaucracy: Challenges for Public Administration', *Trames*, 6: 374–389.
- Raudla, R. and Kattel, R. (2011) 'Why did Estonia choose fiscal retrenchment after the 2008 crisis?' *Journal of Public Policy*, 31: 163–186.
- Raudla, R. and Kattel, R. (2013) 'Fiscal Stress Management during the Financial and Economic Crisis: The Case of the Baltic Countries', *International Journal of Public Administration*, 36: 732–742.

- Reinert, E.S. (2004) *Globalization, Economic Development and Inequality: An Alternative Perspective*. Cheltenham: Edward Elgar.
- Reinert, E.S. and Kattel, R. (2004) 'The Qualitative Shift in European Integration: Towards Permanent Wage Pressures and a "Latin-Americanization" of Europe?' MPRA Paper 47909, Germany: University Library of Munich. Available at: <https://ideas.repec.org/p/pramprapa/47909.html> (accessed 23 January 2016).
- Reinert, E.S. and Kattel, R. (2007) 'European Eastern Enlargement as Europe's Attempted Economic Suicide?' *The Other Canon and Tallinn University of Technology Working Papers in Technology Governance and Economic Dynamics*, No. 14. Available at: <http://technologygovernance.eu/files/main/2007070309122525.pdf> (accessed 23 January 2016).
- Rodrik, D. (2006) 'Goodbye Washington Consensus, Hello Washington Confusion? A Review of the World Bank's Economic Growth in the 1990s: Learning from a Decade of Reform', *Journal of Economic Literature*, 44: 973–987.
- Roubini, N. (2009) 'Is Eastern Europe on the Brink of an Asia-Style Crisis?', Weekly Column in *Forbes*, 6 November. Retrieved from: <http://krugman.blogs.nytimes.com/2008/12/23/latvia-is-the-new-argentina-slightly-wonkish> (accessed 23 January 2016).
- Sachs, J.D. (1995) 'Shock Therapy in Poland: Perspectives of Five Years', *Tanner Lectures on Human Values*, 16: 265–290. Available at: http://tannerlectures.utah.edu/_documents/a-to-z/s/sachs95.pdf (accessed 23 January 2016).
- Schimmelfennig, F., Engert, S. and Knobel, H. (2003) 'Costs, Commitment and Compliance: The Impact of EU Democratic Conditionality on Latvia, Slovakia and Turkey', *Journal of Common Market Studies*, 41: 495–518. Retrieved from: https://www.researchgate.net/profile/Frank_Schimmelfennig/publication/4764048_Costs_Commitment_and_Compliance_The_Impact_of_EU_Democratic_Conditionality_on_Latvia_Slovakia_and_Turkey/links/00b49520cd66514c7a000000.pdf (accessed 23 January 2016).
- Shteinbuka, I. (1993) 'Latvia in Transition: First Challenges and First Results', *Review of Economies in Transition*. Institute for Economies in Transition, No. 8, 61–94, Helsinki: Bank of Finland. Available at: <http://www.suomenpankki.fi/pdf/0893IS2.PDF> (accessed 23 January 2016).
- Sommers, J. and Woolfson, C. (2014) *The Contradictions of Austerity: The Socio-economic Costs of the Neoliberal Baltic Model*. London and New York: Routledge.
- State Bureau of Statistics. (1939) *The Achievements of Latvia in Statistics* (in Latvian).
- Thorhallsson, B. (2011) 'Domestic Buffer Versus External Shelter: Viability of Small States in the New Globalised Economy', *European Political Science*, 10: 324–336.
- Thorhallsson, B. and Kattel, R. (2012) 'Neo-Liberal Small States and Economic Crisis: Lessons for Democratic Corporatism', *Journal of Baltic Studies*, 2011: 1–21. Available at: <http://uni.hi.is/baldurt/files/2012/10/Neo-liberal-small-states-Estonia-Iceland-by-Thorhallsson-Kattel.pdf> (accessed 23 January 2016).
- Tiits, M. (2006) 'Industrial and Trade Dynamics in the Baltic Sea Region Since 1990s', in *Creative Destruction Management: Meeting the Challenges of the Techno-Economic Paradigm Shift*. Tallinn: PRAXIS Center for Policy Studies, 101–118. Available at: <http://www.praxis.ee/wp-content/uploads/2014/03/2006-Industrial-and-trade-dynamics-in-baltic-sea-region.pdf> (accessed 23 January 2016).
- Tiits, M., Kattel, R., Kalvet, T. and Tamm, D. (2008) 'Catching Up, Forging Ahead or Falling Behind? Central and Eastern European Development in 1990–2005', *Innovation: The European Journal of Social Science Research*, 21(1): 65–85. Available at: <http://www.cesruc.org/uploads/soft/130221/1-130221125213.pdf> (accessed 23 January 2016).

- Walter, S. (2013) *The Fiscal Policy Implications of Balance of Payments Imbalances*, in: *Governance Challenges and Innovations: Financial and Fiscal Governance*. Oxford: Oxford University Press, pp. 89–113. Available at: <http://www.stefaniewalter.de/resources/Walter.2013.GovReport.Hertie.pdf> (accessed 23 January 2016).
- Woolfson, C., Sommers, J. and Juska, A. (2015) 'Migration and the New Austeriat: The Baltic Model and the Socioeconomic Costs of Neoliberal Austerity', Presented at the W.I.R.E. Workshop on Immigration, Race, Ethnicity, Ash Center for Democratic Governance and Innovation at the Harvard Kennedy School. Available at: <http://ash.harvard.edu/files/woolfsonsommersmigrationausterity.pdf> (accessed 23 January 2016).

Article III

Savi, R. and **A. Cepilovs**. 2016. "Central Decisions, Decentralized Solutions: Comparing the Implications of Central Cutback Policy for the Agency Level in Estonia and Latvia." *Journal of Comparative Policy Analysis: Research and Practice*, Vol.19, 2, pp.139-154. <http://dx.doi.org/10.1080/13876988.2015.1126946>.

Central Decisions, Decentralized Solutions: Comparing the Implications of Central Cutback Policy for the Agency Level in Estonia and Latvia

RIIN SAVI & ALEKSANDRS CEPILOVS

Ragnar Nurkse School of Innovation and Governance, Tallinn University of Technology, Tallinn, Estonia

(Received 24 February 2015; accepted 14 November 2015)

ABSTRACT *The paper investigates the implications of governmental cutback strategies related to the recent fiscal crisis at agency level in Estonia and Latvia. For this purpose, the article applies a comparative case study approach, through a purposeful selection of five agencies – three in Estonia and two in Latvia – to map the maximum possible variation of before-and-after effects of the crisis on organizational responses and individual-level coping. The selected agencies represent a range of regulatory and social policy domains directly and severely affected by the crisis through budget cuts and increased demand for services, and therefore most affected by the crisis. The study demonstrates that the budget cuts imposed by the cabinets of both countries and widely praised internationally actually left agency-level actors in an extremely difficult situation. Centrally imposed across-the-board cuts resulted in diverse public service gaps, leading to a range of hardships for the citizens, and therefore turning out to be neither equal nor fair for the target groups. The study concludes that centrally decided cutbacks shifted the burden to street-level bureaucrats, who in turn took on the role of key policy actors by ensuring the delivery of public services during the fiscal crisis.*

Keywords: comparative case study; Estonia; Latvia; public service cuts; crisis management

Introduction

The 2008 financial crisis hit the new democracies in Central and Eastern Europe especially hard (Staehr 2010; Peters et al. 2011). Both Estonia and Latvia witnessed a severe recession when in 2009 GDP growth in Estonia plummeted to –14.3 per cent and in Latvia to –17.7 per cent (Eurostat). To cope with the crisis, the governments of both countries pursued fiscal retrenchment and applied radical consolidation measures as early as 2008. A noteworthy share of the sharp cuts addressed operational expenses of

Riin Savi is a Junior Research Fellow at Ragnar Nurkse School of Innovation and Governance, Tallinn University of Technology, Estonia. Her main research interests are comparative public policy, policy transfer and transitional societies and the impact of fiscal crisis on public administration.

Aleksandrs Cepilovs is a Junior Research Fellow at Ragnar Nurkse School of Innovation and Governance, Tallinn University of Technology, Estonia. His main research interests are innovation policy, policy transfer and comparative public policy with a specific focus on transitional Baltic States.

Correspondence Address: Riin Savi, Ragnar Nurkse School of Innovation and Governance, Tallinn University of Technology, Akadeemia tee 3, 12618, Tallinn, Estonia. Email: riin.savi@ttu.ee

government agencies through across-the-board cuts enforced in several rounds. As a reward for acting decisively when cutting public spending, Estonia exited the fiscal crisis without turning to foreign lenders and as a new member of the Eurozone as early as 2011. Though the government of Latvia was forced to ask for support from the International Monetary Fund (IMF), the EU and a group of institutional and country lenders, its fiscal situation also improved relatively quickly and Latvia followed its northern neighbour into the Eurozone in 2014.

The radical crisis management by both countries enjoyed its share of attention, and the Estonian and Latvian governments were praised for making “hard decisions”, “applying aggressive austerity” and “being resolute” (e.g. Åslund 2012). In the shade of “heroic” choices at the cabinet level, little is known about how the central decisions on cutbacks, politically aimed at not favouring any government organization and delegating cutback decisions to the most competent counterparts, materialized at the agency level in Estonia and Latvia. There is a clear paucity of systematic research on the reaction and role of agencies and street-level bureaucrats in fiscal crisis, as until now the scholarly attention has mainly been focused on the central government (e.g. Raudla and Kattel 2013; Di Mascio and Natalini 2015) or local and regional government (e.g. Beatty and Fothergill 2014; Ion 2014). This is astonishing given the high level of agencification of contemporary public administration systems and the fact that public agencies and street-level bureaucrats play an important role in implementing public policies, delivering public services and immediately impacting on the wellbeing of the citizens (Verhoest et al. 2012). This paper aims to fill this gap in the academic literature by investigating the implications of governmental cutback strategies at the agency level, and further repercussions for street-level bureaucrats, by comparatively investigating five agencies in Estonia and Latvia. More precisely, the paper aims to shed light on the challenges of different-level actors during cutback management and outline the possible interlinkages between them.

The study applies a comparative case study approach to explore the process of crisis-time cutback management in five agencies in Estonia and Latvia from 2008 to 2012. The first section provides an analytical framework combining literature on cutback management (e.g. Levine 1978; Dunsire and Hood 1989; Pollitt 2010) and street-level bureaucracy (e.g. Hupe and Buffat 2014; Lipsky 1980) to introduce the central cutback management challenges faced by different-level governmental actors. The second section presents and compares the main cutbacks undertaken at the agency level, the responses of street-level bureaucrats in respective agencies and sums up the main findings.

Analytical Framework

Governmental cuts in expenditure necessitate cutback management, including decision-making about where the cuts would fall, the specific cutback strategies to be applied and the mechanisms of implementation in the government apparatus. Therefore, when cutting back the state budget, difficult trade-offs occur not only at the central government level, but also at organizational and individual levels (Dunsire and Hood 1989, p. 1). Hence it is of utmost importance not to isolate cutback management from the decisions, actions and responses at the organizational and individual levels, where similarly strong pressures emerge during cutbacks.

The next paragraphs aim to frame the central challenges of cutback and the related implications at different levels of government machinery based on the taxonomy proposed

by Hood (2011) – central government refers to members of cabinet and other politicians involved in the cutback-management process; organizational level includes the top and middle managers in the government agencies; the individual level entails civil servants, with a special focus on public service providers – street-level bureaucrats, who interact directly with citizens when delivering public services (Lipsky 1980).

Challenges at Central Government Level

At the central government level the search for general strategies for cutting back on public expenditure occurs. Here the basic dilemma is choosing between across-the-board or targeted cutback strategies that may entail both positive and negative impacts for the lower-level actors. Across-the-board cuts are typically small and aim to cut back the public expenditure uniformly, with the central authority fixing the same overall proportion of cuts to be achieved by all target groups (e.g. policy fields). Targeted cuts refer to (political) choices about cutbacks taken by a central authority and in this case some target groups face larger cuts than others while some are left untouched (Dunsire and Hood 1989; Raudla et al. 2015). As the current paper investigates the implications of across-the-board cuts, the remainder of the section covers this strategy only (still the mirror images of these arguments can be viewed as pros and cons of targeted cuts).

Speaking for across-the-board cuts is the fact that they are expected to be equal and fair, as the burden is shared by all target groups equally and no “winners or losers” are identified (Hood and Wright 1981, p. 206; Pollitt 2010). Furthermore, as cuts are shared equally, it minimizes potential cutback-related conflicts both at organizational and individual level and may even integrate the members of target organizations by creating a stronger team spirit (Levine 1979, p. 182). In addition, across-the-board cuts are expected to empower the target groups, as decisions are delegated by the central authority and rely on the expert knowledge of individual organizations or bureaucrats and their best-informed judgements (Dunsire and Hood 1989, p. 36; Lodge and Hood 2012). Still, across-the-board cuts are often considered as the reflection of a government’s search for easy solutions (Hood and Wright 1981; Pandey 2010). It is claimed that by delegating the real decisions over cutbacks down the line, governments shift blame and political responsibility from the central level to subordinate bodies (Peters et al. 2011; Posner and Blöndal 2012, p. 29).

On the other hand, though “equal” in terms of the proportion of cuts, across-the-board cuts may turn out inequitable due to the diversity of target groups. For example, across-the-board cuts are likely to penalize more efficient organizations and units that have already optimized the use of resources and have a more straightforward (negative) impact on smaller and specialized units (Levine 1978, 1979). Further, at the agency level, proportional cuts may have a negative effect on service delivery levels and service quality, because beyond a certain threshold proportional cuts cannot be absorbed without a decline in productivity (Behn 1980; Levine 1985). In addition, equal cuts reject the diverging needs and preferences of citizens for different public services (Pollitt 2010).

Challenges at the Organizational Level

The fundamental question of cutback management at the organizational level is the contents of cutbacks – *what* should be cut when curbing the budget is inevitable.

Organizational-level managers need to decide whether the existing patterns of organization and service delivery are kept or restructured to achieve expenditure cutbacks (Dunsire and Hood 1989, p. 1) and whether the costs are kept inside the organization or shared with citizens.

In terms of leaving the costs inside the organization, the delicate decisions concern cutting personnel costs by reducing the number of workers, working time or remuneration (see Table 1). Choosing between different measures to cut personnel costs is markedly delicate, as during crisis public administration needs to be on a particularly high level (Drechsler 2011). It is conjectured that cutbacks in personnel-related measures lead to an unsupportive work environment due to increased job and pay insecurity, loss of confidence and decline in morale (Greenhalgh and McKersie 1980; Greiner 1986).

Decisions on programme-related expenditures and changes in the public service provision include shifting the cuts outside the organization (Kogan 1981; Dunsire and Hood 1989; Lewis and Logalbo 1980). By and large, organizational-level managers have to decide whether to curb the quantity, diminish the quality of the services provided or to reorganize service provision (Raudla et al. 2015). In the first case, managers are faced with putting the citizens in a worse situation by reducing service hours, cutting down on the number of service outlets, introducing or raising the fees for services or even terminating the provision of services. In the second case, reducing the variety of service tasks and the level of quality, and standardizing forms and treatments is possible (Dunsire and Hood 1989; Lewis and Logalbo 1980). It has been argued that reorganizing service provision by lowering the quantity or quality requirements for public services at the organizational level has a positive effect on the workload of street-level bureaucrats either

Table 1. Reducing costs on an organizational level.

Personnel-related expenditures	
<i>Personnel costs</i>	Reduced overtime or working time
	Wage freeze
	Reduction or elimination of bonuses
	Salary cuts
	Hiring freeze
	Layoff
<i>Non-personnel costs</i>	Spending limits and bans on utilities, supplies, equipment, travel, communications, etc.
Programme-related expenditures	
<i>Reduce quantity of services</i>	Programme termination
	Shorten the reception time, limit service hours
	Reduce the frequency of service provision, reduce the number of service outlets
	Restrict access
	Introduce or increase service fees
<i>Reduce quality of services</i>	Reduce the quality requirements, reduce the variety of service tasks and standardize forms and treatments
<i>Reorganize service provision</i>	

Source: Adapted from Savi (2015).

by reducing the level of public services to be provided (Dunsire and Hood 1989; Lewis and Logalbo 1980) or by decreasing the need for individual bureaucrats to make independent decisions.

The above indicates that the organizational-level cutback decisions strongly determine the dynamics in prescriptions for service provision and the resources provided for the bureaucrats to fulfil their tasks during the crisis. By shaping the context in which street-level bureaucrats do their work, managers also determine the breadth of the *public service gap* (Hupe and Buffat 2014, p. 557) during the crisis – whether and how much more has to be done with how much less at the individual level. Hupe and Buffat (2014) distinguish between three public service gaps – doing more with less, more with the same or the same with less.

Challenges at the Individual Level

At the individual level, fiscal crisis-related budget cuts reinforce the notorious “problem of resources” – ever growing demands and restricted resources that especially street-level bureaucrats are faced with daily (Lipsky 1980). Hence, during cutbacks the main challenge is how to provide public services and maintain standards when being denied the essential resources (Dunsire and Hood 1989, p. 1).

In general, it is conjectured that more difficult situations at the individual level bring about changes in the use of discretion over the allocation of public benefits and sanctions. At the street level, solving unpredicted situations and making ad hoc decisions when confronted with diverse demands and restricted resources commonly manifests in specific coping mechanisms that enable bureaucrats to manage workloads (Lipsky 1980; Tummers et al. 2015).

The different ways of coping applied to adapt to difficult situations range from using personal resources to help clients, to modifying programme objectives and confronting clients (Meyers and Vorsanger 2003, p. 247; Nielsen 2006, p. 865; Tummers et al. 2015). In general, coping can result in moving towards clients (coping for the clients’ benefit, with the aim to help them), moving away from clients (avoiding meaningful interactions with clients) or moving against clients (confrontation with clients) (Tummers et al. 2015, p. 10) (see Table 2). Several authors caution that in difficult and unconventional situations street-level bureaucrats tend to make self-interested choices to protect themselves and they

Table 2. Ways of coping at the individual level.

Coping family	Way of coping	
Moving towards clients	Rule bending Rule breaking Instrumental action Prioritizing among clients Using personal resources	Coping for clients’ benefit
Moving away from clients	Routinizing Rationing	Coping for workers’ benefit
Moving against clients	Rigid rule-following Aggression	

Source: Adapted from Tummers et al. (2015, p. 5).

are seen as a troublesome counterpart in the policy process, whose discretionary decisions may lead to dysfunctional behaviour, insufficient service delivery and even divergent policy outcomes (Meyers and Vorsanger 2003; Nielsen 2006, p. 861).

Empirical Study – Agency-Level Responses to Central Cutback Strategy in Estonia and Latvia

Methodology

The study applies a comparative case study approach to explore the implications of governmental cutback strategies for agency level and the street level. To do so, the cutback management measures and decision-making patterns at the agency level are looked at and the dynamics of workload and task profile and coping strategies applied by the street-level bureaucrats engaged in service delivery are investigated in five agencies in Estonia and Latvia from 2008 to 2012. Given the qualitative and explorative nature of this analysis, there was a purposeful selection of agencies to be scrutinized. The agencies selected include: Labour Inspectorate (LI), Estonian National Social Insurance Board (ENSIB) and Unemployment Fund (UEF) in the area of governance of the Estonian Ministry of Social Affairs; State Social Insurance Agency (SSIA) and State Employment Agency (SEA) in the area of governance of the Latvian Ministry of Welfare.¹ The five agencies were selected to map the largest possible variation in terms of before-and-after crisis comparison of organizational-level responses and coping during service delivery in the course of cutback management. All the selected agencies were central to alleviating the effects of the crisis through service provision as they represent a range of regulatory and social policy domains directly and severely affected by the crisis both by budget cuts and increased demand for services; hence the effects of the crises were more pronounced in these agencies compared to other policy domains.

The case studies draw on official policy documents, press releases, media articles and 17 semi-structured expert interviews with officials of the agencies studied. At the first stage, information from official documents, media articles and press releases was analysed to identify central cutback strategies. At the second stage, interviews with agency officials were conducted to identify responses to central decisions on cutbacks at the agency and individual levels. Interviews were conducted with street-level bureaucrats directly involved in service provision and managers of local branches and units who during the crisis were also at times directly involved in service provision. The interviews lasted 1–1.5 hours, and were recorded and transcribed. All the information provided below is based on the interviews unless stated otherwise.

Estonia

As a response to the 2008 fiscal crisis, the Estonian government applied several consolidation measures across three negative state budgets (first in 2008, two more in 2009) and several one-off measures improving the budgetary position by about 9 per cent, 6 per cent and 4 per cent of GDP in 2009, 2010 and 2011 respectively (OECD 2011, p. 99). All three negative supplementary budgets applied extensive cuts in operational measures at the central government level and directly concerned the budgets of ministries and agencies in their jurisdiction. The government operational

expenditures were decreased by a uniform 7 per cent across all policy areas and occupational groups² in 2008, 7 per cent in February 2009 and 8 per cent in June 2009 (Estonian Ministry of Finance 2008, 2009a, 2009b). These across-the-board cuts delegated the right and power to decide how to achieve the set level of cutbacks in operational measures to the agency level.

Estonian National Social Insurance Board (ENSIB). In ENSIB the government-set targets for cutting back the operational expenditure led to layoffs, cutting the salaries of all agency workers by 4 per cent in 2009. Also, all staff were obliged to take 20 days of unpaid leave during 2010. Furthermore, the bonus fund, which normally added substantially to the basic salary, was cut sharply, one-time support schemes abolished and spending on work-related training and transportation compensation was significantly reduced. Also, spending on utilities, supplies, equipment and communication was restricted.

Besides the straightforward impact of the crisis in terms of pay cuts, the fiscal crisis slightly increased the workload of the front-line bureaucrats as the number of clients who registered themselves as disabled in ENSIB, claiming eligibility for social benefits, rose. To deal with the situation, the middle-level managers in ENSIB reorganized service provision by distributing the tasks of those on the obligatory unpaid leave among those street-level bureaucrats who were present; hence there were fewer people to manage the increased workload during the crisis. To cope with the diminished budget, ENSIB was forced to abandon the state-funded delivery of pension payments at home and financing the “Hingeabi” counselling helpline (the only helpline in Estonia). Still, according to the interviewees, working overtime was not frequent and no notable changes in their tasks or responsibilities occurred.

Though in ENSIB the heads of bureaus were given discretion to choose whether to apply additional cuts in salaries or unpaid leave to their teams, the general engagement of the agency officials in the cutback decision-making leading to the cuts described above was limited. The head of the financial unit in ENSIB pointed to a top-down process by stating: “All the officials were informed that as of now we have to get by with fewer resources”. Also the head of a bureau in ENSIB asserted that no one was consulted: “We just received a directive from the agency’s director general announcing the budget cut” (Interview 5). Still, the cuts were accepted rather calmly by the officials – according to the interviewees, everyone understood that the critical situation had to be solved and cutbacks were necessary.

Labour Inspectorate (LI). In the LI, meeting the set amount of across-the-board cuts required layoffs, pay cuts, cuts in bonus funds and training funds, the abolition of several one-off support schemes (e.g. compensation for health-related activities) and also cuts in administrative expenditures. Still, the pay cuts remained under 5 per cent, because part of the personnel expenditures in LI were covered by allocations from the EU Structural Funds that, according to the priority set by the government, were not targeted during the crisis period (Estonian Ministry of Finance 2008, 2009a). Additionally, numerous cosmetic cuts were introduced, such as no colour printing, no free coffee, etc. The budget cutback decisions in LI materialized in a rather centralized setting, where the heads of inspectorates were invited to participate in a general discussion on possible cutbacks, but eventually the agency’s top management decided upon the main cuts.

The crisis context had an immediate impact on the workload of LI, as during the crisis the number of labour disputes in Estonia rose by about 40 per cent (Estonian Labour Inspectorate 2009). The sharp rise in work disputes resulting from the crisis provoked a reorganization of the two main functions of the LI (workplace health and safety and labour relations and disputes) at the organizational level, as the top management decided to cut down the number of site visits related to workplace health and safety to redirect more resources to dealing with work disputes.

At the individual level, the usual daily working hours of the street-level bureaucrats were often extended by more than two hours and occasionally even to weekends. The legal advisors dealing with labour disputes encountered a shift in their tasks (though not established in formal documents) as they fulfilled technical tasks (not requiring direct contact with clients) only after office hours and became more than ever before engaged in counselling (a legal advisor estimated a shift from one-third to two-thirds of working time). The legal advisors claimed that as the aim was to offer counselling to as many citizens as possible, they started to look for opportunities to optimize the consultation time. Hence, citizens “with better command of using the computer and the Internet” were advised less and guided to look up the relevant information (e.g. concerning employer-employee dispute procedure) themselves.

Despite the fact that dealing with work disputes was prioritized in LI, and although during the crisis officials were aimed at providing services to a maximum number of citizens, the average time for processing the labour disputes grew by the factor of four – instead of the usual one month it took four months from submitting the application until the first court session (Estonian Labour Inspectorate 2009).

Unemployment Fund (UEF). No substantial crisis-related budget cuts were detected in UEF, because in May 2009 it was merged with the Labour Market Agency. Hence the reorganization of the organizational structure, resources and budget was carried out earlier during preparation for the merger. After the merger, UEF received the legal status of a state agency (previously a government organization) that brought independent managerial and budgetary authority for UEF and therefore the central across-the-board cuts did not affect the agency directly. Still, during the crisis a mentality of increased efficiency and economy prevailed also in UEF, and thus the expenditure on training, selected support schemes (e.g. one-time financial support for workers with school-aged children) and some maintenance costs were optimized by the management.

The crisis significantly increased the number of first-time clients to be registered as unemployed in UEF due to sharp rise in unemployment in Estonia from 5.5 per cent in 2008 to 16.9 per cent in 2010. Consequently, the workload in UEF increased greatly; as suggested by the interviewees, the magnitude of the crisis-led changes was best illustrated by the queue of clients on the street.

Being faced with an ever growing number of clients in UEF, the middle-level managers asked all officials (also the head of the office and information-desk official) to enrol first-time clients, and basically all officials started to fulfil the functions of a desk officer. To cope with the workload the ordinary eight-hour working days of the bureaucrats frequently extended to 11 hours and also to the weekends. Despite working overtime, the street-level bureaucrats were subject to extreme time pressure, hence they agreed upon a “service express” (not stipulated in formal documents) to manage the workload – during

the crisis the officials spent on average 10 minutes on each client (instead of the usual 25–30 minutes).

Street-level bureaucrats faced with intense time pressure to register the new unemployed spent less time on counselling (the main tasks when registering a new unemployed are registration and consultation on training and job opportunities), because according to the interviewees the main aim was to quickly register the unemployed to secure their financial benefits. Very often, instead of spending time on consulting the citizens, they were provided with the necessary information booklets or links to relevant webpages. The officials in UEF stated that the citizens with better computer skills were counselled less, as they were considered capable of searching for job vacancies by themselves. A case manager claimed that during the crisis there was only one aim, “to provide service to the customer” (Interview 6). The bureaucrats argued they acted on “common sense” but also relied on their “gut feeling” when dealing with new situations, as no new formal rules were set at the organizational level to regulate the novel situation (Interviews 6, 7).

Despite the efforts, citizens were faced with longer waiting hours – in UEF the average waiting time rose from the usual 20 minutes up to 4 hours on some days. Often, the clients were rejected at their arrival due to the overcrowded service hall, to prevent them waiting in vain.

Latvia

Fiscal consolidation of the Latvian government materialized in five consecutive negative supplementary budgets in four years (2008–2012), improving the budgetary position by about 16 per cent between 2009 and 2011. The latter entailed across-the-board cuts in operational expenditures distributed across ministries and certain agencies,³ with decision on the content of cutbacks delegated to the agency level.

