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Karlijn Liselore Anne Roex

Anomie, Shame, and Resistance

The Impact of the Economy on Suicide

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Studies on the Social and Political Constitution of the Economy

Abstract

This project builds on Durkheim's sociological tradition to identify factors external to the individual that contribute to suicide rates. The theories central to this work imply that marketization plays a key role. Marketization here means economic deregulation policies and the overall "rescripting" of citizens as "consumers" (Monahan 2008). The main question of this project was: *How is suicide influenced by unemployment, and how does this influence depend on the societal context of (increasing) marketization? Do dominant institutions only restrict suicidality, or can they also increase it?*

The project consisted of two parts. The first, based on the diffusion and industrial relations literatures, examined the cross-national diffusion of marketization processes. The second examined the impact on suicide rates of these processes and the extent to which people attempt to resist them. This part of the project derives from Durkheim's (1897) classical integration theory and institutional anomie theory (Messner and Rosenfeld 1994). Popular resistance against marketization was shown to have an important protective impact on the population and unemployed men in particular.

About the author

Karlijn Roex was a doctoral researcher at the IMPRS-SPCE from 2014 to 2018.
Email: info@karlijnroex.net

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The Impact of the Economy on Suicide

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Referent: Prof. Dr. Mark Lutter und Prof. Dr. Clemens Kroneberg

Korreferent: Associate Prof. Dr. Aaron Reeves

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For Omid[1]

[1] refugee that committed suicide 29 April 2016 in Nauru, an Australia offshore detention center.

Foreword and Acknowledgements

First of all I want to thank my supervisors for their valuable feedback and time: professor Dr. Mark Lutter and professor Dr. Aaron Reeves. I have received their feedback with great interest. I also want to thank the Max Planck Institute for the Study of Societies for facilitating my research and making everything go as smoothly as possible. In particular I want to thank the coordinators Ursula Trappe, Susanne Berger and Alex Spielau. I also want to thank some colleagues for their valuable support and advice: Annette Michaela Hübschle, Dennis Mwaura, Guus Dix, Lea Elsässer and Alina Marktanner. Without them it would not have been possible to find the courage to continue. Moreover, I want to thank my parents for having allowed me to focus more fully on my doctoral work by taking care of some of very demanding aspects of my private life. Moreover, they were often a vital personal support that encouraged me to pursue the PhD, and often a safe, trusted home to return to when I needed some rest. Moreover, I want to thank some very good friends for providing stimulating intellectual conversations that inspired me and also for their understanding that a PhD can sometimes take over your social life. At other times, they were there to help me find a healthier work-life balance. These friends are Joeri, Pieter, Caroline, Baukje, Charlotte, Inge and many others.

This project was a deep search. It was part of a journey, a PhD trajectory, in which I more clearly found my position as a sociologist, whereas I started as a blank, new PhD student who had no idea where she stood. In some respects, I have ended at an opposite end from where I have started – having learnt so many new things and gained refreshing insights. During the process, I was disorientated many times. I felt my old assumptions and idea of sociology were no longer tenable, at least not to me. I am aware that I am making assumptions in this thesis on the very back of those who are in extreme distress (suicidal) or suffering from the large bulk of economic pressure, poverty, inequality and prestige culture ('marketization'), without having talked to them for my research. In that instance, I am actually admittedly committing a 'social science crime' (Scott, 2012: xxiv[2]). However, I have talked too many of these people in real life, and my future work will aim to more closely represent their narratives. Meanwhile, using this 'us and them' language appears a bit odd, since we have almost all experienced extreme distress at some point and a large portion of us is suffering in marketizing societies. This dissertation, with all its limitations that I now acknowledge, is dedicated to all of us.

Paradoxically, this PhD thesis focuses a bit on disorientation. Through the experience of doing a PhD project, which is in fact a phase in which you prepare for returning disorientation, I found out that this disorientation does not need to be a necessary 'bad' or harmful thing. In the end, I found out that we could have a more optimistic attitude towards phases of disorientation, also on the collective level.

[2] Scott, J. (2012). Two Cheers for Anarchism. Six Easy Pieces on Autonomy, Dignity, and Meaningful Work and Play. Princeton/ Oxford: Princeton University Press.

One scholar that has especially helped me gaining this insight academically, was, unintendedly, Professor Dr. David Stark. I attended a course lectured by him while staying at Columbia University and read his book *The Sense of Dissonance* (2009). It was refreshing and resonated with many things that I was focusing on at that moment, finding myself in the midst of a disorientated city right after the Trump election in November 2016.

About that period in New York, I also want to thank the many inspiring people I have met there: John ('Jp'), Kassie, Jamell ('Jay'), Adamma, Jonah, Marie, Rebecca, Kelly and Matthew.

Abbreviations and acronyms

b-value: Estimated regression coefficient

β: Standardized estimated regression coefficient

EPL: Employment Protection Legislation

FDI: Foreign Direct Investment regulation

GDP: Gross Domestic Product

IAT: Institutional Anomie Theory

IMF: International Monetary Fund

OECD: Organisation for Economic Co-operation and Development

p-value: level of statistical significance

SE: Standard error

VoC: Varieties of Capitalism

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1. Introduction

1.1 The Problem

Why is it that suicide-rates differ so strongly between countries and time periods? This signals that the behaviour, often associated with individual dispositions, is also socially determined. Early influential works of Durkheim (1897) and Morselli (1882) have increased scholars' awareness of the social causes of suicide. Empirical work has identified many relevant social determinants of suicide, although there is still much to be explored. A considerable amount of variation in suicide-rates was still unexplained despite looking at countries' wealth and indicators of anomie and modernization (Neumayer, 2003a; 2003b; Kunce & Anderson, 2002). This indeterminacy has incited some calls for more research investigating what these unknown additional determinants of suicide are (Neumayer, 2003a; 2003b). This project will answer to this call.

The aim is to understand: *How is suicide influenced by unemployment, and how does this influence depend on the societal context of (increasing) marketization? Do dominant institutions only restrict suicidality, or can they also increase suicidality?*

The project consists of three parts

1 Assess the widely-studied suicidogenic effect of unemployment. This study answers new questions by studying whether marketization processes alter the impact of unemployment on suicide. Several theories proposed contrasting answers regarding this.

2 Focusing on the diffusion of marketization processes from influential countries towards other countries, and subsequently to the impacts of the currently adopted degree of marketization on suicide rates.

3 Examining the mechanisms behind the link between unemployment and suicide (Chapter 3 and 4).

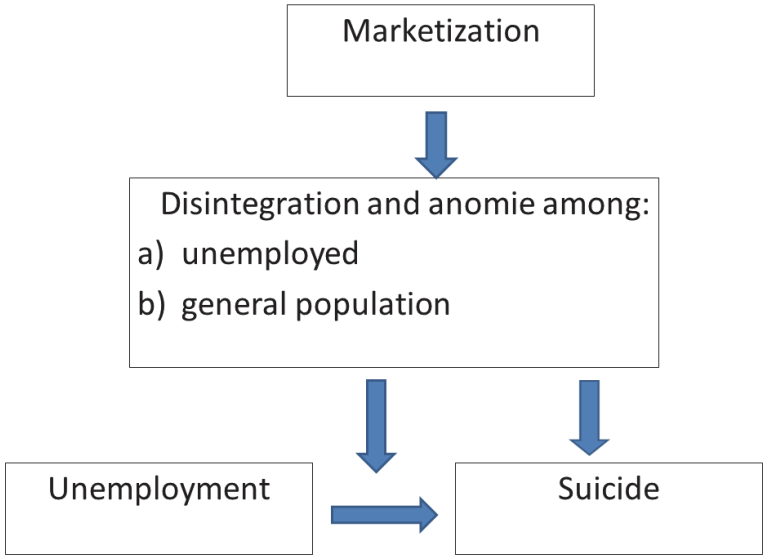
Because this project only has access to countries' aggregated suicide-rates, the former part is not able to assess the mechanisms that play at the individual level. What is it that can explain the higher suicide among the unemployed, especially in the face of marketization? With this, I respond to a call for more research into the moderated suicidogenic effects of macro-social factors by individual characteristics (e.g. Miller et al., 2005). *Specifically, I examine the effect of unemployment on suicide, and specifically I will examine whether it is more dramatic in societies where the unemployed feel more left out (disintegration), morally left out, and ashamed of their job/ income situation than the employed.* Moreover, I will examine whether this higher disintegration, anomie and shame among the

unemployed is more apparent in marketized societies. This will answer questions about the merits of some popular theories in the sociological study of suicide and deviance: Integration Theory (Durkheim, 1897), Institutional Anomie Theory (IAT, Messner & Rosenfeld, 1994). By this, the current project offers the first and most direct quantitative exploration of these mechanisms in a cross-national time series fashion.

This work will introduce a diffusion framework to the macro-level scholarship on suicide by assessing the influence of processes in influential countries on the current status quo in other, less influential countries (Chapter 2), and subsequently how this current status quo influences the suicide rate (Chapter 3 and 4). Moreover, in contrast to previous work, the current analyses better distinguish between transnational diffusion of suicidal patterns from influential countries to other countries, and the actual impact of marketization processes and unemployment.

Generally, the model to be tested is displayed in Figure 1.

Figure 1: Model of the project.



The signs of the proposed effects (positive or negative) are left ambiguous in Figure 1, because different theories propose different effects. This study will test and evaluate these different theories simultaneously, which leads me to more informative interpretations that are less biased towards one particular theory (Hoffman & Bearman, 2015; King & Verba, 1994). Partly, this dissertation draws upon Durkheim's (1897) classical *Integration Theory*, which theory still dominates sociological research on suicide (e.g. Hoffman & Bearman, 2015; Mäkinen, 2000; Reeves & Stuckler, 2015).

Another theory will be newly introduced to the topical field of suicide from other literatures (e.g. literatures on crime, deviance, consumerism, diffusion and social norms): Institutional Anomie Theory (IAT) (Messner & Rosenfeld, 1994). The aim is to distinguish between theories when competing, and otherwise show their relative importance. As will become clear, the different theories are not necessarily mutually exclusive. In the final concluding chapter, I will shortly discuss on potential cases whose actual suicide-rates were poorly predicted by the general fitted models.

Instead of ignoring these cases as nuisance as is usually done in quantitative work, I will propose some theory-based explanations for the case's deviance from the general pattern. Such speculations are useful for suggesting directions for future research. Previous scholars (e.g. Seawright, 2016) have recommended taking a look into deviant or extreme cases, because they can provide valuable key points for new insights, provoking us to think into new directions that we have originally overlooked when sticking to the usual linear y-function.

The project resonates with Coleman's (1987) conceptualization of a multilevel model. The macro-level outcome (the suicide rate, or the macro-level relationship between the unemployment rate and suicide rate) will be explained by another macro-level phenomenon (the unemployment rate, or marketization), but not without specifying the micro-level mechanisms underlying these.

In the following introduction, I will first outline the relevance of the project, followed by a discussion on the theoretical framework. After this, I introduce and discuss some cross-national and cross-temporal descriptive figures on suicide rates. Although each chapter will have its own theory section, this introduction is meant to give a more in-depth introduction of the previous debate with more background on the two central theories, the central idea and the concepts as they have been used previously.

1.2 Relevance

While Durkheim's (1897) Integration Theory has been applied in virtually every social science study on suicide, a more contemporary derivative of this theory, IAT (Messner & Rosenfeld, 1994), has not. This is surprising, because this theory has some interesting suggestions to offer for understanding unemployment and suicide. In particular, the theory deals with the potential effects of the increased marketization of the public sphere on anomie (Messner & Rosenfeld, 1994), crime (Bjerregaard & Cochran, 2008; Messner & Rosenfeld, 1994) and intolerant attitudes (Hövermann et al., 2015). There are important reasons why varying suicide rates can be well explained through an IAT framework, which I will explain later more in detail. One potential hurdle in the emergence of empirical applications of this IAT theory is potentially the difficulty of finding appropriate measures and

operationalizations for the concepts (Bjerregaard & Cochran, 2008). For the current study, creative and innovative use was made from some fruitful items in several surveys; items whose importance may be easy to overlook, but that appear to be relatively direct measures of disintegration and attitudes on marketization.

This project is embedded in the wider field on the public health impacts of socio-economic events. Compared to other health-statistics, official suicide-statistics are published relatively quickly. Related to this is the fact that most other health-impacts of social phenomena only become apparent after years, if not decades, in contrast to suicidal responses (A Tapia Granada, 2005; Karanikolos et al., 2013; Stuckler et al., 2009). Furthermore, the cross-national comparability is higher for mortality-statistics than for most health-indicators (Karanikolos et al., 2013).

To date, no studies have assessed the potential relationship between marketization and suicide-rates. Hints about effects could come from studies showing a suicidogenic impact of austerity policies (e.g. Antonakakis & Collins, 2014; Karanikolos et al., 2013; Weaver & Munro, 2013), which are policy-means aimed at restricting public debts, achieved by cutbacks in government expenses and raising tax revenues (Antonakakis & Collins, 2014; Kentikelenis et al., 2014). Still, austerity policies (government cutbacks to tighten public debts) and marketization are separate phenomena, although they may sometimes overlap. Rather, marketization is a part of a strong pro-market ideological policy-agenda, regardless of any desire to restrict the public debts. Thus, the implementation of marketization measures may be a structural rather than a countercyclical trend. This makes it even more important to examine its health-impact.

During the last 50 years, suicide-mortality has increased worldwide, and has become the 3rd leading cause of death for people aged between 15 and 44 (Ying et al., 2009). The latest crisis, accelerating already occurring trends of increasing inequalities, austerity-policies and employment insecurity, has evidently had serious impacts. In fact, with the onset of the crisis, suicide-rates started to rise after a long-termed decline in Greece (Antonakakis & Collins, 2014; Kentikelenis et al., 2014) and Europe (Barr et al., 2012; Karanikolos et al., 2013; McKee et al., 2012). This rise in suicides was found to be larger than would be predicted from a scenario in which the economy would have continued to show more normal fluctuations (Barr et al., 2012; Lopez-Bernal et al., 2013). Moreover, experts predict that market instabilities will be more permanent, given that the current system will likely not be radically amended in the near future (e.g. Unger, 2009). Moreover, a considerable stock of employment (30-55%) has become temporary, part-time or underpaid in the OECD (King & Rueda; 2008), Japan (Kondo & Oh, 2010) and EU (Gash & Inanc, 2013), although some countries were more resilient to this trend (Cazes en Auer, 2003; Gash & Inanc, 2013). Still, the potential suicidogenic impacts of such trends have amply been studied, although some initial evidence points to a serious suicidogenic impact (Kondo & Oh, 2010; Page et al., 2013).

Practically, suicide rates are an indicator of a society's failure (Durkheim, 1897). This is a radically different perspective from conceptualizing suicide merely as an expression of supposed insanity, starting with Durkheim (1897) and by now a full tradition of sociological and economic scholarship to suicide. Speaking in Peter Singer's (1972) terms, suicide involves avoidable deaths, and we may learn about preventive societal recipes from the more successful societies. Scholars in the field have urged politicians to recognize that economic policy implicitly carries public health choices (Karanikolos et al., 2013; Kentikelenis et al., 2014; McKee et al., 2012; Westerlund, 2002). Indeed, several policies have been widely shown to prevent or enhance suicide during economic downturns (Cylus et al., 2014; Karanikolos et al., 2013; Norström and Grönqvist, 2015; Stuckler et al., 2009). This study aims to add insights about the implications of some policy choices that have not received much attention regarding suicide.

Moreover, studying suicide provides insights about the functioning of social norms and institutions (Durkheim, 1897). Despite this, the role of social norms have barely been studied in works on suicide, but rather been referred to in ex post explanations of findings. Considering norms would not only provide more insights on suicidality, but also contribute to a principle debate about the functions and dysfunctions of social institutions: do they restrict or rather enhance suicidal behaviour in some contexts? In addition, this project will contribute to a related debate to this. Specifically, one strand of theory states that suicidality increases when social institutions lose their regulative function (e.g. Durkheim, 1879), whereas the other theoretical strand states that people are rather regulated by a new and dysfunctional set of norms and institutions (Merton, 1939; 1964). Such claims are often made in order to explain the increased suicidality over the 20th century on (and the stable high suicide rates since then). My long time series is highly likely to capture such a shift towards new dysfunctional norms.

The literature clearly suggests that a deteriorating economy is more suicidogenic in some jurisdictions and time-periods than in others. Identifying the contextual factors that aggravate or attenuate this suicidogenic impact would answer theoretical questions and suggest some suicide-preventive interventions. Some contextual factors that have been shown to moderate (attenuate) the suicidogenic impact of unemployment, are the generosity of welfare provisions (e.g. Cylus et al., 2014; Norström and Grönqvist, 2015; Stuckler et al., 2009), the previous level of unemployment (Nordt et al., 2015), wealth-level (Noh, 2009) and gender-egalitarianism (Reeves & Stuckler, 2015). A similar role has been provisionally suggested for social cohesion[3]. Most studies, however, have only speculated about moderators, or worse: assumed identical effects for each society. Consequently, studies have arrived at contradicting conclusions about the suicidogenic effect of economic change due to misspecification bias.

[3] A strong presence of civil society associations was suggested to moderate (attenuate) the suicidogenic impact of economic downturns (Brainerd, 2001; Stuckler et al., 2009).

Despite the rich availability of TSCS data, many opportunities to answer interesting dynamic questions have been left unused. For instance, the suicidogenic influence of specific societal conditions may change or even disappear over time (Mäkinen, 1997). For instance, Stuckler et al. (2009) suggested that unemployment ceased to have any impact in Finland during the early 1990s. Still, many studies use the implausible working-assumption of a time-constant impact, even across a whole century (e.g. Viren, 1996). I aim to improve upon this with separate analyses allowing for time-varying effects. In fact, assessing temporal patterns are very informative for assessing diffusion patterns. For instance, I will use a more direct indicator of anomie and anomia (the extent to which people in a society feel left out of their society) instead of factors such as the divorce rate or female labour force participation, which may be outdated as indicators for anomie. Moreover, I explicitly model some control variables such as the suicide culture in a country (Neumayer, 2003) as well as previous trends in influential countries.

Finally, securing that a rise in unemployment preceded the rise in suicide, more strongly suggest the presence of causality. Studies found that when unemployment has started to rise, its suicidogenic effects typically occurred within 1 or 2 years (Mäkinen, 1999; Stuckler et al., 2009). However, Nordt et al. (2015) found that the increase in suicide-rates preceded the increase in unemployment-rates. This was interpreted as follows. Specifically, people may already note the initial signs of economic downturns and anticipate on subsequent actions of employers (e.g. mass lay-offs). The lag by which these imminent lay-offs were shown to take place after the onset the recent economic crisis (Gash & Inanc, 2013) corresponded to the lag found in North et al. (2015). Within this period, feelings of job insecurity and suicides may start increasing. This potential reverse-ordered causation will be addressed in the current project as well by regression the lagged values of the independent variables on the dependent variable.

1.3 Theoretical framework: Disintegration, anomie and suicide

An popular classical notion in the sociological inquiry of suicide is that suicide will be more prevalent in disintegrative and anomic societies. Durkheim (1897: 382) states that anomie is a consequence from a lack of shared foci in a society (integration): collectivities that can regulate its individual members. As a result, these disintegrated individuals would become deregulated in their behaviour, or else distressed, with the same potential outcome: suicide.

Anomie has not only been framed at the society level, but also has met its counterpart at the individual level (Durkheim, 1897): ‘anomia’ (Srole, 1956). An individual may have lost his/ her ties with important collectivities, such as work or family, or generally perceive to be left out of society. Durkheim (1897) argued that, in that case, suicide is more likely because being isolated and detached

from society can lead to a feeling of meaninglessness and being without purpose. Moreover, isolated individuals may also more easily detach from their community's norms and therefore be less normatively prevented from committing suicide (Durkheim, 1897). In that case, people would have lost their guidelines that originated from shared social norms and their behaviour would this time rather be driven by unregulated personal egoistic desires.

Alternatively, anomie could result from abrupt and unanticipated shifts or events in a society (Durkheim, 1897; Hoffman & Bearman, 2015). In that instance, the integrative and regulative function of collectivities is temporarily impaired, as people are confused about what norms and standards are valid in this 'state of exception' (Agamben, 2005). Individuals themselves would then become as restless as the macro-level trends around them, and they would raise their expectations to levels that will later appear infeasible. Desires would not be met and these boundless people are highly dissatisfied with their life full of limitations, their low social status or their forgone opportunities, which may lead to suicide. This was termed 'anomic suicide' (Durkheim, 1897). Here the emphasis is on the being deregulated, whereas in the case of 'egoist suicide' the emphasis is on being disintegrated.

This worry about one's missed opportunities and low social status could also be the result of being (too) regulated, rather than from a lack of integration. In fact, contemporary followers from Durkheim's (1897) classical work on anomie, rather state that it is a *disproportionate dominance of some sort of institutions* that can facilitate anomie (and anomia), rather than a lack of powerful institutions at all. These newer theories in the field of anomie expressed some worry about the emergence of marketization processes, or the 'American Dream', causing some groups to feel alienated or stigmatized. In this regard, Merton (1939; 1968) and Messner & Rosenfield (1994) pointed towards the 'American Dream ethos', where profitability and economic success are the most salient moral guidelines for people in a broad range of social domains (eventually also in domains beyond the market) (e.g. Hövermann et al., 2015; Swierstra & Tonkens, 2008).

In Merton's (1939; 1968) anomie-and-strain theory and, subsequently, in IAT (Messner & Rosenfeld, 1994), anomie is not thought to be the consequence of a lack of strong collectivities in society, but of a disbalance in its structural framework. When collectivities or organizations that are market-driven are becoming increasingly dominant relative to non-market institutions, the risk of anomie is substantial. In these theories, market-based and non-market based norms, institutions and domains are thought to balance and limit each other. A high predominance of market-based institutions makes that economic goals such as individual economic success prevail, while the (non-economic) norms about the procedures and means of how to achieve those goals lose in importance (Merton, 1939; 1968). Individuals therefore become normatively disorientated about how to fulfill these economic

imperatives. According to Merton (1939; 1968), most people can resettle a balance for themselves in which the previously important non-market norms about how to strive for success are equally important as the economic goals themselves. These accepted routes towards success are generally accessible for them, and mostly it will be through work. Some people, however, are not able to obtain work and they start facing a normative void regarding the question of how to normatively achieve the so highly emphasized imperative to be economically successful. Next to this anomic disorientation, unemployed individuals face much exclusion and stigmatization in a society that so strongly emphasizes economic goals (Gustafson, 2009; Boris, 2007; Hövermann et al., 2015). Some happiness-scholars that looked indirectly at dominant norms to work, found an adverse impact on the relative happiness of the unemployed (Clark, 2003; Clark et al., 2009; Stavrova et al., 2011; Stutzer & Lalive, 2004). This mix of deregulation at one respect (routes towards success) and disintegration as a result of an overly strong regulation (the prescribed goals), is highly anomic for unemployed in particular.

IAT (Messner & Rosenfeld, 1994) builds further upon both Integration Theory and Merton (1939; 1968) and will be the second theory, next to Integration Theory, to be used in this work. This theory highly agrees with Merton (1939; 1968), especially also with regard to the anomic effects of an institutional disbalance between market-based and non-market institutions for particularly the unemployed, but implicitly rejects the presence of a lack of normative guidelines regarding the 'routes towards success'. Rather, the increasing dominance of market-based institutions is accompanied with a penetration of market philosophy into many other domains and daily actions (Fairclough, 1993; Hövermann et al., 2015; Messner & Rosenfeld, 1994;). Not only do economic goals become more important, but also do market-based means and procedures become more valued and normalized rather than non-market based ones (Eikenberry & Kluver, 2004; Fairclough, 1993). Adding content into informal talk for the concealed purpose of promotional sales instead of building friendships (Fairclough, 1993) or generating funds as a non-profit through commercial advertisement and competition (Eikenberry & Kluver, 2004) are examples. The imperatives in such a society are to be efficient and profitable, not to be reliant on the state, as Hövermann et al. (2015) showed in a survey study. IAT argues that it is not so much the case that unemployed individuals fall into a normative void and are left deregulated regarding how to achieve a higher position. Rather, the unemployed are teased by high degrees of disintegration in a society where participation in market-based roles and institutions is considered superior in importance, while non-market based ones lost their importance, and where a positive sense of belonging cannot easily be achieved through a non-market route.

1.4 Marketization and anomie

The reason why a completechapter (Chapter 2) was devoted to marketization processes is because it is likely to be a central variable in determining suicide. Both Integration Theory and, in particular, IAT have interesting (and contradictory) claims about the role of marketization in determining suicide risk and also suggest that marketization is an important determinant along others.

1.4.1 Integration Theory

Marketization processes have been thought to facilitate a general weakening of a society's main institutions (Durkheim, 1897; Flavin & Radcliff, 2009). In Polanyian (1944) terms: the market becomes more disembedded, in that it becomes less regulated by norms of solidarity or social accountability, because of withdrawing institutions that impose such norms. In Durkheim's terms, a 'naked' egoist individualism would prevail above moral action at the main domains of collective life.

Marketization would, according to this viewpoint, deregulize and individualize. Individuals would be taught to refer to the selves in a highly atomic ways in societies steered by 'utilitarian egoist individualism', or 'narrow commercialism' (Durkheim, 1975: 60). Durkheim (1897) clearly was influenced by the classical dualism between the private of physical concerns (e.g. livinghood, domestic concerns) and the public domain of norms, values and politics (Pocock, 1992): economic concerns appear here as non-normative, purely private concerns that are regulated by public concerns (normative and ethics on the collective interest). A lack of the latter can induce boundless egoism, and lead to a society purely concerned with making transactions on production and consumption (Barmaki, 2014; Durkheim, 1975: 60) (i.e. a public sphere empty from a normatively regulating public domain and merely left to private desires). In contrast to this, Durkheim (1975) presents a moral individualism where egoistic desires are still regulated by public values and concerns, and channeled such that individuals are free and self-aware, but still interdependent and part of a larger journey. His discussion in Division of Labor (1893) builds further onto this: individualist orientations still can lead to a well-functioning whole, albeit regulated by a normative framework outside of only market-based concerns. Durkheim is therefore not entirely anti-individualism, but only very critical to the imbalance towards a 'naked' individualism observed in marketizing societies.

Interestingly, Durkheim's (1897) very book about Suicide itself is an expression of his resistance against overt individualism. Not only is he critical of excessive individualism in society and among citizens, but also within academic works (Barmaki, 2014; Durkheim, 1975; 1897). He strongly resists against the overemphasis on individual explanations of emotional distress and suicide, at the cost of social explanations and recognizing the implications of living in a society. In the introduction of his book Suicide (1897), he firmly states (p. 59): "*When it can be shown that suicide is a mental illness*

with its own causal origin and attributes, we have already answered the question: simply that every suicide would be a madman".

Durkheim (1897) appears to present a shift towards the predominance of market-thinking as anomic because institutions lose their power and function in integrating and regulating people and their behaviour. What remains is an unregulated playfield of rational utility maximizing individuals.

1.4.2 IAT

Some 'neo-Polanyians' such as Block & Somers (2016) argue that it is market 're-embeddedness' rather than 'disembeddedness' that we are currently seeing in marketizing regimes. That is: they are embedded in a *different* normative framework than the traditional one, in one of 'market fundamentalism', instead of being disembedded from any normative framework.

Whereas Durkhemian and other scholars only noted a general weakening integrative and regulative functions of 'traditional' institutions and norms (Beck & Beck-Gernsheim, 2002; Brückner & Mayer, 2005; Hövermann et al., 2015; Popenoe, 1993; Putnam, 1995), Institutional Anomie Theorists (Messner & Rosenfeld, 1994) argue that these institutions and their norms have more or less been crowded out by *new ones*. A Instead of the Durkheimian hypothesis of societies being rendered in a state of overall normlessness, IAT, notices the emergence of a new normative framework are called the 'American Dream ethos' (e.g. Messner & Rosenfeld, 1994) or 'market fundamentalism' (Block & Somers, 2016). These norms put demands on people to strive for economic success, gainful employment and be productive (Hövermann et al., 2015; Merton, 1939; 1968; Messner & Rosenfeld, 1994; Verhaeghe, 2008). It is precisely this crowding out of one set of institutions and norms by another that has generated anomie.