State Social Insurance Agency (SSIA). To achieve the centrally imposed cuts, several support functions were abolished or reduced during the crisis within SSIA – the department of public relations was abolished and only one position of press officer was retained; the procurement department was downsized to one officer. In addition, IT development and support services were outsourced,⁴ whereas the remaining employees responsible for maintenance of information and communication technologies (ICT) systems had to assume the responsibility for ICT in all organizations under the Ministry of Welfare. To cut the budget, SSIA decided to close down two of its service delivery units in Riga, as well as centralize the management functions in regional units, thus downsizing managerial staff. Also video-conferencing instead of physical meetings of regional managers was introduced. All in all, in SSIA overall pay cuts amounted to 18 per cent between 2008 and 2010; while wages suffered smaller cuts (i.e. 7 per cent in 2008–2010), social and other non-wage benefits were cut by 56 per cent at the same time, and, radically, health insurance for employees was abolished. Furthermore, office rental fees were negotiated, the rented office spaces re-evaluated, the number of leased cars reduced and cleaning services outsourced. In addition, some rather symbolic cuts, such as giving up bottled drinking water or rental door mats were applied. Also modifications in service provision were introduced as SSIA reduced its expenditure on postal services by cutting the number of information letters sent to the clients and started to charge clients for home delivery of pensions and social benefits, previously funded by the state.

In Latvia the rise in unemployment from 7.7 per cent in 2008 to 19 per cent in 2010 (Eurostat 2013), combined with the cuts in expenditure and employee dismissals led to a substantial increase in the workload for employees of SSIA in terms of processing unemployment benefits. Due to numerous changes in benefits legislation introduced by the government during the crisis, such as limits on unemployment benefits and a failed attempt to cut pensions, SSIA had to take on extra duties (e.g. financial analysis, adjustment of software systems, extra consultations). Due to the resulting time pressure and client overflow, back-office employees of the SSIA were transferred to the front office to ensure service provision in the shortest possible time. Employees were to a greater extent involved in performing additional functions. Thus, as one of the interviewees stated: “financial documents could be signed only by those who are legally competent to do so. But a more flexible approach could have been applied for client registration and consultation”. As stated by the head of a regional branch, “we get to work with the more difficult clients. Therefore, second floor (back office), got involved in customer service every now and then” (Interview 16). Also, according to the interviewees, to cope with the situation some of the duties of street-level bureaucrats were often “delegated” – clients who were perceived as more capable of finding the necessary information were advised to search for information on the internet.

State Employment Agency (SEA). To meet the fixed level of cuts in operational expenditures set by the government, in SEA a significant part of expenditure cuts were employee-related. The number of employees funded from the general government budget was reduced by 45 per cent during 2008–2010 when some of the employees were transferred from positions as civil servants to contract-based work funded with the help of the EU Social Fund. This together with reduction of the full-time workload to 0.95 workload as well as elimination of health insurance compensations for employees, allowed wages to be reduced by only 7 per cent. In addition, SEA centralized its accounting and procurement functions during the crisis, and funds for international cooperation, travel and communications were cut. Also, like SSIA, rental spaces and fees were optimized and the number of leased cars reduced. Finally, the agency outsourced cleaning services and cancelled its contract for security services.

Similarly to SSIA, in SEA the crisis-impelled increase in unemployment coupled with the expenditure cuts and employee dismissals triggered a substantial increase in workloads for the agency employees. The workload grew from dealing with 62 unemployed per officer in 2007 up to 306 in September 2009;⁵ at the peak of unemployment this number reached 650 in the capital region, and up to 800 in areas with the highest rates of unemployment. In addition to the rise in the numbers of unemployed, the public works programme organized by the government of Latvia with support of the World Bank put additional pressure on the front line.

Following the significant reduction in staff, both in administration and among front-line employees, as well as mounting pressure due to the growing numbers of unemployed, the SEA management decided to outsource the provision of career consulting services. Still, extended working hours were ubiquitous. As stated by a head of a regional unit, at the very peak of unemployment “we couldn’t just go home and leave all the people waiting in the corridors, we had to serve all clients. [...] sometimes employees had to work more than the nominal workload, at times close to 1.2 (instead of 0.95 on paper)” (Interview 11).

At the organizational level different strategies were employed in SEA to make consultations more efficient. For example, collective information times (instead of personal counselling) were introduced for the unemployed. Also the process of registering the unemployed was reorganized by dividing initial registration and subsequent consultation into two stages. To manage the intense timeline, registration of the unemployed was prioritized over consultation, as street-level bureaucrats considered timely registration for unemployment benefits their primary responsibility. In addition, clients were advised to search for information on their own using self-service (i.e. information boards, computers) and a call centre.

Comparative Analysis

The analysis at hand demonstrates the expenditure cuts and increased demand for social services resulting from the fiscal crisis created major challenges for agency managers and street-level bureaucrats. Although a public service gap was inevitable in all five agencies investigated, the choices leading to the context where more had to be done with less and hence the context itself differed to some extent from agency to agency.

Responses to Challenges at the Organizational Level. The contradiction of cutting organizational budgets in a situation of increasing demand for service provision put the top agency managers in a difficult situation. On the one hand, the decentralized nature of the across-the-board cutback strategy allowed them to decide on the implementation of the cuts. Then again, the top agency managers had practically no room for manoeuvre – the level of cuts to be achieved was high, it had to be achieved over several rounds in a tight timeline, it addressed operational costs that entail few flexible budget lines and at the same time more clients had to be serviced. Basically, the managers were forced to choose between unpleasant options, all having a direct negative impact on the wellbeing of either bureaucrats and/or citizens.

As demonstrated by the empirical study, a mix of diverse cutback measures were applied in all the investigated agencies (except UEF); hence it could be stated that the dilemma at the agency management level was not *what* to cut or *whether to keep costs inside organizations or not*, but how to absorb the foreseen cuts and still keep organizations functional. For that purpose costs were shifted to bureaucrats by measures as extreme as eliminating health insurance for civil servants in Latvia. Also the strategy of abolishing, merging and contracting out different functions, giving up the lease of entrance mats and security contracts to achieve the centrally established level of cuts speaks for itself when pondering upon the options and struggles at the organizational level. Similarly, shifting costs directly to citizens by abolishing services or introducing service fees suggests that agencies resorted to last-ditch measures.

The empirical cases investigated confirm that across-the-board cuts do penalize some agencies more than others. By and large, the inequity of across-the-board cuts emerges from two factors – from the different revenue and expenditure structure of agencies and the difference in the real impact of the fiscal crisis in terms of increase in the crisis-led external demand for public service provision. Concerning the first, agencies where the operational expenditures included appropriations for service provision (e.g. delivery of pensions), where service fees could be increased or introduced or that were funded from EU Structural Funds had more options to play around with. Also, agencies where the

increase in the workload of civil servants skyrocketed due to the increased demand for services suffered comparatively more when curbing the personnel-related expenditures. Furthermore, the Latvian case confirms that agencies that “eliminated waste” prior to the crisis suffered comparatively more – SEA had more room for manoeuvre when cutting back via centralizing as it had not reorganized its support functions prior to the crisis. Then again, in Estonia the merger of UEF into a state agency just before the crisis enabled it to avoid cuts in personnel.

All in all, the unequal nature of across-the-board cuts in agencies spilled over to citizens – in some cases nothing changed for the citizens; in others costs previously covered by the agency were shifted to them directly or via longer waiting times, procedures or less personal service delivery.

Responses to Challenges at the Street Level. In all the five agencies investigated a public service gap materialized in doing more with less – more public services had to be delivered at a more rapid pace, in a more difficult work environment with decreased time and salary and lower job security.

Still, the decrease in resources and increase in demand, leading to the public service gap at the street level, differed between agencies as the decrease in resources and increase in demand varied. While in UEF no notable changes occurred in resources other than time, decreased salary, loss in benefits and lower job security was notable in all the other agencies investigated. Then again, in ENSIB no significant changes occurred in workload or task profiles of the street-level workers at the same time as in other agencies an increasing amount of work had to be done under more intense time pressure, in a more difficult work environment. This confirms that work environment and hence the struggles and dilemmas at the individual level are dependent on the decisions made at the higher levels, where the public service gap is actually determined and where how much more has to be done with how much less at the individual level is established.

The agency case studies revealed that in agencies where there was a crisis-led increase in demand for public services and where the increase in workload was high, changes in the work environment were inevitable. The novel situation forced street-level bureaucrats to use a range of coping strategies not applied on an everyday basis (at least not straightforwardly) to manage the workloads. This refers to the fact that more than the restrictions in resources, such as decreased salary or loss in benefits, the increase in demand resulted in higher need for coping.

The empirical information provides evidence on different ways of coping aimed at moving towards clients (see Table 3). Rule bending occurred when despite the existing job descriptions back-office workers and street-level bureaucrats from other professions also engaged in the registration of unemployed in UEF and SSIA. In addition, the service providers decided upon rule breaking in neglecting the function descriptions when shortening the reception time and not providing all services (e.g. consultation) expected in LI, UEF, SEA and SSIA. Similarly, prioritizing among clients occurred in all four agencies when street-level bureaucrats asked citizens with a good command of computer skills to look up information on their own. Also the use of personal resources occurred as the street-level bureaucrats were working after office hours and at weekends to manage the increased workload.

It is debatable whether the fact that in the UEF citizens were sent home is moving away from clients or not. It can be argued that it was in the clients’ own benefit not to wait but to

Table 3. Coping strategies applied at the street level (+ observed; – not observed; /not clear)

Coping family	Way of coping	ENSIB	LI	UEF	SEA	SSIA
Moving towards clients	Rule bending	–	–	+	–	–
	Rule breaking	–	+	+	+	+
	Instrumental action	–	–	–	–	–
	Prioritizing among clients	–	+	+	+	+
	Using personal resources (time)	–	+	+	+	–
Moving away from clients	Routinizing	–	–	–	–	–
	Rationing	–	/	/	/	/
Moving against clients	Rigid rule following	–	–	–	–	–
	Aggression	–	–	–	–	–

come back later, but still the clients were deprived of the service. Similarly, shortening the consultation time or explicitly delegating tasks to the citizens implies moving away from clients rather than towards them. Then again, none of these actions benefited the street-level bureaucrats. Also the information obtained from the interviewees confirmed that coping was aimed at rationalizing the demand and the services provided to increase the output, not to decrease the level of demand. Surprisingly, the street-level bureaucrats did not move against the citizens, even though they were themselves facing extreme situations.

The information presented above points to the fact that during cutbacks street-level bureaucrats took a significant role in securing the delivery of public services. Interestingly, the study demonstrates that the empowerment of the street-level bureaucrats did not result from conscious cutback decisions at the central or agency management level. In contrast, their role in implementing the cuts emerged because they were left to deal with both the consequences of the cuts, as well as the increasing demand for services. Although at the organizational level there were some rearrangements in all agencies except UEF in reorganizing service delivery, most of the changes were not formalized and eventually did not directly ease the work of street-level bureaucrats in the crisis context. On the contrary, more and more (new) tasks were added to the service providers, demonstrated most clearly by the Latvian agencies, where existing programmes were adjusted and new programmes were introduced, adding even more duties to the bureaucrats' workload during the crisis. It could be stated that consequently the biggest pressures also occurred at the street level, as service providers had no other option than to resolve the situation by finding different coping strategies. Therefore the street-level bureaucrats took on most of the responsibility, accountability and also blame during cutbacks.

Concluding Remarks

The current study demonstrates that much of the international acclaim received by the Estonian and Latvian governments for making hard choices and successfully fighting and overcoming the recent fiscal crisis is owed to the agency-level actors. The across-the-board cutbacks imposed at the agency level materialized in hard choices at the level of both agency management and service delivery, where further cutback strategies, specific cutbacks and ways of coping were searched for and implemented in a very difficult work environment. It can be argued that when applying across-the-board cuts the governments of both countries minimized political priority-setting and delegated the unpopular cuts

directly targeting the citizens down the line, hence removing political responsibility from the central government.

The study confirms that across-the-board cuts may turn out to be neither fair nor equal, as they penalize some agencies more than others and materialize in diverse public service gaps, especially when coupled with different degrees of increase in the crisis-led external demand for service provision. In addition, the study indicates that central-level across-the-board cuts are not only unfair when the immediate target groups of the cuts are considered but also spill over to the citizens.

It has been demonstrated that although the street-level bureaucrats faced decreases in resources provided for service provision and increases in demand during cutbacks, they applied different ways of coping for the clients' benefit and thus secured the delivery of public services in very difficult circumstances. Hence the study shows that street-level bureaucrats can be part of the solution to critical problems and public policy goals, and policy outputs do not necessarily have to be disregarded when they need to manage intense workloads and a complex external environment.

This paper provides ample evidence that management of cutbacks is a process where actors from different levels of government in concert, not only the top executives, determine how the cutback decisions are taken, implemented and how eventually the crisis-time policy goals set by the cabinet are achieved during the era of retrenchment. Therefore it can be claimed that the current focus of cutback management studies on central government strategies and motives for cutbacks is rather shallow and uninformative about the real costs of cutback management. It isolates the management of cutbacks from the actual decisions, actions and responses at the agency and street level where strong pressures emerge and where the quality of public services, and wellbeing of the citizens, is determined. Therefore the role of agency and individual-level actors without doubt need further scholarly attention to objectively estimate the real costs of managing a fiscal crisis.

Interviews

1. Estonian Labour Inspectorate (ELI), Case lawyer (20 June 2012)
2. ELI, Head of Regional Office (20 June 2012)
3. Estonian National Social Insurance Board (ENSIB), Head of Bureau (3 July 2012)
4. ENSIB, Head of Bureau, involved in service provision during the crisis (23 July 2012)
5. ENSIB, Head of Financial Unit (2 July 2012)
6. Estonian Unemployment Fund (UEF), Case manager (21 June 2012)
7. UEF, Case manager (26 June 2012)
8. UEF, Head of Department, involved in service provision during the crisis (20 June 2012)
9. Latvian State Employment Agency (LSEA), Director (23 January 2013)
10. LSEA, Head of Finance and Development department (23 January 2013)
11. LSEA, Head of regional unit (24 January 2013)
12. LSEA, Head of regional unit, involved in service provision during the crisis (23 January 2013)
13. LSEA, Head of regional unit (25 January 2013)
14. LSEA, Deputy head of regional unit (25 January 2013)
15. Latvian State Social Insurance Agency (LSSIA), Director (23 January 2013)

16. LSSIA, Head of regional unit (24 January 2013)
17. LSSIA, Head of local unit, involved in service provision during the crisis (25 January 2013)

Acknowledgements

The authors would like to thank the editor of this special issue and two anonymous reviewers for their valuable comments and suggestions. All the remaining mistakes and omissions are our own.

Funding

This work was supported by the European Union's Seventh Framework Programme under grant agreement No. 266887 (Project COCOPS), Socio-economic Sciences & Humanities and from the Estonian Science Foundation [grant numbers 9435, 9395].

Notes

1. For the reasons of symmetry and comparability, the authors also addressed the Latvian Labour Inspectorate, however, management of the agency refused to cooperate.
2. Only defence, education and internal security standing out as exceptions cut slightly less or left untouched (Estonian Ministry of Finance 2008)
3. Between 2008 and 2010, some policy areas faced deeper cuts than others – defence (–52.5 per cent), healthcare (–23.8 per cent) and education (–37.2 per cent).
4. As the agency could not provide competitive pay, outflow of employees resulted.
5. For comparison, for the first half of 2009 the number of unemployed per employment service employee in Germany was 37, in the Netherlands 83 and in Estonia 156 (Latvian Cabinet of Ministers 2009).

References

- Åslund, A., 2012, *Southern Europe Ignores Lessons from Latvia at Its Peril Crisis* (Washington, DC: Policy brief, Peterson Institute for International Economics), pp. 12–17.
- Beatty, C. and Fothergill, S., 2014, The local and regional impact of the UK's welfare reforms. *Cambridge Journal of Regions, Economy and Society*, 7, pp. 63–79. doi:10.1093/cjres/rst035
- Behn, R. D., 1980, Leadership for cut-back management: The use of corporate strategy. *Public Administration Review*, 40(6), pp. 613–620. doi:10.2307/3110316
- Di Mascio, F. and Natalini, A., 2015, Fiscal retrenchment in southern Europe: Changing patterns of public management in Greece, Italy, Portugal and Spain. *Public Management Review*, 17(1), pp. 129–148. doi:10.1080/14719037.2013.790275
- Drechsler, W., 2011, Public Administration in Times of Crisis, in: R. Kattel, W. Mikulowski, and B. G. Peters (Eds) *Public Administration in Times of Crisis* (Bratislava: NISPAcee Press).
- Dunsire, A. and Hood, C., 1989, *Cutback Management in Public Bureaucracies. Popular Theories and Observed Outcomes in Whitehall* (Cambridge: Cambridge University Press).
- Estonian Labour Inspectorate, 2009, <http://www.ti.ee/index.php?page=820&> (05.03.2013)
- Estonian Ministry of Finance, 2008, Memorandum on Supplementary budget of the year 2008.
- Estonian Ministry of Finance, 2009a, Memorandum on Second Supplementary budFget of the year 2009.
- Estonian Ministry of Finance, 2009b, Explanatory note on the Bill on Amendments to Acts Relating to the Second Supplementary Budget of the Year 2009 Act.
- Eurostat, <http://epp.eurostat.ec.europa.eu/tgm/table.do?tab=table&init=1&language=en&pcode=tsdec450&plu gin=1> (Accessed 23 April 2013).
- Greenhalgh, L. and McKersie, R., 1980, Cost-effectiveness of alternative strategies or cut-back management. *Public Administration Review*, 40(6), pp. 575–584.
- Greiner, J. M., 1986, Motivational programs and productivity improvement in times of tight resources. *Public Productivity Review*, 10(1), pp. 81–101.

- Hood, C., 2011, *The blame game: Spin, bureaucracy and self-preservation in government* (Princeton, NJ: Princeton University Press).
- Hood, C. and Wright, M., 1981, *Big Government in Hard Times* (Oxford: Robertson).
- Hupe, P. and Buffat, A., 2014, A public service gap: Capturing contexts in a comparative approach of street-level bureaucracy. *Public Management Review*, **16**(4), pp. 548–569. doi:10.1080/14719037.2013.854401
- Ion, E., 2014, Public funding and urban governance in contemporary Romania: The resurgence of state-led urban development in an era of crisis. *Cambridge Journal of Regions, Economy and Society*, **7**, pp. 171–187. doi:10.1093/cjres/rst036
- Kogan, M., 1981, Education in “Hard Times”, in: C. Hood and M. Wright (Eds) *Big Governments in Hard Times* (Oxford: Martin Robertson), pp. 152–173.
- Latvian Cabinet of Ministers, 2009, Conception for the possible solutions for strengthening the capacity of State Employment Agency. Available from: <http://polsis.mk.gov.lv/LoadAtt/file767.doc> (Accessed 23 April 2013).
- Levine, C. H., 1978, Organizational Decline and Cutback Management. *Public Administration Review*, **38**(4), pp. 316–325. doi:10.2307/975813
- Levine, C. H., 1979, More on cutback management: Hard questions for hard times. *Public Administration Review*, **39**(2), pp. 179–183. doi:10.2307/3110475
- Levine, C. H., 1985, Police management in the 1980s: From decrementalism to strategic thinking. *Public Administration Review*, **45**, pp. 691–700. doi:10.2307/3135022
- Lewis, C. W., and Logalbo, A. T., 1980, Cutback principles and practices: A checklist for managers. *Public Administration Review*, **40**(2), pp. 184–188.
- Lipsky, M., 1980, *Street-Level Bureaucracy. Dilemmas of the Individual in Public Services* (New York: Russel Sage Foundation).
- Lodge, M. and Hood, C., 2012, Into an age of multiple austerities? Public management and public service bargains across OECD countries. *Governance: An International Journal of Policy, Administration, and Institutions*, **25**(1), pp. 79–101. doi:10.1111/gove.2012.25.issue-1
- Meyers, M. K. and Vorsanger, S., 2003, Street-level bureaucrats and the implementation of public policy, in: G. B. Peters, and J. Pierre (Eds) *Handbook of Public Administration* (London: Sage), pp. 245–255.
- Nielsen, V. L., 2006, Are street-level bureaucrats compelled or enticed to cope? *Public Administration*, **84**(4), pp. 861–889. doi:10.1111/padm.2006.84.issue-4
- OECD, 2011, Restoring public finances. OECD Working Party of Senior Budget Officials. Public Governance and Territorial Development Directorate.
- Pandey, S. K., 2010, Cutback management and the paradox of publicness. *Public Administration Review*, **70**(4), pp. 564–571. doi:10.1111/puar.2010.70.issue-4
- Peters, B. G., Pierre, J. and Randma-Liiv, T., 2011, Global financial crisis, public administration and governance: Do new problems require new solutions? *Public Organization Review*, **11**, pp. 13–27. doi:10.1007/s11115-010-0148-x
- Pollitt, C., 2010, Cuts and reforms — Public services as we move into a new era. *Society and Economy*, **32**(1), pp. 17–31. doi:10.1556/SocEc.32.2010.1.3
- Posner, P. and Blöndal, J., 2012, Democracies and deficits: prospects for fiscal responsibility in democratic nations. *Governance: An International Journal of Policy, Administration, and Institutions*, **25**(1), pp. 11–34. doi:10.1111/gove.2012.25.issue-1
- Raudla, R. and Kattel, R., 2013, The baltic states and the crisis of 2008–2010. *Europe-Asia Studies*, **65**(3), pp. 426–449.
- Raudla, S., Savi, R., and Randma-Liiv, T., 2015, Cutback management literature in the 1970s and 1980s: taking stock. *International Review of Administrative Sciences*, **81**(3), pp. 433–456. doi:10.1177/0020852314564313
- Savi, R., 2015, *The Impact of Fiscal Crises on Public Administration: Cutback Management and Changes in Decision-Making* (Tallinn: TUT Press).
- Staehr, K., 2010, The global financial crisis and public finances in the new EU countries in central and eastern Europe: Developments and challenges. *Public Finance and Management*, **10**(4), pp. 671–712.
- Tummers, L. L. G., Bekkers, V., Vink, E. and Musheno, M., 2015, Coping during public service delivery: A conceptualization and systematic review of the literature. *Journal of Public Administration Research and Theory*, **25**, pp. 1099–1126. doi:10.1093/jopart/muu056
- Verhoest, K., Van Thiel, S., Bouckaert, G. and Lægreid, P., 2012, Introduction, in: K. Verhoest, S. Van Thiel, G. Bouckaert and P. Lægreid (Eds) *Government Agencies: practices and Lessons from 30 Countries* (New York and Basingstoke: Palgrave macmillan).

Article IV

Raudla, R., **A. Cepilovs**, V. Kuokštis and R. Kattel. 2016. "Fiscal Policy Learning from Crisis: Comparative Analysis of the Baltic Countries." *Journal of Comparative Policy Analysis: Research and Practice*. <http://dx.doi.org/10.1080/13876988.2016.1244947>.

Fiscal Policy Learning from Crisis: Comparative Analysis of the Baltic Countries

RINGA RAUDLA*, ALEKSANDRS CEPILOVS**, VYTAUTAS KUOKŠTIS[†],
& RAINER KATTEL**

*Public Finance and Governance, Ragnar Nurkse School of Innovation and Governance, Tallinn University of Technology, Tallinn, Estonia, **Ragnar Nurkse School of Innovation and Governance, Tallinn University of Technology, Tallinn, Estonia, [†]Institute of International Relations and Political Science, Vilnius University, Vilnius, Lithuania

(Received 9 April 2016; accepted 25 September 2016)

ABSTRACT *The experience of a major crisis is often expected to lead to policy learning but the empirical evidence about this is limited. The goal of the paper is to explore comparatively whether the crisis of 2008–2010 has led to fiscal policy learning by civil servants in the three Baltic countries. Despite some differences in the crisis experience, the finance ministry officials in all three countries have identified the same lesson from the crisis: fiscal policy should be counter-cyclical and help to stabilize the economy. The paper also discusses how various factors have influenced policy learning, including the acknowledgment of failure, blame shifting, and analytical tractability.*

Keywords: policy learning; fiscal policy; crisis; policy bureaucracy; comparative analysis

1. Introduction

Although the “crisis” in a broad sense is far from being over in Europe, it is worth taking a look back and asking: what have policy-makers learnt from the crisis experience (if anything) so far? While it is often argued that a crisis should lead to policy learning, we

Ringa Raudla (ringa.raudla@ttu.ee) is Professor of Public Finance and Governance at Ragnar Nurkse School of Innovation and Governance, Tallinn University of Technology, Estonia. Her main research interests are fiscal policy, public budgeting and public management reforms.

Aleksandrs Cepilovs (aleksandrs.cepilovs@ttu.ee) is a Junior Research Fellow at Ragnar Nurkse School of Innovation and Governance, Tallinn University of Technology, Estonia. His main research interests are innovation policy, policy transfer and comparative public policy.

Vytautas Kuokštis (kuokstis@gmail.com) is Associate Professor at the Institute of International Relations and Political Science, Vilnius University, Lithuania. His research focuses on international and comparative political economy.

Rainer Kattel (rainer.kattel@ttu.ee) is Estonian Academy of Sciences Research Professor at Ragnar Nurkse School of Innovation and Governance, Tallinn University of Technology, Estonia. He has published extensively on the innovation policy and its governance.

Correspondence Address: Ringa Raudla, Ragnar Nurkse School of Innovation and Governance, Tallinn University of Technology, Akadeemia 3, Tallinn, Estonia. Email: ringa.raudla@ttu.ee

still have limited knowledge about whether and how it actually happens. Several authors writing on the topic of policy learning have lamented the underdeveloped state of the literature (Radaelli 2009; Howlett 2012; Dunlop and Radaelli 2016). The same complaint could be voiced even more loudly about the more specific question of whether and how crisis influences policy learning by civil servants. Exploring policy learning by *civil servants* is warranted since they are considered to be among the most important learning actors in the policy learning literature (e.g. Hecló 1974; Bennett and Howlett 1992; Hall 1993; Radaelli 2008). As Hecló (1974, p. 303) has put it, “To officials has fallen the task of gathering, storing and interpreting policy experience”. Given that the bureaucrats can influence the policy agenda and shape policy decisions (Hall 1993; Page and Jenkins 2005; Christensen 2013), inquiring into the kinds of lessons they have identified from a crisis can provide valuable insights about the dynamics of policy learning.

With our study, we seek to open up the “black box” of policy learning by civil servants at least a little bit. “Policy learning” refers to the updating of beliefs about key components of policy, based on experiences, analysis, or social interaction (Radaelli 2009, p. 1146; Dunlop and Radaelli 2013, p. 599; Zahariadis 2014). While policy learning may often lead to policy change and the occurrence of change is often viewed as evidence of learning (Bennett and Howlett 1992; May 1992; Hall 1993), it is useful – for the sake of conceptual accuracy – to keep *policy learning* and *policy change* analytically separate (Fenger and Quaglia 2015; van Nispen and Scholten 2015).¹ In this paper we focus on *policy learning* rather than on policy change. In other words, we seek to contribute to the scholarly discussion on whether and how a crisis can lead to the modification of policy beliefs that individual public officials have.²

We focus on the field of *fiscal policy* and the lessons that the officials of finance ministries have learnt from the recent crisis experience. Specifically, we look at the three Baltic countries to answer the following research questions: Have the fiscal policy officials learnt anything from the crisis of 2008–2010, and if yes, what? Have the civil servants in the Baltic countries drawn similar or different lessons from the crisis?

We concentrate on *fiscal policy* because the recent crisis in Europe has often been construed as a “fiscal” crisis (Schmidt 2014). Furthermore, given that the issues of fiscal policy have generated a lot of debate in the academic and policy communities since the Great Recession (see e.g. Ban 2015; Vail 2014), it would be insightful to explore how fiscal policy beliefs have evolved among the civil servants after the crisis. While the policy learning framework has been used to examine fiscal policy learning at the EU level (Dunlop and Radaelli 2016) and at the member state level *during* the crisis (Zahariadis 2014), there are no studies that would explore fiscal policy learning in the EU *member states after the crisis*.

Bennett and Howlett (1992, p. 290) have suggested that advancing our knowledge of policy learning would be fruitful via “intensive examination of a few comparable cases”. Such an approach allows us to explore qualitatively, first, whether and how policy officials have modified their policy beliefs, and, second, identify factors that have influenced their learning. The three Baltic countries were hit harder by the global financial crisis in 2008–2009 than other European countries (as witnessed by the largest output losses on record) but have also become regarded as “successful” examples of exiting from it via austerity measures (Staehr 2013). Thus, they can provide useful insights about policy learning from crisis.

The three Baltic countries can also be viewed as “most similar” cases, because of their similar historical legacies and development trajectories. Despite their similarities, some small differences regarding the crisis experiences in the Baltic countries did occur (Kattel and Raudla 2013). The cumulative output losses in 2008–2010 were greater in Estonia (20.1 per cent) and Latvia (21.7 per cent) than in Lithuania (14.8 per cent) (Eurostat). While the Estonian government managed to keep the deficit below 3 per cent of gross domestic product (GDP), Lithuania and Latvia recorded significant budget deficits in those years. Whereas Lithuania was able to borrow funds from international markets, Latvia had to turn to the International Monetary Fund (IMF) and the EU for financial support (Bakker and Klingens 2012; Kattel and Raudla 2013). Thus, it would be interesting to explore whether the differences in crisis experience influenced the lessons identified by the civil servants. While a number of studies have examined how the crisis was *managed* in the three Baltic countries (Kattel and Raudla 2013; Kuokštis 2013, 2015; Staehr 2013), so far there have not been any studies that explicitly adopt a *policy learning* perspective and seek to identify what kind of lessons the public officials in these countries draw from the experience of the crisis. Our data come from semi-structured elite interviews with civil servants from the finance ministries in the three Baltic countries.

The paper is structured as follows. Section 2 outlines the theoretical predictions, followed by the empirical analysis in Section 3. Section 4 provides a concluding discussion.

2. Policy Learning from Crisis: Theoretical Discussion

In the existing literature, it is often argued that crises provide opportunities for learning (Hall 1993; Brandstrom et al. 2004; Hogan and Doyle 2007). Indeed, although learning *during* a crisis may be limited, due to the sense of urgency or analytical resource constraints (e.g. Boin et al. 2005; Zahariadis 2014; van Nispen and Scholten 2015), learning *from* the crisis, *after* the crisis, should be more likely, given the possibilities to reflect on what led to it and to evaluate crisis-time actions. Since a crisis is expected to “profoundly shake” those who are exposed to it first hand and hence to motivate them to prevent its recurrence (Brandstrom et al. 2004, p. 192), we would expect policy actors to take stock of the crisis experience. Crises can have a focusing effect by calling into question the existing policies and forcing policy actors to reconsider those policies (Brandstrom et al. 2004; Hogan and Hara 2011; Hogan and Feeney 2012), which should facilitate policy learning. Thus, our first theoretical expectation is:

E1: The experience of a crisis will lead to policy learning among civil servants.

While many studies do indeed argue that crises are conducive to policy learning, there are other studies that point to the necessity of adopting a more nuanced view, in the sense that crises *may* facilitate learning but it is not necessarily guaranteed (Heikkilä and Gerlak 2013; Fenger and Quaglia 2015). Based on the existing literature, we can outline a number of theoretical expectations about factors that can influence whether the experience of a crisis leads to policy learning by civil servants.

First, the *nature of the policy area* is likely to influence whether and to what extent the experience of a crisis leads civil servants to draw lessons from it. In particular, the level of analytical tractability is likely to influence policy learning. The more “tractable” the policy

problem, the easier it is to (quantitatively) measure performance indicators and to identify causal relationships between policy actions and their effects, and, as a result, the easier it is for the policy bureaucracy to draw lessons from previous experiences (Jenkins-Smith 1985, 1988; Sabatier 1987; Dunlop and Radaelli 2016). Conversely, the more complex the causal relationships, the more ambiguous the policy experience and the more challenging it is to draw causal lessons (Sabatier 1987; Radaelli 2008). Thus, even if the experience of a crisis induces the civil servants to analyse more closely the causal relationships in their policy area – e.g. the factors leading to the crisis, the effects of policy actions undertaken in the midst of the crisis – the intensity of the crisis and the uncertainties surrounding it may make the attribution of causality, and hence policy learning, more challenging than would be the case in “times of normalcy”. Thus, the second theoretical expectation we will examine is:

E2: Policy learning is less likely to take place if the policy area is characterized by low tractability of problems.

Second, a crisis is more likely to lead to policy learning if the policy actors identify policy *failure*, meaning that they consider the policy in their area as being (at least partially) responsible for the crisis (Bovens and t’Hart 1995). Without the perception and identification of policy failure, there would be fewer incentives and pressures (if any) to challenge the existing policies and to identify lessons. Conversely, the perception of policy failure is likely to trigger the reconsideration of existing policies and a search for new ideas (May 1992; Zahariadis 2014). Thus, our third theoretical expectation is:

E3: A crisis is likely to lead to policy learning if the policy actors consider the crisis to have resulted from policy failure.

Although the acknowledgement of failure should foster learning, the former may be hindered by several factors. In order to maintain organizational stability, the officials may avoid evaluative efforts, in the fear that the findings might implicate them (May 1992). As Hood (2002, 2010) has emphasized, policy actors are often motivated to avoid blame. If civil servants engage in blame-games and seek to shift the burden of blame to others, the opportunities for learning from the crisis are likely to be more limited. Thus, our fourth theoretical expectation is:

E4: In order to avoid blame, officials would seek to avoid the identification of failure, which limits the opportunities to learn from crisis.

Another issue related to the perception of policy failure is whether the policy actors feel that they (or their organizations) could have done anything to *avoid* the failure. Here again, existing theoretical discussions point to somewhat diverging predictions. On the one hand, based on the rationalistic approaches, we would expect that if the policy officials perceive that they could have contributed to preventing the occurrence of the crisis, they would be more motivated to draw lessons that would help them prevent similar crises in the future (May 1992; Howlett 2012). Hence, our fifth theoretical expectation is:

E5: Policy learning from crisis is more likely if civil servants feel that they could have taken steps to prevent the crisis.

On the other hand, if the civil servants concede that they could have done something to prevent or alleviate the crisis, they would assume a considerable burden of blame (Brandstrom and Kuipers 2003; Hood 2010; Howlett 2012) – and attempts to avoid such attribution of blame would undermine their efforts to draw lessons from the crisis.

Finally, policy learning from crisis by civil servants is likely to be influenced by external actors (especially organizations like the European Union, the IMF, the World Bank, and the Organization for Economic Co-operation and Development (OECD)). Such actors can *facilitate policy learning* by providing new information, an outside view, or a more neutral analysis of the problems, and point to lessons that can be learnt from others who have experienced a similar crisis (Hogan and Hara 2011). Also, through interactions with the officials from external organizations, the “domestic” civil servants can be exposed to new interpretations of the crisis and participate in the discussions that assess different policy alternatives (Radaelli 2008). Thus, our sixth theoretical expectation is that:

E6: Policy learning from crisis by civil servants is facilitated by external actors.

In the following, we will examine the plausibility of the theoretical expectations E1–E6 with an empirical analysis of the Baltic countries.

3. The Empirical Study

3.1. Background Information about the Crisis in the Baltic Countries

Since regaining independence in the early 1990s, the Baltic republics have stood out among the European transition countries as radical pro-market reformers. In the early 1990s, all three countries adopted a mix of policies advocated by the Washington consensus, including fixed exchange rates, liberalization of prices and trade, and wide-ranging privatization. The economic environments created as a result of such neo-liberal policy choices appeared to have put the Baltic republics on an impressive growth track, only interrupted by the Russian crisis at the end of the 1990s. After accession to the EU, all three economies witnessed an unprecedented boom. Between 2004 and 2007 the Baltic republics stood out among the EU countries for their high growth rates: the average annual growth rates for this period were 10.3 per cent in Latvia, 8.5 per cent in Estonia, and 8.2 per cent in Lithuania. These remarkable figures were, however, accompanied by signs of overheating, including double-digit inflation, a housing boom, appreciating real exchange rates, accelerating wage growth (that exceeded productivity growth), and a fast accumulation of net foreign liabilities and soaring current account deficits. One of the key features of the Baltic economies has also been an overwhelming foreign ownership of banking assets. By the time the crisis hit, Estonia and Lithuania had over 90 per cent of banking assets in foreign ownership, Latvia just above 60 per cent (Kattel and Raudla 2013).

The crisis hit all Baltic countries quickly and painfully. The domestic bubbles burst in early 2008, when the credit supply decelerated and banks started tightening credit conditions. The downturn was further exacerbated by negative developments in the external economic environment after the Lehman Brothers’ bankruptcy. The cumulative GDP declines in 2008–2010 in the Baltics were among the largest in the world (Bakker and Klingens 2012; Staehr 2013) (see Table 1). In order to bail out the Parex bank, the Latvian

Table 1. Fiscal and economic indicators for Estonia and Latvia 2000–2015.

Year	Budget deficit in Estonia (% of GDP)*	Budget deficit in Latvia (% of GDP)	Budget deficit in Lithuania (% of GDP)	Public debt in Estonia (% of GDP)	Public debt in Latvia (% of GDP)	Public debt in Lithuania (% of GDP)	Real GDP growth in Estonia	Real GDP growth in Latvia	Real GDP growth in Lithuania
2004	2.4	-1.0	-1.4	5.1	14.2	18.7	6.3	8.9	6.6
2005	1.1	-0.4	-0.3	4.5	11.7	17.6	9.4	10.7	7.7
2006	2.9	-0.6	-0.3	4.4	9.9	17.2	10.3	11.9	7.4
2007	2.5	-0.6	-0.8	3.7	8.4	15.9	7.7	10.0	11.1
2008	-2.7	-4.0	-3.1	4.5	18.6	14.6	-5.4	-3.6	2.6
2009	-2.2	-9.0	-9.1	7.0	36.4	29.0	-14.7	-14.3	-14.8
2010	0.2	-8.1	-6.9	6.5	46.8	36.2	2.5	-3.8	1.6
2011	1.2	-3.3	-8.9	6.0	42.7	37.2	7.6	6.2	6.0
2012	-0.2	-0.8	-3.1	9.7	40.9	39.8	5.2	4.0	3.8
2013	-0.2	-0.7	-2.6	10.0	38.2	38.8	1.6	3.0	3.5
2014	0.6	-1.4	-0.7	10.6	40.0	40.7	2.9	2.4	3.0

*Net lending (+) /net borrowing (-)

Source: Eurostat.

government had to ask for international support from the IMF, the EU and Nordic countries in November 2008. In response to the crisis, all three Baltic republics implemented sizable fiscal consolidations in 2008–2010. The fiscal adjustment in Latvia was the largest, adding up to around 16.3 per cent of GDP between 2008 and 2011, followed by Estonia (13.9 per cent) and Lithuania (13.1 per cent). (Kattel and Raudla 2013, 2013) In all three countries, austerity measures were deemed necessary for maintaining their fixed exchange rate, achieving *internal* devaluation (rather than external) and restoring investor confidence (Bakker and Klingen 2012; Kattel and Raudla 2013; Staehr 2013). In addition, in Estonia, fiscal consolidation was also driven by the goal to join the Eurozone as fast as possible; in Latvia by the requirements of the bailout package; and in Lithuania by the need to limit expensive borrowing to cover the budget deficit and to avoid sovereign default (Raudla and Kattel 2011; Bakker and Klingen 2012). Fiscal consolidation in all three countries entailed both expenditure cuts and tax increases, while greater weight was accorded to the expenditure side. The greatest focus on expenditure measures could be observed in Lithuania (with 85 per cent of the total consolidation between 2008 and 2011 made up on the expenditure side), followed by 70 per cent in Estonia, and 60 per cent in Latvia (Raudla and Kattel 2011). In 2010–2011, all three countries returned to a growth path. Estonia joined the Eurozone in 2011, Latvia in 2014, and Lithuania in 2015.

3.2. The Crisis Experience and Policy Learning by Civil Servants

In this paper, we focus on the subjective understandings and interpretations of the civil servants in the three countries. In each country, we conducted interviews with five Ministry of Finance (MoF) officials. In selecting interviewees, we used purposive sampling: we identified officials who have been most closely involved in fiscal policy-making and also made sure that we interviewed civil servants from different levels of the organizational hierarchy in order to capture the potential diversity of viewpoints. The total number of MoF officials closely involved in fiscal policy-making in the Baltic countries is relatively small; hence, we felt that five interviews in each country should be sufficient to provide exploratory insights. The interviews were conducted between August 2014 and September 2015, and each lasted between 1.5 and 3 hours. The interviews were recorded, transcribed and also translated into English (in order to increase inter-coder validity by allowing all authors from the three different countries to read the transcripts). The authors read through all the interview transcripts independently, used open coding to identify the main themes, and then discussed the interpretations jointly in order to increase the validity of the findings. Given that we have defined “policy learning” as “the updating of beliefs about policy” by policy actors, we are primarily interested in their *subjective interpretations* rather than already implemented policy change. In order to capture the shifts in policy beliefs, the interviewees in all three countries were, on the one hand, asked directly what policy lessons could be drawn about the crisis for fiscal policy, whether the crisis has triggered changes in fiscal policy and influenced their normative views on fiscal policy-making. These questions were worded as openly as possible, in order to allow the interviewees to focus on themes that they considered the most relevant. However, in order to identify the subtler changes that the interviewees might not have been able explicitly to word as “lessons” from the crisis, they were also asked about the main causes of the crisis, whether the MoF could have done anything to prevent it, how

they assess the actions undertaken during the crisis, and what role has been played by external actors in fiscal policy-making. These questions were also used for exploring the impacts of the various factors outlined in Section 2.

3.2.1. Perceptions of the finance ministry officials about the causes of the crisis of 2008–2010 and its prevention. On the question about the causes of the recent crisis and whether external or internal factors were more important in contributing to the emergence of the crisis, most of the interviewees in the three countries pointed to a *combination* of internal and external factors, with greater weight attributed to *external* causes (global optimism, underestimation of risks, low interest rates) in Estonia and Latvia, and more weight to *internal* causes in Lithuania.

While several Lithuanian officials felt that the government could have, in principle, prevented the *real estate bubble* (e.g. by adopting macro-prudential regulation), the Estonian and Latvian officials felt that not much could have been done to prevent it. As one of the Estonian officials put it, “We did not have domestic banks we could regulate and tell them how many loans to give. ... We were in the EU and couldn’t use capital restrictions” (Interview Est1). In the words of a Latvian official: “The main objective cause of the overheating was us joining the European Union. ... It led to an increase in optimism and cheap interest rates and that, in turn, gave rise to the real estate bubble” (Interview Lat1).

When asked more specifically about whether the *Ministry of Finance* could and should have done something in the realm of *fiscal* policy to *prevent* the crisis, the overall assessment of the Estonian civil servants was that the MoF could *not* have done much (beyond what it actually did). The overall narrative that came through in the interviews was that while the MoF had underestimated the size of the bubble and hence also the positive output gap – which resulted in pro-cyclical fiscal policy – “everyone else”, including the European Commission (EC) and the IMF, had done the same. All the officials noted that during the boom the Estonian government was already running surpluses (see also Table 1) and it would have been difficult to gain political support for having an even larger surplus. One of the officials also emphasized that lowering taxes, as the government had done, during the boom was clearly “bad timing” since it fuelled the boom, but this decision was “in the hands of the politicians” (Interview Est3).

Several Latvian interviewees conceded that running the deficits and stimulating the economy during the boom had magnified the bubble. They also argued that if the government had accumulated reserves, the bailout procedure could have been avoided and it would have been easier to “get through the crisis” (e.g. by using the reserves to save the Parex bank). At the same time, the MoF officials felt that their ministry could not have done much to prevent the crisis because fiscal policy decisions tend to be “in the hands of politicians” who can ignore the expert advice of the civil servants.

Most of the interviewees from Lithuania also argued that the government’s fiscal policy had been too loose during the boom and that this had resulted from politicians’ decisions. As one of the officials emphasized, “Increasing expenditures at a much faster rate than the GDP growth during the boom clearly was a complete nonsense” (Interview Lit5). Another interviewee noted, “The parliament still made those decisions despite experts saying that it would be bad” (Interview Lit4). Similar to the Latvian officials, the Lithuanian interviewees felt that accumulating reserves during the boom would have made it easier to go through the crisis by using reserves to cover the deficits instead of having to borrow at

high interest rates. Furthermore, the Lithuanian officials pointed to a range of specific measures that the MoF had proposed during the boom – including the adoption of a fiscal discipline law (requiring a surplus or balanced budget over the medium term), which had been suggested by the IMF mission in Lithuania, the enactment of a comprehensive real estate tax, and a complete elimination of mortgage interest deductions for income tax – but these were not supported by the parliament in their entirety.

3.2.2. The evaluation of crisis-time fiscal policy actions. When asked to evaluate the crisis-time fiscal policy actions undertaken in 2008–2010, the Estonian officials' opinions were rather divided. One of the officials argued unequivocally that by opting for quick consolidation, the government did the “right thing” (Interview Est4). In contrast, another stated that “The austerity measures deepened the crisis” (Interview Est2). The others subscribed to more qualified assessments. They argued that, all in all, while the austerity policy may have been “a little bit harsh”, the measures adopted “gave a positive push” by allowing Estonia to “exit the crisis” via joining the Eurozone. In their view, restoring credibility to the economy via entering the Eurozone had a more positive effect on the Estonian economy than expansionary fiscal policy would have done. Curiously, while the official rhetoric of the Estonian government during the crisis period of 2008–2010 did not support a Keynesian approach (Raudla and Kattel 2011), the *ex post* interpretations of crisis-time actions by the officials refer to Keynesian arguments and most of the interviewees felt the need to justify the crisis-time actions with reference to a Keynesian prism. The interviewees argued, for example, “In reality, it cannot be said that we did not follow the Keynesian ideas in our fiscal policy” (Interview Est3) or “We have been criticized for not being Keynesian during the crisis, but in some ways we were. ... During the boom we collected reserves and then at the outset of the recession loosened the fiscal policy in a Keynesian way by running deficits” (Interview Est1). It was also noted that while some of the expenditure cuts (i.e. cuts to salaries, transfers and investments) may have deepened the crisis, the government also tried to stimulate the economy by accelerating the use of the EU structural funds and trying to find consolidation measures that would not negatively affect aggregate demand (like taking out additional dividends from state-owned enterprises).

In Latvia, only one of the interviewed civil servants argued that the consolidation *cooled* the economy – but added that the government “had no choice” since the austerity measures were required by the IMF and the EC (Interview Lat3). The others argued that the fiscal consolidation had been *positive* for the economy. For example,

The crisis conditions have proven that cutting expenditures during an economic downturn does not always have a negative impact. Therefore, if we compare the theory that is taught in the university with what is going on in real life, the case of Latvia proves that we can restore growth with expenditure cuts. (Interview Lat1)

In Lithuania, all the interviewed officials argued that the government had acted correctly during the crisis. One of the officials did note, though, that the cutting of expenditures had been pro-cyclical (“we were cutting at an inappropriate time”), but this was necessary given the circumstances (Interview Lit5). Another official even argued that it would have been inappropriate to pursue a Keynesian stimulus during the crisis since the economy was imbalanced and it was expensive to borrow (Interview Lit1). Furthermore,

The conditions for Keynesian policy were not present – the economy had to correct itself. ... One needs to take guidance from Keynes creatively and not follow the literal textbook approach. Keynes talked about the case of a large closed economy without a fixed exchange rate. ... But we were defending a currency board and had to restore investors' confidence. (Interview Lit1)

Another official summed it up as follows: “If you have to borrow at 10 per cent, you do everything you can to cut expenditures” (Interview Lit2).

In sum, the overall opinion of the interviewed MoF officials in *all* countries was that the government in their country had acted *correctly* during the crisis, although there were some dissenting opinions among the interviewees in Estonia and Latvia. Interestingly, the use of Keynesian ideas in assessing the austerity measures undertaken during the crisis varied between the officials in the three countries. In Estonia, some of the officials even tried to argue that the government had tried to follow Keynesian principles in deciding on the austerity measures. In Latvia, the officials viewed the Latvian case as providing evidence of non-Keynesian effects of fiscal consolidation, whereas in Lithuania it was argued that the conditions for Keynesian stimulus during the crisis were not present because of macroeconomic imbalances and lack of financing, while non-Keynesian effects of consolidation were also mentioned.

3.2.3. What has been learnt from the crisis regarding fiscal policy?. When asked about what they learned from the crisis, the MoF officials from all three countries pointed out that as a result of the crisis, fiscal policy has become much more important. As an Estonian official put it: “As a result of the crisis, the importance of fiscal policy is more clearly acknowledged and it is at the centre of attention” (Interview Est3). Also, several interviewees from Estonia and Latvia pointed out that the macroeconomic analytical capacities of the MoF officials improved as a result of the crisis. This seemed to be particularly pronounced in Latvia, where – because of the bailout package – the IMF officials were more closely involved in consulting the MoF. In the words of one of the Latvian officials,

We learnt a lot from the IMF experts. I can really say that the entire crisis period was a good training – in terms of how to work, how to analyse, how to forecast. ... Now we go much deeper into details and analyse much more. ... Before the crisis, our models were relatively simple but during the crisis, in cooperation with the IMF officials, we improved our models. (Interview Lat4)

Despite the fact that the crisis experience itself had been somewhat different in the three countries, the most important lesson in the eyes of the interviewed MoF officials is essentially the same. The interviewed officials from all countries *concurred* that the main lesson from the crisis is that “fiscal policy should be counter-cyclical and not pro-cyclical” and that “the budget should play a role in macro-economic balancing”. The emergence of this “lesson” sounds somewhat paradoxical at first sight: all three countries implemented austerity measures during a major economic downturn in 2008–2010 – actions which could be viewed as *pro*-cyclical – and, in all countries, most of the officials viewed the adoption of austerity measures as having been the “correct” course of action.

There appear to be two main reasons behind the emergence of this – at first sight counter-intuitive – lesson in the countries that have come to be regarded as the champions and positive examples of implementing austerity measures during a major recession. First, as mentioned in the previous subsection, with the benefit of hindsight, the officials in Latvia and Lithuania, but to some degree also in Estonia, view the pro-cyclical fiscal policy preceding the crisis as having contributed to the bubble. Running surpluses during a boom is also viewed as important for building up reserves – which, according to the interviewees from all three countries, helped Estonia to weather the crisis of 2008–2010 better, could have helped Latvia avoid the bailout programme, and allowed Lithuania to avoid expensive borrowing. Thus, in the eyes of most of the officials of all three countries, an important lesson of the crisis is that adopting a counter-cyclical fiscal policy during a boom should help avoid future crises, and, if they do occur, the accumulated reserves should help to overcome them. As the officials observed:

We did tighten the budget during the boom, but not enough... Accumulating reserves is important. Other countries now also say that this was the right thing to do. Those who had no reserves didn't manage the crisis so well. (Interview Est1)

The crisis has clearly proven that during the good years, if the government spends all the revenues and observes the nominal 3 per cent [of GDP] deficit target, then during a downturn it objectively can't maintain it. (Interview Lat1)

The main lesson is that we should have had a more cautious fiscal policy before the crisis... We should have run a small surplus, like Estonia, not deficits. (Interview Lat4)

We cannot avoid crises, especially since we are a small country, but we can prepare for them – the bigger the buffer the better. As the Estonian experience shows, if you have a reserve, the landing during the crisis is softer and you don't have to borrow at such high interest rates. (Interview Lit3)

Second, a counter-cyclical role for fiscal policy is prescribed by the Fiscal Compact, which requires the members of the Eurozone to incorporate a structural deficit rule into domestic legislation.³ All three countries adopted a structural deficit (or balance) rule in 2013–2014, which now guides fiscal policy-making and forces the MoF to pay attention to the cyclical stance of the economy when preparing the budget.

Thus, our interviews indicate that, as a result of the combination of the evaluation of pre-crisis fiscal policies and the implementation of the Fiscal Compact, officials from all three countries have adjusted their views on fiscal policy and have come to endorse the focus on structural balance in fiscal policy-making. This shift has been particularly pronounced in Estonia and Latvia. For example, the Estonian officials noted:

In fiscal policy, we used to focus on the nominal balance but now we strive to focus on the structural balance... At the moment, in our decisions, the structural balance has more weight than the nominal one... In order to ensure that fiscal policy is counter-cyclical, the structural balance indicator should be preferred over the nominal one. (Interview Est2)

Before the crisis, the focus of fiscal policy was on the nominal budget balance... Even if we had surpluses, these were often not planned. Now we take the economic cycle into account in planning the budget. (Interview Est1)

The Latvian officials stated, for example: “Before the crisis, we didn’t really have an objective in fiscal policy-making but the structural deficit rule now provides us with a target” (Interview Lat4). “Without the structural rule we wouldn’t know how much we can actually afford to spend during the good years” (Interview Lat1). In Lithuania, the interviewees mentioned there had already been discussions about adopting a more counter-cyclical fiscal policy among the MoF officials before the crisis – but the crisis experience and the Fiscal Compact helped to drive home the need for analysing the cyclical stance in fiscal policy-making. “After the crisis, it was clear that nominal indicators are not enough: thus, structural indicators were introduced. ... These rules certainly contain more logic and rationality” (Lit 3).

At the same time, most of the interviewees from all three countries conceded that the calculation of the structural position is uncertain; thus it is challenging to use the structural balance/deficit rule as a quantitative yardstick in fiscal policy in *real time* because the *ex ante* and *ex post* evaluations of the cyclical position of the economy can differ significantly. The interviewees also pointed to the fact that the domestic assessments of the structural position tend to diverge from the evaluations of the European Commission, which, in turn, increases uncertainty in fiscal policy-making.

Most of the interviewed officials stated that the new framework laws for budgeting, spurred by the Fiscal Compact, institutionalize the main lessons learnt from the crisis and constitute an important step forward in fiscal governance, but their assessment of the efficacy of the new rules varies somewhat from country to country. In Estonia, the overall opinion of the interviewees is that the new rules were not strictly necessary for Estonia, given its commitment to fiscal discipline, but the new law might provide some additional insurance for the future. The Latvian officials noted that while the MoF supports the new rules and acts as a watchdog, there is still a willingness among politicians to violate them, and that the *politicians* have not really learnt from the crisis. The Lithuanian officials noted that the institutionalization of fiscal policy by creating sounder laws has been an important lesson from the crisis. Thus, while some manipulation might still be possible under the new rules – “implementing completely crazy fiscal policy, like increasing expenditure by 30 per cent when the revenues grow 10 per cent” (Interview Lit5) – is now precluded. At the same time, it was also noted by Lithuanian officials that there might still be willingness among politicians to violate these rules: “The politicians still have the thinking that, ok, there are stricter rules now but other countries don’t abide by them, so maybe we shouldn’t either” (Interview Lit3).

4. Concluding Discussion

As the interviews indicate, fiscal policy learning from crisis has indeed taken place in all three countries, thus confirming our theoretical expectation E1. The main lesson identified by the finance ministry officials in all three countries is that fiscal policy should strive to be more counter-cyclical and avoid being pro-cyclical – which can be viewed as amounting to a change in policy goals.

As pointed out in the theoretical section, policy learning from crisis is more likely to take place if the policy actors acknowledge policy failure and consider their policy area as having contributed to the emergence of the crisis (e.g. Bovens and t’Hart 1995). Our empirical study indicates, however, that the links between the acknowledgement of failure and policy learning can be more complicated as no unambiguous support could be found

for the theoretical expectation E3. In the Latvian and Lithuanian cases, indeed, the interviewed officials conceded that the MoF could have taken preventive steps in fiscal policy before the crisis, that the too loose fiscal policy during the boom had added fuel to the bubble, and hence the lesson for the future is that during a boom governments should run surpluses in order to stabilize the economy. In Estonia, however, in the officials' view, for the most part fiscal policy did *not* contribute to the emergence of the crisis. Still, the main lesson they identified from the crisis is *the same* as in the two other countries: during a boom fiscal policy should be more counter-cyclical. Thus, based on the Estonian case, it appears that policy learning is still feasible even if no clear policy failure is identified.

Our interviews also indicate that the links between the evaluations of *crisis-time actions* and policy learning are not necessarily straightforward – thus, our theoretical prediction E5 was not supported. In Estonia, at least some of the officials viewed the austerity policies as having cooled down the economy even further during the crisis, which, in turn, has driven home the principle that fiscal policy should be counter-cyclical. However, in the other two countries, the officials, for the most part, view the austerity measures as having been justified (despite their pro-cyclicity) but, still, for the future, consider it necessary for fiscal policy to be more *counter*-cyclical. While the interviews with the Estonian officials indicate that they even try to construe the crisis-time actions as having followed (at least some) Keynesian principles, the officials in the other two countries have subscribed more clearly to the notion of non-Keynesian effects of fiscal consolidation. It is also noteworthy that although Estonia did not make extensive use of the accumulated reserves in 2008–2010 (and opted for austerity measures instead), the officials in the other two countries have come to view having a fiscal reserve as an important instrument for being prepared for the next crisis.