In IAT, by contrast, this egoistic individualism paradoxically reflects *norm-conform* behaviour instead of unregulated conduct (Duyvendak & Hurenkamp, 2004). Crucially, rather than considering people's adherence to a society's main institutions as inherently functional[4], IAT theorists rather point to its possible *dysfunctional* sides. Examining both Durkhemian and IAT-proposed anomie-mechanisms in one study would produce findings that contribute to this more fundamental debate.

IAT states that with marketization – the shift towards a predominance of market-based principles and actions – rather a new set of institutions and norms replace an old set of institutions and norms in dominance. Specifically, Messner & Rosenfeld (1994) have described three subtrends that would constitute this marketization:

1. Non-market institutions, norms and roles are decreasing in importance
2. Market-based institutions, norms and roles are increasing in importance

[4] As has been a powerful critique on the mainstream functionalist paradigm (Collins, 1994)

3. These market-based norms and roles are increasingly penetrating into traditionally non-market institutions and domains

For the bulk of society, marketization processes do not need to be anomic. For them, it is entirely clear what institutions to belong to and what norms and expectations to follow. It is especially those people that cannot comply with the idealized picture of the profitable citizen (Hövermann et al., 2015) who may experience disintegration. While these individuals are still strongly regulated by the marketized imperatives of economic success and profitability, they experience social rejection, disapproval and stigmatization exactly because they do not fit this dominant ideal (Hövermann et al., 2015; Kampen et al., 2013).

Marketization captures the overall market dominance in a society, set-off against the role of the government. It could entail the deregulation of the actions of market-actors by government-actors, with an increasing share of goods and services being provided by market-actors (e.g. Wei & Kong, 2014). Additionally, it could involve the 'commodification' of people: the extent to which people's subsistence is determined by market-forces rather than by non-market principles such as citizenship (Esping-Andersen, 1990). But instead of fully taking a market-versus-government stance, I state that marketization may also involve government agencies adopting market-logics. When market-institutions have gained dominance in the social structure, their norms may diffuse towards the now less influential non-market institutions. An example is social security agencies that take a more market-based approach towards welfare-recipients. At the other hand, shifting institutions can be driven by shifting norms. Market-based institutions will have more space to outcrow other kinds of institutions in a society whose culture moves more towards a competition-favouring, commercialist stance.

An important focus of attention in the theoretical framework is the way in which people experience marketization: their perception of living in a marketized or non-marketized institutional or normative framework, and their evaluation of it. This study will, for example, also look at the degree of disapproval, or resistance, among people against this perceived marketization.

1.5 Implications for suicide

Marketizing societies constitute contexts with strong disintegration and therefore anomie in societies, according to Integration Theory. Citizens are disintegrated because of the decrease of the strength of institutions and norms, and as a result they are also deregulated. What is left is an unregulated playfield of rational utility maximizing individuals. People may raise their expectations and ambitions towards unfeasible levels and experience boundless drifts and desires (Durkheim, 1897). Later they

will inevitably find out that some of these aspirations have been unrealistic and, as a result, be dissatisfied with their lives. Because they miss a collective for restoring meaning and feasible frameworks, as well as a compelling normative framework prohibiting suicide[5], their suicide risk is enhanced. People in such societies are most susceptible to anomic suicide: suicide as a result of unregulated desires and ambitions, which in turn is a result of a lack of strongly integrating and regulating institutions.

IAT rather frames the individual within the marketizing society differently. Marketization processes are not necessarily anomic for the regular citizen. Because IAT rather sees the emergence of new institutions and norms rather than only a fading of the old ones, it is to be expected that most citizens will align to these new institutions and norms. It is only for the ones that cannot find valuable market-based roles and ties, for whom these processes will be disintegrating. Remember that these individuals are likely still highly regulated by the new institutional framework. In fact, they may feel the pressure to comply with the prescribed economic goals of success every day (Hövermann et al., 2015; Stavrova et al., 2011). This combination of a strong regulation with a weak integration can lead to egoistic suicide, and in the most extreme case to fatalistic suicide. Egoistic suicide arises when the individual feels left out of society, just as with anomic suicide. But egoistic suicide does not result from boundless (and unmet) desires, but rather primarily from this feeling of detachment of society and therefore of lack of meaning (Durkheim, 1897). It is also precisely likely in marketizing societies, because there people are trained to conceive themselves as an individual project that needs to succeed (or may fail) individually, and perhaps this facilitates also individual self-punishment.

In a more extreme case, fatalist suicide can occur when suicides are rather driven by the experience of an overly strong pressure to comply with the (marketized) standards and the resulting social disapproval and shame from failing to do so. With fatalist suicides, it is not primarily the feeling of detachment, but rather the pressure from (overly) high social expectations that result in suicide. Note also the difference with anomic suicide, where the high expectations are rather the expectations that an individual imposes on him-/ herself, and which expectations were triggered by a lack of regulation rather than from extreme regulation.

Fatalist suicide is often associated with strong regulation that use explicit force, but it can also be expected to result from some more subtly enforced strong social expectations. This is one of the merits of the current study: it examines whether an implicitly enforced social expectation to be economically productive does trigger a more suicidogenic impact of unemployment. Overall, while Integration Theory expects an effect of marketization on the tendency to commit suicide among the population as a whole, IAT expects such effects for the unemployed in particular.

[5] A core assumption in Durkheim's work appears to be that institutions uniformily enforce norms against suicide (except in the military).

Note that different types of suicide can also co-exist in an individual case, as Durkheim (1897: 288) recognized. One can have committed suicide both because of a strong feeling of detachment as well as shame.

Finally, note that Durkheim (1897) also elaborated on a fourth type of suicide: altruist suicide. This type of suicide is not thought to be applicable here. Altruist suicide is the opposite of egoist suicide and is most likely in contexts where social integration is too strong. Individuals are then fully subordinating their interests to the collective and prepared to die for it, such as in the case of suicide bombers.

1.6 Descriptive figures on suicide

In the following, some descriptive statistics on the suicide rate in countries over time will be provided. Data from the OECD Health database (OECD, 2018) were used. Moreover, for five countries there were data on the excess suicide rate of the unemployed (compared to the employed): rate ratios were used. These additional data were derived from different sources, such as articles (Mäki & Martikainen, 2012; Milner et al., 2014; Preti & Miotto, 1999; Suzuki et al., 2013) and data bases (New Zealand Census Mortality Study, 2015: www.otago.ac.nz) and were not cross-nationally comparable, but still trends could be assessed with these data. More information on the data will be given in Chapters 3 and 4.

Figure 2: mean suicide rate in countries between 1960-2016

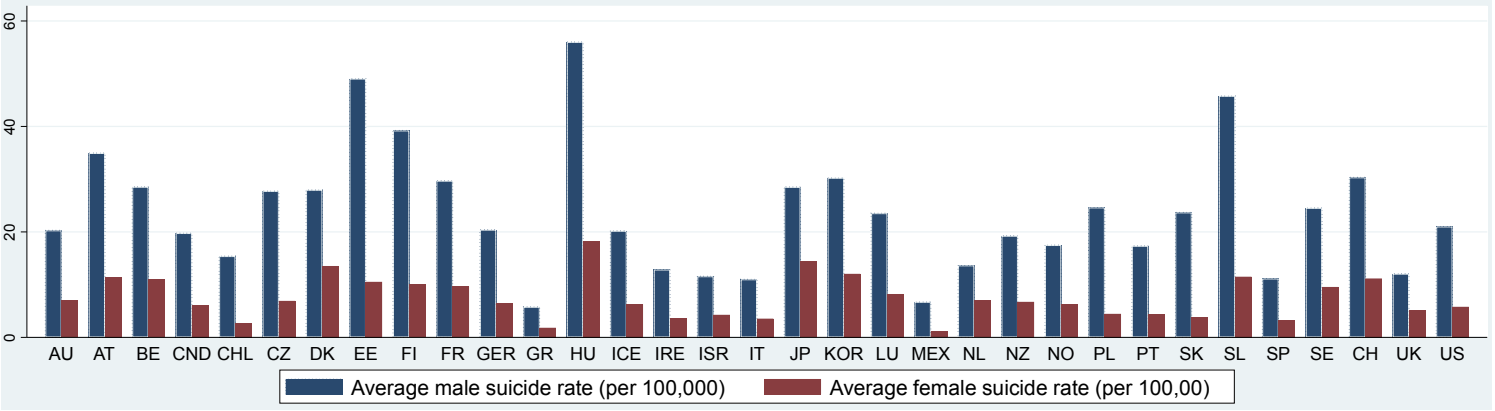


Figure 3a: trends in suicide rates in countries between 1980-2016, men

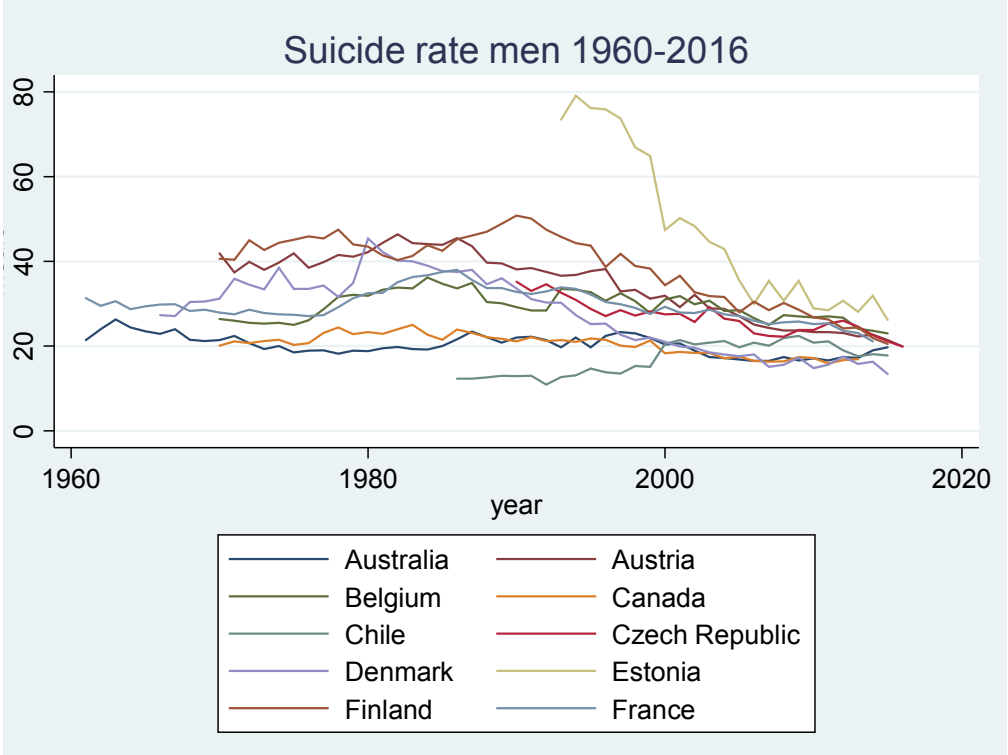


Figure 3a (continued): trends in suicide rates in countries between 1980-2016, men

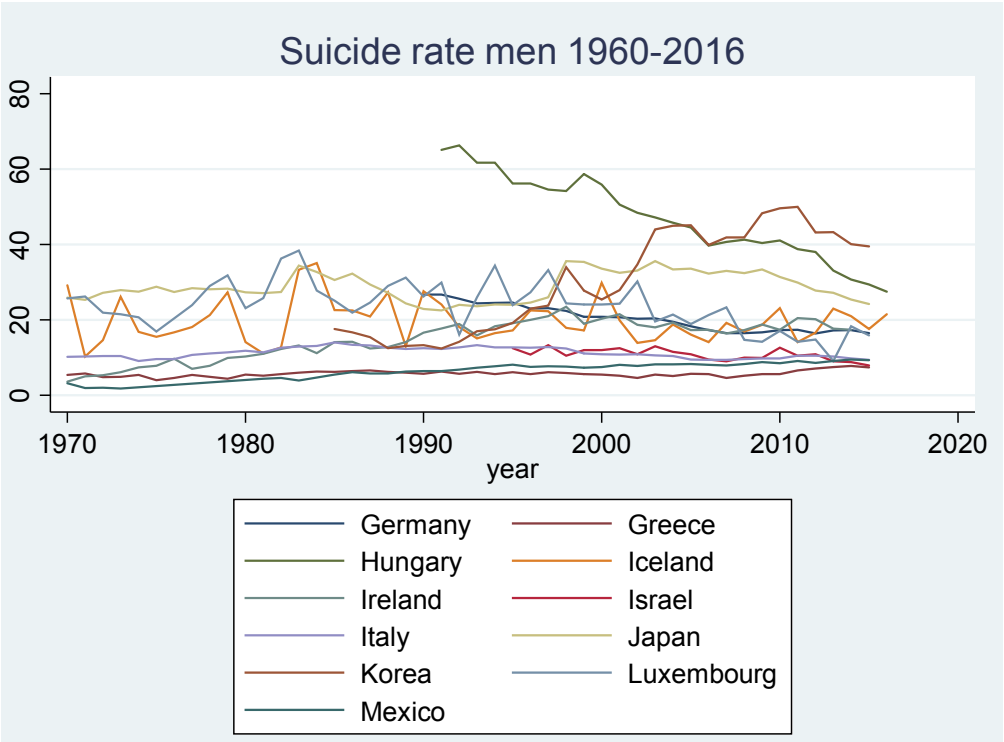
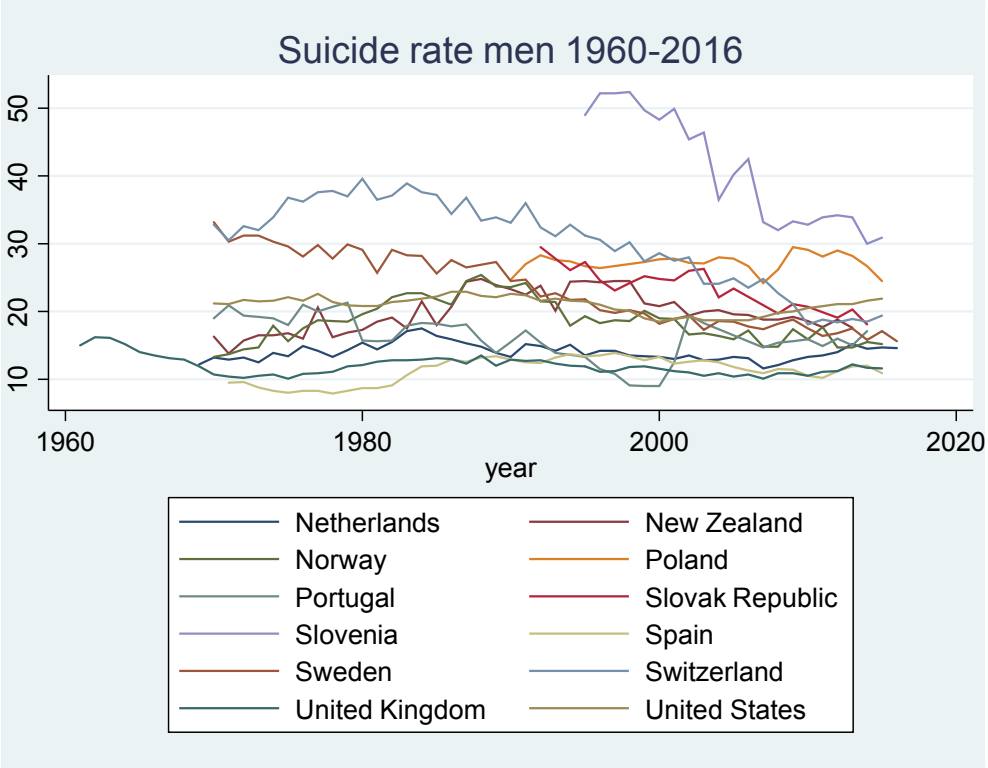


Figure 3a (continued): trends in suicide rates in countries between 1980-2016, men



As can be seen, in some countries the suicide rate decreased sharply, as in Estonia after the collapse of the Soviet Union. In most other countries the level remained more or less constant, and a small decrease occurred. Relatively high are some transition countries, such as Estonia, Slovenia and Hungary, while Mediterranean countries and Latin American countries such as Chile are generally low. Greece witnessed a sharp increase during the great recession, which resonates with early evidence (Karanikolos et al., 2013; Kentikelenis et al, 2014) and also already before that in the late 1990s and early 2000s. Japan also saw an increase and is generally high. The increase also here appeared to coincide with an economic recession (Chang et al., 2009).

Despite the dramatic macro-economic shocks and the transition faced by post-communist countries, the suicide rate decreased over the time period without showing clear increases in certain time periods. Some transition countries, however, deviate from this pattern. In some countries, the steep increase in the suicide rate began even shortly before the transition (e.g. Hungary), while in others there was a lag of several years (e.g. Estonia). It should be noted that the transition countries that are part of the OECD, form only a particular selection of all transition countries. The most marked 'transition effects' were found in Russia and the Baltic states, that are now together termed the 'suicide belt' (Brainerd, 2001; Mäkinen, 2000).

For both men and women the trend looks like an inversed u-shaped trend: a rise between 1960 and 1980, a decline afterwards. Only in Denmark it follows closely the trends of the male suicide rate.

Also Norway, Belgium, Luxembourg, the Netherlands and Sweden show similar trends for females and males. These countries, especially the Nordic countries, are generally also the countries with the highest gender equality. But also a very gender inegalitarian country, Korea, shows strikingly similar trends across genders. Indeed, Korea is known for its large rise in the female suicide rate (Chang et al., 2009). Moreover, many Transition countries, also often associated with lower levels of gender egalitarianism (Reeves & Stuckler, 2015) show similar trends across men and women: Czech Republic, Poland, Hungary, Slovenia, Slovak Republic. Mostly, the trends for women are somewhat dampened compared to men (Estonia, Portugal, Israel, Chile, Japan, UK).

Figure 3b: trends in suicide rates in countries between 1960-2016, women

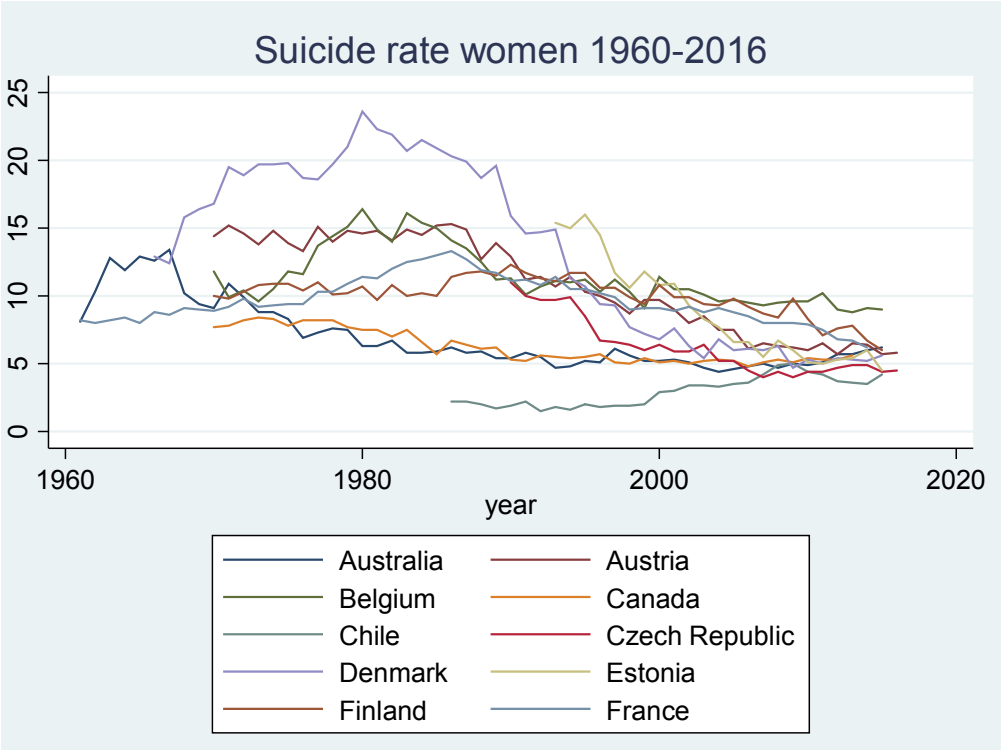


Figure 3b (continued): trends in suicide rates in countries between 1960-2016, women

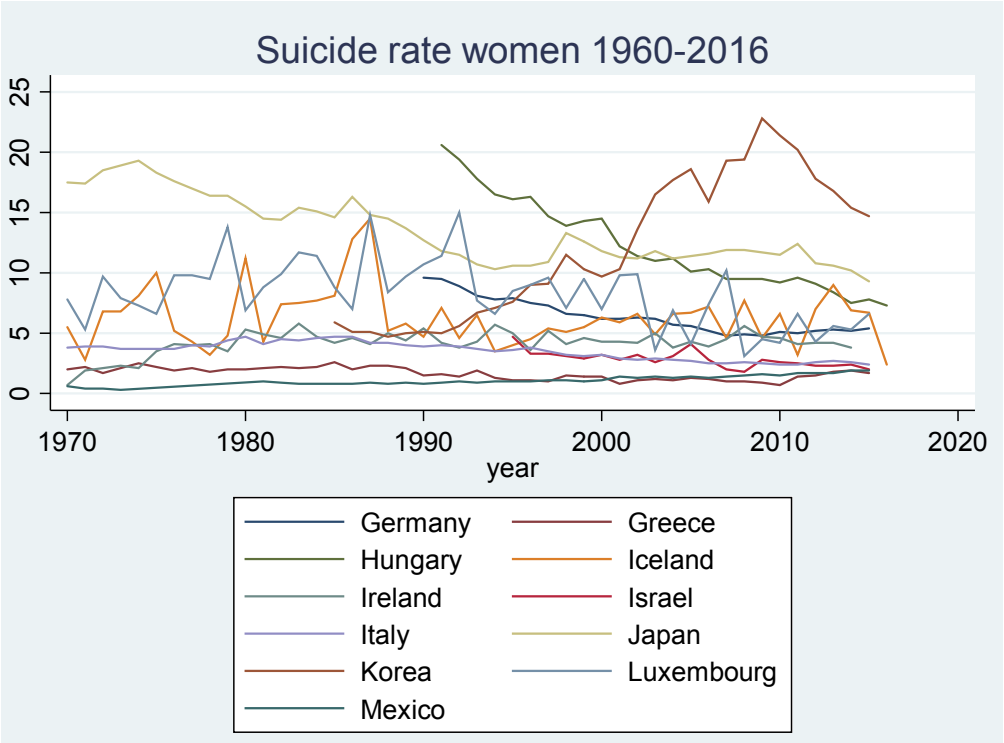
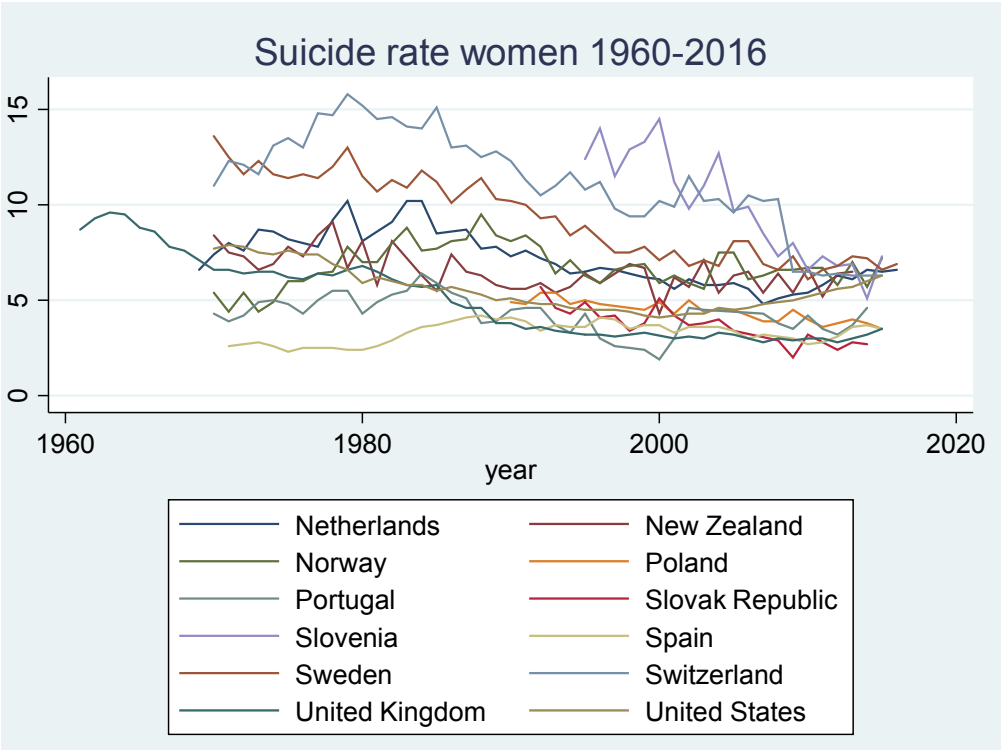


Figure 3b (continued): trends in suicide rates in countries between 1960-2016, women



Women appear to score much lower than men, which also resonates with previous evidence. It has been said that women also have more alternative roles at their disposable besides the worker role (Reeves & Stuckler, 2015), which may make them more resilient against the increasing instability of the economic system. Moreover, gender norms about suicide could still play a role (Canetto & Sakinofsky, 1998). Still, the same countries score high: Slovenia and Estonia, although some new high scorers are apparent for women: Switzerland, Belgium and New Zealand. For women, the effect of the economic crisis appeared to be stronger in Greece, showing a steep increase around 2008 (but which started already in the earlier 2000s). Again most countries show a slight decrease, probably amounting to the increasing attention for suicide and improved prevention policies (Matsubayashi & Ueda, 2011).

The expectation of Mäkinen (1997) of an increase (1960s-1970s) followed by stabilization in the west, is not observed for the east 10 or 20 years later. Rather, it appears that Transition countries respond to trends within the country: the transition from communism to capitalism, the extent to which there are buffers, macro-economic circumstances.

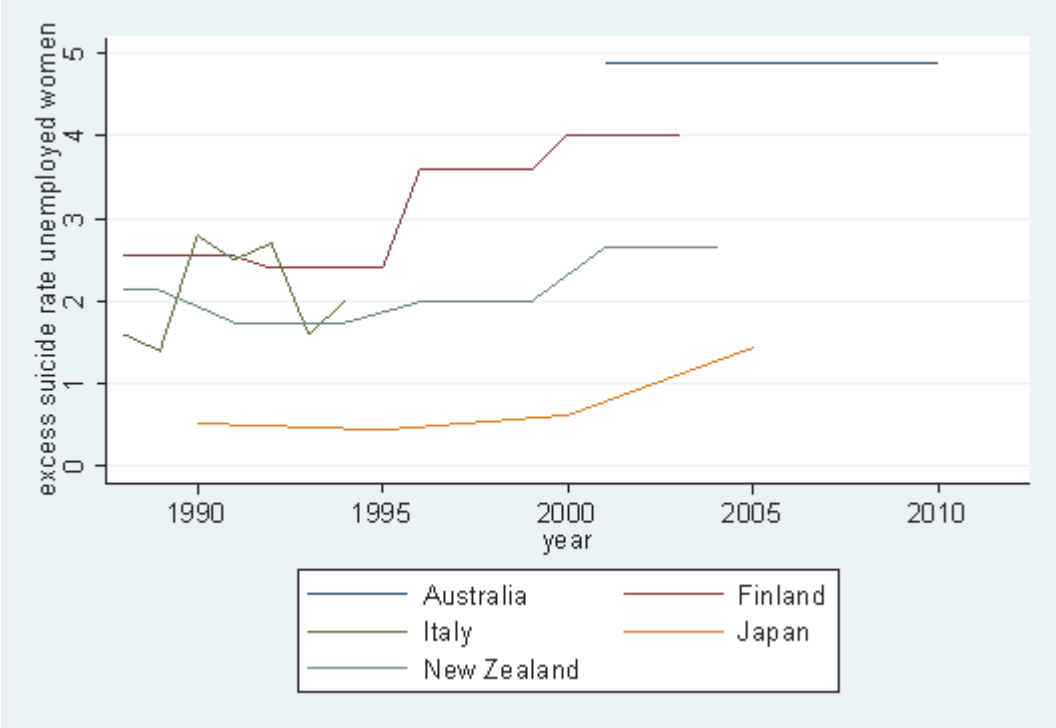
Figure 4a: trends in excess suicide unemployed in countries between 1980-2012, men

Finally, trends in the extent to which the unemployed commit more suicide than the employed (i.e. the excess suicide rate of the unemployed), differ cross-nationally. For women, in Japan an increase is observable in the 2000s, right when the recession ended there. In most other countries a small decline was observed (Finland, New Zealand). New Zealand shows a relatively strong decline. For Australia, no trends could be assessed and a 8-year average was used. Note that the absolute scores in the extent

to which the unemployed commit more suicide could not compared cross-nationally between these countries.

For women, most countries show an increase. This could be explained by rising expectations towards women to work. The decline was especially strong in Finland. Italy, by contrast shows a returning trend towards a relatively low excess rate after a short period of a steep rise. Overall, women have a lower suicidogenic impact of unemployment than men, except for Finland, a country with high gender equality (European Institute for Gender Equality, 2015).

Figure 4b: trends in excess suicide unemployed in countries between 1980-2012, women



High and low suicide countries

The data show a high male suicide rate (almost 30 or above for males) for Finland, Japan, Sweden, Denmark, Austria, Belgium, France, Korea, Switzerland, Estonia, Hungary, Slovenia, and Czech. By contrast, in Ireland, UK, Netherlands, Italy, Mexico, Spain and Greece the suicide rate is low (below 15 for males). Looking at females, the cross-national differences are much less country differences than for males. High are: Hungary, Slovenia, Japan, Denmark, Sweden, Finland. Low are: Ireland, Greece, Chile, Italy, Israel, Mexico, Slovakia, Spain, Portugal.

Besides static means, trends do also differ across countries. Strong decreases in the suicide rate were found in Austria, Germany, Portugal, Estonia, Slovenia, Denmark, Finland and Switzerland. Modest decreases were found in Australia, UK, Italy, Czech Republic, Slovakia and Sweden. By contrast, the suicide rate was stable in Canada, Japan, NZ, Belgium, France, Chile, Greece, Israel, Poland, Iceland, the Netherlands, Norway, Spain and the US. A modest increase was found for Mexico. Ireland and Korea witnessed a sharp increase. Table 1 displays the country-specific average suicide rates between 1960 and 2013.

1.7 This Study

This study is interested in the effects of marketization on the suicide rate, and asks whether (1) marketization processes have diffused transnationally and (2) whether this has implications for the suicide rate: is the suicide rate is higher in marketizing societies? Moreover, this study attempts to explain cross-national and –temporal differences in the effect of unemployment on the suicide rate. It is (3) examined whether marketization processes accentuate the suicidogenic impacts of unemployment-growth and unemployment on integration, anomie, shame and therefore on egoistic, anomic and/ or fatalistic suicide.

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2. Marketization and its Transnational Diffusion

2.1 Introduction

Societies can be distinguished with regard to how marketized they are. In an age of globalization and spreading neoliberalism, it is likely that marketization has diffused more from an elite group of countries towards a wider scope of countries. Therefore, in this chapter I also provide an overview of the cross-national differences and transnational diffusion in marketization. In this chapter, I will ask the following questions:

a) What is marketization and why is it important?
b) Are there important cross-national differences and transnational diffusion of marketization and what does this look like?
c) Could these differences be explained by different attitudes/ resistance of the population against these worldwide marketization tendencies?

Many studies of policies still mainly use models of isolationist policies: policies that are not co-determined by what policy choices other countries have made. This caveat has been noted by recent research (Simmons, Dobbin & Garrett, 2007). The diffusion of ideas has gained increasing attention in a multitude of research fields (e.g. Strang & Soule, 1998). Transnational diffusion of ideas and policies has occurred increasingly after the two World Wars through human rights conventions and organization in international organizations (Beckfield, 2010; Borzel & Risse, 2009). By looking at the transnational diffusion of marketization practices, this work extends upon the transnational diffusion of ideas literature. It therefore better recognizes the interdependent nature of domestic policy, embedded in a region or even a whole world polity.

Diffusion can occur within regions (called 'internal diffusion' by Borzel & Risse, 2009) and across regions ('external diffusion'), for example from a world leading country to a weaker country. This analysis of diffusion of marketization also contributes to the increasing debate in world polity theory (e.g. Beckfield, 2010) about whether the world order has become more centralized (controlled and uniformly influenced by a small set of key nations), or fragmentized (countries organizing into their own semi-autonomous regional associations).

Much is known about the rational diffusion of policies that are perceived to be effective. But the fact that there are pragmatic, rational reasons for imitating a policy, does not necessarily imply that populations agree with it. In fact, this diffusion from a pragmatic intent could still be contested by the population on moral or cultural grounds. Not much is known about the effects of the popular attitudes

towards the set of policies that states consider to imitate, and on how easily this diffusion subsequently can take place. The current study focuses on both. It will study the diffusion of marketization as set of policy practices, as well as focus on how normative attitudes influence this. It has been argued that some governments or populations resist against diffusion (Borzel & Risse, 2009). Only little is known about the effect of diffusion in contexts with much resistance against diffusion, a gap also noted by (Borzel & Risse, 2009). Resistance against diffusion of policies does not necessarily mean that citizens are visibly protesting (Borzel & Risse, 2009; Spears et al., 2010), but may also be reflected in their attitudes. Therefore this study also looks at attitudes resistance among the population against marketization and assesses the moderating impact of this on the diffusion of marketization practices. This may have consequences on how global marketization tendencies have a large impact on the suicide rate in some countries but not in others. This Chapter, focusing mainly on the diffusion of marketization, is followed by Chapter 3, where I will actually empirically test the implications of this diffusion and presence of marketization for suicide rates and for the way in which unemployment affects suicide risk.

This study also touches upon a debate started by Svallfors (2003), in which he asked whether public attitudes do so easily collide with policy measures (Svallfors, 2003). In the current study, I propose that certain attitudes (resistance against marketization: the opinion that market-thinking is too strong in society) can reduce countries' tendency to adopt marketization practices, even in the face of a global increase in marketization ideas and practices.

Another contribution of this chapter is that diffusion notions that were mainly applied to the individual level (diffusion of ideas or practices among individuals), now are studied between countries. Tarde's (1903) concept of imitation and contagion, in which he stated that individuals imitate elite members of the society, are taken to the macro-level: ideas and patterns do not only diffuse because individuals imitate elite members of a society, but also through the imitation of elite countries by other countries.

Section 2.2 will give an overview of the empirical and theoretical literature and develop some theory. Section 2.3 will describe the data. In section 2.4 I explore the concept of marketization. Section 2.5 provides a descriptive overview of marketization across countries and time-periods. Section 2.6 provides the regression results and section 2.7 concludes.

2.2 Background

2.2.1 Marketization

Simmons et al. (2007) defined marketization as economic liberalism; reduction of government constraints on economic behaviour and the promotion of economic exchange (which foreign direct investment, selling of bonds and currencies across borders, international bank lending). Marketization has mainly been measured through looking at international trade liberalization, but also to government retrenchment and privatization revenues of public goods and services (Simmons et al., 2007). Eikenberry & Kluver (2004) have measured marketization through the extent to which market-based practices (contract competition, commercial collection of funding) is increasingly adopted by non-profit civil society organizations. Yet others have focused at marketization in public discourse and popular attitudes (Fairclough, 1993; Messner, Thome & Rosenfeld, 2008).

Baccaro & Howell (2011) define neoliberalism as follows: 'a strategy of macroeconomic reform, involving trade and financial liberalization' and including austerity politics ('fiscal discipline (to be achieved through expenditure cuts rather than tax increases) [...] to ensure governments are willing to give up full employment.' (p. 526). Also, they define it as a 'process of market liberalization, or the 'disorganization' of once organized political economies, involving the trend 'away from centralized authoritative coordination and control towards dispersed competition, individual instead of collective action, and spontaneous market-like aggregation of preferences and decisions' (p. 526). These definitions almost all depart from policy. However, marketization has also been defined as a set of cultural values, in the sense of 'marketized attitudes'. According to marketized attitudes, individuals and groups are to be judged according to their market value (Hövermann et al., 2015). This implies that people with little economic contribution to the market, are considered as less worthwhile citizens (Hövermann et al., 2015). Moreover, this dominant policy and set of cultural values is also *perceived* and *evaluated* in a certain way by individual people. This, in turn, can affect the dominance of the dominant policy or cultural values set. People can, for instance, perceive their society as marketized but dislike it, or perceive their society as relatively non-marketized.

Some recent works in the industrial relations and political economy literature have paid attention to this. In order to reform institutions in a country with a strong tradition of market-regulating institutions, Germany, employers mobilized to become 'actively engaged in the public debate to promote neoliberal reforms' (Baccaro & Howell, 2017: 10; Menz, 2005: 199). Baccaro & Howell (2017) continue to mention the so-called 'New Social Market Initiative', a corporate-funded think tank. Importantly, Baccaro & Howell (2017: 10-11) point out that their aim was '*changing the social norms and values surrounding the concept of a 'social market economy'*. The campaign spreaded a normative pressure to have paid employment and that people should prefer bad jobs above

unemployment at all times (Baccaro & Howell, 2017: 11; Kinderman, 2005: 440). This lead to the reform of well-established welfare institutions, changing in apparatuses forcing the unemployed to more easily accept jobs, regardless of the conditions, while employment was deregulated. This lead to more discretion on the side of employers and capital to set the terms of employment.

The concept of marketization has, both in policy and attitudes, therefore to do with the extent to which citizenship is commodified (Esping-Andersen, 1990): to which extent are rights and a valuable integration in society (e.g. by a proper living standard) bound to one's contribution to the market?

With this we arrive at the topic of welfare regimes. One idea that is relevant for studying marketization in a cross-national fashion is Esping-Andersen's (1990) welfare regime typology. Closely approximating my rich concept of marketization is his notion of '(de)commodification of citizenship'. Citizenship is more decommodified when a person's living standard is less dependent on his/ her productivity in the market. Added to this could be the Durkhemian interpretation that a person's integration into society is less dependent on his/ her productivity (Stuckler & Reeves, 2015). Along this spectrum they distinguish five welfare regime types. Most decommodified is citizenship in the social-democratic welfare regime type, with universal health care and unemployment assistance. This regime type, found in the Nordic countries, is followed by the conservative regime type found in West-Europe. Just as in the social-democratic regime type, unemployment benefits are relatively generous, but the entitlement is bound to people's bonds with the job market. The more a worker has contributed to the economy, the more generous the entitlement to benefits in case of unemployment. Lastly, there is the liberal welfare regime, found in the Anglo-Saxon world, where unemployment benefits are scarce both in generosity and their scope of entitled recipients. Recent work has added two regime types (Gallie, 2007a): the Mediterranean and transition regime type, which are similar to the liberal welfare regime regarding formal commodification of citizenship. The Mediterranean regime type, however, informally de-commodifies citizenship because of a high cultural emphasis on familial support in case of unemployment (Gallie & Paugam, 2000). The transition regime type contains all the post-communist countries, which have a different institutional history than the liberal regime type and may know some more egalitarian attitudes among the population, but who have become non-generous welfare states. In all, it could be said that the Nordic countries are expected to be most resilient against global marketization trends, followed by the conservative and Mediterranean countries, and finally the transition and liberal regime types. At the other hand, from a convergence perspective, one can expect precisely the greatest changes in these countries because here the most change is still possible. These countries are among the least marketized of the postindustrial countries, in constrast to the liberal welfare regimes where such large changes took place in the late 1970s and 1980s.

Another theory that distinguishes regime types, is The Varieties of Capitalism (VoC) literature (Hall & Soskice, 2001; Gallie, 2007a; Iversen and Stephens, 2008). This theory distinguishes between Liberal

Market Economies (LMEs) and Coordinated Market Economies (CMEs). The crucial distinction between those regime types is the way employers deal with the competitive pressures from the global market. In contrast to traditional regime theories, this VoC Production Regime Theory (PRT) emphasises the values and choices of employers and not so much of governments. In LMEs, employers aim to be competitive to keep production costs low and the ability to quickly adapt, whereas in CMEs, employers aim to enhance competitiveness through high-quality specialized production. In LMEs, the employer-strategy will therefore be strongly top-down and the employment-relationship more precarious, while in CMEs the relationship will be collaborative. Because of the highly specialized skills in the production in CMEs, employers depend more on the commitment of their employees, making the employment relationship more one of mutual commitment. In LMEs, the employment relationship has more the form of a transaction and employees are considered more as disposable (Gallie, 2007a).

From that perspective, CMEs will have lower social expenditures, because employers themselves invest more in the training of employees rather than that the government has to take up this. CMEs such as Germany are famous for their internship structure backed up by companies (Gallie, 2007b; Iversen and Stephens, 2008). Unions and employment protection legislation (EPL), by contrast, would be higher in CMEs. These are the historical institutions that have contributed to the very culture in which employers are likely to opt for the coordinated strategy (Hall and Soskice, 2001). Given this historical and cultural background, marketized attitudes are likely to be weak in these societies.

LMEs are often presented as the more marketized forms of production economy. Employment relations and job conditions are more regulated by the market (Gallie, 2007a). For instance, employers are said to be more responsive to short-term shareholder concerns and global fluctuations on the market, and less so to the demands of unions. To be competitive on production costs and a capacity to adapt quickly to new circumstances, EPL and unions are likely relatively weak in these economies. Because this production strategy is thought to have arisen from a culture that emphasizes free market (Hall and Soskice, 2001), marketized attitudes are also likely to be high. Still, social expenditures are also likely to be high, since employers' priority is not in investing in their workforce's education, and this will be largely have to be provided by the public sector. Thus, from a VoC perspective, the indicators of marketization are expected to be partly but not fully consistently intercorrelated, since social expenditures are likely to be relatively low in these societies. Scholars endorsing this framework of comparative political economy, have hypothesized that the institutional framework of societies is resistant against global neoliberal trends.

However, others have doubted this and argued that all established capitalist countries have moved in a common direction of more marketization (e.g. Baccaro & Howell, 2011; Chung & Van Oorschot, 2011). Path dependence only exists in the specific way in which countries move in that common

direction, influenced by the relative power of labour and capital and different historically established institutional environments. In other words: countries are on divergent, path-dependent journeys, finding themselves heading towards a convergent destination. First of all, it remains to be doubted whether employers have such different perspectives in the countries that have been assigned to the different production regime types (Kinderman, 2014). Kinderman (2014) states and shows that in countries of both regimes, employers have pro-market preferences that are often characterized as exclusively belonging to LMEs: for instance, they want less strict employment protection legislation and less income redistributing taxes. Baccaro & Howell (2011; 2017) have convincingly challenged institution-based notions by showing that also the 'coordinated' types of market capitalism are witnessing neoliberal restructuring. In particular, they mention Germany, the prototypical country for VoC-theorists. They show, together with Streeck (2009), that 'German institutions have been subject to quite dramatic levels of changed', but 'not so much through a frontal assault upon core industrial relations institutions', but through reforming these institutions, leaving behind the primacy of trade unions and through a dramatic decline in collective bargaining coverage rates (Baccaro & Howell, 2017: 8). This increases the liberty of employers to adapt wages and other employment conditions to market forces without considering strict legislation, or the interests of employees and the wider public. So here, marketization did not directly mean a direct attack on market-regulating institutions such as unions or other collective bargaining frameworks, but rather the 'reformatting' of 'existing institutions to make them serve different goals and produce different outcomes' (Baccaro & Howell, 2017: 1). Neoliberal liberalization has therefore also taken place in the CME-countries, without an accompanying disappearance of their typical institutional frameworks 'such as centralized bargaining'. But beyond the surface, these institutions underwent a 'profound transformation' (Baccaro & Howell, 2017: 2). For instance, for Swedish public sector workers, the 'entire wage pool' is 'determined and distributed through local bargaining', as Baccaro & Howell (2017: 6) showed – and who in some cases even are exempted from minimum wage arrangements, while coordination of wage-setting are still high in this country. Although unions are still strong in this country, the relative power of labour 'is unquestionably towards decline', as Baccaro & Howell (2017: 7) emphasize. This declining strength is indicated for instance by declining rates of union density, which adds up with the decentralization trend in creating a more 'liberated' (market-driven) labour market for employers and the capital side.

In their 2011 paper, Baccaro & Howell showed that a wide diversity of established capitalist countries were on a common trajectory towards neoliberalism from the 1980s to the 2000s. At a closer look at cases they found diverse ways in which countries took this common trajectory. While 'existing institutions' such as the union were directly attacked in the United Kingdom, continental Western European countries took the road of redesigning institutions (Baccaro & Howell, 2011). Among the United Kingdom and West European countries, union density declined fastest in Austria, Ireland and the United Kingdom. In the Nordic countries, union density decreased later. In virtually all countries,

union density was on the decline in their data. Collective bargaining had been decentralizing in all countries as well and, again, in different amounts. However, tripartite policy making (with the class interest representatives of labour and capital respectively, and the state) did not decline.

Therefore, overall, it is questionable to what extent CMEs are less marketized than LMEs in their culture. In both regime types, employers are seeking to be as competitive as possible in the global market. They are both strongly driven by market concerns. Only in CMEs the chosen strategy of employers happens to collide with non-market agendas, but still for the primary reason of competitiveness on the market. In CMEs the concern is about keeping the employees satisfied, thus to enhance their wealth, but it is not elaborated on how CMEs treat their unemployed. How are people conceived in CMEs and LMEs when they *do not* produce? As Hövermann et al. (2015) noted, marketization has also to do with commodifying citizenship: are citizenship and moral worth coupled to one's market value? Because of the indecisiveness of VoC on this, I think their regime distinction is not useful for the study at hand. What this distinction *does* suggest, however, is that policy attitudes could divert. Whereas employers in both regime types are strongly pro-market in their attitudes, the policies between the two regime types still are different. Moreover, the attitudes of the population at large could differ from employers only, and it is interesting to look into this and their impact on the diffusion of marketization practices.

2.2.2 Diffusion of marketization

Diffusion is a process in which ideas, insights, cultural practices or policies are spread (Lee, Hwang & Choi, 2012; Strang & Meyer, 1993). This can be among individuals (e.g. Haw et al., 2013), but also among countries or across time (e.g. Borzel & Risse, 2009; Strang & Meyer, 1993). The former policies of some countries influence the choices of other countries (Lee, Hwang & Choi, 2012; Simmons, Dobbin and Garrett, 2006). The anthropological definition (Malinowski, 1944) is similar but focuses more on cultural practices: the process in which one culture adopts practices or beliefs from another culture.

To look at diffusion, the current analyses focuses therefore on the process rather than the static values. Following the previous literature (Lee, Hwang & Choi, 2012; Simmons et al., 2007; Soderholm, 2007), this study looks at the impact of previous shifts in (adoption of) practices in other countries on the shifts in (adoption of) practices in a current country. Moreover, as Baccaro & Howell (2011) conceptualized, the 'common neoliberal trajectory' of countries is one of 'institutional change', and a 'general process'. Therefore, the independent and dependent variable are framed as changes and not as levels.

Marketization could diffuse from some countries to another country in a way that extend institutional path dependencies, for instance because countries are driven by global market forces (Chung & Van Oorschot, 2011). But who are these countries that a country looks at when seeking clues about how normatively valued (norms mechanism) or effective (learning mechanism) a set of practices is? Studies of diffusion have largely focused on closely-located individuals (i.e. fellow students, fellow inpatients) (Askland et al., 2003; Haw, 1994) or elite members of societies (Lee et al., 2014; Stack, 1987; Wasserman, 1984; Yip et al., 2006), which could be extrapolated to the level of countries. Countries could follow their closely-located neighbours since they share a common set of norms, or follow more distant but successful countries in their apparently 'effective' practices. Countries in the same region also more often share similar ties in international (non-)governmental organizations (IGOs and INGOs) (Beckfield, 2010), where cultural norms and policy practices are effectively diffused across countries (Borzel & Risse, 2009).

What does previous research suggest about the diffusion of marketization practices? What becomes apparent is that the extent of diffusion can still differ much between countries, even within the same international organization or 'wider' region such as the EU (Soderholm, 2007).

Worldwide, countries show an S-shaped curve often seen in diffusion research (Simmons, Dobbin & Garrett, 2006). The figures in this article also suggest that the diffusion of marketization occurred relatively quickly. Within only a decade the degree of marketization in societies has sometimes doubled (Simmons et al., 2006). Overall, countries have become more alike (Baccaro & Howell, 2017; Simmons et al., 2006) and convergence is suggested.Almost all OECD countries are leading countries just by being member of the OECD; the OECD countries were powerful trendsetters in the diffusion of neoliberal values (Garrett, 1998; Garrett, 2001; Garrett & Mitchell, 2001; Genschel, 2002). Still, previous figures also show some remarkable variation within the OECD with regard to the pace, timing and extent of diffusion of marketization practices (Simmons et al., 2006; Baccaro & Howell, 2011). For instance, Baccaro & Howell (2017) point at that while neoliberal transformation occurred in both CME's and LME's, the specific process differs. In LME's, they argued, 'liberalization of industrial relations institutions implies the transformation of the institutional form itself' (Baccaro & Howell, 2017: 3). As examples of this, they mention 'deregulation of the labour market, decentralization and individualization of bargaining', and the collapse of labour unions. In CME's, by contrast, institutional change did 'not take[...] place primarily through explicit deregulation', but 'through two alternative mechanisms of institutional change' (Baccaro & Howell, 2017: 3). Phrased differently, institutions continued in their existence, but where 'innovated' to serve different purposes (Baccaro & Howell, 2017: 4). As a first mechanism, they mention changes in the institutions' functions, providing employers with more liberty ('discretion') rather than contraining it. This process is also known in the industrial relations literature, as they point out, as 'institutional conversion' (Thelen, 2004: 36). As a second mechanism of marketizing institutional change, Baccaro & Howell

(2017: 3) mention ‘derogation’. It refers to an increasing allowance for employers ‘to bypass or ignore formal institutions and institutional rules’. An interesting case study are Sweden and Germany, where marketization (or ‘liberalization’ or ‘employer discretion’) was achieved not through collapsing institutions, but through decentralized wage-setting, an increasing scope of opening clauses that enable employers to bypass central collective agreements, and increasing flexibility of employment relations next to a decreasing segment of core employees (Baccaro & Howell, 2017; Ibsen et al., 2011). Strict legislations or collective agreements have mobilized employers into such opening clauses, as Baccaro & Howell (2017) showed especially for Germany during the 1980s. King & Rueda (2008) confirm this general pattern: flexible work has increased more in countries where the formal institutions of employment relations have remained strong (for instance: strong unions, coordinated bargaining, strict but semi-binding employment relation protection of core employees), while it has increased much less in LME’s such as the United Kingdom.

Another instance of cross-country variation in the degree of marketization is in the degree of financial openness for trade. Highest are West Europe and North America, followed by the Middle East/ North Africa and Latin America. Lowest is South Asia and Sub-Saharan Africa. The steepest rises occurred in West Europe, North America and East/ Europe and Central Asia between 1988 and 1994. With regard to privatization, East Europe and Central Asia showed the most remarkable trends: first a steep rise between 1993 and 1998 and then a decline. Also the Middle East and North Africa see a steep rise in the mid-1990s and then a decline. Here West Europe and North America score relatively modest, but notice that this is rather a process or change variable (annual revenues from privatization) while trade openness is a rather static variable. In the post-communist world the changes were abrupt, while in other parts of the world the changes were more gradual (Simmons et al., 2006).

2.2.3 Mechanisms

A typical notion in the political science and sociological notion of transnational diffusion, is that diffusion can occur through learning, competition, coercion or emulation (Borzel & Risse, 2009; Simmons et al., 2006). Diffusion of practices that appear to be effective occurs through learning (Palloni, 1998) or competition, while diffusion of practices that appear to be normative occurs through emulation. Finally, there can be practices that are neither perceived as effective or normative per se, but that are diffused through coercion. Thus, nations can decide to adopt the policies of other nations because (a) they appear to be effective (Rose, 1993), or they have a (b) normative appeal and help the government in being legitimized (see also DiMaggio & Powell, 1983).

Moreover, Mäkinen (1997) predicted that cultural shifts that took place in the ‘modern’ societies and that spurred a temporary increase in the suicide rate in these societies, would be observed after some

time lag in the 'less modern' industrialized societies. Although this distinction between 'modern' and 'less modern' is highly debatable and not free from normative connotations, her distinction more or less overlaps with the level of wealth, which will be used here as one of the distinctive marks of 'leading' countries.

Below I will discuss the four mechanism of diffusion that the literature has outlined (Borzel & Risse, 2009; Simmons et al., 2006).

Learning – Individuals and nations may seek to enhance their well-being by choosing the most effective strategy, but have limited information and time to acquire this information. Looking at the perceived successful actors is an efficient way to find effective strategies or practices. Diffusion is therefore said to occur from the actors that are perceived to be the most successful towards the other actors (Borzel & Risse, 2009; Palloni, 1998; Thomas et al., 1987). Some countries' practices are perceived to be more effective than others. Through communication, countries can learn about the practices of others. Seeking to improve their own goal attainment, countries are also willing to learn from others that they perceive to be successful.

The presence of this learning mechanism of diffusion could be suggested by countries adopting the earlier adopted practices of countries that had the highest economic growth. Because of the internationally shared focus on national economic growth and the wide coverage and publishing of GDP growth of countries, it is likely that countries will perceive the practices of the countries with the highest growth as effective. They then likely imitate the practices of these countries. Therefore one definition of 'leading countries' will be the top 5 countries regarding economic growth.

Besides global diffusion through learning, it is also likely that countries located in the same region are most likely to diffuse practices through learning. Nations that share the same region more frequently interact, are more frequently exposed to each other, and are often in a similar surrounding with similar contexts (Borzel & Risse, 2009; Simmons et al., 2006). Moreover, countries that are more closely located are more likely to enter into agreements with each other (Beckfield, 2010; Borzel & Risse, 2009). Also within regions leading countries could arise whose practices are imitated by the others. For each region the country with the highest economic growth will be taken as a regional measure of leading countries.

Competition – Another mechanism of diffusion that is distinguished is competition. Especially increased mobility of capital across the studied time period, due to technological innovations and ideological shifts, has increased incentives for nations to mimic the marketization policies of the others (Elkins et al., 2006; Haveman, 1993; Simmons et al., 2006; Sinn et al., 2003). This is sometimes called competitive isomorphism (Elkins et al., 2006; Haveman, 1993). Indeed, there may be a race to the

bottom where countries compete for investors by gradually reducing welfare arrangements and redistributing tax burdens from capital to labour (Garrett, 1998; Genschel, 2002).

The role of competition can be indicated by shifts in social expenditures, employment protection and union density. Global investors are sensitive for labour costs and a predictable business climate. Strong unions can cause sudden strikes and keep the labour costs high, employment protection also contributes to higher labour costs and less capability to adjust to sudden market changes by quickly firing employees. Higher social expenditures can require higher taxes on business.

However, if competition would be the only mechanism, one would expect a faster diffusion process and more uniform trends than currently is seen. One would also expect diffusion among from the countries with the most economic growth towards other countries, because countries that strive to be competitive look at cues from countries that they perceive to be (economically) successful to imitate successful strategies. However, we also see diffusion between non-similar countries. Thus, competition is not likely the only diffusion mechanism at play.