How can we explain such non-linear linkages between the officials' evaluation of pre-crisis policies and crisis-time measures (described above) and the policy lessons they drew? On the one hand, it is plausible that the complexity of fiscal policy in general and the increasing intractability of the causal relations during a crisis in particular have played a role here. Given the difficulties involved in estimating the effects of fiscal policy on the economy (and also decreasing consensus in fiscal policy discussions internationally), drawing straightforward lessons from the pre- and crisis-time policies is challenging. Thus, we could see that the level of analytical tractability of the specific field we looked at *did* play a role in policy learning among the civil servants but it did *not* undermine it – implying that our theoretical expectation E2 could not be fully supported. On the other hand, all three countries have been subjected to similar policy pressures from the European Union – which has led to the emergence of the same policy lessons in all three countries, despite somewhat diverging crisis experiences and also different assessments of how fiscal policies contributed to the crisis and their effects during the crisis. Indeed, making fiscal policy more counter-cyclical via adopting structural balance as the main yardstick has been mandated by the European Union through the Fiscal Compact.

It was also argued in the theoretical discussion that the acknowledgment of mistakes and failure may be prevented by attempts to avoid blame (e.g. Hood 2010), which, in turn, would hinder policy learning. As our interviews indicate, however, the ability of the policy bureaucrats to *shift* blame – to other policy-makers (like politicians) – can in fact be conducive to policy learning, which goes against the theoretical expectation E4. Indeed, we can observe that most of the civil servants in these countries blamed the elected officials for undertaking faulty policies. The ability to *shift* the responsibility for

problematic decisions to politicians (adopted before the crisis) appears to have allowed the civil servants in the finance ministries to engage in evaluative efforts and policy learning without having to cast themselves in a bad light.

Largely in line with our theoretical prediction E6, we can observe that external actors facilitated policy learning from crisis among the civil servants of the three Baltic countries. In all three cases, developments at the EU level provided a major impetus for policy learning among the MoF officials. The requirements of the Fiscal Compact provided a clear focal point to the officials for modifying their policy beliefs. Although the provisions of the Fiscal Compact were *mandatory* for the members of the Eurozone – and imposed top-down by the EU – our interviews indicate that their adoption has *not* been merely formal and symbolic (i.e. without a corresponding shift in policy beliefs of the local policy actors) but actual normative changes have taken place in the policy beliefs of the civil servants. Still, we can also conjecture that the EU-mandated rules may have, potentially, prevented more *country-specific* fiscal policy discussions and hence also more nuanced policy learning from taking place. In addition to the EU, the IMF contributed significantly to policy learning among the Latvian officials – especially by providing technical knowledge for fiscal policy modelling and forecasting.

In sum, we can see that the theoretical predictions outlined in the analytical framework of our paper do provide a useful starting point for exploring policy learning from crisis among civil servants. As our empirical analysis shows, however, not all of them are supported. This indicates that further theoretical (and also empirical) work is necessary to advance our understanding of whether and how policy learning from crisis takes place.

An important limitation of our study is that we focused only on policy learning by civil servants and not by elected officials, social partners and think tanks. Given the increasing role of the MoF officials in fiscal policy-making – resulting from the crisis and the increasing technicality of fiscal policy owing to the structural deficit rule – providing insights about the shifts in their policy beliefs is valuable. Future studies could systematically compare policy learning from crisis among these different groups of policy actors. Further limitations of our study are that we have zoomed in on individual rather than on institutional (or collective) policy learning and have not examined to what extent the shifts in the policy beliefs of civil servants have been translated into actual policy change. Further studies would hence be needed to order to map the effects of the crisis on policy change over time.

Funding

The research leading to these results has received funding from the Estonian Research Council Grant PUT-1142 and the Norwegian Financial Mechanism 2009–2014 under project No EMP264.

Notes

1. Indeed, even if policy actors have engaged in policy learning, the modified beliefs themselves do not necessarily guarantee that policy change will ensue (Elliott and Macpherson 2010; Fenger and Quaglia 2015). Also, even if policy change occurs, it may take place for other reasons than learning (e.g. electoral considerations, external pressures, resource constraints) (May 1992; Fenger and Quaglia 2015).

2. While several streams of literature related to policy learning (e.g. policy transfer, policy diffusion or lesson-drawing in public policy) focus on *actual* policy change, the focus of our paper is on ideational shifts rather than on whether the lessons are eventually translated into policy.
3. The structural position of the budget is calculated on the basis of a cyclically adjusted position, which is adjusted for one-off and temporary transactions. The cyclically adjusted budget position, in turn, is found by subtracting the cyclical component (or the output gap) from the nominal budget position (for a more detailed discussion, see, for example, Mourre et al. 2014).

References

- Bakker, B. B. and Klingen, C., 2012, *How Emerging Europe Came Through the 2008/09 Crisis* (Washington, DC: The IMF).
- Ban, C., 2015, Austerity versus stimulus? Understanding fiscal policy change at the international monetary fund since the great recession. *Governance*, **28**(2), pp. 167–183. doi:10.1111/gove.12099
- Bennett, C. J. and Howlett, M., 1992, The lessons of learning: Reconciling theories of policy learning and policy change. *Policy Sciences*, **25**, pp. 275–294. doi:10.1007/BF00138786
- Boin, A., t'Hart, P., Stern, E. and Sundelius, B., 2005, *The Politics of Crisis Management: Public Leadership Under Pressure* (Cambridge: Cambridge University Press).
- Bovens, M. and t'Hart, P., 1995, Frame multiplicity and policy fiascoes: Limits to explanation. *Knowledge and Policy*, **8**(4), pp. 61–82. doi:10.1007/BF02832230
- Brandstrom, A., Bynander, F. and t'Hart, P., 2004, Governing by looking back: Historical analogies and crisis management. *Public Administration*, **82**(1), pp. 191–210. doi:10.1111/padm.2004.82.issue-1
- Brandstrom, A. and Kuipers, S., 2003, From 'normal incidents' to political crises: Understanding the selective politicization of policy failures. *Government and Opposition*, **38**(3), pp. 279–305. doi:10.1111/goop.2003.38.issue-3
- Christensen, J., 2013, Bureaucracies, neoliberal ideas, and tax reform in New Zealand and Ireland. *Governance*, **26**(4), pp. 563–584. doi:10.1111/gove.2013.26.issue-4
- Dunlop, C. A. and Radaelli, C. M., 2013, Systematising policy learning: From monolith to dimensions. *Political Studies*, **61**, pp. 599–619. doi:10.1111/post.2013.61.issue-3
- Dunlop, C. A. and Radaelli, C. M., 2016, Policy learning in the Eurozone crisis: Modes, power and functionality. *Policy Sciences*, **49**(2), pp. 107–124.
- Elliott, D. and Macpherson, A., 2010, Policy and Practice: Recursive Learning from Crisis. *Group & Organization Management*, **35**(5), pp. 572–605. doi:10.1177/1059601110383406
- Fenger, M. and Quaglia, L., 2015, The global financial crisis in comparative perspective: Have policy makers "Learnt Their Lessons"? *Journal of Comparative Policy Analysis: Research and Practice*, pp. 1–16. doi:10.1080/13876988.2015.1044808
- Hall, P. A., 1993, Policy paradigms, social learning and the state: The case of economic policy-making in Britain. *Comparative Politics*, **25**(3), pp. 275–296.
- Heclo, H., 1974, *Modern Social Politics in Britain and Sweden* (New Haven: Yale University Press).
- Heikkilä, T. and Gerlak, A. K., 2013, Building a conceptual approach to collective learning: Lessons for public policy scholars. *Policy Studies Journal*, **41**(3), pp. 484–512. doi:10.1111/psj.2013.41.issue-3
- Hogan, J. and Doyle, D., 2007, The importance of ideas: An a priori critical juncture framework. *Canadian Journal of Political Science/Revue Canadienne de Science Politique*, **40**(4), pp. 883–910. doi:10.1017/S0008423907071144
- Hogan, J. and Feeney, S., 2012, Crisis and policy change: The role of the political entrepreneur. *Risk, Hazards & Crisis in Public Policy*, **3**(2), pp. 1–24. doi:10.1515/1944-4079.1108
- Hogan, J. W. and Hara, A., 2011, Country at a crossroads: An insight into how an economic crisis led to dramatic policy change. *Risk, Hazards & Crisis in Public Policy*, **2**(3), pp. 1–23. doi:10.2202/1944-4079.1082
- Hood, C., 2002, The risk game and the blame game. *Government and Opposition*, **37**(1), pp. 15–37. doi:10.1111/goop.2002.37.issue-1
- Hood, C., 2010, *The Blame Game: Spin, Bureaucracy, and Self-Preservation in Government* (Princeton, NJ: Princeton University Press).
- Howlett, M., 2012, The lessons of failure: Learning and blame avoidance in public policy-making. *International Political Science Review*, **33**(5), pp. 539–555. doi:10.1177/0192512112453603

- Jenkins-Smith, H. C., 1985, Adversarial analysis in the bureaucratic context, in: P. Brown (ed) *Advocacy Analysis* (Baltimore: University of Maryland Press).
- Jenkins-Smith, H. C., 1988, Analytical debates and policy learning: Analysis and change in the federal bureaucracy. *Policy Sciences*, **21**, pp. 169–211. doi:10.1007/BF00136407
- Kattel, R. and Raudla, R., 2013, The Baltic republics and the crisis of 2008–2011. *Europe-Asia Studies*, **65**(3), pp. 426–449. doi:10.1080/09668136.2013.779456
- Kuokštis, V., 2013, The political economy of internal adjustment in the Baltic States: Explaining responses to the crisis, Doctoral dissertation, Vilnius University, 2013.
- Kuokštis, V., 2015, Cooperating Estonians and ‘Exiting’ Lithuanians: Trust in times of crisis. *Post-Soviet Affairs*, **31**(6), pp. 557–575. doi:10.1080/1060586X.2015.1008733
- May, P. J., 1992, Policy learning and failure. *Journal of Public Policy*, **12**(4), pp. 331–354. doi:10.1017/S0143814X00005602
- Mourre, G., Astarita, C. and Princen, S. 2014. *Adjusting the budget balance for the business cycle: The EU methodology*. European Economy: Economic Papers, no. 536, European Commission.
- Page, E. C. and Jenkins, B., 2005, *Policy Bureaucracy: Government with a Cast of Thousands* (Oxford: Oxford University Press).
- Radaelli, C. M., 2008, Europeanization, policy learning, and new modes of governance. *Journal of Comparative Policy Analysis: Research and Practice*, **10**(3), pp. 239–254. doi:10.1080/13876980802231008
- Radaelli, C. M., 2009, Measuring policy learning: Regulatory impact assessment in Europe. *Journal of European Public Policy*, **16**(8), pp. 1145–1164. doi:10.1080/13501760903332647
- Raudla, R. and Kattel, R., 2011, Why did Estonia choose fiscal retrenchment after the 2008 crisis? *Journal of Public Policy*, **31**(2), pp. 163–186. doi:10.1017/S0143814X11000067
- Sabatier, P. A., 1987, Knowledge, policy-oriented learning, and policy change: An advocacy coalition framework. *Knowledge: Creation, Diffusion, Utilization*, **8**(4), pp. 649–692.
- Schmidt, V. A., 2014, Speaking to the markets or to the people? A discursive institutionalist analysis of the EU’s Sovereign debt crisis. *The British Journal of Politics & International Relations*, **16**(1), pp. 188–209. doi:10.1111/1467-856X.12023
- Staehr, K., 2013, Austerity in the Baltic states during the global financial crisis. *Intereconomics*, **48**(5), pp. 293–302. doi:10.1007/s10272-013-0472-9
- Vail, M. I., 2014, Varieties of liberalism: Keynesian responses to the great recession in France and Germany. *Governance*, **27**(1), pp. 63–85. doi:10.1111/gove.2014.27.issue-1
- Van Nispen, F. K. M. and Scholten, P. W. A., 2015, Policy analysis in times of austerity: Puzzling in the shadow of powering? *Journal of Comparative Policy Analysis: Research and Practice*, pp. 1–9. doi:10.1080/13876988.2015.1095430
- Zahariadis, N., 2014, Powering over Puzzling? Downsizing the Public Sector during the Greek Sovereign Debt Crisis. *Journal of Comparative Policy Analysis: Research and Practice*. doi:10.1007/s11077-015-9236-7

Article V

Karo, E., R. Kattel and **A. Cepilovs**. 2017. "Can Smart Specialization and Entrepreneurial Discovery be Organized by Government? Lessons from the Less-Developed Regions." In S. Radošević, A. Curaj, L. Andreescu, R. Gheorgiou and I. Wade (eds). *Smart Specialization Theory and Practice: Regional Planning and Development*. London: Academic Press, 269-292.

Chapter 12

Can Smart Specialization and Entrepreneurial Discovery be Organized by the Government? Lessons from Central and Eastern Europe

Erkki Karo, Rainer Kattel, Aleksandrs Cepilovs

Tallinn University of Technology, Tallinn, Estonia

Chapter Outline

Introduction	270	Organizing ED in the Baltic States	279
Entrepreneurial Discovery and the Diversity of Policy Contexts in the European Union	272	Organizing ED in Central Europe	282
Organizing Entrepreneurial Discovery in CEE	277	Conclusions	287
		References	290

Academic Highlights

- RIS3 and entrepreneurial discovery (ED) can be analyzed as elements of the broader experimental governance trends in the European Union.
- Organization of RIS3 and ED processes matters for the eventual outcomes:
 - RIS3 processes led by ministries or regional agencies for research and development are more likely to lead to academic bias and “science push”-based approaches.
 - Ministries and agencies responsible for economic development and innovation may be better equipped for engaging business actors and entrepreneurs in policy processes.

- The maturity, or level of development, of national, regional, and sectoral innovation systems in terms of actor capabilities and networks determines the depth and quality of RIS3 and ED processes.

Policy Highlights

- RIS3 and ED remain vague and emerging concepts for most Central and Eastern Europe policy makers: there is a need for better articulation and operationalization of the RIS3 conceptual and especially policy making–related underpinnings to aid national and especially regional policy makers.
- In Central and Eastern Europe economies, RIS3 and ED seem to occur through two phases: fast specialization based on consciously broad and vague specializations, followed by actual and ongoing implementation of RIS3.
- The second stage of implementing RIS3 could be the phase where ED at the level of “granularity” could happen.
- The implementation requires significant policy experimentation (design of novel and flexible policy interventions), which is highly challenging and unlikely without the European Union’s conscious support by explicitly allowing and encouraging flexible approach to European Structural and Investments Funds rules and regulations.

INTRODUCTION

One of the key “innovations” of the smart specialization initiative is the adoption of the concept of *entrepreneurial discovery* (ED) as part of the smart specialization strategies (RIS3) and regional policy (Foray et al., 2009; RIS3 Guide, 2012). As Foray (2014, p. 11) succinctly summarizes: “A smart specialisation strategy emphasises the formation of capabilities and the design of institutions to support entrepreneurial discovery and the early growth of most promising activities that have been discovered.” Further, according to Coffano and Foray (2014) “specialization” in RIS3 does not mean deduction of specializations from historical data on development paths, but implies a more experimental approach to searching and developing *new* specializations by leveraging the regionally specific concentration of knowledge and competencies. In this context, “strategy” “involves putting in place a process whereby such dynamics can be facilitated through targeted interventions undertaken by the government in order to support in a preferential way the most promising new activities in terms of discovery, experimentation, potential spillovers, and structural changes” (ibid., p. 35). In other words, the emphasis of RIS3 should not be on defining and agreeing upon “smarter” specializations per se, but on developing systems and capabilities for continuous ED based on close interactions and agile coordination between and within states, academia, and businesses.

Yet, as with any policy concept, RIS3 and ED have also lived their own lives (Foray et al., 2011). RIS3 was initially proposed as a *policy* concept and

the *economics* of smart specialization are still debated (McCann and Ortega-Argiles, 2015) (Chapter 1). The European Union adopted RIS3 as an *ex-ante* policy conditionality with an open-ended vision and broad guidelines regarding the content of the strategy, and how ED should be supported and implemented (RIS3 Guide, 2012). It was hoped that this EU-guided and -monitored “nudge” would be enough to steer EU regions away from the tendency of overextended policy convergence in priorities and instruments (Izsak et al., 2014) and toward more contextually relevant and customized policies and interventions. However, implementation of this concept with desired outcomes seems to be quite challenging. A recent study of RIS3 priorities chosen by different regions (Sörvik and Kleibrink, 2015) found that while only a few regions have selected similar combinations of priorities, there is still an overall convergence around groups of domains closely linked to the EU strategic priorities (Iacobucci, 2014).

In this chapter, we leave the debates on the economics of smart specialization aside and focus on RIS3 as a policy concept that has to be implemented by member states and their regions. We treat RIS3 as one of the many industrial and innovation policy concepts within the multilevel governance of economic policies in the European Union that proposes one novel focus—ED—to complement already existing processes of policy making (such as consensus building, policy coordination, instrument and policy mix design, and organization of implementation). We analyze how policy makers have understood ED as part of RIS3, integrated it into policy-making processes, and organized it administratively in the weaker-performing member states and regions from Central and Eastern Europe (CEE). As the European Union rejected most first-draft documents for RIS3 by the CEE countries discussed here, it must have some sort of understanding what RIS3 and ED should be. Still, CEE member states have been engaged in trial-and-error processes to determine what these concepts mean in their specific contexts.

In the next section, we frame our analysis by focusing on some of the key elements potentially affecting the evolution of RIS3 and ED as policy concepts—structural and ideational differences between polities, in styles of policy coordination and stakeholder participation—and discuss how RIS3 and ED fit into the different policy-making contexts in the European Union. Thereafter we look at the experiences of CEE economies in organizing and implementing RIS3 and ED. We show that during the first attempts to draft RIS3, the process was treated as a traditional bureaucracy-led policy planning exercise where historical data-based and foresight-like analytical exercises were combined and further legitimized through country-specific stakeholder inclusion and policy coordination practices. A common CEE feature seems to be the difficulty of engaging private actors into such detailed policy-making exercises. Further, as RIS3 has been designed as part of the national-level policy processes, there has been a common tendency to define specializations relatively broadly and vaguely, mainly for political reasons. While tendencies for broad/vague specializations have been also noted in more-developed Scandinavian regions, in these

cases such choices may be justified by economic structure (Chapter 4). Finally, there has been limited focus on internalizing ED as one of the central elements of policy-making and implementation processes. As a result, we argue that the ideal-typical ED has not yet happened as part of RIS3, or has been postponed to the policy implementation phase, where it will be further influenced by the prevalent styles of policy implementation and governance.

ENTREPRENEURIAL DISCOVERY AND THE DIVERSITY OF POLICY CONTEXTS IN THE EUROPEAN UNION

One of the key RIS3 policy-related debates focuses on how RIS3 and ED fit into the generic models and traditions of policy making. Some are critical, arguing that the bottom-up logic of ED makes it incompatible with the top-down policy-making traditions, and therefore it is unlikely to have a significant impact on policies (Boschma, 2014; Iacobucci, 2014). Others are more positive, arguing that ED and supportive institution building is in fact necessary, as a learning, information, and feedback source, to change existing policy-making styles and their outcomes (Coffano and Foray, 2014; Foray, 2014).

This RIS3 debate mirrors similar debates on the new industrial policy (Chapter 1). Hausmann et al. (2008) differentiate between two complementary analytical lenses on industrial policy. *Industrial policy “in the small”* focuses on searching for and supporting productivity enhancements in existing economic activities through experimental and ED-like policy actions that are codesigned and codelivered by public and private actors. *Industrial policy “in the large”* focuses on betting strategically on future domains, sectors, and activities that may sustain national economic growth and development in the long term. This lens requires strategic and future-oriented policy capabilities at the system level (such as analytical skills and long-term vision, patient planning, and financing). This simplified dichotomy emphasizes how different policy focuses may require different time horizons, styles of policy making, stakeholder participation, policy coordination approaches, and also diverse policy mixes and organizations to implement them (Karo and Kattel, 2016).

We can think of RIS3 and ED as a strategic attempt by the European Union to strengthen the focus and capabilities of policy experimentation and “experimental governance” (as an alternative to principal-agent-based models, such as New Public Management) under conditions of “strategic uncertainty” (Sabel and Zeitlin, 2008, 2010). Yet how this experimental approach is accepted and adopted by different polities depends on their broader governance context. Thus, differences in the *development levels* of “mature” versus “emerging” innovation systems (Chaminade et al., 2011), in the *styles of politicoeconomic coordination* (Amable, 2003; Schmidt, 2002), and in *politicoadministrative structures and styles of policy making* (Kuhlmann and Wollmann, 2014; Pollitt and Bouckaert, 2011) have to be considered to understand the feasibility of and potential barriers to the adoption of experimental policy making and governance approaches.

Next to the variety in economic and innovation capabilities, as measured for example by innovation scoreboards, recent studies of RIS3 argue theoretically (Karo and Kattel, 2015; McCann and Ortega-Argiles, 2015) and show empirically (Charron et al., 2014; Kroll, 2015) that the European Union is characterized by significant differences in RIS3-related policy, administrative capabilities, and traditions, and in prevalent modes of policy coordination and stakeholder participation. In terms of institutional preconditions, RIS3 and ED may be more suitable for consensual (or corporatist) and decentralized polities with explicit regional governance architectures and policies, established routines of close government–academia–business interactions, and coordination with sufficient policy space for policy experimentation and agility. Thus, RIS3 and ED may be more easily adoptable, though with limited added value to the actual innovation performance, in the core Continental European countries and regions (Kroll, 2015) (Chapter 5) and in Scandinavia (Chapter 4). In other types of polities, similar institutional complementarities and preconditions may be lacking or be less effective, and the adoption of RIS3 and ED may be more difficult.

In countries following market-based (and neoliberal) policies and governance approaches—where the role of the state is limited to securing broad framework conditions through horizontal policy interventions—the styles of public–private interactions and policy coordination may also be more formal, hierarchical, and distanced (principal–agent style). To unpack differences in policy-making styles, Schmidt (2008) proposed a distinction between *simple* and *compound* polities. Simple polities (e.g., unitary states with strong executive powers) tend to rely more on formalistic policy coordination and stakeholder participation patterns (see Arnstein, 1969 on different types of participation practices) to legitimize policies and ideas developed by the executive. Compound polities (e.g., unitary or federal states with strong access and veto powers for nongovernmental and regional actors) tend to rely on more substantive coordination and participatory patterns, not only for legitimization, but also for policy deliberation and selection purposes. This distinction could also be used to analyze specific policy domains where national governance styles fuse with sectoral approaches.

The CEE economies are a rather special case in the European Union. The region has experienced more recent institutional transformations (from democratization and marketization to Europeanization) than the more-stable systems of Western Europe. Thus, there is also a higher likelihood of institutional immaturity and possibly less-stable links between institutional setups and economic performance (Bohle and Greskovits, 2012; Karo et al., 2017; Reinert and Kattel, 2014). We can treat the Baltic States as closest to the simple polity ideal type and Slovenia to the compound model (Karo and Looga, 2014), while Visegrad systems show intermediate models (Bohle and Greskovits, 2012). At the same time, the processes of Europeanization are pressuring these economies to converge toward the neoliberal model (Hermann, 2007; Stanojevic, 2014; Streeck, 2014).

In terms of innovation, CEE economies are some of the weakest innovation performers in the European Union. Only Slovenia and, in some years, Estonia have been considered as “innovation followers” or “strong” innovators, while most other countries and regions (except for some capital regions such as Prague) are considered “moderate” or “modest” innovators. Their innovation policies have been driven largely by the “European Paradox” narrative, focusing on policies supporting networking and commercialization, while overlooking domestic demand conditions and actor capabilities (Izsak et al., 2014; Karo, 2010). This policy focus has arguably (Myant and Drahokoupil, 2012) kept industrial structures and global integration patterns similar since the 1990s. The Visegrad countries and Slovenia can be described as *dependent market economies* where integration is based on exporting relatively complex manufactured goods increasingly produced by foreign-owned multinational corporations (MNCs) with limited linkages with the broader innovation systems (Dulleck et al., 2005). The Baltic States can be described as *peripheral market economies* integrating via less-stable manufactured goods exports and characterized by more financialization and economic instabilities (Reinert and Kattel, 2014). Furthermore, these policies have been financed by growing dependence on European Structural and Investments Funds (ESIF) (Veugelers, 2014; Table 12.1), with its specific ex-ante conditionalities and resulting pressures for policy and governance convergence. This has been illustrated by similar models of strategic planning (most countries adopt innovation strategies compatible with the EU fiscal framework), emulation of EU-wide policy goals and targets (Lisbon Agenda goals, common technological priorities), establishment of principal–agent–style policy design and implementation systems through “agencification” and ex-ante determined and generic performance indicators, and by common emphasis on procedural and administrative accountability and “absorption capacity” (Karo and Kattel, 2010, 2015; Suurna and Kattel, 2010). As in most CEE economies the networks and institutions the inclusion of private actors in new EU-initiated policy domains have been relatively fragile (Karo and Kattel, 2015; Tulmets, 2010), these policy focuses and governance conditionalities seem to be destabilizing existing coordination and public–private interaction patterns in more corporatist and coordinated economies as well (Karo and Looga, 2014; Karo et al., 2017; Reinert and Kattel, 2014; Stanojevic, 2014).

In sum, we can conjecture that the CEE economies, despite the within-group variations, tend to have more legalistic-, hierarchical-, centralized-, and bureaucracy-led styles of policy making, and more weakly established and formalistic types of government–academia–business interaction and public–private coordination (Bouckaert et al., 2008; Randma-Liiv, 2008). Such systems—also found in Southern Europe (Kuhlmann and Wollmann, 2014) (Chapter 6)—require *ex-ante* formalization of policy processes and their outcomes (performance indicators and targets), which is contrary to the essence of policy experimentation (Sabel and Zeitlin, 2008, 2010). Still, RIS3 as an *ex-ante* conditionality is likely to create some “windows of opportunities” for changes in policy-making practices. This

may be the first important outcome of RIS3, even if the ideal outcomes in terms of “smarter” specializations may not be achieved in the short and medium terms.

ORGANIZING ENTREPRENEURIAL DISCOVERY IN CEE

In this section, we analyze—based on existing RIS3 strategies, official documents, secondary literature, and interviews with policy makers and other experts¹—how CEE countries and regions have organized ED as part of RIS3 and whether the expectations outlined earlier in this chapter hold. We first look at three countries closer to the simple polity spectrum (i.e., Estonia, Latvia, and Lithuania). Thereafter, we look at three Central European countries closer to the coordinated/compound polity spectrum (i.e., Slovenia, Poland, and Czech Republic). In the latter cases, we could expect a relatively more substantive policy coordination, stakeholder participation, and regional focuses in RIS3, but these countries also have significant legacies of centralized innovation policy making. Table 12.1 summarizes the basic characteristics of the cases, while Table 12.2 gives an overview of RIS3 priority domains.

TABLE 12.2 RIS3 Priority Domains

Country	RIS3 priority domains in Eye@RIS3 database (February 2016)
Estonia	<ul style="list-style-type: none"> • <i>Use of ICT in industry</i>: data analysis and information management, embedded systems and robotics, and production automation and industry 4.0 • <i>Biotechnologies in medicine and healthcare (red)</i>: prognostics and diagnostics, treatment therapies using biotechnology, laboratory products and services, biobanking, and early phase medicine development and production • <i>E-health</i>: remote management and remote diagnostics, decision support for clinicians and patients, and person-centered health information management • <i>Materials technologies</i>: nanotechnologies in new materials, surface coating technologies, and oil shale in the chemical industry • <i>Knowledge-based construction</i>: digitalization of construction processes, automation of construction processes, renewable energetics in construction, and development of timber utilization technologies • <i>Biotechnologies in food production and other areas (green and white)</i>: food that supports health, and systems technologies
Latvia	<ul style="list-style-type: none"> • Smart energy • Advanced ICT • Knowledge-intensive bioeconomy (in national documents includes all traditional industries) • Biomedicine, medical technologies, and biomedicine • Smart materials, technology and engineering (in national documents includes also machinery and heavy engineering)

(Continued)

TABLE 12.2 RIS3 Priority Domains (cont.)