Emulation – Emulation is another possible mechanism of diffusion. Diffusion in that case can occur through norm entrepreneurs (Payne, 2001). Marketization practices constitute several norms about what are valuable goals and the correct means to achieve those goals (Hövermann et al., 2015). International organizations have a key role in the diffusion of such norms and practices. For instance, Borzel & Risse (2009) study how the European Union (EU) diffuses its ideas through explicit policies, to other countries and within the EU. European Union ideas have diffused already to Japan, South Korea, China and Latin America (Borzel & Risse, 2009). Another example is the OECD itself that sets statistics and monitors and publishes the performances of countries on these indicators, thereby signaling whose policies are to be emulated (Rose, 1991). It has also been said that neoliberal (i.e. marketized) values have diffused towards the world partly through the OECD (Simmons et al., 2006).

Simmons et al. (2006) assume an increasingly global world polity in which there is a large, cultural consensus about the normatively superior goals and means. Mostly, this approach assume that the West is here at the moral forefront. However, recent work (Beckfield, 2010) challenges this notion, showing that the world polity is constituted in separate semi-autonomous regional associations of countries, rather than centred on a group of global leaders. Diffusion of cultural ideas about what are normative goals and means would rather diffuse regionally among similar nations. Still, the country that starts a new practice in a homogenous, narrow region, has likely to be a nation that can afford to take risks. Therefore I still expect some inequality between the early adopter and the later adopters with diffusion by emulation. Moreover, emulation may be at play as a more subconscious parallel process, where countries emulate those countries that have been positively reported in regional international reports and statistics. Thus, also with emulation I expect the economically most successful countries to take the lead. For example with regard to diffusion among individuals, many

studies have shown that the suicide of a glorified celebrity incited an increase in subsequent suicides (Lee et al., 2014; Stack, 1987; Wasserman, 1984; Yip et al., 2006), whereas that of a famous criminal or dictator failed to do so (Stack, 1987). The adoption of certain behaviours by an endorsed elite actor can lend some acceptability to the behaviour (Stack, 1990). A similar principle may apply to nations.

Previous evidence suggests that competition, emulation and learning and not so much coercion is the main mechanism in the transnational diffusion of marketization practices (Borzel & Risse, 2009: 5; Elkins, Guzman & Simmons, 2006; Swank, 1992). Here I expect that all diffusion processes have a potential role and none of them is the sole diffusion.

In all, I expect that:

H1, Countries will follow the trends in marketization that occurred recently in both global and region-specific economic leading countries.

In H1, learning is especially indicated by a diffusion of marketization policies, while emulation is especially indicated by a diffusion of marketized attitudes.

The impact of marketization tendencies in surrounding or leading countries may be mitigated by a high resistance of the population against marketization. Another pre-existing contextual factor in countries is the historical political institutions that are present, and who may cause path dependency in how countries respond to global marketization tendencies. These historical political institutions have implications for how strongly workers can resist marketization tendencies. Universal access to higher benefits and also unionized protection of employment conditions may make them more confident and able to speak out and protect non-market concerns from being overrun. Moreover, such strong institutions reflect certain historical cultural values that resist marketization.

Thus, I expect:

H2, moderation by resistance: the positive effect of recent marketization trends in leading or surrounding countries on marketization trends in countries hypothesized in H1-2, is smaller in countries when the population more strongly resists against marketization.

H3, moderation by welfare states: the positive effect of recent marketization trends in leading or surrounding countries on marketization trends in countries hypothesized in H1-2, is smaller in the social-democratic welfare state, followed by the conservative and meditarrenan welfare state, and largest in the transition and liberal welfare regime.

2.3 Data & Methods

Data on 33 OECD countries were analysed between 1960 and 2016. Some marketization indicators were only available for more recent years, such as EPL and FDI strictness that have valid observations only from 1997 on. Missings values were imputed using linear imputation, both with inter- and extrapolation. Because it is hazardous for validity to base the analyse too heavily on extrapolated values, the models contain a dummy variable distinguishing data before 1997 and after to cancel out any arbitrary trend effects due to this data availability, and one additional model runs the analyses for 1997-2016 only. One OECD country, Turkey, was omitted because of a lack of suicide data, which will be relevant for the other chapters. Data were derived from official databases, such as the OECD, ICTWSS Data Version 5.1 (Visser, 2016), and the World Bank. The use of such time series cross-sectional data enables controlling for the influence of unobserved country-differences on the relationship of interest, such as cultural differences or country-specific shocks (Andrès, 2005). This was done by using fixed-effects models, as these models focus only at the variance over time within each country. Because of this effective exclusion of any influence from unobserved country-differences, this is the most widely applied technique in the literature on unemployment and suicide (e.g. Andrès, 2005; Neumayer, 2003; Reeves & Stuckler, 2015). Still, because of a very low within-country variance of some marketization measures, robustness checks were done using random effects models that reintroduce the between-country variation.

Recently, authors have made a strong case for using fixed effect analysis (Andrès, 2005; Neumayer, 2003). Not using fixed effects introduces the risk of finding spurious effects, brought about by so called 'third variables'. Countries differ in many respects from each other, on factors that may be important for both the suicide rate and the unemployment rate. More confidence can be lend to the effects if they are confirmed by fixed effects models.

However, one caveat of fixed effects models is that much theoretical interesting variance between countries is cancelled out and excluded from the analysis (Beck, 2001). This is especially the case for variables that do not change much over time and differ strongly across countries. In fact, all influence of factors that differ cross-nationally but are not specified, is captured by so called 'country dummy terms': a term for each country is entered in the regression analysis to capture the 'effect' of the fact that observations belong to, for example 'Hungary' or 'Iceland' instead of to the other countries (Beck, 2001). The remaining effect of the other variables (i.e. unemployment rate) should then be interpreted as the effect of a 1-unit change in those variables over time (within countries) on the suicide rate. In this study, this variance was sacrificed in order to have conservative more reliable effect-estimates. However, because for some analyses the interest is also in explaining cross-national differences in the effect size of unemployment on suicide, omitting all this cross-national variation is a missed

opportunity and one risks of missing important effects. Therefore, random effects models will also be ran and discussed. The corresponding tables will be displayed in the Appendix.

Exemplary of the overenthusiastic use of fixed effects models, is Andrès' (2005) study, where previously assessed effects of the economy on suicide disappeared after he controlled for countries' unspecified historical processes. In fact, Andrés (2005) examined whether a law-like causality exists, across all societies, *if all countries would share the same historical background*. Admittedly, his model deals with misspecification bias in a technically satisfying way, but real-world generalizations are highly problematic[6], because the main effects *do* differ between real-world societies. For instance: why are economic recessions not suicidogenic in Finland, whereas they are elsewhere (Stuckler et al., 2009)? Indeed, changes in cultural and policy practices that are disseminated by a society's main institutions, as well as changes in these institutions, are the effect-moderating country-specific historical processes of interest here.

Despite the many advantages, the use of cross sectional time series data comes also with some challenges: auto correlated errors, errors that correlate across countries for a specific year (contemporaneous error correlation), or the distribution of the errors differs across countries (panel heteroscedasticity). This complex structure of the data was indicated by diagnostic tools and taken account of by the models. Linear regressions were run with panel corrected standard errors, taking into account panel-specific autocorrelation between the errors. Because of the complications of having unbalanced data (i.e. missing observations in between observed time points) and the possible selectiveness of missing values (e.g. missing observations for the more recent years), missing values were imputed using linear inter- and extrapolation.

The measurement of *marketization* will be discussed in the next section 2.5. Marketization has primarily been measured as a set of policies and laws in previous studies, rather than as attitudes (the exception is Hövermann et al., 2015). The most commonly used indicators measure the degree to which international trade is liberalized (e.g. Pierce & Schott, 2016; Simmons et al., 2006) and, related to this, the magnitude of corresponding institutional change (Höpner, 2007; Baccaro & Howell, 2011; 2017). The current study explores a wider, multifaceted measure of marketization that both captures marketization as a set of ideas and practices that 'deregulate' the employment relationship, 'liberate' international trade, as well as more closely connect access to goods, services and rights to market-value.

The *leading countries* were distinguished at the global and the regional level. Some mechanisms make it more likely that practices diffuse from globally leading countries to other countries, whereas others suggest that it is mainly through region-specific leaders (Beckfield, 2010). The specified mechanisms

[6] Certainly, I do not plead against the use of fixed effects models in general. Rather, one aim for obtaining only small coefficients for the unspecified terms by treating apparent noise as substance (Beck, 2001).

suggest that the economic success of countries are important for what makes them dominant . Therefore the top 10% (mostly top 4-5) countries were distinguished that had the largest GDP.

Besides the global leading countries, region-specific leading countries were computed by taking the 10% most economically (GDP level) powerful countries for each region in each year. The GDP level was taken from the OECD (2018a) database, measured per head in US dollars, constant PPPs (reference year 2010).

Then, the average growth in marketization practices in the different dimensions was calculated for the leading countries in each year, and taken as a main independent variable on the current growth in marketization practices in other countries.

Countries' *proximity* was calculated through using typical world region divisions as in Gallie (2007a) and Norström & Groncqvist (2015), with some exceptions. For instance, the distinguished regions were the Nordic countries, Mediterranean countries, transition countries, Anglo-Saxon countries and Bismarckian countries. However, these divisions are strongly Eurocentric. Countries as Mexico, Chile and Israel are hard to locate within these divisions. Moreover, within 'regions', there is much variability and distance between some countries. For instance, within the transition countries, one distinguishes between the 'Asian' and 'European' transition countries (e.g. Brainerd, 2001), with large cultural and geographical distances between them. This was not an issue here, as my OECD sample only contains the European transition countries and not the Asian. As an adjustment I made to the division, I required that there were not more than 2 countries geographically located inbetween two countries in the same region (or if they are located in a different continent). If this was the case with countries, the initial region was divided into subregions that were then hold on to, or new regions were created. For instance, the 'Anglo-Saxon' region had countries that were more than 2 countries removed from each other. The 'Anglo-Saxon' region, for instance, contains countries from three continents. The US was put in a new region with Mexico and Canada, while Australia was put in a region with New Zealand. The UK was put in a new region with Ireland. In the end, I distinguished 10 regions: East Asia (Japan, South Korea), Britain (Ireland and the UK), South Europe (Greece, Italy, Spain, Portugal), Scandinavia (Denmark, Finland, Iceland, Norway, Sweden), East/ Central Europe (Czech Republic, Estonia, Hungary, Poland, Slovak Republic, Slovenia), Latin America (Mexico and Chile), North America (Canada and the US), West Europe (Austria, Belgium, France, Germany, Luxembourg, The Netherlands, Switzerland), Oceania (Australia and New Zealand), and finally Israel.

Here, with 'region' and 'regional', mainly narrow regions (i.e. Scandinavia and Mediterranean instead of for instance EU and G8) are meant. As a robustness check, I defined less narrowly bounded regions, based on regional international organizations. In this robustness variable, North and South America were bounded together as 'The Americas', being both organized in the 'Organization of American States' (OAS, 2017). The European regions were bounded together as countries belonging to the

'Council of Europe' (Council of Europe, 2017). With this criterion of international region organizations, the regions Oceania, East Asia and the isolated OECD country Israel, however, remained similarly small as in the main regional variable.

The degree of *resistance against marketization* by populations is measured as follows. One item in the World and European Values Survey asked people whether they think it would be a good change if there would be 'less emphasis on work'. I then took the percentage of respondents that thought that this would be a good thing, for each country and year. This is taken to be the extent to which people think that an overemphasis is placed upon market-based norms, with people and things being evaluated extensively based on their work achievements. This variable indicates the degree of resistance from citizens to marketization, and especially on the predominant pressure to work in marketized societies. Another item asked respondents whether it would be a good change if there would be 'less emphasis on money and possessions'. I then took the percentage of respondents that thought that this would be a good thing, for each country and year. This variable indicates the degree of resistance from citizens to marketization, and especially on the predominant cultural emphasis on money and wealth display in marketized societies. On these items, countries had observations over 4 to 5 years between 1981 and 2012, and years inbetween these observations (87.7%) were imputed assuming a linear trend. Factor and correlation analysis (see Tables 1-2) indicated that these two variables fit well together in a scale (alpha = .78). Because the two items have the same natural scale, they were not standardized.

For determining countries' regime types, Gallie (2007a) and Esping-Andersen (1990) were strongly followed. A disadvantage was that not all countries have been typically discussed with regard to welfare regime types, which discussion is rather Eurocentred. As a consequence, it is not clear what regime type Chile, Mexico and Israel belong to. Looking at a mixture of their social services and institutions, as well as their cultural heritage, they were put together with the Mediterranean countries. Table 3 displays countries' regime types.

Control variables were included in the analysis to exclude the influence of so-called 'third variables' that influence both the dependent and the key independent variables. The following variables were taken into account: wealth (GDP per head in US dollars, constant PPPs), economic growth (annual in-percentage GDP growth), a continuous variable counting the years, transition-country status (0 = no communism and no transition period, 1 = transition period, between 1989 and 1999, 2 = period under communism, pre-1990), population size (World Bank, 2018a), educational stock (percentage of the population of 25 year old and older with tertiary education) (World Bank, 2018b) and urbanization (percentage of population living in cities) (World Bank, 2018c). The variable for transition-country status may be multicollinear with the regime type and region (which also distinguish transition countries, but not in which phase of transition they are). Therefore, the analyses looking at regime type

have one additional final model that excludes this control variable. The control for transition status automatically also controls of the potential influence of having many missing data points on the suicide and unemployment rates before 1990, as many transition countries had only valid observations from the mid-1980s or 1990 on. Also, a dummy will be included for whether country-years had observed or imputed values on the dependent variable. The question whether a country was a leading country itself in a given year or not was also still included in the regression analysis as a control variable. The analysis also controlled for the previous level of marketization in the countries.

Cross-sectional time series regression models were analysed using panel-corrected standard errors and country-fixed effects, with a continuous time counter for accounting for year-specific influences. The modelling of the standard errors controlled for potential panel heteroscedasticity and contemporaneous correlation and (panel-specific 1st order) autocorrelation of the standard errors. The interest is in the effect of previous trends in marketization in leading countries on future marketization. Thus, the average change over 1-year in marketization among the leading countries was analysed in its effect on the 1-year change in marketization in all the countries that occurred 1 year later.

Finally, it was checked for multicollinearity between average trends in a marketization indicator for global and regional leading countries. By preference, I keep the models as complete and parsimonious as possible, instead of running separate analyses, for instance for the effect world and regional leading countries. Only if there would be multicollinearity, it would be necessary to run an additional model without one of the variables. There was only multicollinearity for two small regions (East Asia and Latin America), which will be taken care of in the sensitivity analysis in the robustness checks. The following robustness checks were done:

(1) a longer lag was used instead of 1 year, for instance 5 years

(2) another indicator for cultural proximity: being in regional organizations rather than the same narrow geographic area, which is less multicollinear with regime types

(3) sensitivity analyses while leaving one country out

(4) random instead of fixed effects

Based on the descriptive and regression analyses, at the end the analyses will zoom in at 2-3 deviant cases.

The models, are as follows:

Hypothesis 1:

$$\Delta marketization_{it} = \beta_0 + \Delta marketization_{x\,t-1}\beta_1 + controls \;\; \beta_2 + year \;\; + country \;\; + \varepsilon_{it}$$

Hypothesis 2:

$$\Delta marketization_{it} = \beta_0 + \Delta marketization_{x\;t-1}\beta_1 + controls \;\; \beta_2 + year \;\; + country + \Delta marketization_{x\;t-1} \;\; * resistance \;\; \beta_3 + \varepsilon_{it}$$

Hypothesis 3:

$$\Delta marketization_{it} = \beta_0 + \Delta marketization_{x\;t-1}\beta_1 + controls \;\; \beta_2 + year \;\; + country + \Delta marketization_{x\;t-1} \;\; * welfare\ state \;\; \beta_3 + \varepsilon_{it}$$

Where *t* is year, *l* is the lag, *i* is the country, *x* is the group of economic leading countries (either on the regional or global level), and *s* are similar neighbouring countries, *z* is the group of leading countries, β_0 is the value of the intercept, and β_1 is the coefficient for the key independent variable and β_2 is the coefficient for the control variables, indicating their effect-sizes. β_3 is the coefficient for the interaction effect between resistance or regime type respectively and recent trends in marketization in other (leading or similar) countries.

Besides regression analyses, the interaction effect was evaluated graphically and by looking at the marginal effect of one of the variables at different levels of the other variable. This was displayed graphically only for those interaction effects that revealed at least one statistical significant effect.

2.4 Marketization: The Construct

Previously I discussed the *definition* of marketization. The current study takes a definition that both looks at policy measures and attitudes that can make societies more resilient against imitating marketized societies in their policies and against their governments adopting more market-principles. The *operationalization construct* of marketization is highly debated and, as could be seen, different studies use very different measures. There is no agreed upon measure. Some authors have criticized the attempt to measure market liberalization because of the term's haziness (Hall & Thelen, 2009; Streeck & Thelen, 2005). Following this, others have specified the term towards 'employer discretion',

indicating liberalization by the degree to which employers are exempted from imposed regulations or coercive centralized agreements, to pursue their own firm-level interest (Baccaro & Howell, 2017). According to them, 'employer discretion' has several 'interrelated dimensions', such as 'discretion in wage determination, [...] personnel management and work organiation, [...] in hiring and firing' and in 'the degree to which the employment relation approximates the model of employment at will' (Baccaro & Howell, 2017: 2). This will be measured by the current study by several indicators as explained in 2.5: employment relation legislation strictness, wage-setting coordination and centralization, government influence in wage-setting bargaining, and the presence of opening clauses.

As said, marketization can proceed in several divergent ways, and have done so across the OECD. Baccaro & Howell (2017: 2-3) distinguish two ways in which mrketization processes (i.e. 'the liberalization of industrial relations institutions') proceeded. Firstly, the institutions of market regulation themselves remain unchanged, on the surface, while labour power weakens and the function of those institutions changes to serve capital's interests. This has happened, the authors argued, in Germany. Secondly, the institutions of industrial relations are liberalized, but labour powers remains strong enough to 'constrain the discretion of employers' (Baccaro & Howell, 2017: 3). This has happened in Sweden, the authors showed. Thirdly, the institutions themselves are attacked, as in Great Britain (Baccaro & Howell, 2011). Because of the multiplicity of marketization trajectories, the current study uses a wide spectrum of different indicators. As discussed earlier in the chapter, it is an increasingly recognized fact in the industrial relations literature that countries could be highly marketized on one indicator, but much less on another. For instance, CME's such as Sweden may have strict employment protection laws (so may score high at an OECD employment protection legislation strictness indicator), but employment relations are still strongly 'liberalized' when this legislation appears to be semi-binding and increasingly permits local bargaining partners to avoid these rules through opening clauses (see Baccaro & Howell, 2017). In different countries and institutional contexts, states and class interest representatives use different strategies to travel the neoliberal road. Because of this all, I decided to compute one large multi-dimensional index scale for marketization. The individual indicators are discussed below. For the scale, the individual indicators are recoded to have high values represent more marketization, then standardized (to z-scores), and finally added up to form a mean sum scale. To back up choices made in the indicators, I also ran a factor analysis, a correlation analysis and reliability check (alpha intercorrelation scores). Note that it is not expected that the separate indicators in the scale are highly intercorrelated per se. As the literature points out, countries are divergent in their common trajectory towards a neoliberal institutional economic landscape (Baccaro & Howell, 2011; 2017; Chung & Oorschot, 2011; King & Rueda, 2008).

In the selection of policy indicators of marketization, the literature was followed. An often used indicator is the strictness of foreign trade regulations (FDI strictness), often called liberalization (Pierce & Schott, 2016). This is one indicator next to indicators that measure deregulation (such as the

strictness of employment protection legislation, or EPL strictness). The wider definition behind that operationalization is of marketization as the increasing importance of market-actors in the provision of goods and services traditionally provided by state-actors (e.g. Wei & Kong, 2014). Deriving from the work on Production Regime Types (Gallie, 2007a;b; Hall & Soskice, 2001; Iversen & Stephens, 2008) and on Baccaro & Howell's (2011) claim that declining union density is an important indicator of institutional deregulation (a dimension of marketization), the union density was also thought to be an important determinant of how strongly regulated markets are by non-market principles. More importantly, however, regulating institutions such as legislation and unions and collective agreements can be less restraining on employers' liberty to define the employment relationship and conditions when bargaining is less centralized, more individualized and when there are more opening clauses to deviate from the collective agreements. Therefore, wage-bargaining coordination, centralization and the presence of opening clauses were considered as well. Finally, the extent to which bargains are influenced by the state is considered as an additional measure of regulation as contrast to liberalization (or marketization) (Baccaro & Howell, 2011; 2017), to see the extent to which employers are steered to make agreements that are serving a wider interest instead of only their own market interest (Höpner, 2007).

For this selection of indicators, there was high quality cross-national comparative data over multiple years available. The ICTWSS Data Version 5.1 (Visser, 2016) in particular provided rich information that was needed for the purposes here. Other indicators, such as employment protection legislation strictness, were derived from other high quality databases such as the OECD's.

After some deliberation, social expenditures were left out of the marketization measure, because it is an indicator with contradictory meaning. A country's social expenditures can indicate the extent to which the economy is regulated by non-market principles. Also, social expenditures indicate the extent to which citizenship is de facto (de)commodified. Social expenditures reflect the degree to which citizenship and the quality of life are decoupled from the requirement of producing market value to society. But at the other hand, rising social expenditures could indicate a highly marketized economy. *Social expenditures mainly may catch up for the externalities that marketization processes on other dimensions have caused.* As Baccaro & Howell (2017) point out, neoliberal (i.e. marketized) economies suffer from much instability and are highly crisis-prone because of their inability to generate full employment. As an unintended consequence of this, social expenditures turn out to be higher, not only in unemployment assistance payments, but also indirectly through health care costs and, likely, increasing apparatuses of law enforcement and prisons. High social expenditures do not at all necessarily have to reflect attempts to de-commodify citizenship. Instead, when social expenditures are directed towards active labour market programmes, or the bureaucratic and surveillance apparatus maintaining strong benefit eligibility conditions and sanctions, then social expenditures can still be high while citizens are also largely commodified. In this instance, the welfare apparatus that spends

much is dominated by market-based norms and not necessarily by non-market ethical norms. In his work Punishing the Poor, Wacquant (2008) has pointed towards this and how this is relevant to especially 21th century welfare systems. Perhaps high social expenditures are not an indicator of a generous decommodifying welfare system anymore.

2.4.1 Strictness of foreign trade regulations

Strictness of foreign trade regulations (FDI strictness) is the most adopted indicator of marketization (Pierce & Schott, 2016; Simmons et al., 2006). This variable is a negative measure of the degree of liberalization of international trade, a crucial facet of marketization. In this study, the values were derived from the OECD (2017) and data were available for 1997, 2003, 2006 and 2010-2015. The OECD has developed an index to compare the FDI strictness across country-years. It provides sector-specific rates and economy-wide rates. For reasons of parsimony and because of the focus on the country-level, here the interest is in economy-wide rates. The FDI index looks at four dimensions of restrictions (Kalinova & Thomsen, 2010: 6):

1. Equity limitations
2. Discriminatory screening or approval
3. Restrictions on the employment of non national citizens
4. Other restrictions (for example on branching and capital repatriation or foreign land ownership)

The measure runs from 0 to .5, although virtually no countries reach this high point (Kalinova & Thomsen, 2010: 17). Data were missing on 56.5% on the country-years between 1997 and 2013, mainly due to missing year-points inbetween observations.

More information about this measure can be found in Kalinova & Thomsen (2010).

The higher the FDI strictness, the less marketized a society is.

2.4.2 Employment protection legislation

Another crucial facet of marketization is deregulation. One important indicator of this is the strictness of employment protection legislation (EPL strictness). The OECD has developed an index for this, ranging from 0 (least strict) to 6 (most strict), measuring how strongly the employment relationship is regulated by protective government laws. The OECD (2018b) measures this with regard to temporary workers and permanent workers. Data on this are available from 1985 to 2014, and between these time points 14.3% of the observations was missing. The overall level of EPL was calculated by constructing a weighted average of the EPL for temporary workers and permanent workers. The weight that was assigned to the EPL of temporary workers corresponds to the percentage of temporary workers in total

employment, as reported by the OECD. Likewise, the weight for the EPL of permanent workers corresponds to the percentage of permanent workers in total employment. More information about the index can be found on the OECD (2015). The more strict the EPL, the less marketized a society is.

2.4.3 Union Density

Another indicator of marketization is the union density, or the percentage of workers being a member of an union. Union density affects both deregulation and liberalization. Capital in countries with a strong union is less able to move their activity and labour freely to low-wage countries. Furthermore, the employment relationship will be more heavily determined by non-market concerns when the union has a large stake in it. Marketization processes have not extended thus far if unions are still strong and important, and are resisting against such trends. Union density measures the extent to which workers are incorporated in this important institution that can serve as a source of integration and regulation. It also measures the extent to which the union still has an important role in the collective bargain on working conditions. If this role is important, then this is indicates that non-market ethical norms still regulate the employment-relationship. Therefore, it is a negative measure of marketization: the higher the union density, the lower the degree of marketization. Data about the union density were taken from the and ICTWSS Data Version 5.1 (Visser, 2016) and are available from 1960 to 2013 for most countries. Where they were not available, trends were extrapolated based on the observed years.

However, union density knows some caveats as an indicator of marketization. It is also a possible indicator of a stronger conflict in society, which implies a lower overall integration and regulation of its inhabitants (Durkheim, 1897). Union density thus captures another effect that may offset the initial integrative effects of a lower marketization and may therefore ambiguous. This could explain its statistically positive impact on the suicide rate. However, at the other hand, studies inspired on Durkheim's Integration Theory indicate that protests unite through a ritualized display of shared collective emotions, being an effective antidote to rising anomie (Burkitt, 2005).

2.4.4 Collective wage bargaining centralization

A negative indicator of marketization is collective bargaining centralization, as suggested in Baccaro & Howell (2011; 2017) and Höpner (2007). Decentralization is an important marketization strategy adopted by CME's where the main institutions of industrial relations continue to be strong, but are reformed in their function, as already discussed. Data were taken from the widely recognized ICTWSS Data (Visser, 2016) and were available between 1960 and 2013. This database contains a 'summary measure of centralisation of wage bargaining' (Visser, 2016). It considers both union authority and concentration at several levels, and was based on Iversen's centralisation index (Iversen, 1999). The degree of authority (i.e. vertical coordination) in the union movement was weighted with the degree of

external and internal unity and with union concentration (i.e. horizontal coordination). See for more information: Visser (2013: 25).

2.4.5 Tripartism

The degree of tripartism is another negative indicator of marketization suggested by Baccaro & Howell (2011). With this they mean the degree to which unions and employer representatives are co-designing policies with the state. In this regard, the representatives of capital have less liberty to use their relative power in an 'autonomous', assymetric bargain with labour, because now they are supervised and corrected by a third powerful party: the state. In the present study, the 'govint' variable from the ICTWSS (Visser, 2016) database was used. Data on this variable were available between 1960 and 2014. It measures the presence and degree of government intervention in wage bargaining. It entails a categorical measure, ranging from 1 to 5, with (1) meaning that there is no government influence over wage bargaining, (2) meaning that wage bargaining is influenced by the government by its 'institutional framework of consultation and information exchange', (3) indicating indirect government influence 'through price-ceilings, indexation, tax measures, minimum wages', (4) meaning direct government participation in wage bargaining (e.g. a social pact), and (5) meaning that the government 'imposes private sector wage settlements', placing 'a ceiling on bargaining outcomes or suspend[ing] bargaining' (Visser, 2016: 8). This measure was reverse-coded so that higher values mean more marketization.

2.4.6 Coordination of wage-setting

Another important indicator of institutional deregulation (i.e. marketization) according to Baccaro & Howell (2011) is a declining coordination over wage-setting. In the present study, this indicator was derived from the ICTWSS data (Visser, 2016) and data were available from 1960 to 2014. Again, this measure runs from 1 to 5. To start, (1) means 'fragmented wage bargaining, confined largely to individual firms or plants', (2) means 'mixed industry and firm-level bargaining, weak government coordination through [minimum wage] setting or wage indexation', (3) means 'negotiation guidelines based on centralized bargaining, (4) means 'wage norms based on centralized bargaining by peak associations with or without government involvement, and (5) means 'maximum or minimum wage rates/ increases based on centralized bargaining' (Visser, 2016: 7). As the previous indicator, the current indicator had reverse-coded values so that higher values mean more marketization.

2.4.7 Opening clauses

Wage-settlement can be highly coordinated at a high level, but still leave employers with much liberty to deviate from the centralized, collective agreements if there are many opening clauses that are not just 'crisis-related' and 'temporary' (Visser, 2016: 3). This particular form of marketization through

liberalization has been termed ‘derogation’ in the industrial relations literature (Baccaro & Howell, 2017: 3). Wage-bargaining may seem strongly centralized at the surface, but many opening clauses may relocate the weight of the bargaining process to lower levels of decision making such as between the individual employer and employee, granting more power and discretion to the employer to bypass national laws or collective agreements. Baccaro & Howell (2017: 3) argued that this type of ‘liberalization of industrial relations’ took place in economies that did not abolish its traditional regulational institutions. They showed that Sweden is an illustrating case of this. Therefore a final indicator of marketization was included: whether collective agreements contain a general opening clause, also derived from the ICTWSS database (Visser, 2016: 3). It is important to note that this is a dummy variable.

2.4.8 Resistance

As said, marketization policies and normative frameworks are also perceived and evaluate in certain ways by people. I will also take into account a measure that considers the extent to which people both (a) perceive their society as marketized and (b) consider this degree of marketization as too strong. This will be captured by the ‘resistance’ measure described above.

2.4.9 Factor analysis

In this study, a marketization index scale is designed in recognition of different trajectories towards neoliberal societies, varieties of marketization routes. Therefore, the different indicators are not required nor expected to be intercorrelated. Rather, the scale is meant to capture the overall progress towards neoliberalism (marketization) without losing ourselves too much in country variations of how they proceed (whether it is declining union importance or rather opening clauses that provide escape routes out of strict collective agreements, or liberalizing international trade). A combination of several of these, will likely lead to a more market-driven society.

Now all indicators of marketization have been introduced, I want to explore the multidimensionality of the construct ‘marketization’. A factor analysis of all indicators for institutional marketization reveals that there are clearly multiple trajectories towards a convergent outcome: more of, consistent with previous studies (Auer and Cazes, 2003; Baccaro & Howell, 2011; 2017; Chung & Van Oorschot, 2011; Gash & Inanc, 2013). . With regard to the interrelations between these two, the factor analysis is not meant to derive dimensions but to display these interrelations. For the four negative indicators of marketization processes themselves (union density, social expenditures, EPL and FDI strictness), the factor analysis was meant to derive dimensions, next to the correlations analysis.

For this analysis, imputed values were used for missing observations. In imputing, linear inter- and extrapolation were used. Trends were thus assumed to mainly follow a linear line. Because for some

variables (EPL and FDI strictness) most data were only available from the 1990s on (with some rare observations for the period before), the factor analysis was also ran for 1990 to 2016 (Table 1). The results did not differ much from the findings where the 1960-1989 period was included (not displayed).

As Table 1 shows, the factor analysis clearly suggests that the indicators that deal with the collective (wage-) bargaining process are interrelated. The degree of coordination and centralization of the wage-setting bargaining process have both strong loadings on Factor 1 (.82 and .66 respectively), followed by the degree of government influence in such bargains (.52). Union density also has a moderately high loading on this factor (.48). Interestingly, the dummy that signals the absence of opening clauses loads negatively on this factor, indicating that strong unions and coordinated, centralized bargaining is related to having opening clauses in the collective agreement. This is precisely what Baccaro & Howell's work (2011; 2017) has indicated for so-called Coordinated Market Economies – showing the importance of combining these different dimensions of marketization in a scale.

Interestingly, the two variables directly dealing with legislation strictness did strongly cluster together in Factor 2. FDI strictness loaded .56 and EPL strictness had a modest .47, albeit negatively. It indicates that having a strict FDI policy is related with a more lax employment regulation system, and vice versa – also indicating that countries proceed towards the common outcome of neoliberalism differently, as Baccaro & Howell (2011; 2017) indicated.

Overall, the indicators cluster relatively modest to high on one factor, and the eigenvalues do not suggest the need for multiple factors. The interest of this study, moreover, is not so much in different marketization trajectories, but rather in the overall influence and diffusion of marketization as such. Therefore one scale indicating marketization was constructed.

Table 1: Factor analysis marketization and resistance against marketization indicators

Variable	Factor1	Factor2	Factor3	Uniqueness
Union Density	***0.4792***	0.3219	0.2186	0.6190
Bargain coordination	***-0.8195***	0.1045	0.0000	0.3176
Bargain centralization	***0.6552***	0.3036	-0.0667	0.4741
Governmental influence in bargain	***0.5227***	0.3049	-0.2417	0.5753
No opening clauses in collective agreement	-0.4090	0.1801	0.3673	0.6653
Employment protection legislation strictness	0.4077	***-0.4671***	0.0578	0.6123
Foreign direct investment strictness	-0.2907	***0.5594***	0.2087	0.5590

Principal factor analysis. 1990-2016

2.4.10 Correlations

Table 2 lists the correlations between all variables that relate to marketization, including the resistance attitudes. Note that these are based on unimputed values. To start, the two items that together constitute the measure for resistance against marketization, are highly intercorrelated (r = .63). Among the indicators for the marketization processes themselves, it is interesting to see strong correlations between the variables about the collective (wage-) bargaining process: union density correlates highly and positive with the degree of coordination and centralization of bargaining (r = .42 and .46 respectively). It correlates modestly positive with the degree of government intervention (r = . 16). Moreover, as seen in the factor analysis, bargain coordination and centralization are highly intercorrelated (r= .57). Moreover, the degree of coordination is highly intercorrelated with the degree of government intervention, as suggested in Höpner (2007), although he suggested that these are nevertheless two separate dimensions of regulated capitalism.

Interestingly, the degree of coordination is modestly negatively interlinked with the strictness of foreign direct investment (FDI) regulation. It appears that these point towards two different, separate trajectories of marketization. Some regimes choose to liberalize international trade while others rely on lowering the degree of coordination of wage-bargaining. Another explanation, however, could be that foreign direct investment regulations is more strongly contingent on factors that exceed the national level.

While FDI strictness is negatively related with the degree of government intervention (r = -.28), another legislative strictness – that of the employment relation – is positively related with government intervention (r = .45). This may be explained by the fact that the government intervention meant in the indicator is mainly concerned with the wage bargain, an important aspect of the employment relationship, while foreign direct investment is a separate area, and perhaps even an alternative strategy, of neoliberal reform.

What this picture again reveals is that marketization is indeed a complicated multifaceted concept that has more dimensions. Moreover, institutional marketization is not necessarily related to a popular cultural anti-marketization framework in societies. Attitudes to not easily match the objective situation: people can desire a set of practices, but that does not imply that this set of practices is strongly applied (Svallfors, 2003). Furthermore, union density reflects a totally different area on which marketization can occur than regulations about international trade do. Apparently, the degree of marketization can differ strongly across areas within countries.

Table 2: Correlation matrix marketization and resistance against marketization indicators

	Resistance against emphasis on work	Resistance against emphasis on money	Union density	Bargain coordination	Bargain centralization	Governmental influence in bargain	No opening clauses in collective agreement	Employment protection legislation strictness	Foreign direct investment strictness
Resistance against society's emphasis on work	/								
Resistance against society's emphasis on money	.6301***	/							
Union density	-0.0282	0.091	/						
Bargain coordination	-0.1939*	0.16	0.417***	/					
Bargain centralization	-0.0738	-0.0758	0.4599***	0.5679***	/				
Governmental influence in bargain	-0.0725	0.0256	0.1606***	0.3123***	0.2378***	/			
No opening clauses in collective agreement	-0.2416*	-0.0602	0.0153	-0.1854***	-0.1756***	-0.0103	/		
Employment protection legislation strictness	0.0023	-0.0054	-0.0568	0.2820***	0.3236***	0.4525***	-0.085	/	
Foreign direct investment strictness	0.0694	-0.0055	0.0382	-0.3075***	-0.0279	-0.2816	0.1524***	-0.2713***	/

Correlations are in Pearson's r. $^{+}p < .1$, $^{*}p < .05$, $^{**}p < .01$, $^{***}p < .001$. Correlations based on non-imputed values.

2.5 Descriptive Figures on Marketization and Related Variables

Now the data and methods have been discussed, a descriptive overview will be provided of the data. Table 3 indicates countries' score on the main measure for being a 'leading country'. Although it is a dummy variable (0 or 1), some countries have values between 0 and 1. This means that they have been leading in some years, but not in others. My measure is dynamic and allows for the possibility that different countries are in the top 5 economies at different time-points.

Taking a look at the descriptive statistics on the dummy variable distinguishing economic leading countries (the countries with the top 10% GDP levels in a given year) from the rest, Table X shows an average score that countries have had throughout the entire time period (1960-2015). It can be seen that Luxembourg has witnessed an uninterrupted top 10 GDP-level, indicated by the maximum score of 1. Luxembourg is closely followed by Switzerland (.98), which had a top 10 GDP-level almost every year, and Norway (.71). The national figure can be taken as the proportion of years in which a given country has had a top 10 GDP-level compared to the other OECD countries in a given year. Norway is, with a large distance, then followed by the United States (.28), which had a top 10 GDP-level in almost a third of the measured time period. The United States, in turn, are then followed by Australia (.07), Ireland (.02) and Denmark (.02). After Denmark, there are only countries that score zero, meaning that they were leading economies in only a small number of years or consistently were not among the top ten high-GDP countries in a given year.

Not surprisingly, then, Luxembourg also scores on top with respect to the average level of GDP measured for the time perio (56,263.59). Luxembourg is again closely followed by Switzerland (44.250,06) and Norway (43,619.41) and the United States (37,624.01). Contrary to the hierarchical ordering of leading economic countries, Sweden and The Netherlands come on top after the United States, with GDP-levels of 37,558.22 and 33,919.70 respectively. Then again there is a frequent economic leading country, Denmark, with a GDP-level of 33,707.10, followed by Canada, Austria and Germany with GDP-levels between 30,998 and 33,707. On the contrary, Mexico and Chile score lowest with average GDP-levels between 12,147 and 13,719. Korea also sores low with 15,511.79, but caught up in recent decades, as its GDP-level has grown remarkably between 1970 and 2015. Right above Korea are some transition countries such as Poland, Estonia, Hungary and Slovak Republic, with average GDP levels below 20,000 but above 15,000. Also these countries caught up in recent decades. For instance, Poland saw its GDP level increase from approximately 8,000 in 1990 to almost 25,000 in 2015.

Now the discussion will proceed towards the marketization indicators. With regard to union density, the Nordic countries are notably high, which is consistent with a large body of previous evidence. Iceland is on top with 85.8% of the workers united, followed by Sweden with 76.0 of the workers

united. After Sweden comes Israel with 72.4% of the workers united, followed by Denmark, Finland and Norway, all having average levels above 55%. However, these rates have also declined in the Nordic countries, as Baccaro & Howell (2017) for instance point out. This is also indicated by the data here. Extremely low levels of union density throughout the time period, on average, have been found in Korea (12.9%), France (13.9%), Chile (16.1%) and Spain (16.5%). In Spain this may be due to the historical attacks on the labour movement by the Franco regime, and an above-average predominance of temporary irregular work in the Spanish labour market.

With regard to coordination of the wage-bargain, the highest level was found in Japan. Firms have been relatively autonomous in organizing employment conditions and protection for their employees (Auer & Cazes, 2003) with a level of 4.7, close to the maximum level of the index. Japan is followed by Austria (4.2), Belgium (4.4) and some Nordic countries (with levels between 4.2 and 4.3). Also The Netherlands and Germany score modestly high with values above 3.5. Low are Chile and Mexico (1), the United States (1.1) and Poland (1.2), as well as some transition countries such as Poland and Estonia, and some other liberal market economies such as Canada and the United Kingdom. The mentioned countries score below 1.8.

With regard to wage bargain centralization, Austria scores again high, and this time highest of all countries with observations (.92). It is close to the maximum level of 1. Austria is then followed with a large distance by Norway (.57), Sweden (.54), The Netherlands (.54), and Denmark (.52). Lowest on the index are the United States (.13) and the United Kingdom (.20). Japan is third-lowest (.23), despite its high degree of coordination – again suggesting that coordination and centralization sometimes can exclude each other as a strategy to move to more neoliberal economies (Baccaro & Howell, 2011; 2017) and that they amount to two different dimensions of marketized capitalism (Höpner, 2007). France is low as well, with a level of .23, followed by Hungary (.24).

Considering governmental influence in the wage bargain process, Korea is highest with a level of 4.2, followed by Portugal (4.0). The other countries are below 4. Czech Republic, Finland and Poland are close to 4 with levels of 3.9. Lowest are Japan and Switzerland (1). The results concerning Japan resonate with the literature pointing towards a relatively widespread practice to have firms coordinating the employment condition bargains themselves (Auer & Cazes, 2003) through 'segregated' firm 'networks' (Höpner, 2007: 17). Japan as well as Switzerland are the two countries that were noticed for their high 'employer coordination' (Höpner, 2007: 13), while having a low extent of state-imposed firm-extending organization of interests (Höpner, 2007: 16). Canada and the United States, both liberal market countries, are below 2 (1.2 and 1.5 respectively).

Moreover, a dummy variable captured whether national institutional frameworks have produced no opening clause in collective bargain agreements. Averaging this variable throughout the time period, gives a measure of the proportion of years in which national frameworks did not have this back door

option towards more neoliberal, individualized bargaining. Countries that have an average of '1', indicating that in all of the years there was no opening clause, are the following: the United Kingdom, New Zealand, Slovenia, the United States, Ireland, Estonia, Poland, Luxembourg, Hungary, Slovak Republic, Canada, Australia and Czech Republic. To a reader inspired by Varieties of Capitalism scholarship, this may be surprising to see so many liberal market regimes (or to-be liberal market transition countries). But in light of the findings of Baccaro & Howell, this picture makes much sense. Opening clauses are the typical neoliberal liberalization strategy of the prototypical coordinated market economy, such as Sweden and Germany (Baccaro & Howell, 2011; 2017). From this previous finding, it is not surprising to find no broad use of opening clauses in liberal market economies, who have rather opted for a more direct attack on regulating institutions such as unions and coordinated or centralized bargaining (Baccaro & Howell, 2011; 2017).

Finally, there are two marketization indicators dealing with legislation strictness. Employment protection legislation (EPL) strictness is one of them. On this index, Portugal (4.2) scores highest (although still almost two points below the maximum). Portugal is, with a distance of more than one point, followed by Czech Republic (3.0), which is then closely followed by some Mediterranean countries: Spain and Greece (2.9) and Italy (2.8). Modestly high are countries such as Sweden, Germany and Korea (between 2.5 and 2.7). Low on employment strictness are many liberal market economies, such as the United States (.26), Canada (.84), United Kingdom (1.11), Australia (1.30), New Zealand (1.30 and Ireland (1.32).

With regard to the second legislation strictness indicator, dealing with foreign direct investment restrictions, some liberal market economies surprisingly score relatively high, although all countries score relatively low (far from the maximum value of 1). New Zealand is on top with a score of .24, followed by Mexico (.22), Canada (.20), Korea (.18) and Australia (.17). Low are Luxembourg (.01), Portugal (.02) and The Netherlands (.02).

With regard to the negative index for marketization changes (i.e. meaning that larger negative changes imply stronger marketization process), the following was found. Only one country moved – on average across the entire time period – towards a less marketized economy: Ireland. The rest of the sample witnessed marketization processes in varying degrees. Weakest are Belgium (-.010), Italy (-.013), Iceland (-.014) and Luxembourg (-.019). Strongest are many transition countries such as Poland (-.225), Estonia (-.213) and Slovenia (-.210). The relatively rapid shifts that these countries witnessed, may have caused large change values, which influences the overall average level of change over the longer time period. This may also explain why the United States shows a modestly low score here, as changes have been more gradual in this country.

Looking at the degree of resistance against marketization processes, Greece scores remarkably high here with two-third of the respondents (.67). Greece is followed by two high GDP-countries:

Luxembourg (.64) and Switzerland (.63), and by France (.61) and Belgium (.57). Lowest on resistance are Japan and Korea (.17 and .30), Slovenia (.34) and Hungary (.35).

Table 3: Descriptive statistics over countries

Country (Region)	Union density (1)	Bargain coordination (2)	Bargain centralization (3)	Governmental influence in bargain (4)	No opening clauses in collective agreement (5)	Employment protection legislation strictness (6)	Foreign direct investment strictness (7)
Australia (1)	46.625	2.709	0.512	2.945	1	1.299	0.169
Austria (2)	48.746	4.418	0.919	2.072	0.672	2.511	0.121
Belgium (2)	48.894	4.363	0.477	3.672	0.4	1.971	0.052
Canada (3)	31.861	1.218	0.278	1.218	1	0.839	0.203
Chile (4)	16.132	1		2.8		2.647	0.060
Czech Republic (5)	26.890	2.333	0.257	3.963	1	3.00	0.017
Denmark (6)	69.660	4.254	0.524	2.563	0.545	2.118	0.034
Estonia (5)	23.018	1.416	0.326	2.416	1	2.121	0.030
Finland (6)	64.498	4.236	0.417	3.963	0.890	2.221	0.058
France (2)	13.947	2.090	0.231	3.109	0.672	2.536	0.047
Germany (2)	29.633	3.709	0.443	2.254	0.545	2.581	0.025
Greece (7)	29.761	3.425	0.326	3.703	0.9	2.916	0.042
Hungary (5)	40.658	1.84	0.240	3.36	1	1.911	0.05
Iceland (6)	85.781					1.599	0.167
Ireland (8)	46.590	2.981	0.417	2.818	1	1.319	0.045
Israel (9)	72.439	3.254			0.545	1.972	0.117
Italy (7)	37.519	2.6	0.328	2.618	0.890	2.789	0.053
Japan (10)	27.358	4.690	0.227	1		1.575	0.056
Korea (10)	12.896	3.117		4.254		2.570	0.184
Luxembourg (2)	43.427	2.254	0.319	3.236	1	2.328	0.004
Mexico (4)	17.299	1		2		2.264	0.217
Netherlands (2)	29.049	3.890	0.539	3.672	0.636	2.549	0.016

Table 3 (continued): Descriptive statistics over countries

Country (Region)	Union density (1)	Bargain coordination (2)	Bargain centralization (3)	Governmental influence in bargain (4)	No opening clauses in collective agreement (5)	Employment protection legislation strictness (6)	Foreign direct investment strictness (7)
New Zealand (1)	40.892	2.018	0.272	3.054	1	1.308	0.24
Norway (6)	56.122	4.345	0.571	3.472	0.8	2.409	0.088
Poland (5)	35.070	1.16	0.350	3.909	1	2.0560	0.084
Portugal (7)	31.107	2.432	0.320	4.018	0.918	4.213	0.015
Slovak Republic (5)	30.425	2.181	0.506	3.136	1	2.256	0.051
Slovenia (5)	48.315	3.4	0.489	3.72	1	2.424	0.019
Spain (7)	16.545	3.078	0.320	3.368	0.868	2.924	0.026
Sweden (6)	76.014	4.272	0.540	2.345	0.727	2.592	0.065
Switzerland (2)	23.715	3.545	0.329	1	0.672	1.539	0.106
United Kingdom (8)	38.676	1.781	0.200	2.1	1	1.113	0.048
United States (3)	26.655	1.145	0.131	1.472	1	0.256	0.089
All	**38.446**	**2.792**	**0.386**	**2.885**	**0.845**	**2.161**	**0.0802**

1 Percentage of total workers (wage and salary earners) in employment. ICTWSS Data Version 5.14 (Visser, 2016). Over 1960-2013.
2 Categorical measure by Visser (2013; 2016) running from 1 ('fragmented wage bargaining…') to 5 ('maximum or minimum wage rates based on centralized bargaining'). Visser (2016: 7). ICTWSS Data Version 5.14. Over 1960-2014.
3 Index by Visser (2013; 2016). ICTWSS Data Version 5.14. Over 1960-2013.
4 Index by Visser (2013; 2016) running from 1 (little intervention) to 5 (much intervention). ICTWSS Data Version 5.14. Over 1960-2014.
5 Average based on (recoded) dummy variable from the ICTWSS Data Version 5.14 (Visser, 2016), indicating whether no general opening clauses were present in collective agreements (1). Over 1960-2013.
6 OECD index running from 0 (least strict) to 6 (most strict). OECD (2018b). Over 1985-2014.
7 OECD index running from 0 (least strict) to 1 (most strict). OECD (2018c). Over 1997-2015.

Subsequently, some trends in different marketization areas will be examined here. Figure 1 to 8 display the trends for several countries at different areas of marketization. First, Figure 1 shows some trends in union density. Looking at *union density*, many countries show a decline throughout the decades. Especially pronounced is New Zealand, were the trend started early (1970s) and again continued strongly in the 1990s. The United States, by contrast, shows a more gradual pattern. The United Kingdom shows a small increase until the late 1970s when the Thatcher government directly attacked the unions. This was followed by a sharp decline that continued until the end of the time series, although less steeply. Especially steep are the declines in the transition countries, started mostly since the 1980s and again afterwards after the collapse of the Soviet Union, up to the latest years of the time series (2010-2013). Sweden, however, shows a pattern of recent revival of the unions, as well as Luxembourg and Ireland. Curiously, Belgium shows a small increase in union density over the entire time series (1960-2013).

Wage-bargain coordination (Figure 2) declined in many countries, although some show degrees of revival and, overall: fluctuated stability (Germany, Ireland, Finland). Note that the patterns in the graphs are arbitrarily angular, because it concerns a categorical scale here. Where linear trends are appearing, values were ipolated to fill up missing observations and estimate trends. These should be taken with more caution.

With regard to *wage-bargain centralization* (shown in Figure 3), countries show some more stability. Overall, the liberal market countries do not seem extraordinary to this pattern. Some countries even witnessed an increase, such as Spain and Portugal. Some transition countries, by contrast, show a steep decline (Poland and Slovenia).

When it comes to the index for *government influence* on bargains (with 1 implying the lowest and 5 the highest degree of government influence), most countries show a decline. Especially during the 1970s, there was a sharp decline in the United States, whereas in most other countries the 1980s or later were the periods of decreasing government influence. Ireland, notably shows an increase in government influence, as does the United Kingdom during the early 2000s, although in a small extent. Other countries show stability, fluctuated (Portugal) or smooth (Japan). These trends can be seen in Figure 4.

Figure 5 focuses on trends on the variable capturing the presence of opening clauses: a dummy variable where 1 means that there is no opening clause, and 0 indicates that the collective agreement contains opening clauses). The data show that many liberal market economies have had a stable pattern of having no such clauses. Many continental countries and Nordic countries, however, have moved towards having such clauses. Most of them did so between the 1980s and 2000s. This is consistent with what Baccaro & Howell (2011; 2017) pointed out about continental and Nordic neoliberal strategies, and indicates the crucial importance of including this indicator in a measure of

marketization (i.e. neoliberalization). The Southern European countries did so after 2010, such as Greece, Portugal and Spain. The transition countries, by contrast, show a remarkable stability of having no such clauses, which makes sense if we look at how their union density rate was already attacked severely.

Figure 6 shows the trends with regard to employment protection legislation strictness (EPL strictness). There is a less pronounced, common decline across the countries with regard to EPL strictness. Although some transition countries show a steep decline (Estonia, Slovenia), others show fluctuated stability (Poland, Czech Republic) or a gradual decline (Slovenia). Many Nordic countries show a remarking stability, while some Mediterranean countries show some decline, especially in the latest decade (Greece, Portugal). In the case of Greece, this could be the result of being subjected to strict liberalization conditions for financial support by the International Monetary Funds (IMF) (Antonakakis & Collins, 2014: 41).

Table 7 displays the trends in countries in their foreign direct investment policies strictness (FDI strictness). Most countries saw a decline in FDI strictness, except some liberal market countries (New Zealand, United States). The latter can be explained by the late start of the FDI time series, as there were no data available from before 1995. International trade liberalization already started much earlier in the United States with the Bretton Woods system and the 1970s 'revolt of capital' (Streeck, 2014). Some countries, such as the United Kingdom, show a gradual decline while others, such as Belgium, Finland and Korea, show a sudden steep trend. The sudden-ness may be partly artificial, because data before 2010 were not collected annually, but with gaps between the years. Most transition country show a very steep trend, stabilizing somewhat after the mid-2000s. This may be the result of the enforced trade liberalization after the 1991 collapse of the Soviet Union.

Finally, Figure 8 displays the trends of countries on the marketization index, or actually on the index for *negative* marketization – as all indicators indicate more regulation if their values are more positive. For the purpose of displaying trends, the levels of marketization were used and not the annual growth levels. What becomes immediately clear is that all countries show a decline on the negative marketization index, indicating that countries have been moving away from regulation towards more liberalization (i.e. marketization. Thus, Baccaro & Howell's (2011; 2017) assertions of a 'common trajectory' towards more neoliberal institutional landscapes, is strongly supported by the data here. As they argued, once we account for the fact that countries differ in their specific routes towards neoliberalization (e.g. opening clauses versus direct assaults on unions), then a common trajectory reveals itself. There is some interesting cross-national variation in the magnitude and speed of the marketization processes. Liberal market economies such as the United States and Australia show a very gradual pattern with few rapid shifts. Interesting is the short high level of regulation in the United States during the 1970s. The steep and abrupt move towards marketization during the 1970s may

indicate what Streeck has called the 'revolt of capital' (Streeck, 2014). Also interesting is the British pattern. The beginning of the 'Thatcher era' appears very visible in the table: at 1980 there is a steep decline in regulation in the United Kingdom, followed by relative stability. Of all countries, only Ireland has moved towards more regulation, until the present decade, when it witnessed quick and substantial marketization processes. Not surprisingly, the transition countries show pronounced marketization processes, especially since the 1990s, but surprisingly also before the collapse of the Soviet Union.