Country	RIS3 priority domains in Eye@RIS3 database (February 2016)
Lithuania	<ul style="list-style-type: none"> • Energy and sustainable environment • Health technologies and biotechnologies • Agricultural innovations and food technologies • New production processes materials and technologies • Transport, logistics, and ICT • Inclusive and creative society
Slovenia (priorities summarized by the Authors)	<ul style="list-style-type: none"> • Networks for transition to circular economy (bio mass, materials, energy etc) • Sustainable food production (value chain) • Mobility (energy, materials, technologies) • Sustainable tourism and creative cultural and heritage based societies • Smart use of resources • Smart cities and communities • Smart buildings and homes • Industry 4.0 (smart factories) • Health/ medicine
Poland (grouped by the Authors)	<ul style="list-style-type: none"> • <i>Innovative technologies and industrial processes (horizontal approach)</i>: smart networks and geoinformation technologies, smart creative technologies, optoelectronic systems and materials, automation and robotics processes, electronic conducting polymers, sensors (including biosensors) and smart sensor networks, multifunctional materials and composites with advanced properties, including nanoproceses and nanoproducs • <i>Natural resources and waste management</i>: modern technology sourcing, processing and use of natural resources and the production of substitutes, minimizing waste (including unfit for processing and use of materials and energy waste: recycling and other recovery methods), innovative technologies, processing water recovery, and reducing its consumption • <i>Healthy society</i>: production of medicinal products, medical diagnosis and treatment of lifestyle diseases, personalized medicine, medical engineering technologies, including biotechnologies • <i>Sustainable energy</i>: smart and energy efficient construction; high efficiency; low-emission and integrated circuits manufacturing; storage, transmission, and distribution of energy; environmentally friendly transport solutions • <i>Bioeconomy and environment</i>: healthy food (high quality and performance of production), biotechnological processes and products specialty chemicals and environmental engineering, innovative technologies, processes and products of the agrifood and forestry wood
Czech Republic	<ul style="list-style-type: none"> • Transport means (automotive and aerospace, including connected ecosystem of supplying and supporting industries) • Engineering industries and electrotechnics • ICT, automatization, and electronics • Healthcare and medical technology and devices

Source: Available from: <http://s3platform.jrc.ec.europa.eu/eye-ris3>

Organizing ED in the Baltic States

In terms of the structure of polities, the Baltic States are executive-led unitary states treated in the European Union as single Nomenclature of Territorial Units for Statistics 2 (NUTS2) regions. Local and regional entities have traditionally had a very limited role in economic and innovation policies. All countries have strong legacies of “no policy” industrial policy, and governments have mostly focused on improving the framework conditions and rectifying market failures with limited targeting/specializations in policies. Access to the European Union brought both the rhetoric and funds (ESIF) to build horizontal innovation policies with a strong high-tech orientation. Politicians have largely been inactive in innovation policy debates and priority setting. Styles of stakeholder participation and policy coordination have been rather formal (stakeholders lack real institutional pathways). The key exception has been the relatively well-organized academic sector, affecting R&D and innovation policies in all countries. (Karo, 2011) As a result, dual R&D and innovation systems seem to have emerged: government-financed and basic research-oriented academic R&D systems versus less-active business sectors with limited demand for academic R&D. Thus, one can expect that introducing RIS3 and a more experimental, ED-type policy approach in such contexts would require both policy and institutional innovations in the form of more targeted (regional) policy approaches and new forms of state–market interaction patterns, such as experimental spaces for ED-like activities (Hausmann et al., 2008).

Yet, in all the Baltic States, RIS3 is actually implemented at the national level, while political debate and interest in it have been moderate. Looking at policy-making styles, all Baltic States appear relatively conventional, as they have relied on quantitative analyses of specializations, foresight-type exercises, management consultants and foreign experts to highlighting global trends, and formal consultations with stakeholders. ED has been interpreted as a process of public–private coordination and stakeholder discussion with limited awareness of the need to focus on supporting experimentation, search, and discovery.

Furthermore, different policy logics seem to have come into conflict. On the one hand, local policy makers have argued that the smallness of the countries justifies, on efficiency grounds, nationally coordinated policies and planning. On the other hand, the same actors argue that at the national planning level, it is often not feasible to focus on very specific domains because interests from the wide spectrum of specializations found across the nation need to be considered. This argument goes hand in hand with the general unwillingness to follow policies seemingly similar to “picking winners” in more neoliberal polities. Further, as all governments have been investing significant sums of ESIF into R&D and innovation (Table 12.1), this has created significant stakeholder pressures and expectations (especially from academia) to keep funding already established entities. Thus, while there may be economic arguments for specialization even in small-state contexts, the political and administrative constraints make the actual policy-making situation more complicated.

Overall, in designing of RIS3 and ED, all countries seem to have been influenced by their specific legacies. First, given the legacy of high-tech innovation policies, RIS3 and ED are formally coordinated by the ministries for education and research in all of the three Baltic States, which have stronger links and networks with academia than with businesses. Consequently, in all cases business sector participation in the initial drafting phase of RIS3 has been relatively sporadic, academic interest has been dominant, and the consciously vague priorities tend to have a strong high-tech focus and logic (Table 12.2). Second, given the strong time pressures on ESIF planning (a key source of investments in R&D and innovation), there has been no time to build new participatory and coordination practices and experimental policy spaces. Thus, while a broad set of actors from business and academia were formally informed and consulted about potential priority areas, these activities could be classified as formal/symbolic ways of participation (Arnstein, 1969).

In *Estonia*, the Ministry of Education and Research initiated early exercises (engaging academics and the Ministry of Economic Affairs) to quantitatively derive specializations using the traditional NACE statistics-based industry analysis that provided rather broad insights for RIS3. The later stages of more qualitative analysis and policy formulation and coordination were contracted out to the Estonian Development Fund, a foresight and venture capital agency under the Parliament. Given its prior focus on start-up support and recent personnel changes substituting experienced civil servants with people from the private sector, the agency has been better at interacting with the start-up community than with traditional industry, and has found it also difficult to coordinate RIS3 with a broader group of policy stakeholders. In parallel to RIS3, the Ministry of Economic Affairs, in active interactions with sectoral industry associations, started to draft the first-ever green paper for industrial policy in Estonia, but these two processes were never consciously coordinated. This led to a strong criticism of the RIS3 by traditional industries regarding the high-tech- and academia-driven operationalization of research and innovation needs in RIS3.

Overall, policy makers have found it difficult to explain the whole process of RIS3 and selected specializations to both domestic counterparts and the European Union. In the Eye@RIS Database, Estonia lists six domains (Table 12.2), but domestically these are discussed through three broad domains [horizontal application of information and communications technology (ICT), healthcare technologies, and more efficient use of natural resources]. There has been no in-depth policy discussion on either the focus on “horizontal application of ICT” (i.e., developing ICT capabilities in and for traditional sectors), or on what is actually meant by “more efficient use of natural resources.” Further, the original RIS3 strategy covered five policy measures and approximately 140 million EUR of ESIF activities; however, in late 2014, the European Union requested the RIS3 to cover almost all EU cofinanced activities in R&D, innovation and entrepreneurship (as well as resource use-related aspects of environmental policy). This increased the RIS3 coverage by 17 policy measures and

660 million EUR, but no significant adjustments were made in policy measures and strategies. Rather, it is expected that RIS3 priorities will be taken into account during project selection and implementation. In practice, most current policy instruments (such as technology development centers, centers of excellence, and R&D programs) have been taken over from the previous ESIF periods. Effectively, as Estonia's funding priorities were ICT, biotechnology, and material sciences also in the 2000s, the broadly similar priorities continue to be applied under somewhat different headings, albeit within a similar administrative structure and processes (competitive open calls).

In *Latvia*, the initial analysis for RIS3 was written up in very short time by a civil servant normally responsible for macroeconomic analysis. The actual process (drafting and stakeholder engagement) was contracted out to a management consultant with a 3-month deadline. This resulted in a relatively limited participation of business representatives, as most participants came from high and medium-high technology companies focusing on electronics, ICT, chemical, and pharmaceutical industries. Despite the fact that policy makers often emphasized the need to concentrate limited resources to achieve stronger impact, the ED process resulted in five broad priority areas (Table 12.2) that essentially include all sectors of Latvian economy. Most of the policy makers interviewed argued that instead of specialization, smart diversification is needed in Latvia, as the economy is already relatively specialized, especially in exports structure (though, the latter is not fully corroborated by comparative international statistics).

To date, the R&D and innovation policy mix proposed for the 2014–20 period has been almost entirely transferred from the 2007–13 period, with somewhat more pronounced emphasis on science–industry R&D collaboration. Therefore, the ED process is supposed to continue throughout the implementation of the Operational Programs (OPs). Previous experience, lack of political commitment to RIS3, as well as lack of resources and competences of the organizations involved suggest that a significant change of policy mix is rather unlikely without a conscious focus on developing relevant policy and administrative capabilities.

In *Lithuania*, the government had already tried to build some sectoral focuses into its policies through “integrated science, studies, and business centers,” or “valleys” in the 2007–13 strategic period. According to local experts, this approach did not follow ED-like processes, but rather tried to replicate global trends. For RIS3, it created strong stakeholder pressures, as recipients of government funds expected continuity. In the end, Lithuania had to conduct two rounds of specialization analyses. First, six broad domains were defined through business–academia panel discussions, but these were criticized for being too vague. Second, this step was followed by a more-detailed foresight exercise (including relevant ministries next to business and academia) to define more-detailed focuses based on future trends and existing capabilities. The Lithuanian RIS3 also uses the EU “societal challenges” approach to better align

national processes with EU priorities (Paliokaite et al., 2015). This may have led to more a systemic agreement on RIS3 than in other Baltic States and to better policy coordination (Paliokaite et al., 2016), but the specializations seem to be on a much higher level of “granularity” than expected in academic and policy discussions (Foray, 2014).

In principle, the idea of RIS3 is not challenged by business and academic actors in the Baltic States. It is in fact—at least rhetorically—praised. However, for these actors the process of executive-led ED and selection of specializations seems counterintuitive because of the weak traditions of government-led prioritization and low expectations regarding bureaucratic capabilities. Arguably, the ideal-typical ED envisioned by EU policy makers and expert communities has not yet happened, and RIS3 seems to be going through two phases. First, “fast” specialization or conscious selection of broad priorities was carried out to satisfy the *ex-ante* conditionalities of ESIF. In this stage, ED was understood as consultations with entrepreneurs and academics based on existing formalistic traditions. Second, this is followed by more routine work to develop specific policy measures, and evaluation and monitoring principles that try to satisfy both the expectations of RIS3 and other policy interests. Thus, the second step of RIS3—policy implementation—is the stage where real ED processes could start and more “granular” specializations emerge. Still, the Europeanization of R&D and innovation policies has established a rather specific style of policy making in these countries, with a predominant focus on “rational” strategic planning in 7-year policy cycles, cost efficiency, and detailed procedural and administrative regulations and accountability. Thus, implementation of RIS3 still seems to happen through multiyear policy measures where potential recipients (firms and academics) are either competing among themselves, or are asked to self-organize ED and propose new ideas and avenues that government will cofinance.

Organizing ED in Central Europe

The Central European countries seem to represent a more mixed group of polities. Formal regional decentralization (except in Slovakia and Slovenia) and a history of relatively established sectoral interests’ representation in policy making [e.g., labor and specific traditional industries (Bohle and Greskovits, 2012)] have been counteracted by centralized styles of R&D and innovation policy making. Yet, we can also see some recent trends toward the decentralization of economic policies in some countries. For the 2014–20 financial framework, Slovenia was transformed from a single region into two NUTS2 regions, but the RIS3 is still coordinated nationally. In Poland, the 2014–20 period is expected to bring substantial increase in ESIF allocated for research and innovation and a more active role for the 16 NUTS2 regions (EC, 2014). In Czech Republic, a more conscious division of labor seems to be emerging through RIS3 whereby formal top-down and analytical planning is carried out nationally, supported by

more systemic regional-level RIS3 initiatives. Yet, in all cases these regional policies and initiatives are emerging only gradually. Three main challenges stand out.

First, as in the Baltic States, organizing RIS3 and ED nationally creates two-stage processes: definition of either vague or extensive lists of specializations, while expecting the detailed specializations and ED to emerge during later phases of policy implementation. Second, again as in the Baltic States, academic interests seem to be better organized and able to steer RIS3 discussions at the national level. Third, a policy challenge peculiar to compound polities is that while the countries have had their own specific styles of stakeholder participation and policy coordination, which are somewhat more substantive than in the Baltic States, they must combine these styles with the European Union's evolving expectations about RIS3 and ED. Thus, despite more extensive ED-like processes, the European Union has still been unhappy with the outcomes and procedural approaches. In the following discussion, we focus on this last challenge.

While *Slovenia* is rather similar to the Baltic States in size and unitary state structure, in terms of stakeholder participation and policy coordination mechanisms, it seems much closer to the compound ideal type. Different interest groups have always had an important role in and access to policy making. Further, the innovation system seems more balanced, with much more active R&D performance by firms than in the Baltic States. Yet access to the European Union and Eurozone, together with the impact of the financial crisis (austerity measures and dealing with the financial sector's problems), has brought significant political instabilities, increasing conflicts and pressures to shift toward a simple polity-type model (Karo and Looga, 2014; Karo et al., 2017).

Consequently, RIS3 has suffered from political instabilities and inconsistencies as well. The national negotiations were significantly delayed, reorganized, and RIS3 was accepted by the European Union only in late 2015. Still, the central government has managed to organize more visible and widespread consultation rounds as compared to those in the Baltic States. For example, organizations, such as the Chamber of Commerce and Industry, were involved in the RIS3 process from the beginning, proactively providing inputs and arguably organizing their own ED-type activities. As one of the focuses of RIS3 debates has been on how to integrate into and move up in the global value chains, the development of RIS3 seems to have had less academic and high-tech bias than in the Baltic States.

Paradoxically, one of the early European Union's criticisms was that ministries were insufficiently involved in the initial RIS3 processes. Thus, the Government Office for Development and European Cohesion Policy—the main government-level office for ESIF planning and implementation—took over the leading role. Later versions of RIS3 strategies have been broader and more vague in their priorities than the earlier versions (but still much more detailed than in the Baltic States). The greater political importance of the Government

Office led to higher-level political debates, but also criticism of extremely close ties between the industry and government. Furthermore, the early plans regarding policy instruments (strategic partnerships and a special fund/facility for pilot projects to test policy ideas) seem more flexible and allow more space for extending ED than the more hierarchical– and procedural accountability–driven focuses in the Baltic States. At the same time, the delays in the strategy-making process mean that the actual policy implementation pathways remained unclear even in late 2015.

In *Poland*, the conflicts between the national traditions of policy making and EU expectations seem to be even starker. Policy makers and local experts argued that, between 2007–13, the European Union discouraged Poland from developing sectoral approaches and convinced it to keep focusing on horizontal policy approaches. Thus, the introduction of RIS3 was a somewhat surprising policy shift. In addition, a local expert noted that ED as a concept remained confusing for most actors, and the rhetoric of RIS3 sounds to some policy makers like a return to socialist economic specialization policies (blamed for the erosion of Poland's nascent computer industry). Furthermore, for around 8 years before RIS3 became a conditionality, Poland had been running a similar process as part of foresight activities initiated by different ministries (Mieszkowski and Kardas, 2015; Nazarko et al., 2013; Okon-Horodyska, 2007). In addition, specialization and concentration of resources was also attempted within the public research sector. However, these were nationwide efforts of prioritization led by academic interests, and led to long lists of specializations with broad coverage.

Thus, when RIS3 and ED were introduced as a formal requirement for ESIF, Poland had already identified certain areas of sectoral and technological specialization and developed respective policy mixes. The results of these foresight activities were used as input for developing RIS3, but this was initially not accepted by the European Union, which expected RIS3 to be developed according to its broad guidelines. At least initially, this negative stance of the European Union created some resistance both from the authorities and from businesses, as another properly conducted round of ED-like activities was considered too burdensome. Ultimately, the European Union and the Polish authorities agreed that the output of foresight projects could still be used when devising RIS3, albeit with some revisions and additions.

Thus, while the prior specialization efforts seemed legitimate within Poland, for the broader legitimization of RIS3, Poland opted to contract in advisory and monitoring work from the World Bank. External expertise was deemed necessary, as the ministry in charge of RIS3 was not confident of its ability to engage all relevant stakeholders in ED. While the prior ESIF-related funding had been designed and implemented by the Ministry of Regional Development, RIS3 was perceived as a sectoral economic policy to be led by the Ministry of Economy, which lacked experience in EU and ESIF policies. Overall, the RIS3 has not yet changed much in terms of policy making nationally, as many seemingly similar activities had previously been planned and implemented. Yet, through

the process, some ideas for experimental policy making have emerged, such as the Polish Agency for Enterprise Development's plans to establish an innovation policy lab.

RIS3 seems to have more impact on regions, which have suddenly found themselves responsible for innovation policy and tasked with initiating local RIS3 and ED processes. Given the history of centralized management of R&D and innovation policy, many regions have not developed similar strategies based on active stakeholder participation and coordination previously. As a result, regions with prior experiences in cluster policies seem to have found it easier to initiate RIS3 and ED processes. At the same time, the evolving understanding of RIS3 and ED among EU officials and related conflicting feedback complicated these processes for even these "first-mover" regions. For example, The South-Eastern Podkarpackie region is considered to be one of the success stories for regional-level RIS3 in Poland. This region has developed a historical specialization in aviation industry over 5 decades, with many attributes of a functioning cluster (Nijkamp and Kourtit, 2014). Nevertheless, a domestic expert argued that even in such a context the participation of industry representatives in developing RIS3 was challenging. Another perceived success story in terms of developing and implementing RIS3 is Pomorskie, a region with an above-average economic performance and a relatively high proportion of business R&D. Pomorskie has developed its own approach to ED, focusing on economic activities with a high level of export orientation and value added, and based on jobs requiring high-level skills. In the Warsaw capital region, a major RIS3 challenge has been the diversity of economic activities. This has turned RIS3 into a highly contested and partly "politicized" process and priority areas have been defined relatively broadly to include a wider range of interest groups.

In the *Czech Republic*, most innovation policy has been developed and implemented centrally. There is general recognition that both local- and national-level policy actors have limited experience in dealing with large amounts of R&D funding, while the support system for innovation is perceived to be overly complicated. As in many other cases, the European Commission (EC) rejected the first National Innovation Strategy on the grounds that it was only developed at the level of the central government and was not based on RIS3 principles, including ED. Thus, a new strategy was developed within a very tight schedule (1 year) along with development of the OPs for the 2014–20 period.

Initially, the Ministry of Education, Youth, and Sports (MEYS) was given the responsibility to develop national RIS3 supplemented by regional annexes. MEYS opted to outsource most RIS3 activities to consultants from preparing guidelines for regional RIS3 processes, capacity building, and training of actors to coordination and supervision of all processes. During this process, one of the most important challenges was to ensure business participation, especially of MNCs. This was a challenge both nationally and regionally, as even in one of the most proactive regions (South Moravia), representatives of MNCs largely neglected the process of defining regional specializations. Another important

challenge was the lack of full comprehension by MEYS and the Government Office for Science, Research, and Innovation (section within the Office of the Government led by the Deputy Prime Minister of Science, Research, and Innovation) regarding the actual meaning of RIS3 and ED and how these should be organized. When the revised RIS3 was submitted to the EC, the responsibility for further implementation and development of RIS3 was transferred from the MEYS to the Government Office to reduce the workload of MEYS and to find a more legitimate and capable actor. While it is premature to judge whether the transfer of responsibility had any significant effect on the outcomes in terms of specializations and policy instruments, our interviewees suggested that the Government Office may have been more successful in engaging a wider array of stakeholders, especially from business. In addition, the Government Office may be more effective in coordinating regional initiatives and processes, especially given the varying innovation capabilities and policy needs of different regions.

Still, the early lessons of policy implementation mirror the experiences across the CEE overall. Given the pressures to open the ESIF as soon as possible, some of the funding has been distributed on the basis of policy instruments devised disregarding RIS3 and ED. Most of the policy instruments proposed so far are horizontal, and this has attracted some criticism from the EC. One of our interviewees suggested that to satisfy the EC's requirements for more vertical policy instruments aimed at specific areas of specialization, new policy instruments will be gradually phased in after the midterm evaluation in 2018.

Next to the national policies, some local regions have tried to build regional strategies since the early 2000s to prepare for MNCs' inevitable decisions to move their production facilities to cheaper locations. The regions of Prague, South Moravia, and Moravia–Silesia are much more developed compared to other regions and have experience with regional innovation policies. For example, South Moravia has built one of the most-established networks and institutions (e.g., the South Moravian Innovation Centre) that could be used to organize ED before RIS3 was introduced. Yet, policy makers from even such proactive regions recognized that they lack sufficient technological and innovation policy-related knowledge to be able to translate this into indigenous policy actions. Thus, copying instruments from other countries seems to still prevail (Charles et al., 2012). Prague seems to have similar conceptual challenges with RIS3 as Warsaw and countries, where RIS3 is carried out at the national level. As a capital region, it is dominated by service industries, while also being home to several national universities, as well as the majority of R&D organizations that aim to serve the needs of all regions (thus, most research organizations collaborate with firms from outside the Prague region).

In summary, while both Slovenia and the Visegrad countries look more like compound polities with participation and coordination styles more conducive to ED-like processes, the unequal regional economic and institutional capabilities and centralized nature of policy making seem to make both the central and regional actors less equipped for such tasks. Central governments and capital

regions with the most diverse economies encountered “politicization” of specialization similar to the Baltic States. For regions, the main challenge is to build basic instruments and processes for engaging with business and academic actors. Further, the pressures to open up ESIF to increase funding for innovation and investments, while still consolidating national finances, have forced all regions to rush policy implementation, even though the substantive questions of RIS3 and ED have not been fully resolved. Nevertheless, based on their current plans for implementing RIS3 activities, it seems that the concepts of policy experimentation and ED are slightly better comprehended than in the Baltic States.

CONCLUSIONS

To understand the evolution of RIS3 and ED in CEE and the European Union in general, one should not underestimate the implications of the evolving understanding of RIS3 and ED in both academic and EU-level policy discussions (Foray, 2014; Foray et al., 2011; RIS3 Guide, 2012). Although we have conceptualized RIS3 and ED as elements of the experimental governance approach, we enjoy the benefits of hindsight. For most policy makers in CEE, these concepts have been confusing and difficult to operationalize and implement. In other words, despite the differences in both polity and economic structures and legacies, all CEE cases encountered similar challenges with RIS3 and ED.

First, the institutional preconditions for such experimental governance—from styles of policy coordination and stakeholder participation to basic technology, innovation policy capabilities, and policy experimentation skills—seem to be lacking generally (in the Baltic States), or differ from the EU expectations (in the Central European countries). Moreover, emergent concepts, such as RIS3 and ED, compete with other policy drivers and interests that are conceptually more understandable and politically better institutionalized, that is, fiscal consolidation, procedural transparency, and accountability, demonstrating policy impact in increasingly shorter time frames, opening the new period of ESIF as fast as possible, and maintaining funding flows for instruments and institutions created previously. Thus, further development and conceptualization of RIS3 and ED seem to be very much needed.

Second, RIS3 and ED seem to happen through two phases in CEE. All countries have now completed the first phase of “fast” specialization to formally satisfy EU conditionality and ease domestic pressures for opening ESIF funding for R&D and innovation. ED was interpreted in this phase as a process of formal consultation and coordination with stakeholders to legitimize some specializations. Carrying these processes out nationally and relying on existing policy-making styles have led to relatively broad and vague specializations, which seem to best satisfy those interested in the *status quo*. In the Baltic States, we seem to witness a more symbolic/formal legitimization of an executive-led approach to RIS3. In Central Europe, more substantive approaches with longer

traditions seem visible, but these still differ from the (seemingly evolving) EU expectations. In all cases, academic interests seem to have been better organized, while business participation has usually been weaker and uneven. The inclusion of the business sector has been challenging for at least two reasons: (1) having ministries of education and research in charge of RIS3, and (2) businesses' weak interest in engaging in long-term strategic deliberations (as MNC subsidiaries follow the strategies of their headquarters; financialization reduces strategic time frames).

The second phase of RIS3 consists of the design and implementation of policy interventions by national and regional organizations. In this stage, more focused ED could happen through experimental codesign and coimplementation of novel ideas and policy approaches. Indeed, in some countries and regions, policy makers seem to be discussing the introduction of more experimental policy instruments and approaches through institutional innovations, such as innovation policy labs (Poland) and special funds for experimentation (Slovenia). In general, though, these seem to be rather isolated efforts. The predominant routines of hierarchical policy making, the emphasis on procedural accountability and cost efficiency in the governance, and management of ESIF finances seem to carry policy makers in a different direction. Most countries and regions still seem to feel pressure from the European Union (or simply prefer, given their own understanding of ESIF rules) to distribute ESIF through conventional policy instruments based on clearly defined *ex-ante* rules and regulations, as opposed to initiating flexible and experimental approaches where both risks and failures, but also substantive learning and discovery, may be more likely. In other words, in most cases the process of drafting RIS3 and ED has not yet led to a significant overhaul of how policy instruments and interventions are designed and structured.

The main reason for these developments seems to be the legacy effect of prior ESIF governance rules and approaches. These have created specific routines in CEE bureaucracies, which have been reinforced by the recent responses to fiscal austerity (increasing the reliance on ESIF for funding R&D and innovation policies) and the initial challenges with developing RIS3 and ED. In many cases RIS3 governance systems have been already reformed by shifting leadership from one ministry to another, or contracting out core activities to outside consultants. Consequently, early lessons learned from these processes may be lost and policy implementation has to occur while the conceptual ideas of RIS3 and ED remain still vague.

Thus, it seems to be a fair assessment that the open-ended approach toward conceptualizing RIS3 and ED as *ex-ante* conditionalities, while overlooking the institutional varieties across the European Union, might have been a tactical mistake by the European Union that has turned RIS3 into a confusing challenge for many countries and regions. To support the emergence and spread of more substantive ED in the RIS3 implementation phase, the European Union needs to consciously support countries and regions trying to design and implement

novel approaches as part of RIS3 and ESIF by explicitly allowing and encouraging more flexibility in designing policy instruments and interventions. The latter should be less regulated and determined *ex-ante* in terms of structure, time frames, performance targets, etc. This could be achieved by allowing countries and regions to allocate some amounts of ESIF funding for policy experimentation through, for example, innovation policy labs steered by deliberation councils managed by entrepreneurs (Hausmann et al., 2008) (Chapter 3).

Finally, the comparative lessons emerging from this book raise more fundamental questions about the feasibility and timing of ED-based RIS3 in CEE. One could argue that ED does not work as part of a national-level strategy-making process, as the diversity of interests and policy goals will pressure discussions and negotiations toward broad and vague agreements and incremental changes. Moreover, we have shown that both simple and compound CEE polities seem to find RIS3 and ED more challenging than many more developed regions from Scandinavia and Continental Europe (Chapters 4 and 5). On the one hand, the institutions of innovation policy governance are still only emerging (especially regionally) across CEE, or undergoing significant changes (the gradual neoliberalization of Central Europe). On the other hand, the modest or moderate innovation performance of most CEE economies and regions indicates that institutional thickness, interactions, and the capabilities of innovation system actors (i.e., universities and firms) may be insufficient. In other words, it is not only policy makers who lack experience and skills for ED, but the same may also apply to their academic and industrial counterparts who should contribute to reflexive policy learning and feedback. Besides, this feedback may be highly unequal between different economic sectors, and ED may function better in some fields than in others. As most CEE economies seem to increasingly rely on EU/ESIF funding for R&D and innovation policies, the explicit policy focus of ESIF and RIS3 should not be only on extending RIS3- and ED-type activities, but also on building basic industrial and institutional capabilities for R&D and innovation.

ACKNOWLEDGMENTS

Research for this chapter has been funded by the Estonian Research Council grants IUT19-13, ETF9404, and the JSPS KAKENHI Grant Number 15F15760.

ENDNOTE

1. We carried out 16 interviews with policy makers and experts. In the case of Estonia, we also rely on our participant observations, which we undertook as part of the Research and Innovation Policy Monitoring Programme. In the case of Lithuania, we refer to similar RIS3 analysis by Paliokaite et al. (2015, 2016), corroborated by an additional interview with a policy maker (from the Research and Higher Education Monitoring and Analysis Centre). In the case of Latvia, we rely on five interviews conducted with policy makers (from the Ministry of Education and Science and Ministry of Economics) and consultants, as well as on the participant

observation of the processes. In the case of Slovenia, we conducted two interviews—one policy maker (from the Government Office) and one international consultant (working both in Latvia and Slovenia)—and discussed our interpretations with other experts contributing to this book. In the case of Czech Republic, we carried out four interviews with policy makers from both central and regional governments (Ministry of Education, Youth and Sports, three regions). In Poland, we interviewed two policy makers (from the Polish Agency for Enterprise Development and one region) and two experts (working on the RIS3 methodology and consulting different actors).

REFERENCES

- Amable, B., 2003. *The Diversity of Modern Capitalism*. Oxford University Press, Oxford.
- Arnstein, S.R., 1969. A ladder of citizen participation. *J. Am. Inst. Plan.* 35 (4), 216–224.
- Bohle, D., Greskovits, B., 2012. *Capitalist Diversity on Europe's Periphery*. Cornell University Press, Ithaca.
- Boschma, R., 2014. Constructing regional advantage and smart specialisation: comparison of two European policy concepts. *Sci. Region.* 13 (1), 51–68.
- Bouckaert, G., Nemec, J., Nakrosis, V., Hajnal, G., Tönnisson, K. (Eds.), 2008. *Public Management Reforms in Central and Eastern Europe*. NISPAcee Press, Bratislava.
- Chaminade, C., Lundvall, B.-A., Vang, J., Joseph, K.J., 2011. Designing innovation policies for development: towards a systemic experimentation-based approach. In: Lundvall, B.-A., Joseph, K.J., Chaminade, C., Vang, J. (Eds.), *Handbook of Innovation Systems and Developing Countries: Building Domestic Capabilities in a Global Setting*. Edward Elgar, Cheltenham, UK, pp. 360–379.
- Charles, D., Gross, F., Bachtler, J., 2012. Smart specialisation and cohesion policy—a strategy for all regions? *IQ-Net Thematic Paper* 30 (2).
- Charron, N., Dijkstra, L., Lapuente, V., 2014. Regional governance matters: quality of government within European Union member states. *Region. Stud.* 48 (1), 68–90.
- Coffano, M., Foray, D., 2014. The centrality of entrepreneurial discovery in building and implementing a smart specialisation strategy. *Sci. Region.* 13 (1), 33–50.
- Dulleck, U., Foster, N., Stehrer, R., Woerz, J., 2005. Dimensions of quality upgrading. *Econ. Transit.* 13 (1), 51–76.
- European Commission, 2014., *Summary of the Partnership Agreement for Poland 2014–2020*. Available from http://ec.europa.eu/contracts_grants/pa/partnership-agreement-poland-summary_en.pdf.
- Eye@RIS3 database. Available from: <http://s3platform.jrc.ec.europa.eu/eye-ris3>.
- Foray, D., 2014. *Smart Specialisation: Opportunities and Challenges for Regional Innovation Policy*. Routledge, Abingdon.
- Foray, D., David, P.A., Hall, B., 2009. Smart specialisation—the concept. *Knowledge Economists Policy Brief* 9, Available from: http://ec.europa.eu/invest-in-research/pdf/download_en/kfg_policy_brief_no9.pdf.
- Foray, D., David, P.A., Hall, B., 2011. From academic idea to political instrument, the surprising career of a concept and the difficulties involved in its implementation. *MTEI Working Paper*.
- Hausmann, R., Rodrik, D., Sabel, C., 2008. *Reconfiguring industrial policy: a framework with an application to South Africa*. Nontechnical Policy Brief. Center for International Development. Harvard University, Cambridge, MA.
- Hermann, C., 2007. Neoliberalism in the European Union. *Stud. Polit. Econ.* 79, 61–89.
- Iacobucci, D., 2014. Designing and implementing a smart specialisation strategy at regional level: some open questions. *Sci. Region.* 13 (1), 107–126.

- IUS, 2015. European Innovation Scoreboard. Available from: http://ec.europa.eu/growth/industry/innovation/facts-figures/scoreboards/index_en.htm.
- Izsak, K., Markianidou, P., Radosevic, S., 2014. Convergence of national innovation policy mixes in Europe—has it gone too far? An analysis of research and innovation policy measures in the period 2004–12. *J. Common Market Stud.* 53 (4), 786–802.
- Karo, E., 2010. Improving governance of science and innovation policies, or just bad policy emulation? The case of the Estonian R&D system. *Admin. Cult.* 11 (2), 174–201.
- Karo, E., 2011. The evolution of innovation policy governance systems and policy capacities in the Baltic States. *J. Baltic Stud.* 42 (4), 511–536.
- Karo, E., Kattel, R., 2010. The copying paradox: why converging policies but diverging capacities for development in Eastern European innovation systems? *Int. J. Inst. Econ.* 2 (2), 167–206.
- Karo, E., Kattel, R., 2015. Economic development and evolving state capacities in Central and Eastern Europe: can ‘smart specialization’ make a difference? *J. Econ. Pol. Reform* 18 (2), 172–187.
- Karo, E., Kattel, R., 2016. How to organize for innovation: entrepreneurial state and organizational variety. Working Papers in Technology Governance and Economic Dynamics 66.
- Karo, E., Looga, L., 2014. Understanding institutional changes in economic restructuring and innovation policies in Slovenia and Estonia. *Journal of International Relations and Development* 19 (4), 1–34.
- Karo, E., Kattel, R., Raudla, R., 2017. Searching for exits from the Great Recession: coordination of fiscal consolidation and growth enhancing innovation policies in Central and Eastern Europe. *Europe-Asia Studies*. forthcoming.
- Kroll, H., 2015. Efforts to implement smart specialization in practice—leading unlike horses to the water. *Eur. Plan. Stud.* 23 (10), 2079–2098.
- Kuhlmann, S., Wollmann, H., 2014. Administrative Systems and Reforms in Europe. Edward Elgar, Cheltenham.
- McCann, P., Ortega-Argiles, R., 2015. Smart specialization, regional growth and applications to European union cohesion policy. *Region. Stud.* 49 (8), 1291–1302.
- Mieszkowski, K., Kardas, M., 2015. Facilitating an entrepreneurial discovery process for smart specialisation. The case of Poland. *J. Knowledge Econ.* 6, 357–384.
- Myant, M., Drahokoupil, J., 2012. International integration, varieties of capitalism and resilience to crisis in transition economies. *Europe-Asia Studies* 64 (1), 1–33.
- Nazarko, J., Glinska, U., Kononiuk, A., Nazarko, L., 2013. Sectoral foresight in Poland: thematic and methodological analysis. *Int. J. Foresight Innov. Pol.* 9, 19–38.
- Nijkamp, P., Kourtit, K., 2014. Aviation clusters: new opportunities for smart regional policies. Paper presented at the Fifth Central European Conference in Regional Science. Available from: <http://www3.ekf.tuke.sk/cers/files/zbornik2014/PDF/Nijkamp,%20Kourtit.pdf>.
- Okon-Horodyska, E., 2007. Foresight—identification of science and technology priorities of economic development (the case of Poland). In: Piech, K. (Ed.), *Knowledge and Innovation Processes in Central and Eastern European Economies*. Institut Wiedzy i Innowacji, Warsaw, pp. 164–168.
- Paliokaite, A., Martinaitis, Ž., Reimeris, R., 2015. Foresight methods for smart specialisation strategy development in Lithuania. *Technol. Forecast. Social Change* 101, 185–199.
- Paliokaite, A., Martinaitis, Ž., Sarpong, D., 2016. Implementing smart specialization roadmaps in Lithuania: Lost in translation? *Technol. Forecast. Social Change* 110, 143–152.
- Pollitt, C., Bouckaert, G., 2011. *Public Management Reform: A Comparative Analysis-New Public Management, Governance and the Neo-Weberian State*. Oxford University Press, Oxford.
- Randma-Liiv, T., 2008. New Public Management versus the Neo-Weberian State in Central and Eastern Europe. *NISPAcee J. Pub. Admin. Pol.* 1 (2), 49–71.

- Reinert, E.S., Kattel, R., 2014. Failed and asymmetrical integration: Eastern Europe and the Non-financial origins of the European crisis. In: Sommers, J., Woolfson, C. (Eds.), *The Contradictions of Austerity: The Socio-Economic Costs of the Neoliberal Baltic Model*. Routledge, London.
- RIS3 Guide, 2012. *Guide to Research and Innovation Strategies for Smart Specialisations (RIS3)*. European Commission, Brussels.
- Sabel, C.F., Zeitlin, J., 2008. Learning from difference: the new architecture of experimentalist governance in the EU. *Eur. Law J.* 14 (3), 271–327.
- Sabel, C.F., Zeitlin, J. (Eds.), 2010. *Experimentalist Governance in the European Union: Towards a New Architecture*. Oxford University Press, Oxford.
- Schmidt, V.A., 2002. *The Futures of European Capitalism*. Oxford University Press, Oxford.
- Schmidt, V.A., 2008. Discursive institutionalism: the explanatory power of ideas and discourse. *Annu. Rev. Pol. Sci.* 11, 303–326.
- Sörvik, J., Kleibrink, A., 2015. Mapping innovation priorities and specialisation patterns in Europe. *S3 Working Paper Series*, no. 8/2015.
- Stanojevic, M., 2014. Conditions for a neoliberal turn: the cases of Hungary and Slovenia. *Eur. J. Ind. Relat.* 20 (2), 97–112.
- Streeck, W., 2014. *Buying Time: The Delayed Crisis of Democratic Capitalism*. Verso Books, London.
- Suurna, M., Kattel, R., 2010. Europeanization of innovation policy in Central and Eastern Europe. *Sci. Pub. Pol.* 37 (9), 646–664.
- Tulmets, E., 2010. Experimentalist governance in EU external relations: enlargement and the European neighborhood policy. In: Sabel, C.F., Zeitlin, J. (Eds.), *Experimentalist Governance in the European Union: Towards a New Architecture*. Oxford University Press, Oxford, pp. 297–324.
- Veugelers, R., 2014. Undercutting the future? European research spending in times of fiscal consolidation. *Bruegel Policy Contribution*, no. 2014/06.

Annex

Article VI

Lember, V., **A. Cepilovs** and R. Kattel. 2013. "Demand-Side Innovation Policy in Estonia: Rationales, Limits and Future Paths." *Working Papers in Technology Governance and Economic Dynamics* 56. Available at <http://technologygovernance.eu/files/main/2013122012033838.pdf> (last accessed 31 August 2017).



TECHNOLOGY GOVERNANCE

Working Papers in Technology Governance and Economic Dynamics no. 56

THE OTHER CANON FOUNDATION, NORWAY

TALLINN UNIVERSITY OF TECHNOLOGY, TALLINN

RAGNAR NURKSE SCHOOL OF INNOVATION AND GOVERNANCE

CONTACT: Rainer Kattel, kattel@staff.ttu.ee; Wolfgang Drechsler, drechsler@staff.ttu.ee; Erik S. Reinert, reinert@staff.ttu.ee

Demand-side innovation policy in Estonia: rationales, limits and future paths

Veiko Lember, Aleksandrs Cepilovs and Rainer Kattel

December 2013

Introduction¹

In the discourse on innovation policy, there are two major approaches to the measures used, supply-side instruments and the demand-side. Previously supply-side policy instruments (e.g. R&D subsidies, tax breaks, grants) dominated but the approach has been transformed substantially during the last decade. The focus has increasingly been re-oriented toward incorporation of demand-side measures into the innovation policy mix. This process of deepening² and widening³ of the innovation policy mix (Borrás, 2009) was an outcome that flowed from a range of factors. First, there was the recognition that innovation policy based purely on supply-side instruments did not provide the intended results. Second, the world over, and including the EU, faced increasing budgetary constraints, which ultimately pushed them to seek more effective solutions to complement the policy mix without being too costly. The move to demand-side policy measures in the EU innovation policy agenda signals its importance and has stimulated debate within member states. Some countries (e.g. Finland, Sweden, Netherlands, the UK) have been actively analysing and to some degree implementing demand-side policies. Other countries (e.g. most Central and Eastern European member states) have tended to be reluctant to entertain the effectiveness of the demand orientated (or 'new') tools in policy mixes at the national level. This is evident in Estonia, where the innovation policy mix is mainly constituted of different supply-side measures. Demand-side policy measures have not been entirely excluded, but their use has been occasional. Nevertheless, introduction of demand-side measures has thus far not been driven by an explicit acceptance or conscious internalisation of the re-orientated innovation policy rationale, within the EU and the world generally.

The purpose of this policy brief is twofold. First, it provides an overview of the currently existing range of demand-side policy tools. Second, it makes a case for further consideration for inclusion of demand-side innovation measures in the Estonian policy toolbox.

There is a reason for some hesitance in adopting demand-side policy tools. Generally, demand-side policy instruments are deemed to be more complex than supply-side measures. Demand-side measures require more

¹ This paper was supported by the Science and Innovation Policy Monitoring Programme of the Ministry of Education and Research of Estonia. We are thankful to Tarmo Kalvet, Erkki Karo, Riaz Tayob and Piret Tõnurist for commenting an earlier draft of the paper and Kaspar Kaup for research assistance.

² Introduction of new and more sophisticated instruments in policy mix.

³ Incorporating new policy domains in innovation policy previously not incorporated (e.g. regulation, procurement, standardisation).

active engagement for longer periods. Throughout the policy cycle, from policy design, implementation stages to evaluation, they include numerous actors and assume the existence of high-quality feedback mechanisms. These instruments may operate at different levels of government, and this adds additional complexity. Compounding the complexity is the international nature of some policy fields (like EU regulation and standardisation). It is this complexity that necessitates a sharp focus on the capabilities needed within a state for the management and coordination of demand-side instruments. The success of measures, instruments and tools are intimately dependent on state capabilities. But the complexity makes demands on capabilities which are qualitatively different from traditional (supply-side) state innovation policy coordination practices. Through a review of demand-side policy tools, to complement existing policy instruments, this policy brief aims to anticipate the needs of Estonia's innovation policy toolbox for successful deployment of measures.

First, the economic thinking or general logic behind demand-side innovation policy is introduced to orient the discussion, as it is different from the linear understanding of supply-side policy. Second, a closer look is then taken at the most relevant demand-side policy instruments in current innovation policy literature. It shows a diversity of approaches, but these highlight the importance of sector specific rather than general uses of the instruments. Third, the link between demand-side policy and state policy capacity are made, emphasising the aspects of policy capacity central to demand-side policy. Fourth, a brief current description is provided of the situation in Estonia, on the basis of literature reviewed. This provides an overview of potential opportunities and challenges for implementation of demand-side innovation policies in the context of smart specialisation⁴ and possible responses to pressing societal challenges.

Why demand matters in innovation process?

A review of both theoretical and empirical literature analysing the effects of demand on innovation suggested that demand dynamics are an important factor affecting the rate and direction of innovation. There is considerable consensus today that the interconnectedness of both supply and

⁴ Smart specialisation (or Research and Innovation Strategies for Smart Specialisation – RIS3) is a strategic approach to economic development through targeted support for research and innovation. The approach is based on development of place-bound strategies for regions with greatest strategic potential, including development of multi-stakeholder governance mechanisms, setting strategic priorities and implementing policies that maximise knowledge-based development of a target region, regardless of whether the region is low- or high-tech (from <http://www.nordregio.se/en/Metameny/Nordregio-News/2012/Smart-Specialisation/Context/>, accessed December 12, 2013).

demand affect innovation processes (Mowery and Rosenberg 1979, Edler and Georghiou 2007, Nemet 2009). In essence, any economic theory and policy that includes recognition of increasing returns in an economy, advocates support for policies that generate/sustain/expand demand for economic activities with increasing returns. Increasing returns are regarded as one of the most efficient ways to enhance economic development. In the Schumpeterian tradition, Filippetti and Archibugi (2011) state that it is not just the level of investments that determine economic trends, but also the nature of investments, including whether or not they generate increasing returns. As stated above, the demand and supply for innovative products are closely linked. So simultaneously, the dynamics of aggregate demand may depend on various factors. These include: 1) the composition of foreign as well as domestic investments and consumption; 2) different market structures, stages of maturity and competition regimes of industries; 3) consumer behaviour; 4) terms of trade and structure of imports/exports and other similar factors (Geroski and Walters, 1995; Pianta, 2001; Filippetti and Archibugi, 2011; Kattel 2012). Increased demand leads to expanded production or output growth. The need to increase production makes it more worthwhile to increase specialisation in the various tasks in the productive process. This increased specialisation is an increase in the division of labour, which in turn induces additional learning (Cimoli and Porcile, 2009) and in this way innovation converts growing demand into productivity growth (Geroski and Walters, 1995). Demand dynamics also determine the kind of innovations firms pursue (Pianta, 2005).

There is the impact of the general level of demand in an economy which stimulates learning and innovation in firms, while more specific demand for products and services can potentially affect innovation through a number of means: 1) by triggering innovation through signalling needs to the market; 2) through responses to innovation thus affecting diffusion (e.g. lead markets; lead users); 3) user-producer interaction and co-production; 4) user-driven innovation (Edler, 2013).

There are different approaches or rationale for demand-side public intervention and they turn on the appreciation of the nature of innovation and the ways or modalities to promote it. The *market failure* approach to innovation policy justifies public intervention under conditions of suboptimal investment in innovation. This underinvestment in innovation may be the result of uncertainties on returns on innovation investment because of the inability to anticipate future demand for the product or service. From the *systems failure* approach innovation and learning is not only influenced by the rational decision to invest (or not) in R&D, but also by the performance of the innovation system, which in turn depends on the

quality of interaction among actors in the system (e.g. firms, universities, public sector organisations, intermediaries, etc.). The quality of these interactions depends on cooperation and interactive learning (Lundvall, 1992), on formal (laws and regulations) as well as informal (customs, traditions, values) institutions that form 'the rules of the game' (Smith, 1997). These rules of the game create the framework conditions that may reduce uncertainty and related transaction costs, resulting in an environment supportive for cooperation, interactive learning and innovation. From this perspective growth and industrial development provides the general rationale for public intervention, while the need to address societal challenges provides the priorities and can be used as a focusing device to design innovation policy mixes.

Demand-side policy instruments: an overview

Both market and systemic failures can be addressed through a number of means, including supply-side and demand-side measures of an innovation policy mix (see also Edler 2013). Market failure can be resolved by, for example, forward commitment of public procurement. This would ensure minimum future demand for innovative goods/services, thus justifying investment in R&D. In case of hard institutional failures (i.e. systemic failures) the state can exercise its power as a regulator, changing the necessary regulations in a way so as to stimulate the wider adoption of innovations. In some cases innovative products and services suffer from slow adoption because of a lack of a critical mass of users and other network effects. In such cases, the state could intervene as early large scale customers (lead users). The state thus creates the minimal necessary demand for an innovation, which allows private actors to recognise the benefits of an innovation, encouraging more widespread diffusion. Lack of interaction, networking and communication among market actors can to some extent be addressed by governments acting as demanding customers procuring sophisticated solutions, the development of which requires interaction between actors representing different sectors of the economy (i.e. science and industry, as well as different industrial sectors).

Thus, governments, or the public sector more generally, can stimulate demand directly by procuring for its own needs, or indirectly through other means such as regulatory and standardisation activities, stimulating wider diffusion and adoption of innovative goods and services in the market; public support of private demand, creating the necessary demand (scale) for profitable production of innovations; through provision of information to market participants about innovative solutions (labelling); and the creation of general macroeconomic conditions supportive to innovation (through fiscal, monetary or , if applicable, exchange rate policy)). In

essence any exchange rate management based trade policy is a demand-side policy (lower exchange rate increases demand abroad), but so could be trade treaties (access to new markets); conversely, increasing imports could under circumstances also lead to decreasing demand. Import substitution policies, the old tariffs as policy tool, and new tools such as value chain management along with local content requirements would be classical examples of demand policy.

Table 1 provides an overview of a range of instruments on the demand-side.

Table 1: typology of demand-side measures (source: Edler 2013, modified and amended by authors)

Instrument	Mode of functioning	International policy/case examples
Policies stimulating general demand		
Infant industry protection and import substitution	Introduction of trade tariffs and quotas; value chain management; compulsory licenses; local content requirements	East and South-East Asian developmental state policies
Export promotion	Exchange rate policy and trade agreements	Japan's exchange rate policy since 2012 (Abenomics), German wage policy in last decade
Public demand: state purchases for its own use/or to catalyse private market		
General procurement	State actors consider innovation in general procurement as main criterion (e.g. definition of needs, not products, in tenders)	Exclusive and supportive regulative provisions in Brazil since 2010, Promotion of innovation principles (in Procurement Guidelines; establishing communication platforms with industries; targeted training) in Australia since 2008
Strategic procurement	State actors specifically demand an already existing innovation in order to accelerate the market introduction and particularly the diffusion	Procurement of silver-coated catheter in the UK (Rolfstam, 2009); Technology utilisation clause in US Air Force contracts – Integrated Computer Aided Manufacturing programme and Integrated Computer Aided Design programme (Overmeer and Prakke, 1978)
	State actors stimulate deliberately the development and market introduction of innovations by formulating new, demanding needs (including forward commitment procurement)	Procurement of an innovative intelligent hospital bed in Denmark using elements of competitive dialogue in procurement process. Feasibility demonstration and procurement of PVC-free blood bags in Sweden. (TemaNord, 2011)
Co-operative and catalytic procurement	State actors are part of a group of demanders and organises the co-ordination of the procurement and the specification of needs	Ethanol-fuelled lorries in Stockholm (Lember et al 2011)
	Special form: <i>catalytic</i> procurement: the state does not utilise the innovation itself, but organises only the private procurement	Support for heat pumps in Switzerland and Sweden (Kiss et al., 2012); Policies for innovation and diffusion in wind energy particularly in Denmark (Neij and Andersen, 2012)

Support for private demand		
<i>Direct support for private demand</i>		
Demand subsidies	The purchase of innovative technologies by consumers or industrial demanders is directly subsidised, lowering the entry cost of an innovation.	Subsidies for solar water heaters and photovoltaics in Germany, that created until recently largest markets and stimulated development of solar PVs and related machine tools industry (Nemet, 2012a)
Tax incentives	Amortisation possibilities for certain innovative technologies, in different forms (tax credit, rebate, waiver etc.)	Tax incentives for solar water heaters in the US (Nemet, 2012b)
<i>Indirect support for private demand: information and enabling (soft steering): state mobilises, informs, connects</i>		
Awareness building measures	State actors start information campaigns, advertises new solutions, conducts demonstration projects (or supports them) and tries to create confidence in certain innovations (in the general public, opinion leaders, certain target groups)	Awareness building campaigns regarding new energy efficient home appliances in Sweden, regarding energy efficient light bulbs.
Labels or information campaigns	The state supports a co-ordinated private marketing activity which signals performance and safety features.	US Energy Star programme for certification of energy-efficient products ; Heat pump programmes in Switzerland and Sweden (Kiss et al., 2012); German Blue Angel programme (Müller, 2002)
Training and further education	Consumers are made aware of innovative possibilities and simultaneously placed in a position to use them (includes training of public procurers).	In 2003 Department of Trade and Industry of the UK with the Office of Government Commerce trained decision makers and public procurers in order to improve the ability to articulate the needs of Government departments in the future (NESTA, 2010)
Articulation and foresight	Societal groups, potential consumers are given voice in the market place, signals as to future preferences (and fears) are articulated and signalled to the marketplace. Different variations possible (including constructive technology assessment bringing)	UK Technology Foresight Programme; US Critical Technologies Programme; Futuris exercise in France (more industry-driven) (Georghiou and Cassingena Harper, 2011)
User-producer interaction	State supports firms to include user needs in innovation activity or organises fora of targeted discourse (innovation platforms etc.)	Support for user-driven innovation in healthcare in the Nordic countries (Gestrelus and Lorentz Hjort, 2010); Creation of the Living Labs network in Finland to support interaction between users and producers (Ministry of Employment and the Economy, 2010)

⁵ <http://www.energystar.gov/index.cfm>

<i>Regulation of demand or of the interface demander-producer</i>		
Regulation of product performance and manufacturing	The state sets requirements for production and introduction of innovations (e.g. market approval, recycling requirements). Thus demanders reliably know how certain products perform and how they are manufactured.	Regulation in green/sustainable construction (Sand et al., 2012); introduction of new emission standards in the US improved competitiveness of the American auto industry (Blind, 2012)
Regulation of product information	Smart regulation to leave freedom to choose technologies, but changing the incentive structures for those choices (e.g. quota systems)	
Process and 'usage' norms	The state creates legal security by setting up clear rules on the use of innovations (e.g. electronic signatures)	Early adoption of the Digital Signatures Act that allowed Estonia to become an early adopter of electronic ID cards, as well as on-line voting.
Support of innovation-friendly private regulation activities	The state stimulates self-regulation (norms, standards) of firms and supports / moderates this process and plays a role as catalyst by using standards	Facilitation of certification in services sector in order to support cross border trade in services. (Grimsby and Grünfeld, 2008); development of green and sustainable construction industry in the Nordic region through norms and standards (Sand et al., 2012)
Regulations to create a market	State action creates markets for the consequences of the use of technologies (most strongly through the institutional set up of emission trading) or sets market conditions which intensify the demand for innovations	UK government's goal to reduce greenhouse gas emissions by 80 per cent by 2050 is expected to stimulate demand for adoption of new low carbon technologies (NESTA, 2010) Systemic approaches
Systemic approaches		
Integrated demand measures	Strategically co-ordinated measures which combine various demand-side instruments	Renewable energy policy in Germany – a combination of regulation, subsidies, tax incentives, loan facilities, etc. for wider adoption of green energy technology (Bechberger and Reiche, 2004)
Integration of demand- and supply-side logic and measures	Combination of supply-side instruments and demand-side impulses for selected technologies or services (including clusters integrating users and supply chains).	Introduction of Strategic Centres for Science, Technology and Innovation on the basis of existing industry clusters in Finland, which combine both demand and supply-side policy instruments (Nikulainen and Tahvanainen, 2009)
	Conditional supporting of user-producer interaction (R&D grants if user involved)	
	Specific Instrument: Pre-commercial Procurement	Pre-Commercial procurement for intelligent transport systems (Lindholm, 2011); SBIR type of programs

Demand-side policy and policy capacity

For a number of reasons Central and Eastern European countries (CEECs) did not develop significant policy capacities (particularly in the field of innovation policy). Reasons include the legacy of the post-Washington Consensus policies, the linear understanding of innovation process and the prevalence of policy copying without adaptation over domestic policy-making. To put it simply, if economic theory and policy assume that economic activities converge towards decreasing returns, demand-side policies are mostly seen as dangerous paths towards government failure. Such an economic approach means that more or less, the only meaningful demand-side policy measure would be increasing and widening of markets through trade treaties and similar policies. Consequently, demand-side policies and related capacities were not developed during 1990s almost on purpose (informed by this understanding of innovation). It was only during 2000s that we can detect a hesitant emergence of demand-side capacities, driven mostly via increasing utilization of EU structural funds in research, development and innovation (RDI) policies. (Suurna and Kattel 2010; Karo and Kattel 2010) However, as more complex policy instruments (such as demand-side innovation policy or smart specialisation) are increasingly included on the policy agenda, the need for state policy capacity increases.

Policy capacity refers to the ability of the state to make intelligent choices (based on values such as coherence, credibility, decisiveness, resoluteness) regarding the strategic directions to take and the allocation of scarce resources necessary for achieving public ends. Administrative capacity, in turn, refers to the ability to efficiently manage the resources necessary for achieving the government's objectives. (Painter and Pierre, 2005, p.2) Here we refer to policy capacity as integrating under one concept both policy and administrative capacities of the state (Karo and Kattel 2013).

Polidano (2000) suggests breaking-up policy and administrative capacity into a set of elements. Policy capacity is made up of information gathering capacity, staff expertise and institutional weight in the policy process, complementing the list with the criteria proposed by Painter and Pierre (2005) such as coherence, credibility and the ability of the state to mobilize public support and consent around goals important to the general public. Administrative capacity is constituted by internal compliance (i.e. probity, including corruption), whereas external (social) compliance (ability to enforce compliance with policies), cost efficiency and effectiveness.