Figure 1: Trends in union density in different countries

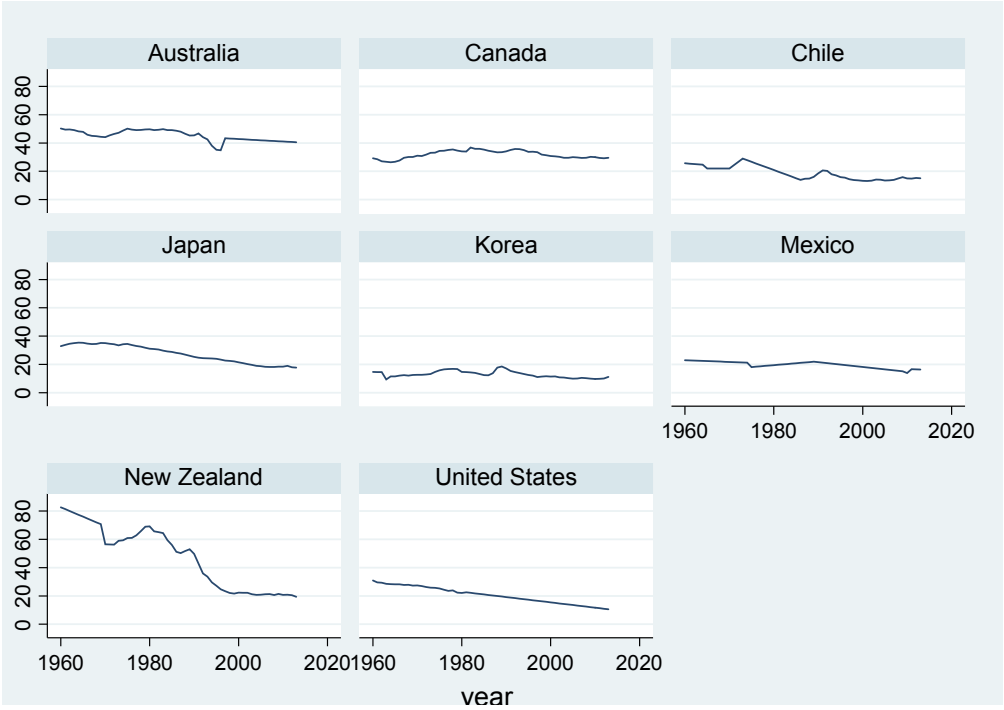


Figure 1 (continued): Trends in union density in different countries

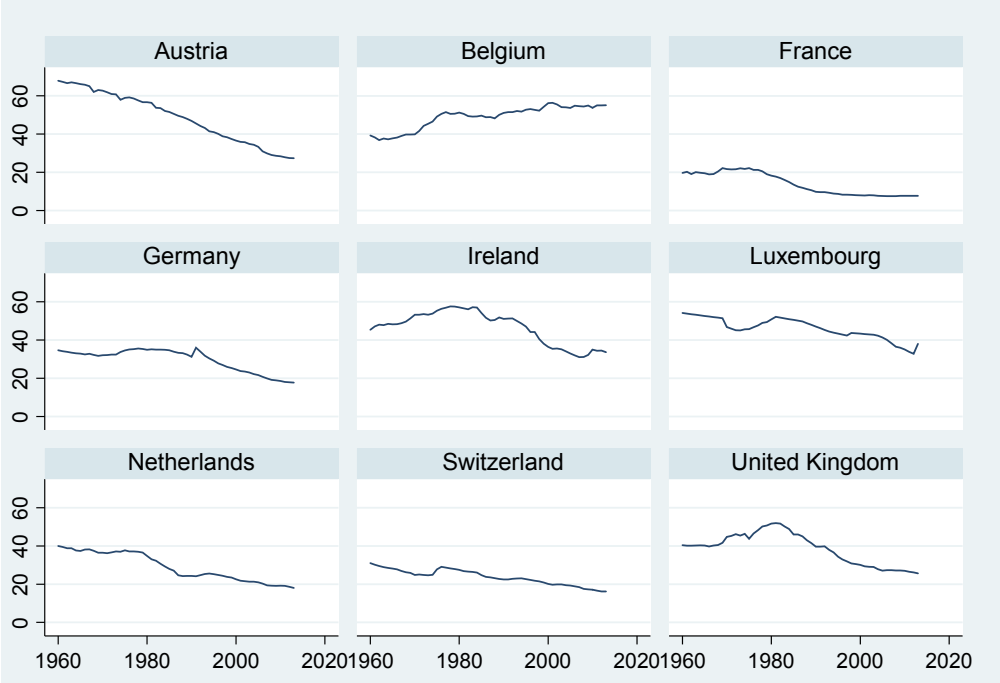


Figure 1 (continued): Trends in union density in different countries

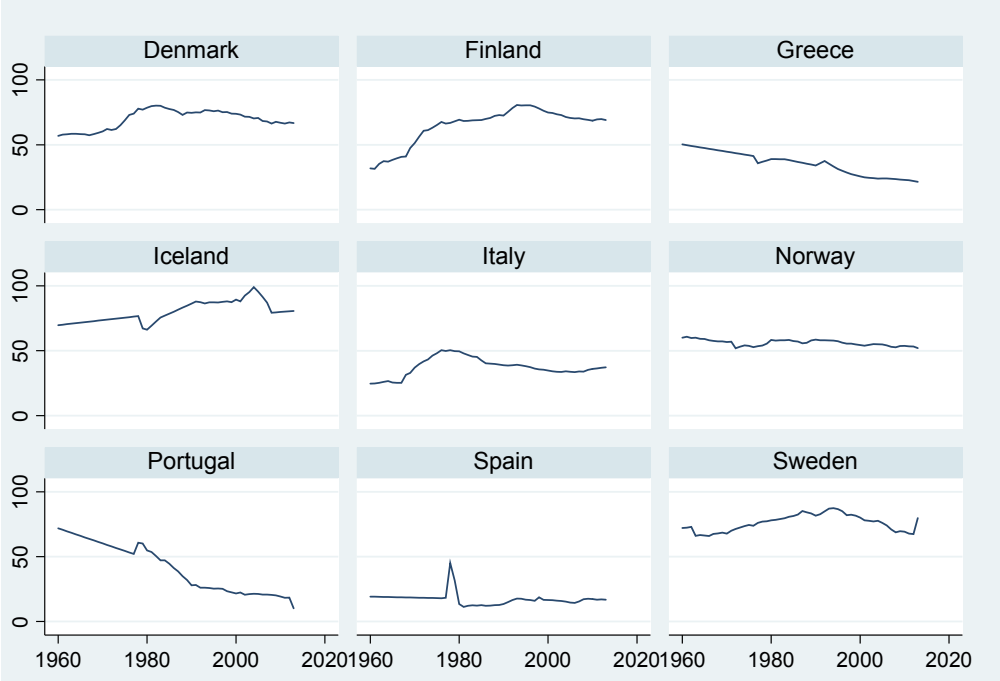


Figure 1 (continued): Trends in union density in different countries

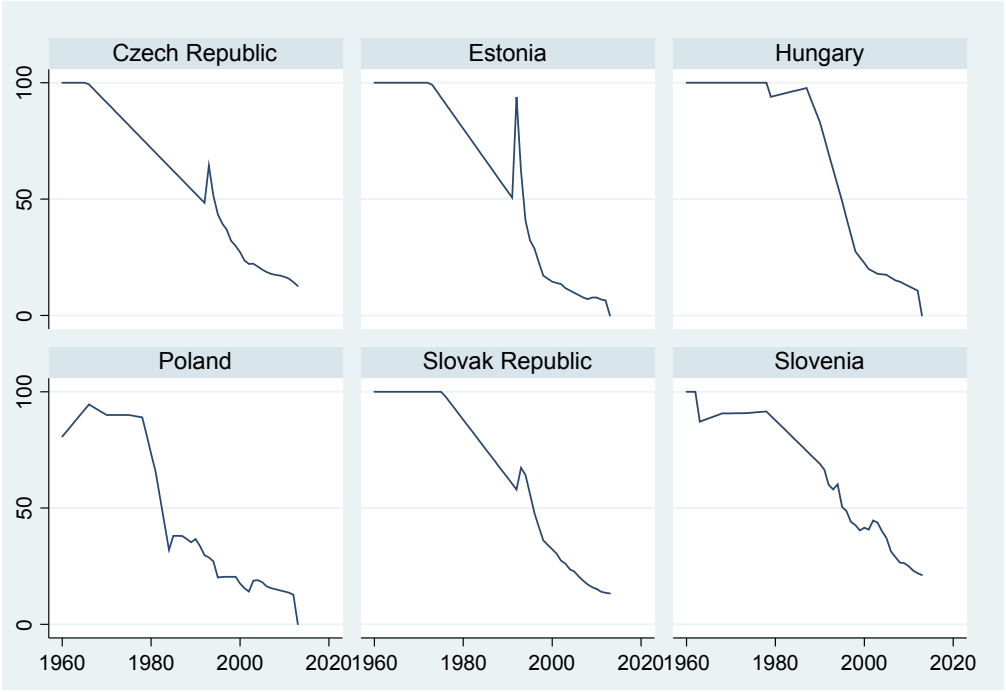


Figure 2: Trends in wage-bargain coordination in different countries

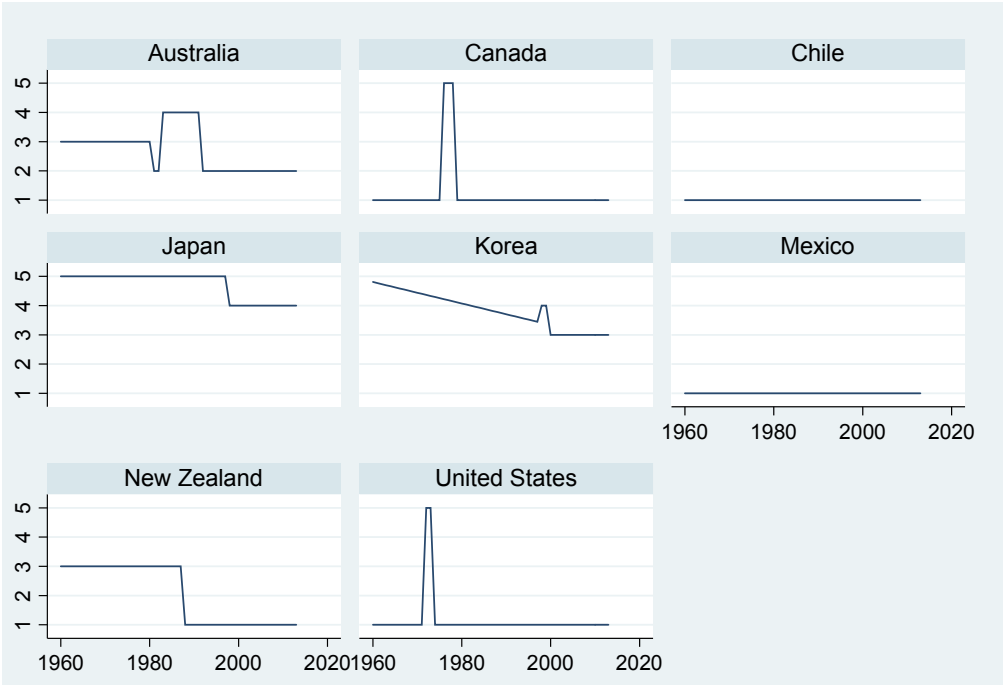


Figure 2 (continued): Trends in wage-bargain coordination in different countries

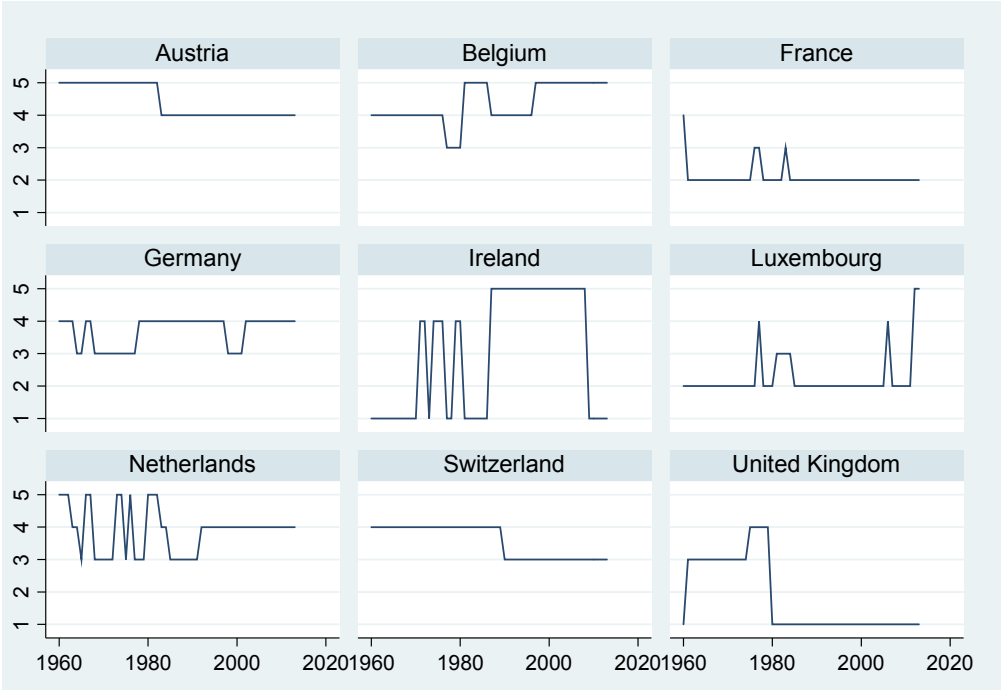


Figure 2 (continued): Trends in wage-bargain coordination in different countries

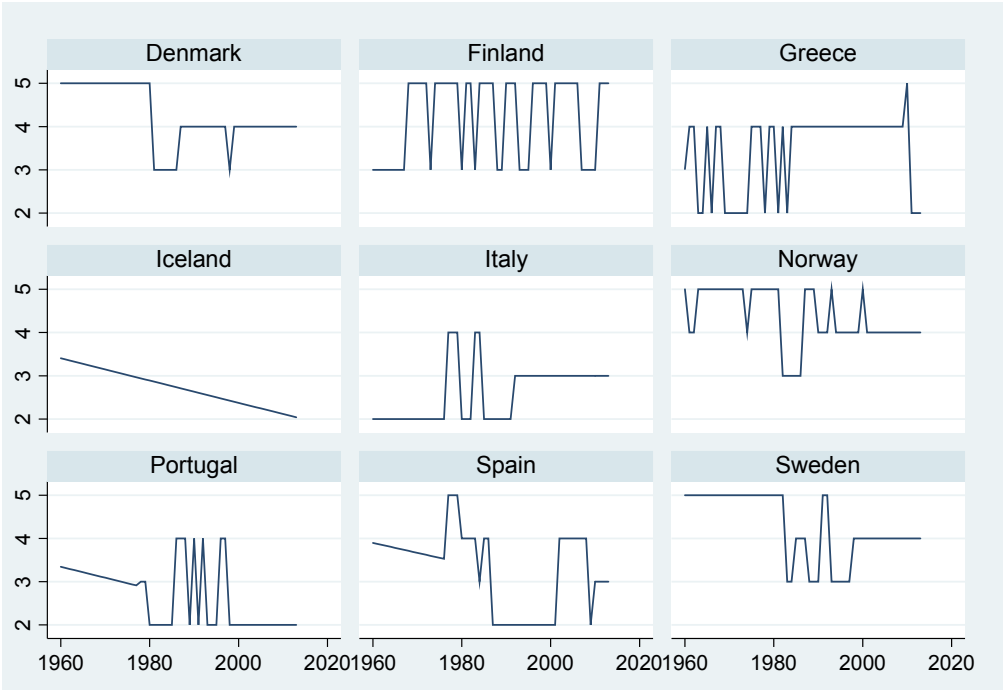


Figure 2 (continued): Trends in wage-bargain coordination in different countries

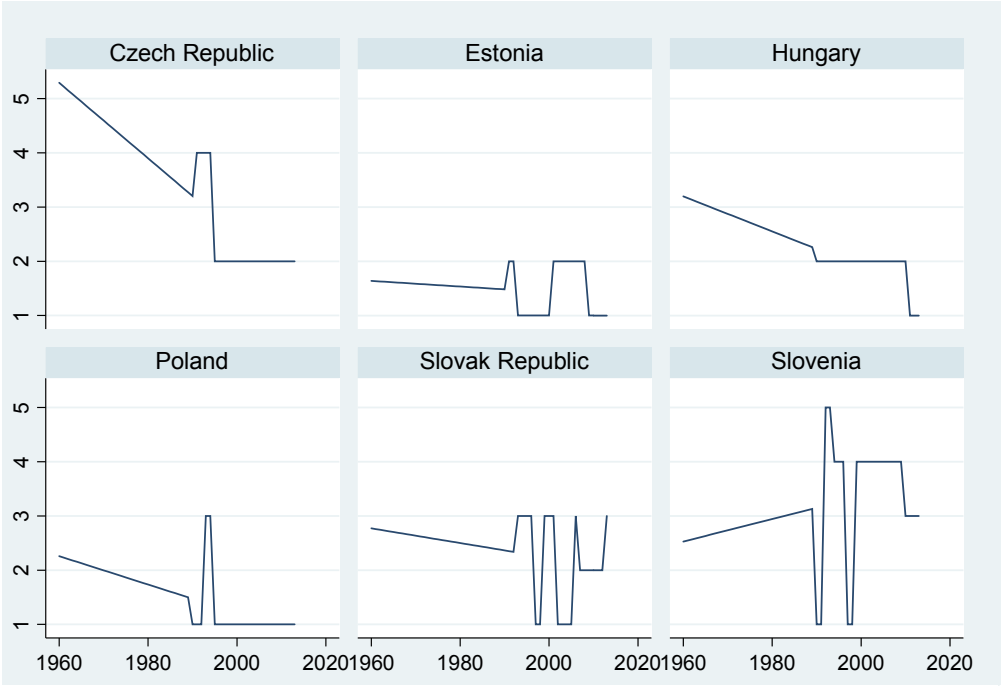


Figure 3: Trends in wage-bargain centralization in different countries

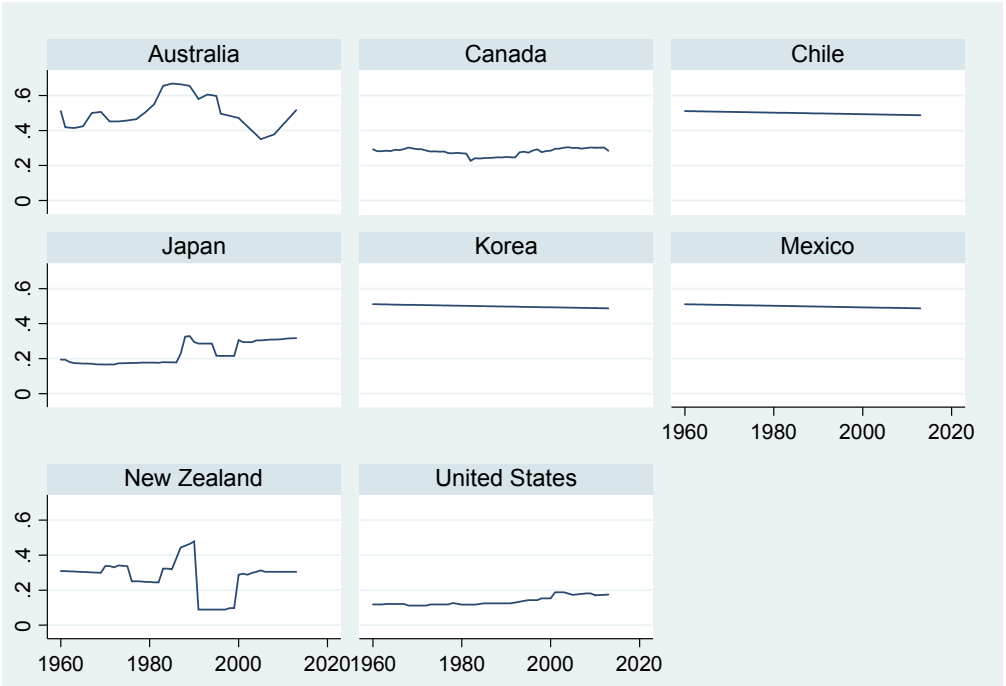


Figure 3 (continued): Trends in wage-bargain centralization in different countries

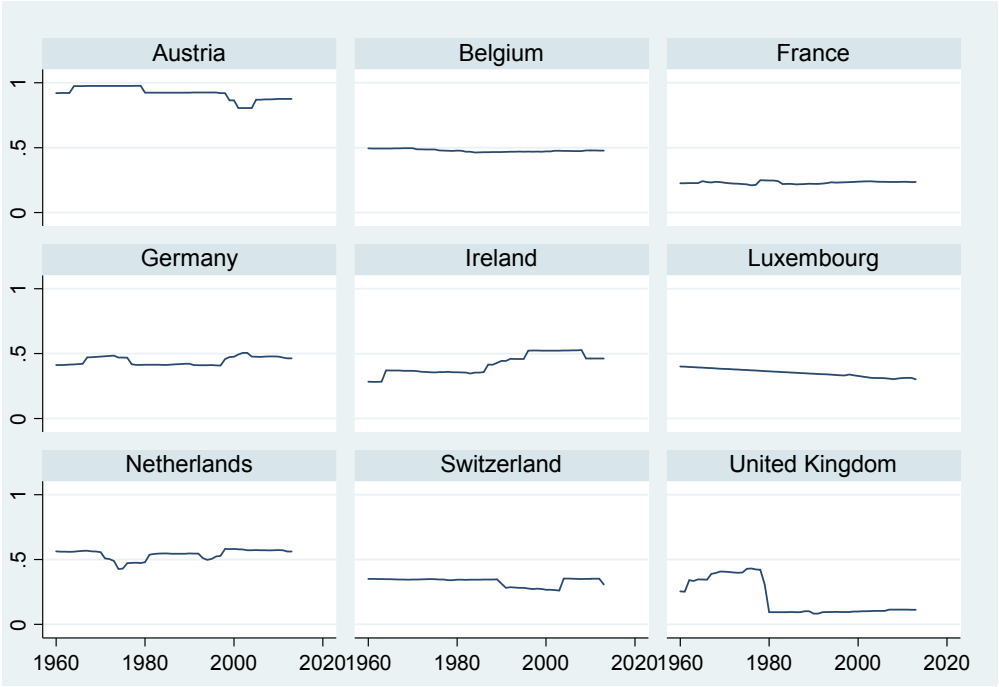


Figure 3 (continued): Trends in wage-bargain centralization in different countries

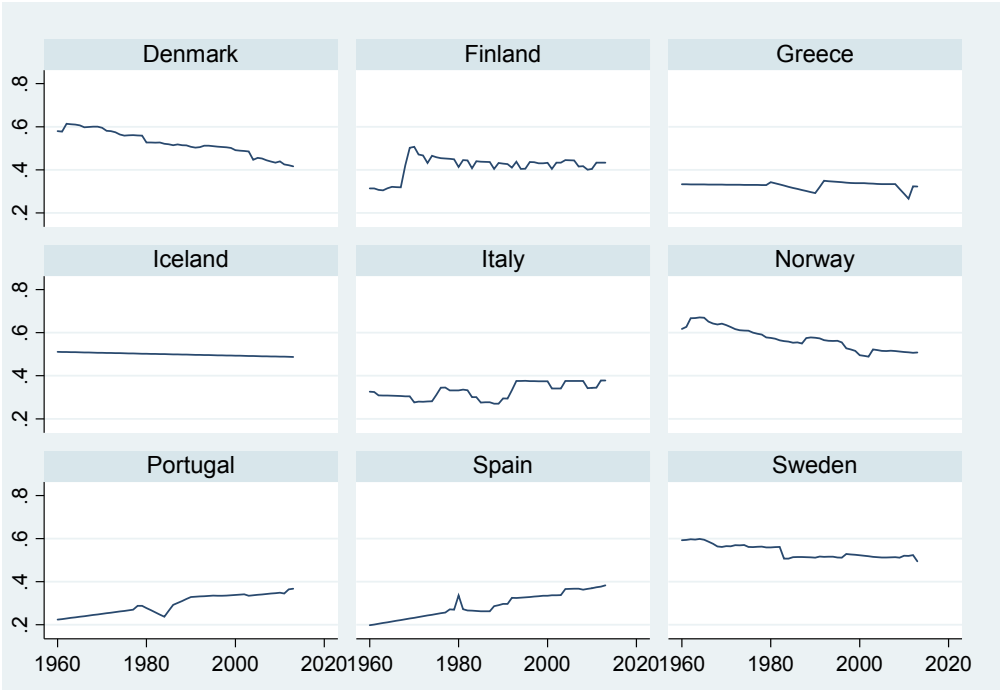


Figure 3 (continued): Trends in wage-bargain centralization in different countries

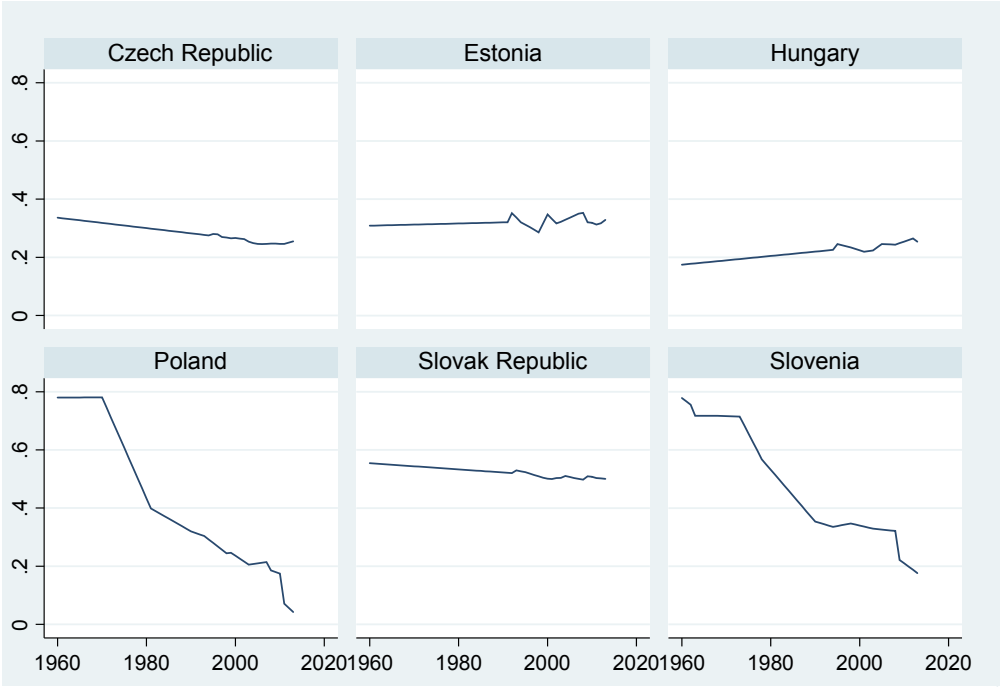


Figure 4: Trends in governmental influence in bargaining.

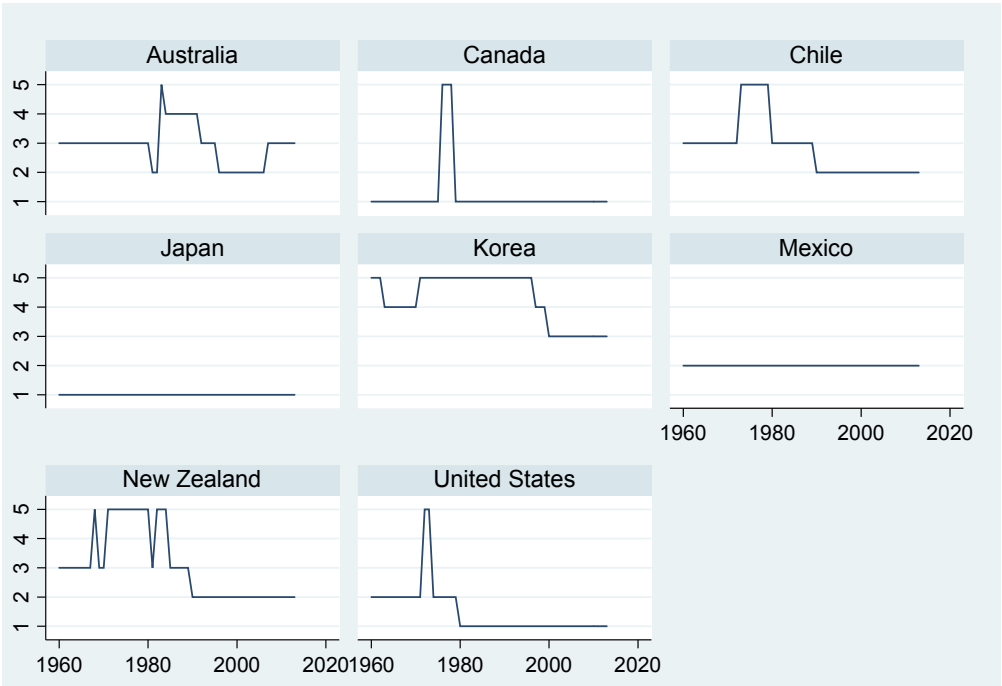


Figure 4 (continued): Trends in governmental influence in bargaining.

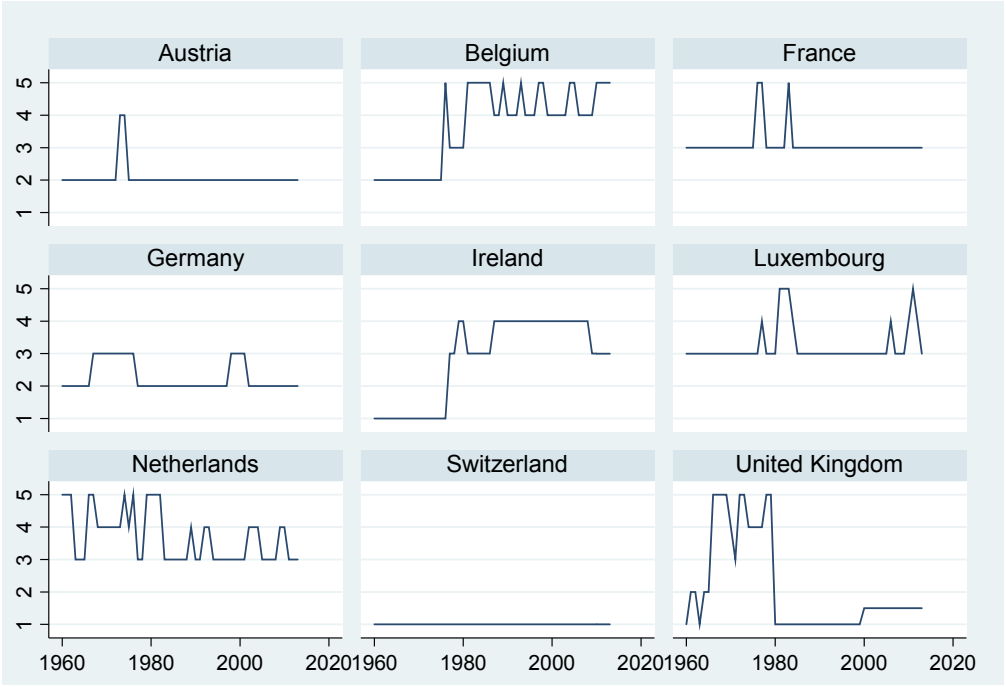


Figure 4 (continued): Trends in governmental influence in bargaining.

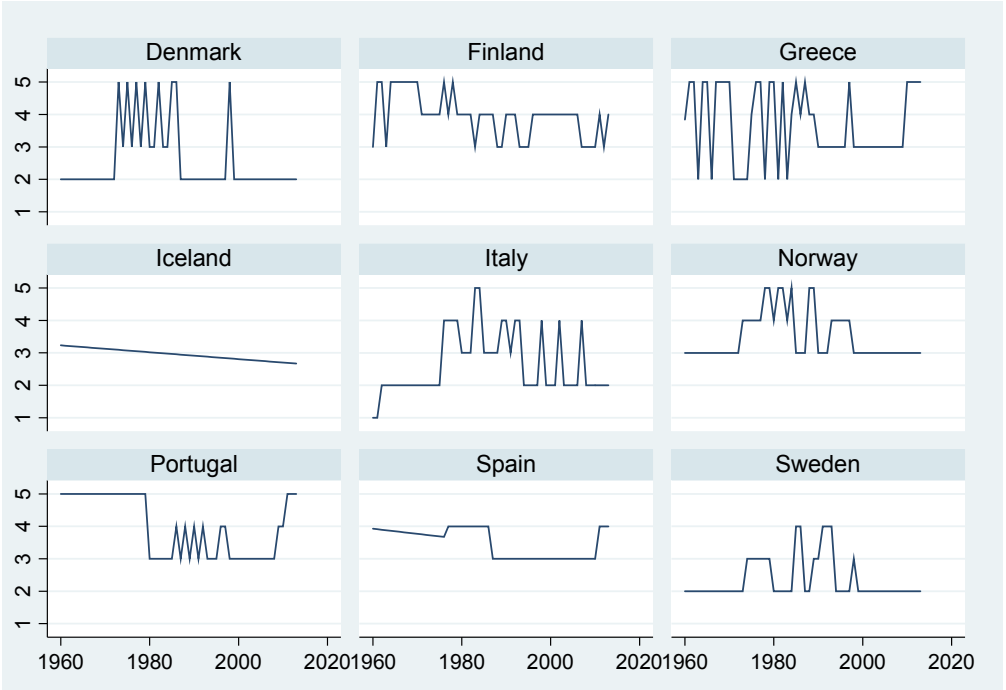


Figure 4 (continued): Trends in governmental influence in bargaining.

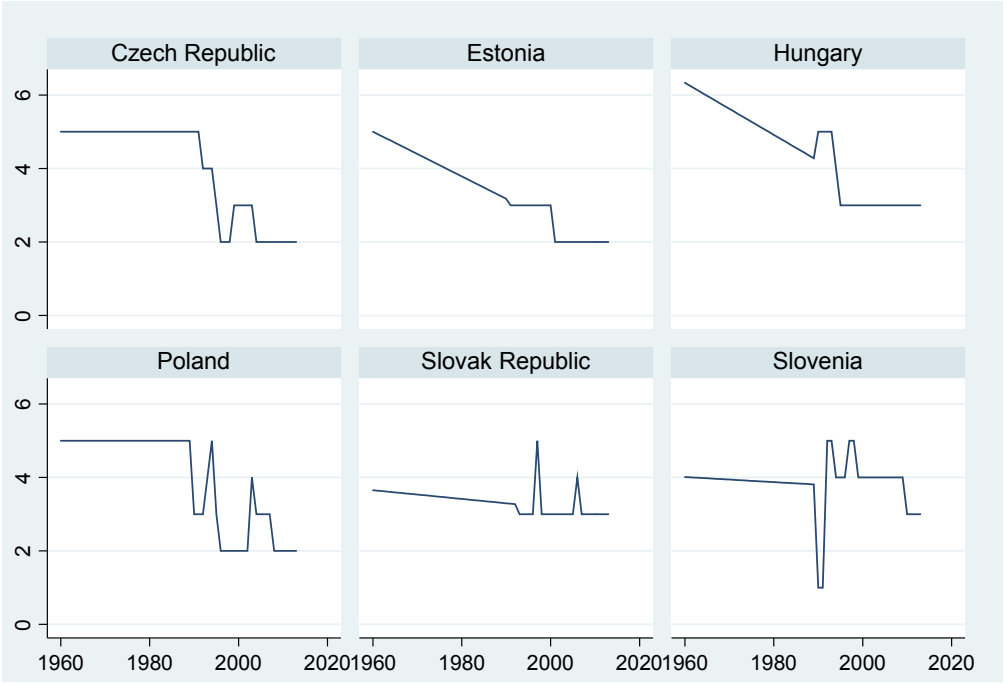


Figure 5: Trends in opening clauses in collective agreements.

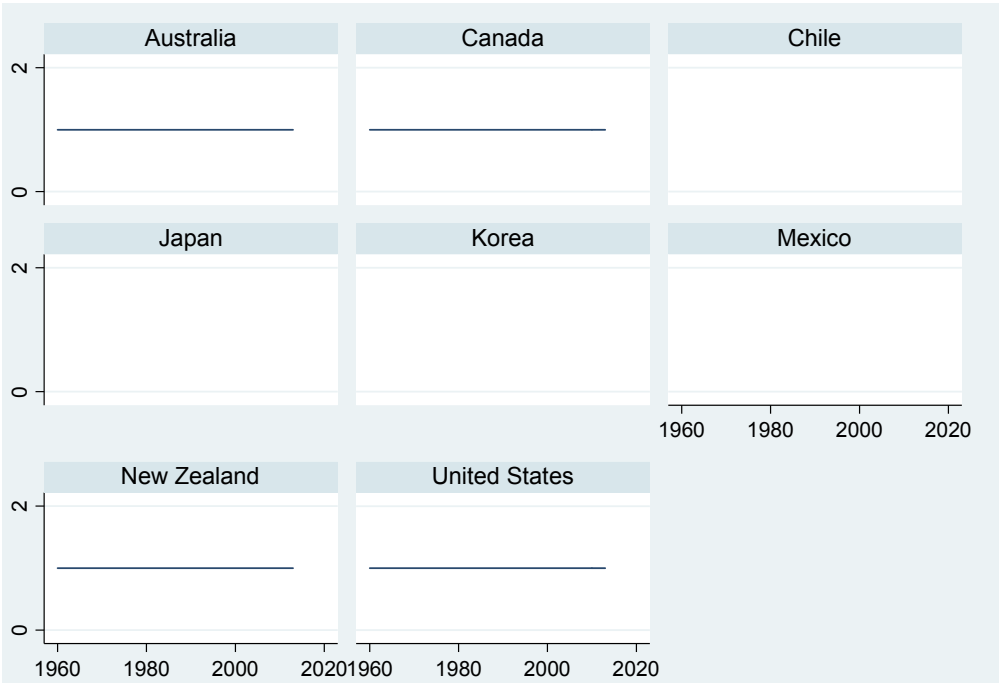


Figure 5 (continued): Trends in opening clauses in collective agreements.

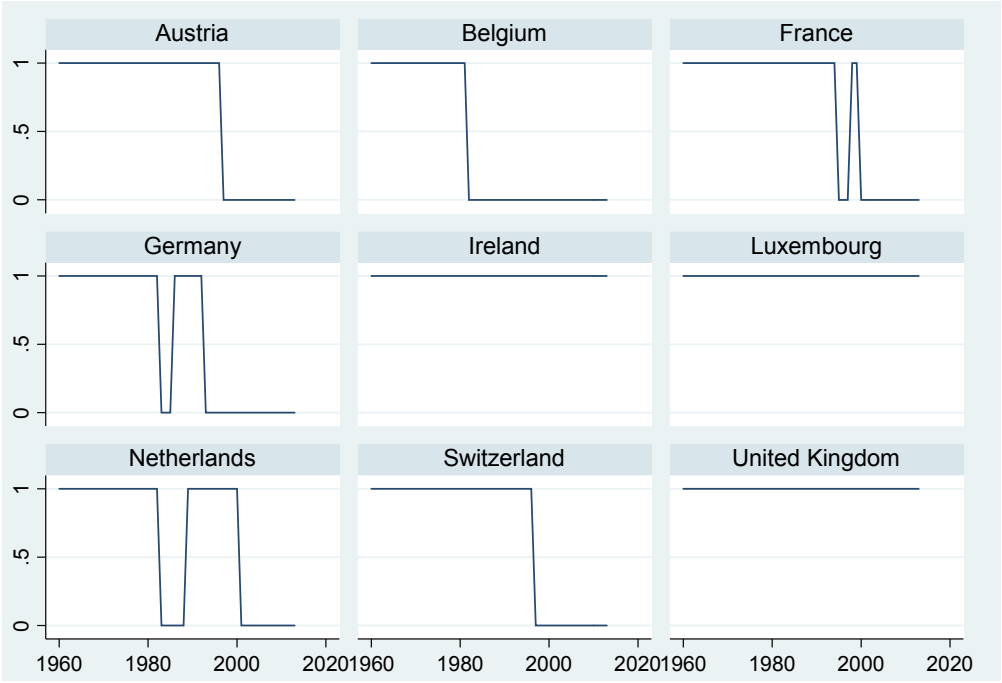


Figure 5 (continued): Trends in opening clauses in collective agreements.

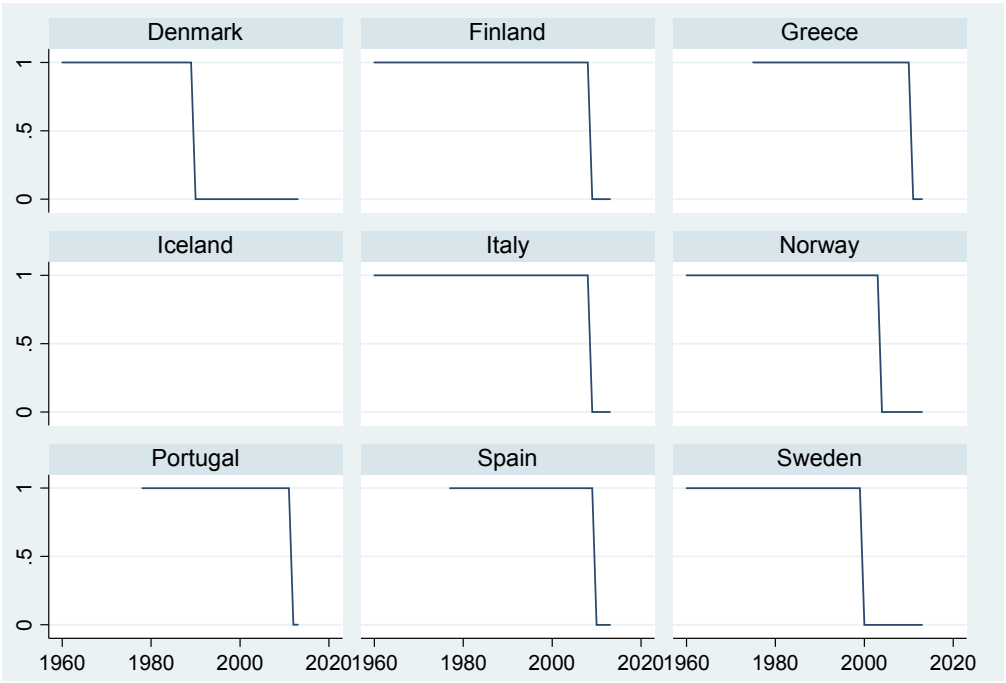


Figure 5 (continued): Trends in opening clauses in collective agreements.