Demand-side innovation policy instruments are generally more complex than their supply-side counterparts throughout the policy cycle. They

require interaction between numerous actors, often with conflicting objectives. Beside the complexity, demand-side innovation policy mostly includes tools where innovation is a secondary objective (e.g. public procurement, regulation, standardisation), this adds another level of complexity and need for coordination. Similarly, the multi-level nature of governance in certain policy fields limits domestic policy space and policy capacity (e.g. fiscal constraints imposed by the EU; regulatory and standardisation affairs performed on EU-wide level; public procurement regulated by the EU directives, etc.) and requires certain information intelligence as well as coordination capacity to align domestic policies within the regional and international context.

Given the annual budgeting system a certain degree of strategic planning is necessary to implement long-term projects (strategic procurement for innovation); political commitment and policy continuity are similarly important here. Finally, given the fragmentation of policy design and implementation in the government and that numerous ministries and agencies can potentially be involved in design and implementation of a single policy instrument (e.g. regulation, public procurement of innovation), both vertical and horizontal coordination capacities become central. This includes removing the existing barriers of coordination, improving inter-organisational information flows, ensuring unity of purpose, building coalitions and aligning performance targets and objectives across the involved organisations, as well as with the policy objectives.

Thus, due to the complexity of these policy instruments, design and implementation require highly capable policy makers and bureaucrats (with high levels of technical, legal and managerial expertise). In some cases, where smaller public sector units (e.g. local municipal governments) are involved, additional capacity in the form of consulting/assistance may be required. To a certain extent, domestic policy capacity (or policy choices) is limited by the credibility of government (Peters 2005). If social actors and the business community perceive government as credible, they can support policy making which requires more targeted demand-side intervention. Whereas when government is perceived as lacking credibility, social actors and business community can put pressure on the government to design and implement policies that are supply-oriented and impartial, and where government intervenes primarily through regulation. Thus, legitimization of demand-side intervention becomes a crucial policy capacity issue.

There are additional challenges on policy capacity faced by small states. The peculiarities important to keep in mind for innovation in small states relate to small markets, low diversification of economic structures, lack

of financial capabilities and human resources and the poor management of vested interests (Kattel et al. 2010). These are matters crucial to demand-side innovation policy-making.

There is strong case that compared to traditional supply-sided innovation policy demand-side approach assumes some significant steps forward from “traditional” horizontal innovation policy-making principles.⁶ Horizontal innovation policy instruments (e.g. grant allocations) can largely be implemented without profound knowledge of specific markets. Here it is assumed that, for instance, via competitive grant schemes the best companies get access to support. In contrast, then demand-side approach assumes a more refined knowledge of the actual market conditions of specific sectors and technologies by the public sector. Simply put, a general level of knowledge may be sufficient for traditional supply-side approaches, but not for demand-side approaches. For example, demand-side interventions may not provide any positive innovation effects in the case where government raises standards in sectors with low level of local competences as it would simply increase imports. Demand-side policies require more detailed and forward-looking technology related knowledge by policy-makers as opposed to supply-side measures.

There is an important implication for understanding the role of the public and private spheres in demand-side management. The public sector’s access to market knowledge is seldom direct, it is mediated. This means that demand-side policy-making requires a much more ‘blended’ role division between public and private actors. The goal is much more than an effect on the broad financial constraints of companies (via subsidies etc.) to innovate. Rather public sector role is somewhat more intimate, it is to get them much more involved in steering innovation strategies of companies through use of policy instruments. For instance at the design stage of policy instruments, this knowledge is crucial for deciding which of the different instruments (e.g. direct procurement vs. regulation/standardization) may be the most effective in a specific context, technology or sector.

There are many ways in which support structures for the implementation of demand-side measures have been institutionalized, and these are context dependent, and require some plasticity to be adaptable to differing needs. What may be needed is not demand-side policies designed by a central government agency (e.g. Ministry of Economic Affairs), but only coordinated by the latter (e.g. the introduction of the policy mix of instruments, procedures, etc.). The central government agency could for instance request line ministries, agencies or national programs to ‘com-

⁶ We are indebted to Erkki Karo for some of the ideas elaborated here.

pete' for some funding allocated for demand measures, similar to how companies apply for grants with business plans. This kind of approach allows for centralized coordination and decentralizes the process to line ministries, agencies, national programs that should understand the problems, sectors and technologies in their specific fields much better than other actors. Crucially however this depends on the capacity to engage in using demand-side on side the ministries and agencies, and processes should be put in place to establish or enhance the capacities necessary to design appropriate interventions (whether to reform standards and regulation or create/develop new markets via public procurement).

Demand conditions and innovation in Estonia

There is no ready-made data available for assessing the relationship between general demand conditions and innovation in Estonia apart from some occasional surveys and studies.⁷ Based on the existing literature, one can draw three broad, but preliminary conclusions.

First, Radosevic (2004, p. 655) argued that, "the capacity to generate demand for innovation is the weakest aspect of the national innovation capacity of the EU CEECs". As of 2004, Estonia scored above average when compared to other CEE countries, arguably due to its relatively well developed stock markets and banking system, and in high shares of FDI (*ibid.*).⁸ However, this view needs to be qualified. The stock market today has in many ways lost its significance. And the banking sector played an important role in creating the recent real-estate bubble, which upon reversal has resulted in limited availability of credit. General macro-economic policy-making and the role of FDI have revealed serious concerns about the quality of investments and innovation. Largely unmanaged FDI inflows to Estonia have led to some export-driven economic growth. But growth has been dependent on a limited number of companies and many of which have formed weak or no linkages with the Estonian innovation system (Lember and Kalvet 2014). Some other drawbacks include (see Juuse et al 2014):

- increase in import of sector-specific capital as well as consumer goods (which limits the multiplier effect of investments);
- too fierce competition that limits further innovation related investments;
- import of foreign networks and business-culture that affects internal investments (enclavisation);

⁷ Edler (2009) offers a comparative overview on CEE countries.

⁸ Other factors being share of trade in GDP, (Intellectual property rights), patent rights protection, registered unemployment, consumer price index (see Radosevic 2004).

- limited local investment in turn limits intra-industrial linkages and spillovers as well as innovation diffusion (leading to further enclavisation).

The second point about innovation and demand in Estonia is neglected in current innovation policy-making. That is local businesses do consider demand-side factors as of utmost importance. According to the Innobarometer survey (The Gallup Organization, 2009), demand conditions as well as demand-side policies play much more significant role in driving innovation than supply condition and respective policies, both in Estonia and in the EU in general. More specifically, this implies that technology push factors (e.g. cooperation with universities or emergence of new technologies) are much less important than demand-pull factors (e.g. pressure from competitors, new demand or new market opportunities). Furthermore, companies perceived regulative incentives and services provided by intermediary organizations (e.g. patent offices) much more important in triggering off and guiding innovations than public financial support (e.g. R&D grants) or changes in tax environment (e.g. R&D tax credits).

Third, the low sophistication of markets and buyers remains the most inhibiting demand-side factor in Estonia according to companies' perception (WEF Global Competitiveness reports 2006-2013; see also Table 2). The low sophistication of domestic demand is also referred to in the Innobarometer survey (The Gallup Organization, 2009) according to which local markets play modest role as demanding customers (lead markets) for Estonian enterprises than the average in EU (56 % and 70 % respectively).

Table 2: supportive and inhibiting demand factors in Estonia compared to EU27 (2006-2013 average)

Relatively supportive demand factors (on par or above EU27 average)	Relatively inhibiting demand factors (below EU27 average)
Low level of favouritism among government officials	Low sophistication of markets (persisting gap with EU 27)
Availability of latest technologies	Buyer sophistication (widening gap with EU27)
Firm-level technology absorption	Imports as percentage of GDP (big and widening gap with EU27)
Degree of customer orientation	
Government procurement of advanced technology	
FDI and technology transfer	

Source: based on WEF Global Competitiveness reports 2006-2013

Some care should be taken regarding the conclusions above, as elaborated below. First, the conclusions are drawn from surveys that report the perceptions of business leaders rather than observable data. Second, these conclusions reflect relative rather than substantial importance of demand-side factors. Third, not all demand-relevant factors are covered by these surveys. Missing aspects include issues such as the role of standards, awareness building, direct demand-side subsidies and tax incentives, and pre-commercial public procurement. And last, but not least, recent studies on public procurement of innovation demonstrate somewhat more challenging situation than stemming from the WEF survey. The current public procurement practices only seldom induce innovative behaviour in private sector (see Lember and Kalvet 2012 and 2014). Nevertheless, what the available data demonstrates is that the demand conditions have significant impact upon innovation in Estonian companies. (Find more in on-line [Appendices 1-3](#))

Overview of demand-relevant policy activities in Estonia

There is no generic demand-side innovation policy being pursued in Estonia. The main focus of the Estonian R&D and innovation policy has been on strengthening the systemic linkages via supply-side measures, like R&D infrastructure development, support to competence centres and the centres of excellence, and provision for R&D grants. Although neglected on the innovation policy level, several sectoral policy initiatives have been initiated or carried out in Estonia that can be regarded as “diffusion policies in disguise” (Stoneman and Diederer 1994).

Table 3 provides an overview of various “disguised” demand-side policy activities in Estonia. The taxonomy is illustrative rather than exhaustive and should be treated with some caution. First, considering the disguised effect of the demand-side policy initiatives, there is some degree of subjectivity in attributing demand-side characteristics to certain measures. The list of demand-side activities is provisional and subject to further analysis. Second, at this stage, no attempts were made to evaluate the actual innovation effect of demand-side activities. Third, the taxonomy also includes indirect measures for boosting private demand, such as awareness building and informational campaigns. These are rather vague categories that potentially could include a host of different activities and without more careful analysis would be difficult to define which activities to include/exclude. Fourth, the overview does not display the scale and scope of measures used. For example, although the concept of Green Public Procurement is present in the current policy arsenal, it is applied only in a few sample cases rather than being used as a constant practice.

Table 3: A selection of “disguised” demand-side policy initiatives in Estonia

Instrument	Mode of functioning	Estonian policy/case examples
1. Policies stimulating general demand	Infant industry protection and import substitution	---
	Export promotion	<ul style="list-style-type: none"> • Offset procurement in defence
2. Public demand: state buys for own use and/or to catalyse private market	General procurement	<ul style="list-style-type: none"> • ICT infrastructure--related services (e-government, e-voting, mobile-ID, e-school) • E-health services: digital prescription, electronic health record, digital registration, digital image • Green public procurement of goods, services and construction and awareness building project on eco-friendly public procurement
	Strategic procurement	<ul style="list-style-type: none"> • ICT infrastructure of e-Estonia (X-Road, ID-card) Procurement for country-wide quick charging network for electric cars from ABB AS. The quick chargers operated by G4S
	Co-operative and catalytic procurement	<ul style="list-style-type: none"> • Procurement of electric cars by central and local governments, businesses, individuals; initiated by central government
3.1 Direct Support for private demand	Demand subsidies	<ul style="list-style-type: none"> • Grants for purchasing electric cars • Renovation loans and loan guarantees and grants for energy audits, building, design and expert evaluations, and reconstruction grants for apartment associations by KredEx¹⁰
	Tax incentives	
3.2 Indirect Support for private demand	Awareness building measures	<ul style="list-style-type: none"> • Awareness building events and campaigns for traditional sectors in Biotechnology Programme (e.g. “Biotechnology in Baltics. Inspiration conference”) • Awareness building events for zero-energy buildings (e.g. introducing modular zero-energy home, conference “Smart Energy Solutions”) • Short-term rental of electric cars
	Labels or information campaigns	<ul style="list-style-type: none"> • EU eco-labelling
	Training and further education	<ul style="list-style-type: none"> • Training programs for e-service users by Look@World Foundation in association with the Estonian state • E-learning platform for eco-friendly public procurement by SEIT and Ministry of Environmental Affairs
	Articulation and foresight	
	User – producer interaction	
4. Regulation and support for private demand	Regulation of product performance and manufacturing”	<ul style="list-style-type: none"> • Defining green construction procurement <ul style="list-style-type: none"> • Using EU eco-label • Energy classes and energy labels for buildings <ul style="list-style-type: none"> • Green energy production • building standards developed by RKAS (State Real Estate Ltd)

⁹ For an overview of tenders please see: <http://www.envir.ee/1155433>

¹⁰ Kredex (Estonian Credit and Export Guarantee Fund) – A credit guarantee agency set up in 2001 for developing SME’s, encouraging export growth and supporting housing and energy efficiency for housing.

4. Regulation and support for private demand	Regulation of product information	<ul style="list-style-type: none"> • Renewable energy production
	Regulations to create a market	<ul style="list-style-type: none"> • Renewable energy regulation • Electromobility
	Support of innovation-friendly private regulation activities	
	Process and “Usage” norms	<ul style="list-style-type: none"> • Electronic signature for ID-card, mobile-ID
5. Systemic Approaches	Integrated demand measures	<ul style="list-style-type: none"> • Electromobility programme • Public ICT infrastructure developed in cooperation with private sector, services by public sector and for private sector, and supporting legal framework • Construction of energy efficient and green buildings
	Integration of demand- and supply-side logic and measures	¹¹ <ul style="list-style-type: none"> • Cluster development programme by Enterprise Estonia • Planned amendment in Public Procurement Act will introduce the concept of Pre-Commercial Procurement into legislation • R&D procurement (pre-commercial procurement) program by Ministry of Defence

Four broad conclusions can be drawn from the selection of cases as provided in Table 3. First, the most significant initiatives – although rather modest overall – have been general public procurement, demand subsidies and regulative changes. In the general public procurement activities the ICT investments are perhaps the most prominent, however, the perception of the organisations supplying the public sector is that there was general lack of demand for innovative solutions (Lember and Kalvet 2012, 2014). Public investments in transport and housing were based on resources from trading international carbon emission units (AAUs), mostly through subsidies and public procurement. Regulation changes concerned mostly e.g. public procurement, eco-labelling and standards. Second, those initiatives have largely been driven by external rather than domestic (sectoral, innovation or industrial) policy rationales. The EU role has been instrumental in funding many public ICT investments (public procurement) as well as in enacting innovation-inducing regulation (public procurement, eco-labelling, energy efficiency). The electric car infrastructure and energy efficient housing programs were both implemented under the conditions set by the “Kyoto Units” (AAUs) trade agreements. Third, and related to the previously mentioned “diffusion policies in disguise”, all

¹¹ Full grants for 19 clusters have been disbursed, for the full list of grants please see <http://www.eas.ee/et/ettevotjale/ettevotte-arendamine/klastrite-arendamise-programm/finantseeritud-taeistaotlused>.

these initiatives were legitimized though some sort of societal challenges (e.g. energy-efficiency as one of the main drivers in the housing renovation program) rather than innovation or industrial policy ideas. Consequently, the success or failure of these initiatives was not related to any clear innovation policy goals. And last, but not least, Estonia has not applied domestic policies to address issues of general demand conditions.

What is missing in the taxonomy, though, is the role of state owned enterprises (SOE) in demand-side innovation policy. SOEs may possess significant market power in specific sectors and thus may be influential sources of demand for innovation. No systemic analysis exists on this issue in Estonia, but as a recent study on Eesti Energia demonstrates, the investment and R&D policies of SOEs may significantly constrain the development of domestic sectoral innovation capabilities (Tõnurist, forthcoming).

Policy rationales for demand-side innovation policy in Estonia

Based on the issues presented above there are a number of justifications for demand-side innovation policy in Estonia:

- Innovation studies have demonstrated that there exists a link between general demand conditions and innovation activities. Estonia has very distinct demand conditions, largely driven by FDI. There is a need to balance the negative effects (e.g. weak domestic linkages of the export sector) originating from the overall demand conditions in Estonia as well as to create new systemic synergies in areas with high innovation potential.
- Current innovation policy-making in Estonia is heavily biased towards supply-driven instruments, which leaves many important aspects of innovation unexplored and unexamined. At the same time Estonian businesses regard demand conditions as more important than supply-side factors.
- Estonia's current export-driven growth is dependent on a limited number of companies, many of which have formed weak or no linkages with the Estonian innovation system. At the same time it has been found that sophisticated and demanding users in home market (due to the cultural and geographical reasons) is one of the main preconditions for the emergence of sustainable export-oriented sectors (Fageberg 2010, Lundvall 2010), and national competitiveness in general (Porter 2000). Moreover, as specialized export sectors tend to be sophisticated users of technology especially in small open economies (Lundvall 2010), and who play an important role in succeeding at innovation in local markets, the export-oriented users are largely excluded from the Estonian

national innovation system. Consequently the quality of demand in local markets is not as high as it potentially could be. This makes it more difficult for new entrants and incumbent firms to test and learn about their innovative products first in local markets.

- There are many crucial challenges to Estonian society – ageing population, health issues, environmental sustainability, security etc. These challenges are also a potential source for future market demand. But these are also areas where technology development is related to high level of uncertainty, which effectually means that market players are reluctant to invest in solutions for these challenges independently. In many of these fields, especially health and welfare, it is the public sector that is the main source of demand in Estonia. Therefore it is the government that is best placed to diminish uncertainties characterizing the innovation processes in these potential future markets.
- The current supply-oriented innovation policy instruments are to a large extent financed through external funds (the EU Structural Funds most notably). In the longer term perspective this financing is unsustainable and assumes that the government finds new means to carry out innovation policy in Estonia. Ability to pursue demand-side policy may come handy in this regard.
- Public sector dominates in many business sectors in Estonia (e.g. transport, health, construction). Public regulation, investment and procurement decisions determine to a great extent the innovation-relevant demand conditions in these, but also other markets.
- Estonian government is the owner of many large and technology-intensive companies (e.g. Eesti Energia (energy), Tallinna Sadam (ports), hospitals etc.) that dominate their respective domestic markets and supply-chains. Their investment decisions are crucial in determining the domestic sectoral innovation systems and should be thus seen as key in demand-side innovation policy-making in Estonia.

Potential areas and instruments for future policy-making

The remaining sections of the paper consider and analyse some preliminary policy ideas for further discussion. The policy capacity framework will be used to identify the constraints of future demand-side policy making, whereas the smart specialization areas and abovementioned demand-side innovation policy taxonomy will be used to focus the discussion.

Demand-side policy and smart specialization

There are many needs that ought to be addressed by demand-side policy, and selection of areas of action can be difficult. However, by linking three elements the selection of actions can be put into sharper focus, integrating new concerns with priorities addressed previously. Linking smart specialisation with demand-side innovation policies and challenges faced by society is one of the ways that can be used for this purpose. This linking also deals with the complexity and vagueness of the concept of smart specialisation, providing additional focusing device for policy makers.

The new Estonian strategy for science, development and innovation prescribes three areas for specialisation and growth: 1) Application of ICT in industry and cyber security; 2) Health technologies and services (biotechnology and e-health); 3) resource efficiency (material sciences; innovative building industry; health promoting food industry; chemical industry (oil shale)).¹²

Some areas identified, like application of ICT and health technologies, can be effectively steered by using societal challenges as a focusing device (for setting priorities) coupled with demand-side instruments as a support mechanism. There are a number of demand-side policy measures that can potentially be devised to actively support the developments. First, as the main provider of health and welfare services the public sector can act (as it currently does) as the main procuring organisation, using public funds for development of innovative solutions in, e.g., ICT application in health care as well as in functional foods for the elderly or schools. Similarly, the public sector can provide incentives for a wider private sector adoption of certain innovations (such as development of sensor and communication systems for homes of the elderly via new service standards). Also, public sector can act as a lead-user and a test-bed for new and emerging e-health technologies via generic, strategic, cooperative and catalytic procurement.

In a similar vein, societal challenges and demand-side policies can be used in relation to resource efficiency as an area for specialisation. Here the public sector can exercise its regulatory powers to steer development of regulations and standards to favour application of innovative (energy efficient, resource-efficient) building solutions. Similarly, the public sector can exercise its buying power in the construction sector through demand

¹² Draft version, available at <http://www.hm.ee/index.php?popup=download&id=12422> (accessed November 9, 2013).

of innovative products, technologies, processes or services (e.g. in context of smart houses). In this way it creates the critical demand for innovative products and services, which in turn would provide additional source of funding for innovative companies (beyond venture capital or debt financing).

Demand-side innovation policy instruments in the context of smart specialization may thus be understood as creating extra incentives for entrepreneurial innovation and as a focusing device for the rather general smart specialization concept. By placing sophisticated orders for new solutions or by enforcing higher technical standards it becomes possible to consciously favour more innovative firms against the reluctant innovators as the innovative firms are presumably more capable of reacting upon changed demand conditions. One of the potential drawbacks to be kept front of mind in demand-side instrument use is that changing the demand conditions may lead to changes in import rather than capability upgrading of local companies. Thus, the smart specialization process should aim at detecting those sectors and clusters that are potentially most capable of reacting upon the changed demand conditions via innovation. It is then those sectors that should be in the focus of demand-side policy making in Estonia, which requires more intimate knowledge of technological capabilities in a sector than supply-side measures.

Overall, the list of demand-side policy instruments as described in Table 1 offers a wide variety of mechanisms that can be applied in all smart specialization areas. The next sub-sections analyse those policy options in a more detailed way, while also outlining policy limits from the policy capacity perspective.

Public procurement¹³

Part of the possible solutions to Estonia's current economic challenges includes an explicit set of public procurement of innovation (PPI) policies, particularly to tackle problems like unsophisticated business strategies and minimal clustering. At the same time, the creation of sophisticated PPI policy instruments alone would be insufficient to contribute to the overall restructuring and upgrading of the economy. This is both because the current market structure in Estonia is heavily dominated by sectors that have relatively low levels of value added on average—implying that the market would encounter significant problems in responding to highly sophisticated demands—and also due to a strong tendency of the public-procurement community to avoid risk-taking and to prefer off-the-shelf

¹³ This section builds partly on Lember and Kalvet (2014) and Lember et al (2014a, 2014b).

procurement (which provides limited learning, interaction and technological upgrading opportunities).

Moreover, there are legacies from technology-push linear innovation models. These favour science-based innovation and reliance upon supply-side policy instruments. This legacy has proven to be persistent.¹⁴ It inhibits the possibilities for quick adoption of PPI as a principle and operational concept in innovation policy-making. The capacity to resist normative pressures (ideologies, public sector management and reform ideas – such as a “hands off” state) and capacity to find room for manoeuvre within international and regional trade regulations (incl. the EU) is needed so as to pursue long-term and successful PPI policies.

An additional challenge for explicit PPI policymaking is the decentralised public-procurement system, coupled with a fragmented central government structure and a weak capacity for policy coordination. These, however, are crucial factors to be dealt with if generic PPI policies are targeted. The recent financial and economic crisis harshly affected Estonia and put cutback management rather than strategic public procurement at the focus of public consumption. The crisis reinforced prevailing values that favour macroeconomic stability over government intervention. This makes it questionable if and to what extent explicit PPI policy-making is feasible currently despite the changed approaches in some leading EU countries. Starving an idea, like PPI, of funds and institutional support may well be an effective means to discredit it.

The legitimization of the PPI idea in the local socio-economic context would be crucial. The legitimization of PPI as policy may be facilitated if anchored to widely accepted national or regional challenges (e.g. security, energy, health). But this challenge must be substantive, where the connection between national needs and the role of PPI can be easily perceived. For example, national competitiveness concerns seem not to be the kind of a challenge where the link can be automatically made. It might take much more than abstract challenges to pave the way for substantial and sustainable PPI policy-making.

There are three basic approaches that can be distilled for PPI. First, PPI as technology (industrial) development policy, second, PPI as R&D policy and three, PPI as generic policy (see also on-line [Appendix 5](#)). Each of these perspectives assumes somewhat different policy capacities. For example, for the first two (technology development or R&D), presumes

¹⁴ This is, of course, not unique in Estonia, a similar point has been recently made with regard to the UK (Uyarra et al. 2014).

as foremost external policy capacity (in-depth knowledge on specific markets and technologies, and the ability to coordinate these sectors). This contrasts with PPI as generic policy stems more from internal policy capacity (placing right incentives within public sector in order to facilitate the diffusion of technical, legal and managerial expertise).

Selective strategic procurement initiatives by sector or technology programs could serve as a useful starting point after which more sophisticated PPI policy initiatives could be pursued. For example, using pre-commercial procurement and PPI (strategic, co-operative or catalytic) as an additional instrument to drive innovation processes in the existing national technology programs (networks and clusters) could open up possibilities for creating “islands of excellence”. These islands in turn could serve as reference points to inform further policy action. The process is decidedly nonlinear, it requires constant vigilance and optimisation. Another potential way could be to strengthen PPI in fields with a proven track record, such as ICT. For example for ICT in general, but especially for encouraging ICT development in sectors where the government’s buying power was significant, such as in health care and transportation. A more selective approach (as opposed to generic PPI policies assuming cooperation across sectors), would probably be both prudent and easier to develop the needed policy and administrative capacity for conducting innovation-supportive public procurement. Building generic PPI policies within the current Estonian context would probably be more challenging due to the existing public procurement culture. Selective approaches that detach (in some way) PPI from “regular” public procurement could enable policy learning in order to overcome some systematic problems inhibiting PPI in Estonia, such as price-dominated procurement practices, misuse of innovation-friendly procedures, weak technology competencies, and, market knowledge and restrictions emerging from the logic of annual state budgets. The selective approach assumes high-level horizontal coordination with involvement of sectoral policy players (e.g. health care - Health Insurance Fund and public hospitals; clusters programs Enterprise Estonia; construction - ministries, local governments, State Real Estate Ltd).

As a general blueprint for more effective PPI policy, the international empirical evidence suggests, inter alia, more targeted PPI-relevant training, institutionalized pre-tender dialogue procedures with industries, explicit legal incentives, coordinated signalling of future needs, more structured information and best-practice sharing, more targeted involvement of low-tech sectors, and dedicated funding schemes (see also on-line [Appendix 4](#)).

Support for private demand

One of the main policy solutions to change the nature of demand in specific market sectors is to support private demand for innovative solutions. As outlined in Table 1, there are many different policy options to do so, ranging from direct and indirect support schemes through to regulation. Applying support measures for private demand is in many ways a more straightforward task compared to public procurement. To a large extent it can be built on the existing administrative capacities as enforcing regulation is among the core everyday routines of public sector. From that respect one may think support of private demand as natural starting point for further demand-side innovation policy-making in Estonia.

However, one may still want to employ selective rather than universal policy approach. This is to anticipate some of the known pitfalls in execution. One of the potential drawbacks in using demand-side instruments is the possibility that changing the demand conditions may simply lead to changes in importation rather than upgrading the capability of local companies. Too robust demand-side interventions can lead to insufficient competition, consequently innovations will not diffuse through the wider market. This may especially be the case with regulation and standard-setting, which can also be a source of lock-in situations. Therefore, effective policy support for private demand of innovation assumes that sectoral specifics are taken into account, which in turn requires continuous monitoring of sectoral developments, and that policies are adapted in accordance to changes in the sectors. All this presumes a high level policy capacity in sectoral terms (i.e. industry specific knowledge). More concrete examples may include innovation-conducive standard-setting in construction (to enlarge market shares for firms capable of providing energy-efficient technologies and to diffuse the relevant technological capabilities across market) or in health services (test standards in health care to support bio-tech developments, high level quality requirements in e-health systems or cyber-security).

Systemic approaches

The systemic approach combines various demand-side measures with supply-side instruments (see Table 1) and is possibly the most demanding way to pursue demand-side innovation policy. One of the main approaches here would be pre-commercial or R&D procurement schemes that were linked with actual public procurement. The effect of this practice is strongly influenced by the will and capacity of governments to articulate the demand for R&D intensive solutions in a concrete way and by the modus how different parts (or potential future clients) of the public sector are integrated within the policy cycle (Lember et al 2014b). If the demand is articulated in broad terms and potential public-sector clients are poorly

integrated into the initiatives, then the role of public procurement as a demand instrument of innovation policy remains weak. At the same time, if public demand is described in a manner that carefully follows the identified needs, the public sector or other future clients are closely integrated into the initiatives and the rate of eventual purchases of the developed products is high, public procurement as an R&D policy can play an important role in a country's overall innovation policy. The main determinant of effectiveness here is internal and external policy capacities, including the vigilance for continuous adaptation.

Introducing demand-side measures in the context of cluster programs is another example how to implement the systemic perspective. Government could use catalytic, pre-commercial procurement or standard-setting to facilitate innovation activities in clusters while maintaining other support structures (e.g. R&D grants, training, facilitating cooperation). Areas of smart specialization may again receive special attention here, but also areas where societal challenges provide opportunities for growth (e.g. health or aging) or where the public sector possess significant buying power (construction, health, transport).

The systemic approach may also include strategic supply-chain and R&D management in state owned companies (e.g. Eesti Energia in case of oil shale), which deserves a closer look in the future.

Conclusions

Demand-side innovation policy has so far not been actively pursued and implemented in Estonia and it has remained a "diffusion policy in disguise". The current policy brief argues that demand-side policy may, however, be a useful approach for Estonia in order to overcome various economic problems that hamper innovation-relevant demand. While there are many options to choose from in designing demand-side policy instruments, pursuing the policy requires a change of policy-making routines within public sector. Most importantly, it requires more sectoral approaches to address innovation obstacles and more coordination within as well as outside public sector, as compared to the current horizontal policy-making. Although demand-side policy should be centrally coordinated by the government, the effectiveness of the policy will be to a large extent determined by the capabilities of line ministries and their agencies to understand and successfully "manipulate" with sector-relevant demand conditions, to engage with market stakeholders in steering demand-relevant innovation strategies and to legitimize the needed activities.

References

- Blind, K. (2012) The Impact of Regulation on Innovation. *Compendium of Evidence on the Effectiveness of Innovation Policy Intervention*. Available at: http://www.innovation-policy.org.uk/share/02_The%20Impact%20of%20Regulation%20on%20Innovation.pdf (Accessed 9 November 2013)
- Borrás, S. (2009) *The Widening and Deepening of Innovation Policy: What Conditions Provide for Effective Governance?* Available at: http://www.circle.lu.se/upload/CIRCLE/workingpapers/200902_Borras.pdf (Accessed 9 October 2012).
- Cimoli, M. & Porcile, G. (2009) Sources of learning paths and technological capabilities: an introductory roadmap of development processes. *Economics of Innovation and New Technology*. 18 (7), 675–694.
- Edler, J. (2009) Demand Policies for Innovation in EU CEE Countries. *Manchester Business School Working Paper No 579*. Available at: <http://www.econstor.eu/bitstream/10419/50691/1/631922113.pdf> (Accessed 9 November 2013)
- Edler, J. (2013) Review of Policy Measures to Stimulate Private Demand for Innovation. Concepts and Effects. *Compendium of Evidence on the Effectiveness of Innovation Policy Intervention*. Available at: <http://www.innovation-policy.net/compendium/section/Default.aspx?topicid=28> (Accessed 9 November 2013)
- Edler, J. & Georghiou, L. (2007) Public procurement and innovation—Resurrecting the demand side. *Research Policy*. 36 (7), 949–963.
- Fagerberg, J. (2010) ‘The changing global economic landscape: the factors that matter’, in R.M. Solow & J-Ph. Touffut (eds.) *The Shape of the Division of Labour: Nations, Industries and Households*. Cheltenham: Edward Elgar. pp. 6–31.
- Filippetti, A. & Archibugi, D. (2011) Innovation in times of crisis: National Systems of Innovation, structure and demand. *Research Policy*. 40 (2), 179–192.
- Georghiou, L. & Cassingena Harper, J. (2011) From priority-setting to articulation of demand: Foresight for research and innovation policy and strategy. *Futures*. 43 (3), 243–251.
- Geroski, P. A. & Walters, C. F. (1995) Innovative activity over the business cycle. *The Economic Journal*. 105 (431), 916–928.
- Gestrelus, S. & Lorentz Hjort, C. (2010) Innovation4Care. User-Driven Innovation in the Health Care Sector. Available at: http://nordicinnovation.org/Global/_Publications/Reports/2010/07192%20Innovation4Care_web.pdf. (Accessed 30 September 2013)
- Grimsby, G. & Grünfeld, L. A. (2008) To Certify Your Services. A study of the marker for certification in Northern European service sectors. Available at: http://www.nordicinnovation.org/Global/_Publi

- cations/Reports/2009/To%20certify%20your%20services%20-%20Summary%20report.pdf. (Accessed 30 September 2013)
- Juuse, E.; Endresen, B.S; Kattel, R. (2014). Foreign Direct Investment in Estonia - Understanding the Impact of Public Policies on Local Embeddedness and Networking in the Food Retail and Related Industries. G. Micek (ed.). *Understanding Innovation in Emerging Economic Spaces* (xx - xx). Farnham: Ashgate Publishing Ltd [forthcoming].
- Karo, E. & Kattel, R. (2010). The Copying Paradox: Why Converging Policies but Diverging Capacities for Development in Eastern European Innovation Systems? *The International Journal of Institutions and Economies*, 2(2), 167-206.
- Karo, E. & Kattel, R. (2013) Public Management, Policy Capacity and Innovation. *Working Papers in Technology Governance and Economic Dynamics* (52). Available at: <http://technologygovernance.eu/files/main/2013052907160101.pdf> (Accessed 10 September 2013).
- Kattel, R. (2012), 'Catching up and knowledge governance.' In Kattel, R.; Burlamaqui, L.; Castro, A.C. (eds.), *Knowledge Governance: Reasserting the Public Interest*. London: Anthem Press, 49-78.
- Kattel, R.; Kalvet, T. & Randma-Liiv, T. (2010) 'Small states and innovation'. Steinmetz, R. and Wivel, A. (eds) *Small States in Europe: Challenges and Opportunities*. Aldershot, England: Ashgate Publishing Company, 65-85.
- Kiss, B. et al. (2012) *Heat Pumps: A Comparative Assessment of Innovation and Diffusion Policies in Sweden and Switzerland*. Available at: http://www.iiasa.ac.at/web/home/research/researchPrograms/TransitionstoNewTechnologies/04_Kiss_Heat_Pumps_WEB.pdf (Accessed 3 June 2013).
- Lember, V.; Kattel, R. & Kalvet, T. (2011) Urban competitiveness and public procurement for innovation. *Urban Studies* 48 (7), 1373–1395.
- Lember, V. & Kalvet, T. (2012). Riigihanked ja innovatsioon Eestis: milleks kulutada 11 miljonit päevas? *Riigikogu Toimetised*, 26, 110 - 126.
- Lember, V. & Kalvet, T. (2014). Estonia: Public procurement, innovation and "no policy" policy. Lember, V.; Kattel, R.; Kalvet, T. (eds.). *Public Procurement, Innovation and Policy: International Perspectives*. Heidelberg: Springer, 127-149.
- Lember, V.; Kattel, R. & Kalvet, T. (2014). *Public Procurement, Innovation and Policy: International Perspectives*. Heidelberg: Springer.
- Lember, V.; Kattel, R. & Kalvet, T. (2014). How Governments Support Innovation through Public Procurement: Comparing Evidence from 11 Countries. Lember, V.; Kattel, R.; Kalvet, T. (eds.). *Public Procurement, Innovation and Policy: International Perspectives*. Heidelberg: Springer, 287-309.
- Lindholm, R. (2011) Pre-Commercial Procurement for Intelligent Transport Systems. The P3ITS Handbook. A Guide for PCP Actors.

- Lundvall, B.-Å. (1992) *National Systems of Innovation: Toward a Theory of Innovation and Interactive Learning*. London: Pinter Publishers.
- Ministry of Employment and the Economy (2010) Demand and User-Driven innovation policy. Framework and Action Plan. Available at: https://www.tem.fi/files/27547/Framework_and_Action_Plan.pdf. (Accessed 3 June 2013)
- Mowery, D. C. & Rosenberg, N. (1979) The influence of market demand upon innovation: a critical review of some recent empirical studies. *Research Policy*. (8), 102–153.
- Müller, E. (2002) Environmental Labelling, Innovation and the Toolbox of Environmental Policy. Lessons Learned from the German Blue Angel Program. Available at: <http://citeseerx.ist.psu.edu/viewdoc/download?doi=10.1.1.200.1077&rep=rep1&type=pdf> (Accessed 3 June 2013)
- Neij, L. & Andersen, P. D. (2012) A Comparative Assessment of Wind Turbine Innovation and Diffusion Policies. Available from: http://www.iiasa.ac.at/web/home/research/researchPrograms/TransitionstoNewTechnologies/11_Neij_Wind_Power_WEB.pdf. (Accessed 3 June 2013)
- Nemet, G. F. (2009) Demand-pull, technology-push, and government-led incentives for non-incremental technical change. *Research Policy*. 38 (5), 700–709.
- Nemet, G. (2012a) Solar Photovoltaics: Multiple Drivers of Technological Improvement. Available at: http://www.iiasa.ac.at/web/home/research/researchPrograms/TransitionstoNewTechnologies/10_Nemet_Solar_PV_WEB.pdf (Accessed 30 September 2013).
- Nemet, G. (2012b) Solar Water Heater Innovation in the US. Available from: http://www.iiasa.ac.at/web/home/research/researchPrograms/TransitionstoNewTechnologies/03_Nemet_Solar_Water_Heaters_WEB.pdf. (Accessed 3 June 2013)
- NESTA (2010) Demand and Innovation. How customer preferences shape the innovation process. *NESTA/The Work Foundation Working Paper*. Available at: http://www.nesta.org.uk/sites/default/files/demand_and_innovation.pdf. (Accessed 3 June 2013)
- Nikulainen, T. & Tahvanainen, A.-J. (2009) Towards demand based innovation policy? The introduction of shocks as innovation policy instrument. http://www.etla.fi/files/2261_Dp1182.pdf. (Accessed 3 June 2013)
- Overmeer, W & Prakke, F. (1978) Government procurement policies and industrial innovation. Report for the six countries programme on government policies towards technological innovation in industries. Strategic Surveys TNO, Six Countries Programme Secretariat, Delft, The Netherlands.
- Painter, M. & Pierre, J. (2005) Unpacking policy capacity: issues and

- themes. Painter, M & J. Pierre (eds.) *Challenges to State Policy Capacity. Global Trends and Comparative Perspectives*. New York: Palgrave Macmillan. pp. 1–18.
- Peters, G. B. (2005) Policy Instruments and Policy Capacity. Painter, M & J. Pierre (eds.) *Challenges to State Policy Capacity. Global Trends and Comparative Perspectives*. New York: Palgrave Macmillan. pp. 73–91.
- Pianta, M. (2005) Innovation and Employment. Fagerberg, J. (ed.) *The Oxford Handbook of Innovation*. Oxford: Oxford University Press. pp. 568–598.
- Pianta, M. (2001) Innovation, demand and employment. Petit, P & L. Soete (eds.) *Technology and the future of European employment*. Aldershot: Edward Elgar. pp. 142–165.
- Polidano, C. (2000) Measuring public sector capacity. *World Development*, 28 (5), 805–822.
- Radošević, S. (2004) A two-tier or multi-tier Europe? Assessing the innovation capacities of Central and East European countries in the enlarged EU. *JCMS: Journal of Common Market Studies*, 42 (3), 641–666.
- Rolfstam, M. (2009) Public procurement as an innovation policy tool: the role of institutions. *Science and Public Policy*, 36 (5), 349–360.
- Sand, H. et al. (2012) Survey of green legislation and standards in the construction area in the Nordic countries. Background note. Available at: http://nordicinnovation.org/Global/_Publications/Reports/2012/2012_10%20Survey%20of%20green%20legislation%20and%20standards%20in%20the%20construction%20area%20in%20the%20Nordic%20countries.pdf (Accessed 30 September 2013).
- Smith, K. (1997) Economic infrastructures and innovation systems. Edquist, C. (ed.) *Systems of Innovation: Technologies, Institutions and Organisations*. London: Cassell.
- Stoneman, P. & Diederer, P. (1994) Technology diffusion and public policy. *The Economic Journal*. 918–930.
- Suurna, M. & Kattel, R. (2010) Europeanization of innovation policy in Central and Eastern Europe, *Science and Public Policy*, 37(9), 646–664
- TemaNord (2011) Innovative Public Procurement and Health Care. Available at: www.norden.org/en/publications/publikationer/2011-567 (Accessed 9 October 2012).
- The Gallup Organization (2009) *Innobarometer 2009. Analytical Report*. Available from: http://ec.europa.eu/public_opinion/flash/fl_267_en.pdf. (Accessed 9 October 2012)
- Uyarra, E., Jakob Edler, Sally Gee, Luke Georghiou and Jillian Yeow (2014) Public Procurement of Innovation: The UK Case. Lember, V.; Kattel, R.; Kalvet, T. (eds.). *Public Procurement, Innovation and Policy: International Perspectives*. Heidelberg: Springer, 233–257.

Curriculum vitae

Aleksandrs Cepilovs

1. Personal data

Date and place of birth: 07.06.1984, Riga, Latvia
Nationality: Latvian
Address: Ragnar Nurkse Department of Innovation and Governance
Akadeemia tee 3, 12618, Tallinn, Estonia
E-mail: aleksandrs.cepilovs@ttu.ee

2. Education and academic degrees

09/2013-2017 Tallinn University of Technology, Ragnar Nurkse
Department of Innovation and Governance, Technology
Governance studies, PhD

09/2011-04/2013 Aalborg University, Department of Business and
Management, MSc in Business Economics with focus on
innovation and entrepreneurship

09/2010-12/2012 Tallinn University of Technology, Ragnar Nurkse
Department of Innovation and Governance, MA
Technology Governance studies (cum laude)

09/2002-01/2010 Riga Technical University, BSc and engineer's diploma in
civil engineering

3. Language skills

Russian	Native language
Latvian	proficient
English	proficient
German	beginner

4. Work experience

01/2017- Tallinn University of Technology, Ragnar Nurkse
Department of Innovation and Governance, project
manager for The Once-Only Principle project (H2020)

07/2016-01/2017 Central Finance and Contract Agency of the Republic of
Latvia, head of division

03/2016-06/2016 Central Finance and Contract Agency of the Republic of
Latvia, deputy head of division

05/2015-03/2016 Ministry of Finance of the Republic of Latvia, EU Funds
Strategy Department, Entrepreneurship and Innovation
Support Division, senior expert

09/2013-04/2016 Tallinn University of Technology, Ragnar Nurkse
Department of Innovation and Governance, Junior
Research Fellow

01/2007-currently APC birojs ltd, member of the board

5. Submitted and/or defended theses

2013 "Innovation Policy and Service Innovation: Exploring the Effects of Technology Bias in Estonia" (MSc), Aalborg University, Department of Business and Management

2012 "Public Procurement for Innovation in Small States. The Case of Latvia" (MA), Tallinn University of Technology, Ragnar Nurkse Department of Innovation and Governance

6. Selected scientific projects

2013 – 2015 FP7 research project "Learning from innovation in Public Sector Environments (LIPSE)", researcher

2014 – 2017 Estonian Research Council research project "Understanding policy change: Financial and fiscal bureaucracy in the Baltic Sea Region", researcher

7. Publications

Savi, R.; Cepilovs, A. 2017. Central decisions, decentralized solutions: comparing the implications of central cutback policy for agency level in Estonia and Latvia. *Journal of Comparative Policy Analysis*

Karo, E.; Kattel, R.; Cepilovs, A. 2017. Can smart specialization and entrepreneurial discovery be organized by government? Lessons from the less-developed regions. In: Radosevic, S.; Curaj, A.; Andreescu, L.; Gheorgiou, R.; Wade, I. (Eds.). *Advances in the Theory and Practice of Smart Specialization* (269–292). London, UK: Academic Press

Krimmer, R.; Kalvet, T.; Toots, M.; Cepilovs, A.; Tambouris, E. 2017. Exploring and Demonstrating the Once-Only Principle: A European Perspective. *Proceedings of ACM Digital Government Research conference: June 2017*. New York, USA: ACM, [forthcoming]

Krimmer, R., Kalvet, T., Toots, M., Cepilovs, A. 2017. Das Projekt TOOP: Bürokratieabbau und Verwaltungsvereinfachung mittels des «Once-Only» Prinzips für Unternehmen. Schweighofer, E., Kummer, F., Hötendorfer, W., Sorge, C., 20 Jahre IRIS: Trends und Communities der Rechtsinformatik / 20 Years of IRIS: Trends and Communities of Legal Informatics – digitale Ausgabe zum Tagungsband des 20. Internationalen Rechtsinformatik Symposions IRIS 2017. 265–266. Vienna: OCG Verlag.

Muizniece, L. and Cepilovs, A., 2017. Supporting University Technology Transfer – Struggles and Barriers in Latvia. *Ekonomiska misao i praksa*, (1), pp.321-342.

Raudla, R., Cepilovs, A., Kuokštis, V., Kattel, R. 2016. Fiscal Policy Learning from Crisis: Comparative Analysis of the Baltic Countries. *Journal of Comparative Policy Analysis*, 1–16

Cepilovs, A., Muižniece, L. 2016. Latvia after EU accession: weathering the storm? In: L. Briguglio (Ed.). *Small States and the European Union: Economic Perspectives*. 87–110. Abingdon: Routledge

Kattel, R., Cepilovs, A., Drechsler, W., Kalvet, T., Lember, V., Tõnurist, P. 2014. Can we measure public sector innovation? A literature review. LIPSE Working papers, 2, 1–45.

Cepilovs, A. 2014. Public Procurement for Innovation in Small States. The Case of Latvia. In: Decarolis, F., Frey, M. (Ed.). *Public Procurement's Place in the World. The Charge Towards Sustainability and Innovation*. 93–130. Basingstoke: Palgrave Macmillan

Cepilovs, A. 2013. Public Procurement for Innovation in Small States. The Case of Latvia. *Rivista di Politica Economica*, 2, 99–136.

Lember, V., Cepilovs, A., Kattel, R. 2013. Demand-side innovation policy in Estonia: rationales, limits and future paths. *The Other Canon and Tallinn University of Technology Working Papers in Technology Governance and Economic Development*, 56, 1–32.

8. Blog-posts:

Cepilovs, A. "Estonia and Latvia as small EU Member States: Effects of membership on structure and performance." *Nurkse Department Ideas Bank*, 24.08.2016

Cepilovs, A. "The new EU public procurement directives: will they bring innovation and sustainability through procurement?" *Nurkse Department Ideas Bank*, 19.02.2015

Cepilovs, A. "On direct consequences of fiscal austerity and neoliberalism more generally: the case of 2013 Maxima tragedy in Riga." *Nurkse Department Ideas Bank*, 11.02.2015

Elulookirjeldus

Aleksandrs Cepilovs

Personaalne informatsioon

Sünnikuupäev ja koht: 07.06.1984, Riia, Läti
Kodakondsus: Läti
Aadress: Ragnar Nurkse innovatsiooni ja valitsemise instituut
Akadeemia tee 3, 12618, Tallinn, Eesti
E-post: aleksandrs.cepilovs@ttu.ee

2. Hariduskäik ja akadeemilised kraadid

09/2013-2017 Tallinna Tehnikaülikool, Ragnar Nurkse innovatsiooni ja valitsemise instituut, Tehnoloogia valitsemise õppekava, PhD

09/2011-04/2013 Ålborgi Ülikool, Majanduse ja juhtimise instituut, MSc ärimajanduses innovatsiooni ja ettevõtluse fookusega

09/2010-12/2012 Tallinna Tehnikaülikool, Ragnar Nurkse innovatsiooni ja valitsemise instituut, MA Tehnoloogia valitsemises (cum laude)

09/2002-01/2010 Riia Tehnikaülikool, BSc ja inseneri diplom tsiviilehituses

3. Keelteoskus

Vene keel	emakeel
Läti keel	asjatundlik
Inglise keel	asjatundlik
Saksa keel	algaja

4. Töökogemus

01/2017- Tallinna Tehnikaülikool, Ragnar Nurkse innovatsiooni ja valitsemise instituut, The Once-Only Principle projektijuht (H2020)

07/2016-01/2017 Läti Vabariigi Rahanduse ja lepingute keskagentuur, osakonnajuhataja

03/2016-06/2016 Läti Vabariigi Rahanduse ja lepingute keskagentuur, osakonnajuhataja asetäitja

05/2015-03/2016 Läti Vabariigi Rahandusministeerium, EL fondide amet, Ettevõtluse ja innovatsiooni osakond, vanemeksper

09/2013-04/2016 Tallinna Tehnikaülikool, Ragnar Nurkse innovatsiooni ja valitsemise instituut, nooremteadur

01/2007-currently APC birojs ltd, juhatuse liige

5. Esitatud ja/või kaitstud väitekirjad

- 2013 "Innovation Policy and Service Innovation: Exploring the Effects of Technology Bias in Estonia" (MSc), Ålborgi Ülikool, Majanduse ja juhtimise instituut
- 2012 "Public Procurement for Innovation in Small States. The Case of Latvia" (MA), Tallinna Tehnikaülikool, Ragnar Nurkse innovatsiooni ja valitsemise instituut

6. Valitud teadusprojektid

- 2013 – 2015 FP7 teadusprojekt "Learning from innovation in Public Sector Environments (LIPSE)", teadur
- 2014 – 2017 Eesti Teadusagentuuri teadusprojekt "Understanding policy change: Financial and fiscal bureaucracy in the Baltic Sea Region", teadur

7. Publikatsioonid

Savi, R.; Cepilovs, A. 2017. Central decisions, decentralized solutions: comparing the implications of central cutback policy for agency level in Estonia and Latvia. *Journal of Comparative Policy Analysis*

Karo, E.; Kattel, R.; Cepilovs, A. 2017. Can smart specialization and entrepreneurial discovery be organized by government? Lessons from the less-developed regions. In: Radosevic, S.; Curaj, A.; Andreescu, L.; Gheorgiou, R; Wade, I. (Eds.). *Advances in the Theory and Practice of Smart Specialization* (269–292). London, UK: Academic Press

Krimmer, R.; Kalvet, T.; Toots, M.; Cepilovs, A.; Tambouris, E. 2017. Exploring and Demonstrating the Once-Only Principle: A European Perspective. *Proceedings of ACM Digital Government Research conference: June 2017*. New York, USA: ACM, [forthcoming]

Krimmer, R., Kalvet, T., Toots, M., Cepilovs, A. 2017. Das Projekt TOOP: Bürokratieabbau und Verwaltungsvereinfachung mittels des «Once-Only» Prinzips für Unternehmen. Schweighofer, E., Kummer, F., Hötendorfer, W., Sorge, C., 20 Jahre IRIS: Trends und Communities der Rechtsinformatik / 20 Years of IRIS: Trends and Communities of Legal Informatics – digitale Ausgabe zum Tagungsband des 20. Internationalen Rechtsinformatik Symposions IRIS 2017. 265–266. Vienna: OCG Verlag.

Muizniece, L. and Cepilovs, A., 2017. Supporting University Technology Transfer – Struggles and Barriers in Latvia. *Ekonomiska misao i praksa*, (1), pp.321-342.

Raudla, R., Cepilovs, A., Kuokštis, V., Kattel, R. 2016. Fiscal Policy Learning from Crisis: Comparative Analysis of the Baltic Countries. *Journal of Comparative Policy Analysis*, 1–16

Cepilovs, A., Muižniece, L. 2016. Latvia after EU accession: weathering the storm? In: L. Briguglio (Ed.). *Small States and the European Union: Economic Perspectives*. 87–110. Abingdon: Routledge

Kattel, R., Cepilovs, A., Drechsler, W., Kalvet, T., Lember, V., Tõnurist, P. 2014. Can we measure public sector innovation? A literature review. LIPSE Working papers, 2, 1–45.

Cepilovs, A. 2014. Public Procurement for Innovation in Small States. The Case of Latvia. In: Decarolis, F., Frey, M. (Ed.). *Public Procurement's Place in the World. The Charge Towards Sustainability and Innovation*. 93–130. Basingstoke: Palgrave Macmillan

Cepilovs, A. 2013. Public Procurement for Innovation in Small States. The Case of Latvia. *Rivista di Politica Economica*, 2, 99–136.

Lember, V., Cepilovs, A., Kattel, R. 2013. Demand-side innovation policy in Estonia: rationales, limits and future paths. *The Other Canon and Tallinn University of Technology Working Papers in Technology Governance and Economic Development*, 56, 1–32.

8. Blogipostitused:

Cepilovs, A. "Estonia and Latvia as small EU Member States: Effects of membership on structure and performance." *Nurkse Department Ideas Bank*, 24.08.2016

Cepilovs, A. "The new EU public procurement directives: will they bring innovation and sustainability through procurement?" *Nurkse Department Ideas Bank*, 19.02.2015

Cepilovs, A. "On direct consequences of fiscal austerity and neoliberalism more generally: the case of 2013 Maxima tragedy in Riga." *Nurkse Department Ideas Bank*, 11.02.2015

TALLINN UNIVERSITY OF TECHNOLOGY
DOCTORAL THESES
SERIES I: SOCIAL SCIENCES

6. **Ülle Madise.** Elections, Political Parties, and Legislative Performance in Estonia: Institutional Choices from the Return to Independence to the Rise of E-Democracy. 2007.
7. **Tarvo Kungla.** Patterns of Multi-Level Governance in Europe: The Challenge of the EU's Enlargement. 2007.
8. **Mikk Lõhmus.** Avaliku halduse detsentraliseerimine Eestis. 2008.
9. **Tarmo Kalvet.** Innovation Policy and Development in the ICT Paradigm: Regional and Theoretical Perspectives. 2009.
10. **Thomas Duve.** Die Verschuldung deutscher Gemeinden: Präventionsansätze im Spannungsverhältnis von kommunaler Selbstverwaltung und staatlicher Gesamtverantwortung. 2009.
11. **Veiko Lember.** Contracting-Out Public Services and Public Procurement for Innovation: Revisiting Contracting Limits in Estonia and Beyond. 2009.
12. **Raivo Linna.** An Integrated Model of Audit, Control and Supervision of the Local Government Sector: The Case of Estonia. 2010.
13. **Simon Lang.** Transformations in European R&D and Regional Policies within the Multi-Level Governance Framework: The Changing Nature of the European Union Ten Years after the Launch of the Lisbon Strategy. 2010.
14. **Erkki Karo.** Governance of Innovation Policy in Catching-up Context: Theoretical Considerations and Case Studies of Central and Eastern European Economies. 2011.
15. **Margit Suurna.** Innovation and High-Technology Policy, Policy-Making and Implementation in Central and Eastern European Countries: The Case of Estonia. 2011.
16. **Marek Tiits.** Technology Foresight and the Catching-up Strategy in Small Countries: The Case of Estonia. 2011.
17. **Vasileios Kostakis.** The Political Economy of Information Production in the Social Web: Towards a "Partner State Approach". 2011.
18. **Jane Järvalt.** Strategic Human Resource Management in the Public Service: Evidence from Estonia and Other Central and Eastern European Countries. 2012.

19. **Robert Krimmer.** The Evolution of E-voting: Why Voting Technology is Used and How It Affects Democracy. 2012.
20. **Küllli Sarapuu.** Mapping and Explaining Post-Communist Development of Administrative Structure: The Case of Estonian Public Administration 1990–2010. 2013.
21. **Kristi Joamets.** Gender as an Element of Marriage Capacity in the Context of National and Supranational Law in the European Union. 2014.
22. **Aleksandr Aidarov.** Estonian National Minorities' Cultures: Successes and Failures of Policy Goals, Instruments and Organization. 2015.
23. **Riin Savi.** The Impact of Fiscal Crises on Public Administration: Cutback Management and Changes in Decision-Making. 2015.
24. **Priit Vinkel.** Remote Electronic Voting in Estonia: Legality, Impact and Confidence. 2015.
25. **Küllli Taro.** The Attribution Problem in Performance Measurement in the Public Sector: Lessons from Performance Audits in Estonia. 2016.
26. **Piret Tõnurist.** Energy-Technology-Innovation Systems in a Transnational Perspective: Small States, Public Ownership and Diverging Policy Rationales. 2016.
27. **Merit Tatar.** The Impact of the European Union Cohesion Policy on Multilevel Governance in Estonia: Subnational Empowerment and Mobilisation. 2016.
28. **Egert Juuse.** Financial Fragility and Economic Instability in the Context of Transition Economies: The Case of Estonia. 2016.
29. **Vasileios Niaros.** Making (in) the Smart City: Urban Makerspaces for Commons-Based Peer Production in Innovation, Education and Community-Building. 2016.
30. **Kaide Tammel.** Creating Shared Service Centers for Public Sector Accounting: The Case of Estonia. 2017.
31. **Noella Edelmann.** Online Lurkers and the Impact of their Activities in E-Participation. 2017.
32. **Jelizaveta Krenjova.** Participatory Budgeting: Theoretical Models and Applicability in Estonia and Beyond. 2017.
33. **Aleksanrds Cepilovs.** Policy Learning and Policy Transfer in Policy Environments with Weak Policy Capacity: Exploring Processes and Effects in the Domains of Fiscal and Innovation Policies. 2017.