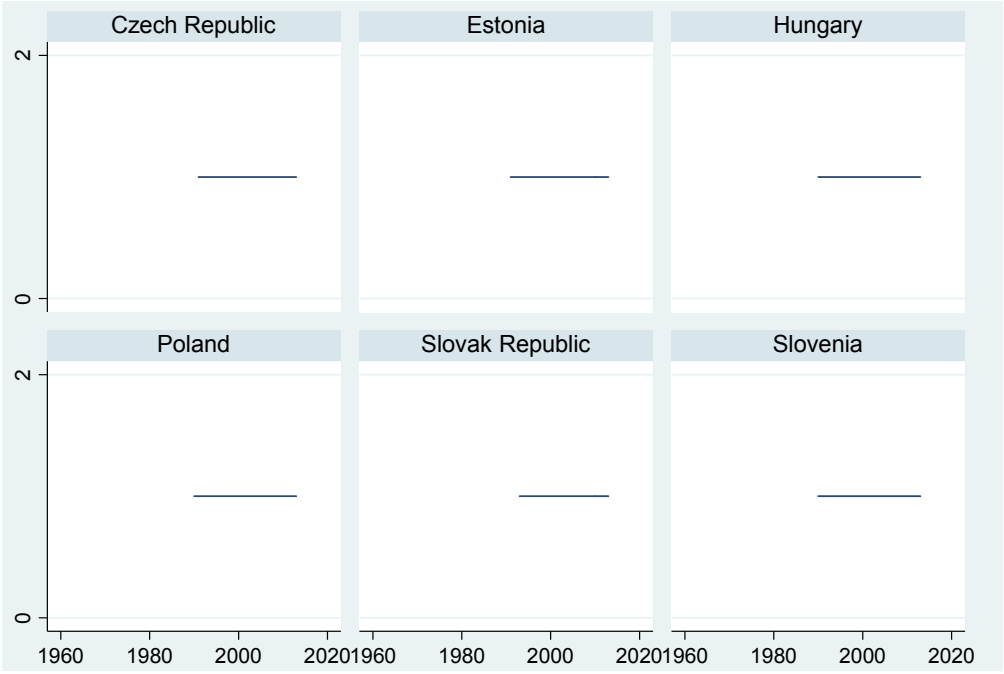


Figure 6: Trends in employment protection legislation strictness

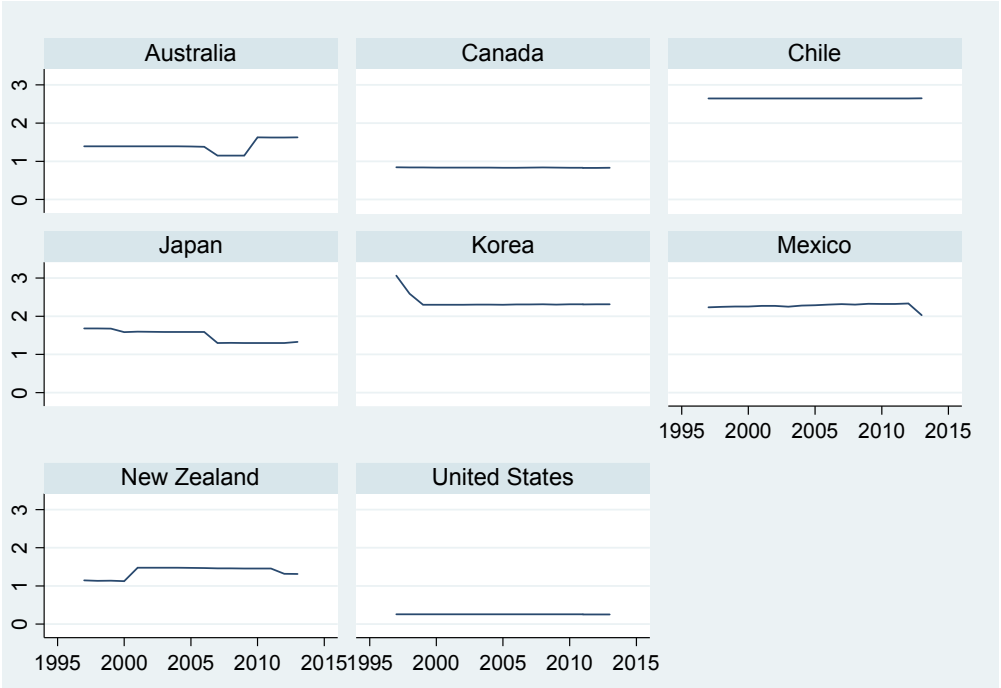


Figure 6 (continued): Trends in employment protection legislation strictness

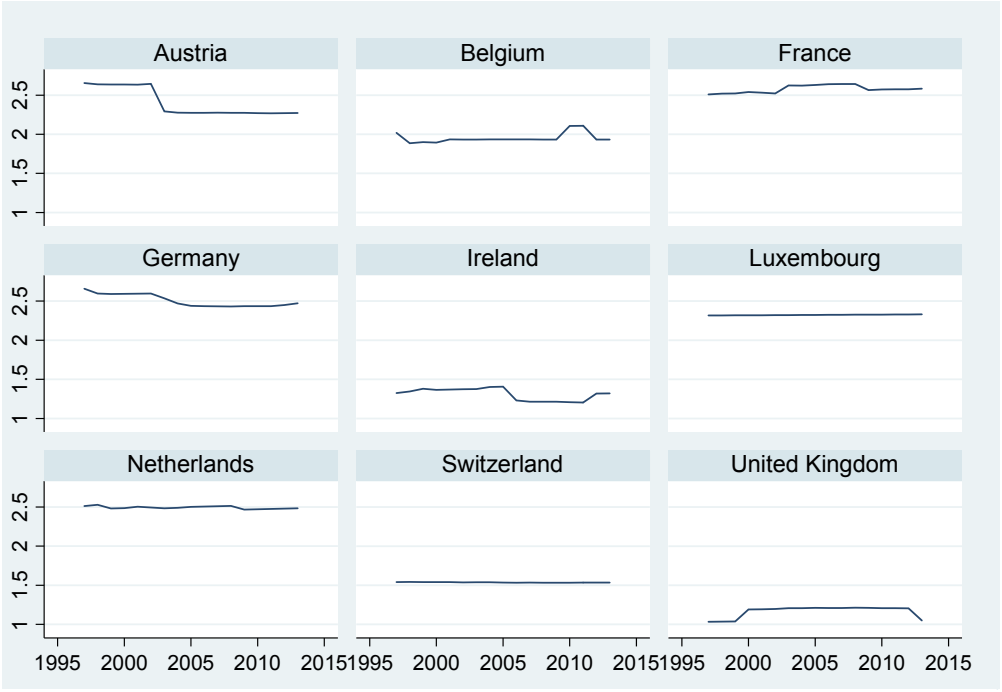


Figure 6 (continued): Trends in employment protection legislation strictness

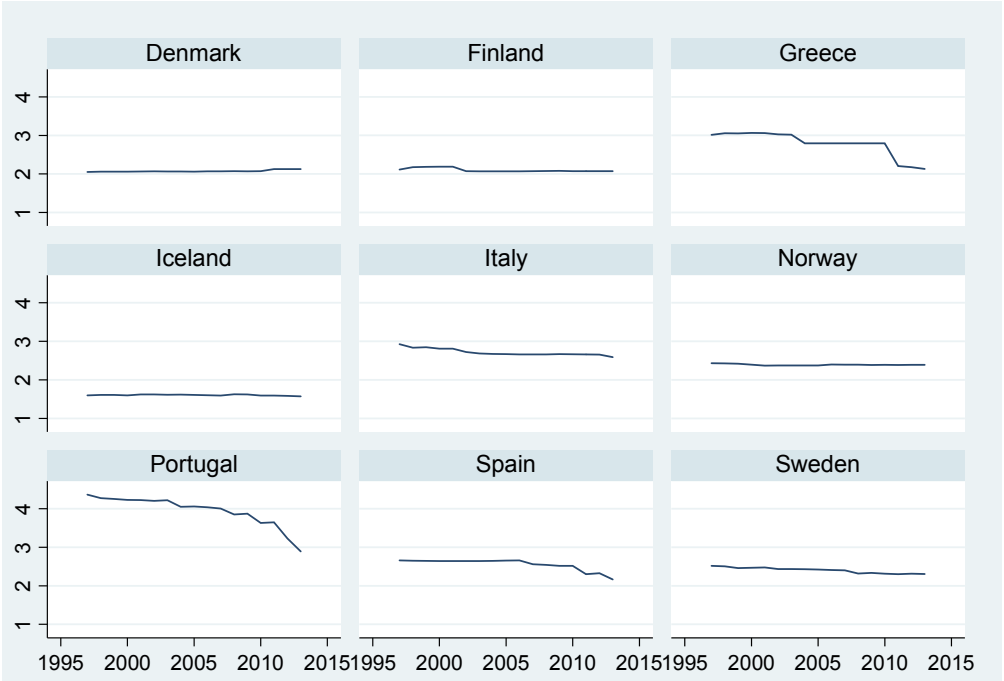


Figure 6 (continued): Trends in employment protection legislation strictness

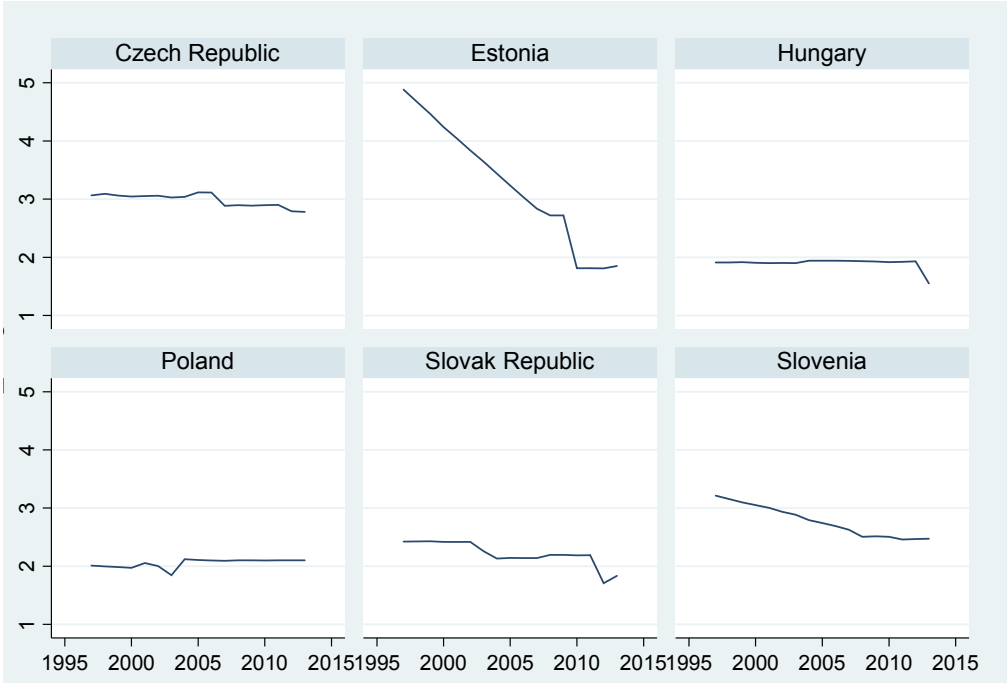


Figure 7: Trends in foreign direct investment policy strictness

Figure 7 (continued): Trends in foreign direct investment policy strictness

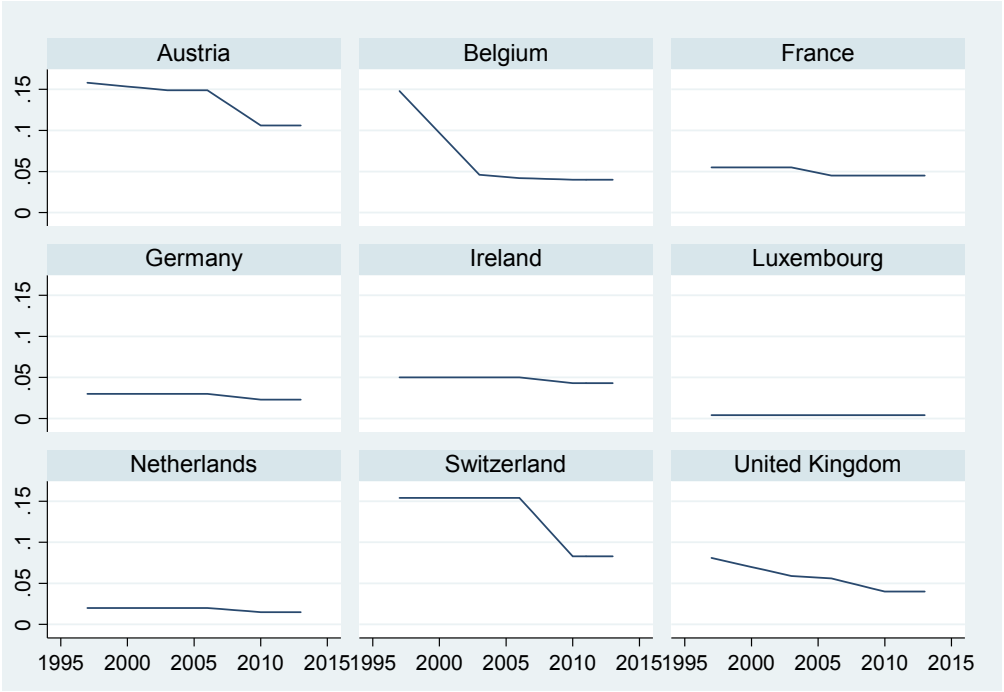


Figure 7 (continued): Trends in foreign direct investment policy strictness

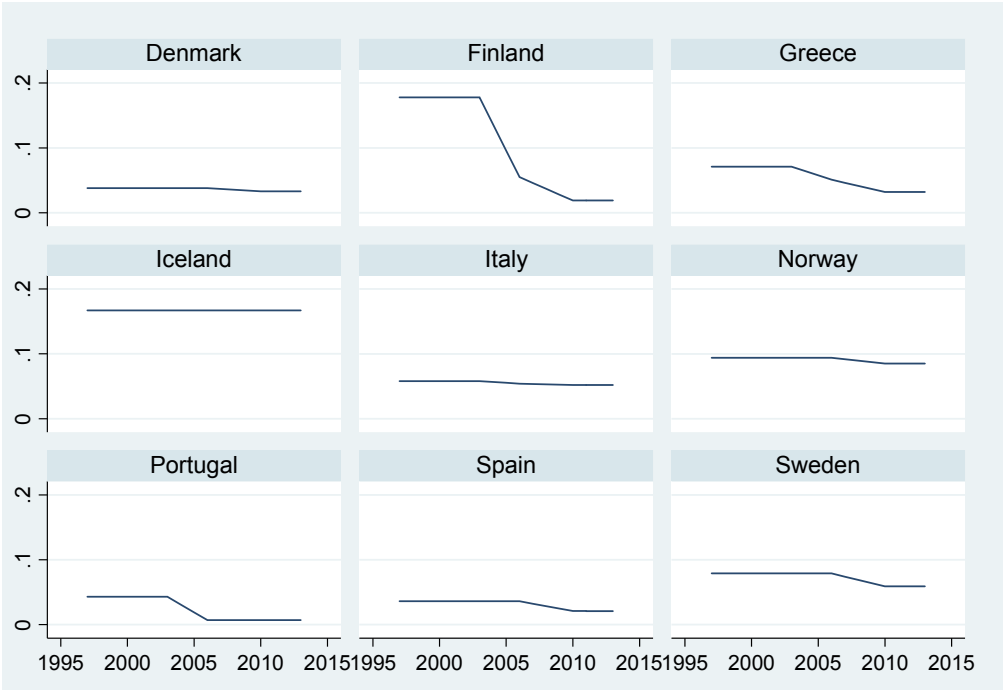


Figure 7 (continued): Trends in foreign direct investment policy strictness

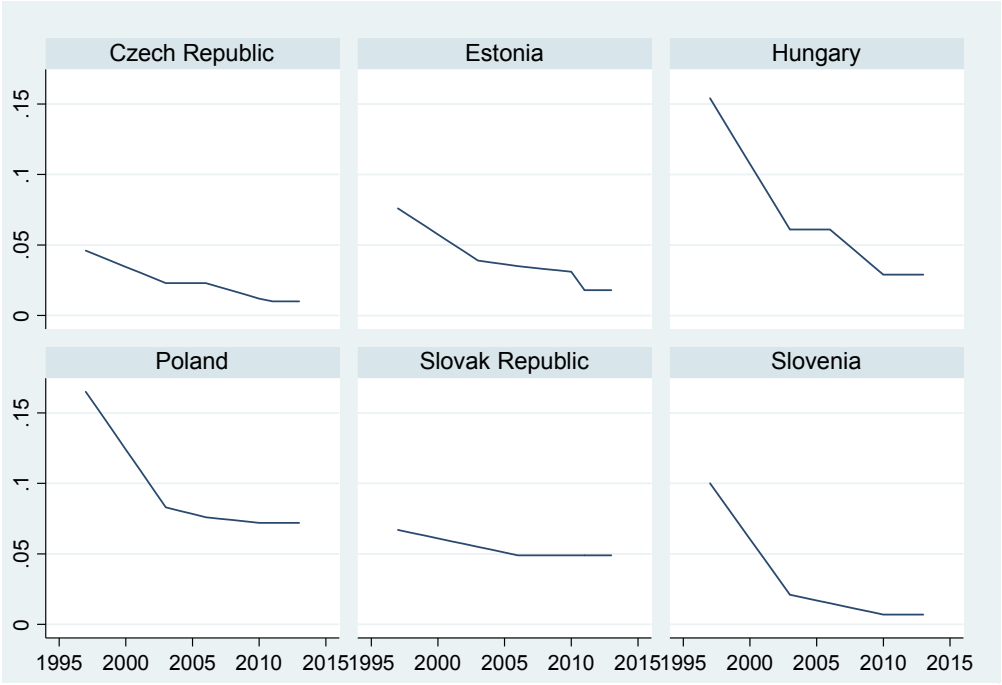


Figure 8: Trends at the negative marketization index

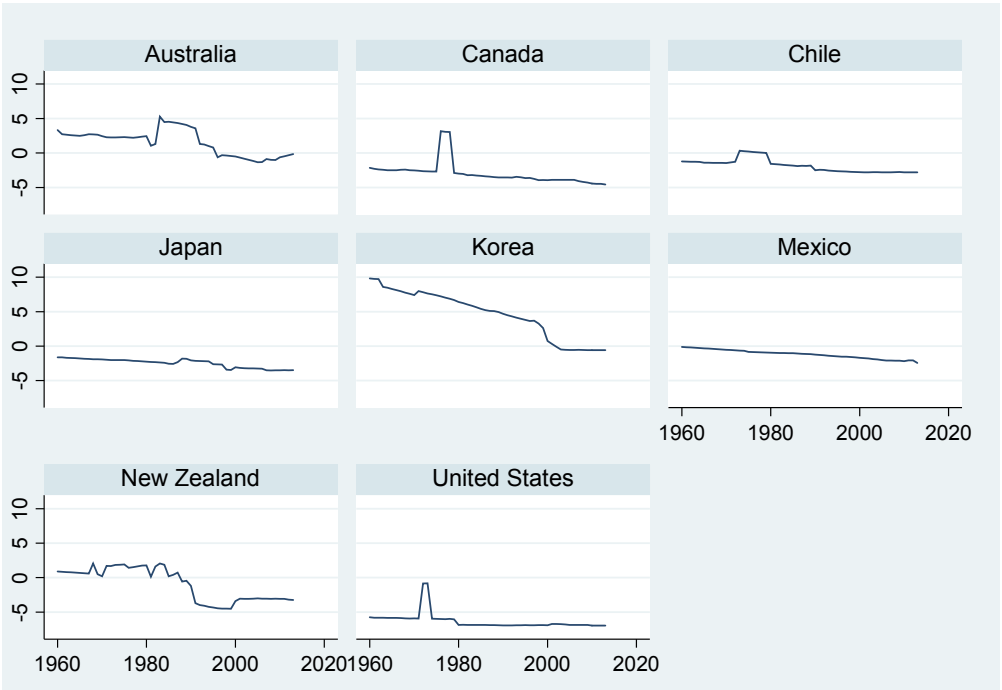


Figure 8 (continued): Trends at the negative marketization index

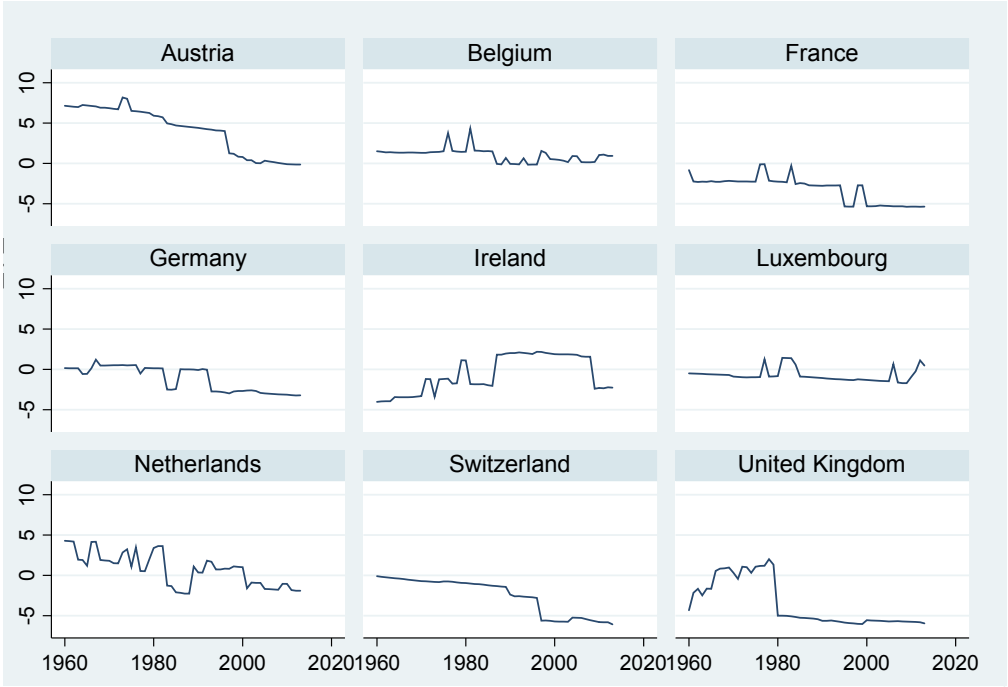


Figure 8 (continued): Trends at the negative marketization index

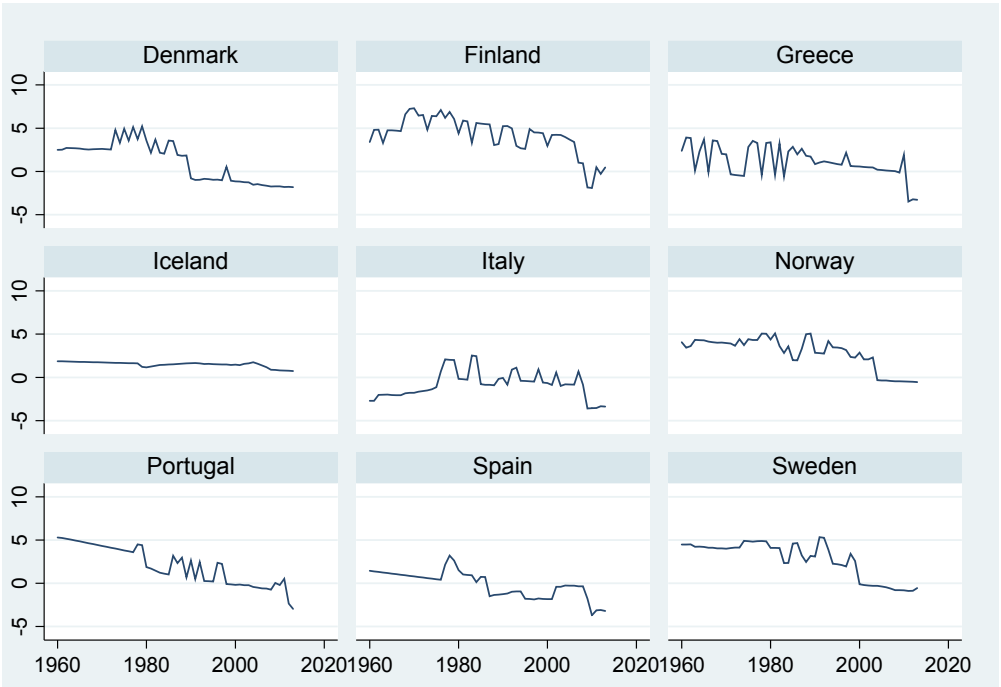
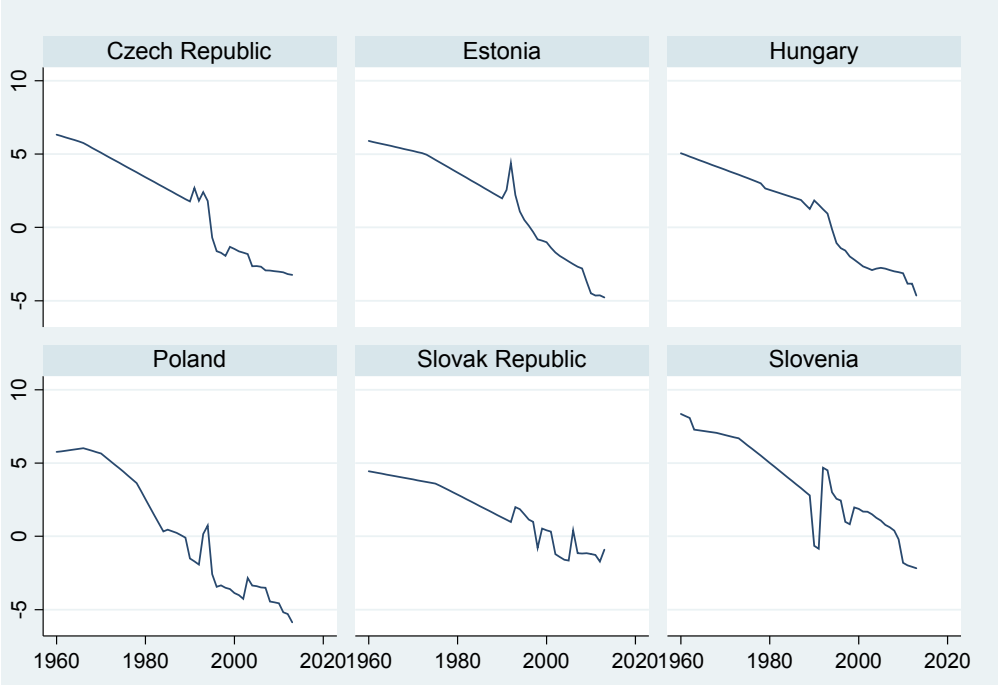


Figure 8 (continued): Trends at the negative marketization index



2.6 Regression Results

2.6.1 Hypothesis 1

To recap, Hypothesis 1 deals with the *learning, competition and emulation mechanisms:* Countries were expected to follow the trends in marketization that occurred recently in both global and region-specific economic leading countries. Table 4 displays the regression results for hypothesis.

Model 1 includes the country-fixed effects as well as a time counter variable as the two basic control variables. Moreover, the marketized framework of the previous year (the stock level of marketization, not the flow rate or change) was taken into account ('previous level of marketization'). These control variables were analysed together with the two independent variables of interest: the changes in the previous year that took place in global and regional leading economies respectively. This shows that the current change is affected by the previous stock level of marketization in a country. Note that this study uses a *negative* marketization index. The more regulated (the less neoliberal) the national framework had been in the previous year, the stronger the process towards more marketization likely is in a country (b = -.243, p <.001). Moreover, the average strength of marketization processes that took place in regional economic leading countries in the previous year, appears to strengthen countries' current marketization processes (b = .226, p. <.10). Note that this association is marginally

statistically significant and should therefore be taken with some caution. **In all, Hypothesis 1 could be said to be tentatively supported, but only with respect to diffusion from regional leading economies towards other countries.**

Model 2 then adds the economic control variables: GDP, annual GDP growth and whether a country is a leading economic country (global and regional respectively). It also adds control variables that are often used as development indicators and other relevant potential confounders, such as the urbanization rate, educational stock and the population rate. GDP has a small but statistically significant association with present changes in marketization: the higher the GDP level, the less a country would move towards more marketization ($b = .001$, $p < .01$). Moreover, whether a country is a global economic leading country, enhances the chance that it will witness stronger marketization processes ($b = -.395$, $p < .001$). Being a regionally leading economic country has no such influence. The population size has a small but statistically significant influence on marketization processes: the larger the population, the less likely countries will move towards more marketized frameworks ($b = .001$, $p < .001$). Furthermore, the more people with tertiary education, the less likely a country faces strong marketization processes ($b = .015$, $p < .01$). The association between the previous stock level of marketization of the national framework is robust against adding these additional control variables ($b = -.261$, $p < .001$). The effect of previous changes in regionally leading countries, however, loses its marginal statistical significance ($b = .209$, $p > .10$). Previous changes that occurred in leading economies do not appear to influence the current rate of marketization processes in countries. **Therefore Hypothesis 1 seems to be falsified by the data.**

Model 3 adds some final technical control variables: dummy variables indicating whether a marketization indicator had a valid observation (0) or not (1) for a given unit (country-year), and another dummy variable distinguishing the time period in which some indicators had no data. This is to exclude the potential role of extrapolated trends on the results. Still, the previous findings are robust against adding these additional control variables. Thus, previous changes that occurred in leading economies did not have any relationship with the current rate of marketization processes in countries.

Model 4 performs a more reliable, secure examination of the patterns by excluding the years before 1997 instead of controlling for the potential influence of extrapolated series for some marketization indicators. This analysis reveals that recent marketization processes in global economic leaders do in fact influence the current presence of marketization processes in individual countries ($b = -.093$), $p < .05$). The negative coefficient indicates that recent movements of economic leaders towards regulation are related to stronger movements in the opposite direction (i.e. marketization) in individual countries. This is precisely the opposite of what was expected in Hypothesis 1. **Hypothesis 1 therefore not only seems to be unsupported, but also partly contradicted by the data.** Note that the influence of regional economic leaders was omitted in this model due to strong multicollinearity.

Table 4: Regression analysis on (negative) marketization processes (1960-2016)

	Model 1			Model 2		Model 3		Model 4		
	b	SE		b	SE	b	SE	b	SE	
Constant	1.026	0.119	***	-0.356	0.833	-0.329	0.802	1.32	1.596	
Negative marketization in global leading economies	-0.029	0.03		-0.026	0.03	-0.023	0.03	-0.093	0.044	*
Negative marketization in regional leading economies	0.226	0.123	+	0.148	0.125	0.188	0.124			
Control variables included										
Country fixed-effects	X			X		X		X		
Year counter	X			X		X		X		
Previous level of marketization	X			X		X		X		
GDP				X		X		X		
GDP growth				X		X		X		
Global leading economy				X		X		X		
Regional leading economy				X		X		X		
Population				X		X		X		
Percentage tertiary educated				X		X		X		
Urbanization				X		X		X		
Imputed values on union density						X				
Imputed values on bargain coordination						X				
Imputed values on bargain centralization						X				
Imputed values on governmental influence on bargain						X				
Imputed values on opening clauses						X				
Imputed values on employment protection legislation strictness						X				
Imputed values on foreign direct investment policy strictness						X				
Dummy variable for period after 1996						X				

$^{+}p < .1$, $^{*}p < .05$, $^{**}p < .01$, $^{***}p < .001$. *N = 1,289 country-years (561 for Model 4, which is ran for 1997-2016 only).* Control variables were included but not displayed, and can be requested from the author.

2.6.2 Hypothesis 2

To recap, Hypothesis 2 expected a *moderation by resistance:* the positive effect of recent marketization trends in leading or surrounding countries on marketization trends in countries hypothesized in Hypothesis 1, would be smaller in countries when the population more strongly resists against marketization.

Model 1 Table 5 displays the relationships between recent marketization processes in leading economies and current marketization processes in individual countries, and the interaction term of how these potential relationships are altered by popular resistance against marketization. The results on the main effects are virtually identical as for Model 1 in Table 4. In addition to these known results, Table 5 shows that the degree of resistance against marketization has no influence on the current strength of marketization processes. However, popular resistance does seem to influence the association between processes in regionally leading economies and current processes in individual countries. The more resistance there is, the less countries are prone to follow economic leaders ($b = 2.51$, $p < .10$). **This provides some provisional support for Hypothesis 2, which expected less diffusion of marketization processes when there is stronger popular resistance in countries against such transformations.** However, this interaction effect is only marginally statistically significant.

Model 2 adds the economic control variables and shows that the interaction effect is not robust against this. GDP has a negative effect on processes of increasing marketization, while being a global economic leading country enhances the chance that countries move more strongly towards marketization ($b = -.390$, $p < .01$). Model 2 also adds the development and population control variables. Larger populations and a more tertiary educated within the population are related to less proneness to marketization ($b = .001$, $p < .001$), although in a small extent. The degree of urbanization does not significantly influence current marketization processes in countries.

In Model 3, again, the stock rate of marketization in the country's institutional framework in the previous year, has an enhancing effect on the present rate of change towards more marketization ($b = -.280$, $p < .001$). Again, the previous processes in economic leading countries have no relationship with present movements towards or away from marketization in countries. The degree of resistance against marketization has still no influence on the current strength of marketization processes, nor does it influence the relationship between previous processes in leading economies and present processes in individual countries.

Shortening the time series to have more reliable estimates of marketization processes, did not alter the main results of interest. Unfortunately, the two diffusion processes (i.e. from global and regional leaders) strongly collide in this shorter time period, so that they could not be analysed together. Both of them did not have a separate influence on marketization processes, nor was their impact influenced

by the degree of resistance in society (Model 4 only displays the effects of processes in global economic leaders). **In all, the previously found support for Hypothesis 2 in Model 1 does not seem to be robust and likely the result of unexamined confounding influences that later models took account of – such as the GDP level and population size.**

Table 5: Regression analysis with interaction effect between recent (negative) marketization processes in leading economies and resistance on (negative) marketization processes in 33 OECD countries (1960-2016)

	Model 1			Model 2		Model 3		Model 4	
	b	SE		b	SE	b	SE	b	SE
Constant	0.897	0.196	***	-0.834	0.968	-0.537	0.921	2.012	1.7
Negative marketization in global leading economies	0.172	0.118		0.152	0.118	0.154	0.118	0.392	0.276
Negative marketization in regional leading economies	-0.82	0.667		-0.597	0.673	-0.483	0.678		
Resistance	0.368	0.378		0.552	0.417	0.294	0.437	-0.932	0.802
Interaction effects									
Negative marketization in global leading economies X Resistance	-0.446	0.282		-0.391	0.278	-0.392	0.281	-0.966	0.601
Negative marketization in regional leading economies X Resistance	2.513	1.485	+	1.811	1.491	1.621	1.508		
Control variables included (see next page)									

Table 5 (continued): Regression analysis with interaction effect between recent (negative) marketization processes in leading economies and resistance on (negative) marketization processes in 33 OECD countries (1960-2016)

Control variables included				
Country fixed-effects	X	X	X	X
Year counter	X	X	X	X
Previous level of marketization	X	X	X	X
GDP		X	X	X
GDP growth		X	X	X
Global leading economy		X	X	X
Regional leading economy		X	X	X
Population		X	X	X
Percentage tertiary educated		X	X	X
Urbanization		X	X	X
Imputed values on union density			X	
Imputed values on bargain coordination			X	
Imputed values on bargain centralization			X	
Imputed values on governmental influence on bargain			X	
Imputed values on opening clauses			X	
Imputed values on employment protection legislation strictness			X	
Imputed values on foreign direct investment policy strictness			X	
Dummy variable for period after 1996			X	

$^{+}p < .1$, $^{*}p < .05$, $^{**}p < .01$, $^{***}p < .001$. *N = 1,289 country-years (561 for Model 4, which is ran for 1997-2016 only).* Control variables were included but not displayed, and can be requested from the author.

2.6.3 Hypothesis 3

To recap, Hypothesis 3 expected a *moderation by welfare states:* the positive effect of recent marketization trends in leading or surrounding countries on marketization trends in countries hypothesized in H1, would be smaller in the social-democratic welfare state, followed by the conservative and meditarrenan welfare state, and largest in the transition and liberal welfare regime.

Model 1 of Table 6 shows, first of all, another time that the stock of marketization in the institutional framework, is related to more proneness to undergo stronger marketization processes in the near future (b = -.243, p <.001). Moreover, the statistically significant interaction effects with regime types seem to reveal that associations between marketization processes in leading economies and those of individual countries depend on the latter countries' regime type. In liberal market regime countries (to whom the main coefficient applies), previous marketization processes in globally leading economies on average strengthen the likelihood of similar processes in other countries. More specifically: in liberal market economies, a previous 1-unit movement towards more marketized institutional arrangements in global economic countries, instigates on average a similar movement of .168 unit-points in individual countries the year after. Among conservative, Nordic and Mediterranean countries, this pattern is reverse: a 1-unit movement towards more marketized institutional arrangements in global economic countries, triggers a tendency towards more regulation. **This explains why Hypothesis 1 was hardly confirmed and sometimes even contradicted by the previous analyses. Rather Hypothesis 3 appears to be supported in that countries have diverse tendencies to imitate economic leaders, depending on their regime types**.

For instance, for Nordic countries, a 1-unit movement towards more marketized institutional arrangements in global economic countries, triggers a tendency towards more regulation of (.168 -.312 = -) .144 unit points. Only the pattern in transition countries is similar to that of liberal market economies. For regional leading economies, by contrast, no such interaction patterns were found. But taking account of regime types did reveal a small tendency of individual countries to mimic marketization processes in regionally leading economies (b = .157, p <.05).

Moreover, regime types have also interesting main effects on countries' tendency to adopt marketization processes. **Contrary to the Varieties of Capitalism literature and Hypothesis 3, liberal market economies do not have the highest tendency towards marketization processes.** Note again that the dependent variable is a negative measure of marketization (so actually of regulation), and the regime types with a negative coefficient have therefore *more* tendency to move towards more marketized institutional frameworks compared to the liberal market economies (which is the reference category here). This is the case for the Mediterranean countries (b = -.638, p <.001). The Conservative economies, by contrast, have a higher tendency to regulation than the liberal market economies (b = .557, p <.05).

Model 2 shows that these patterns are virtually all robust against controlling for national economic factors and population variables. The exception is that the conservative countries do not have a higher tendency, but a lower tendency to move towards regulation than the liberal market economies when controlling for economic factors (b = -.840, p <.001). The Meditteranean countries do not statistically significantly differ anymore from the liberal market economies, while the transition countries start to marginally statistically differ from those. The transition countries have much higher tendency towards regulation than the liberal market economies (b = 1.049, p < .05).

The main effects of the regime types on marketization processes change again when adding the technical control variables to account for imputed values, as Model 3 does. This time, the conservative countries again have a higher tendency towards regulation than the liberal market economies (b = .898, p <.05). The other regime dummy variables lost statistical significance. The interaction effects between regime type and marketization in global leading economies remained the same, just as the main effect of these processes (b = .170, p <.001) and that of the domestic stock level of marketization in countries' existing institutional arrangements (b = -.277, p <.001). In all, **Hypothesis 3 is supported in that the diffusion of marketization processes from global leading economies towards other countries is moderated by countries' regime type. The coefficients indicate that liberal market countries (and transition countries) are most likely to follow the marketization processes of global leaders, while Conservative, Mediterranean and Nordic countries are less prone to do so.**

However, these interaction patterns and also the main effects of regime types disappear when the analysis of Model 2 is reran over the shorter time period (1997-2016). All regime countries appear to follow the patterns that occurred recently before in global leading economies (b = .015, p <.001). **Because of the limited robustness of the interaction effects, Hypothesis 3 is therefore is only provisionally supported by the data, with much caution.**

Table 6: Regression analysis with interaction effect between recent (negative) marketization processes in leading economies and regime types on (negative) marketization processes in 33 OECD countries (1960-2016)

	Model 1			Model 2			Model 3			Model 4		
	b	SE		b	SE		b	SE		b	SE	
Constant	1.056	0.117	***	-0.297	0.834		-0.301	0.809		1.273	1.641	
Negative marketization in global leading economies	0.168	0.05	***	0.168	0.043	***	0.17	0.046	***	0.015	0.086	***
Negative marketization in regional leading economies	0.157	0.076	*	0.002	0.073		-0.004	0.073				
Welfare regime												
Liberal market (ref.)												
Conservative	0.557	0.283	*	-0.429	0.246	+	0.898	0.371	*	-0.565	0.763	
Mediterranean	-0.638	0.153	***	-0.623	0.267	*	-0.413	0.319		0.3	0.48	
Transition	0.032	0.195		1.049	0.452	*	-0.012	0.301		0.958	0.791	
Nordic	-0.019	0.163		0.258	0.132	+	0.159	0.252		0.224	0.436	
Interaction effects												
Negative marketization in global leading economies												
X												
Liberal market (ref.)												
Conservative	-0.206	0.077	**	-0.196	0.078	*	-0.185	0.079	*	-0.153	0.184	
Mediterranean	-0.296	0.097	**	-0.295	0.094	**	-0.312	0.095	**	-0.048	0.14	
Transition	-0.125	0.144		-0.123	0.138		-0.099	0.135		-0.086	0.167	
Nordic	-0.312	0.104	**	-0.326	0.096	***	-0.334	0.099	***	-0.305	0.237	
Interaction effects												
Negative marketization in regional leading economies												
X												
Liberal market (ref.)												
Conservative	2.021	1.32		2.146	1.311		1.967	1.327				
Mediterranean	-0.107	0.324		0.042	0.332		0.173	0.327				
Transition	0.111	0.304		0.274	0.306		0.405	0.316				
Nordic	-2.534	3.96		-1.822	3.916		-1.613	4.014				
Control variables included (see next page)												

Table 6: Regression analysis with interaction effect between recent (negative) marketization processes in leading economies and regime types on (negative) marketization processes in 33 OECD countries (1960-2016)

Control variables included				
Country fixed-effects	X	X	X	X
Year counter	X	X	X	X
Previous level of marketization	X	X	X	X
GDP		X	X	X
GDP growth		X	X	X
Global leading economy		X	X	X
Regional leading economy		X	X	X
Population		X	X	X
Percentage tertiary educated		X	X	X
Urbanization		X	X	X
Imputed values on union density			X	
Imputed values on bargain coordination			X	
Imputed values on bargain centralization			X	
Imputed values on governmental influence on bargain			X	
Imputed values on opening clauses			X	
Imputed values on employment protection legislation strictness			X	
Imputed values on foreign direct investment policy strictness			X	
Dummy variable for period after 1996			X	

$^{+}p < .1$, $^{*}p < .05$, $^{**}p < .01$, $^{***}p < .001$. *N = 1,289 country-years (561 for Model 4, which is ran for 1997-2016 only).* Control variables were included but not displayed, and can be requested from the author.

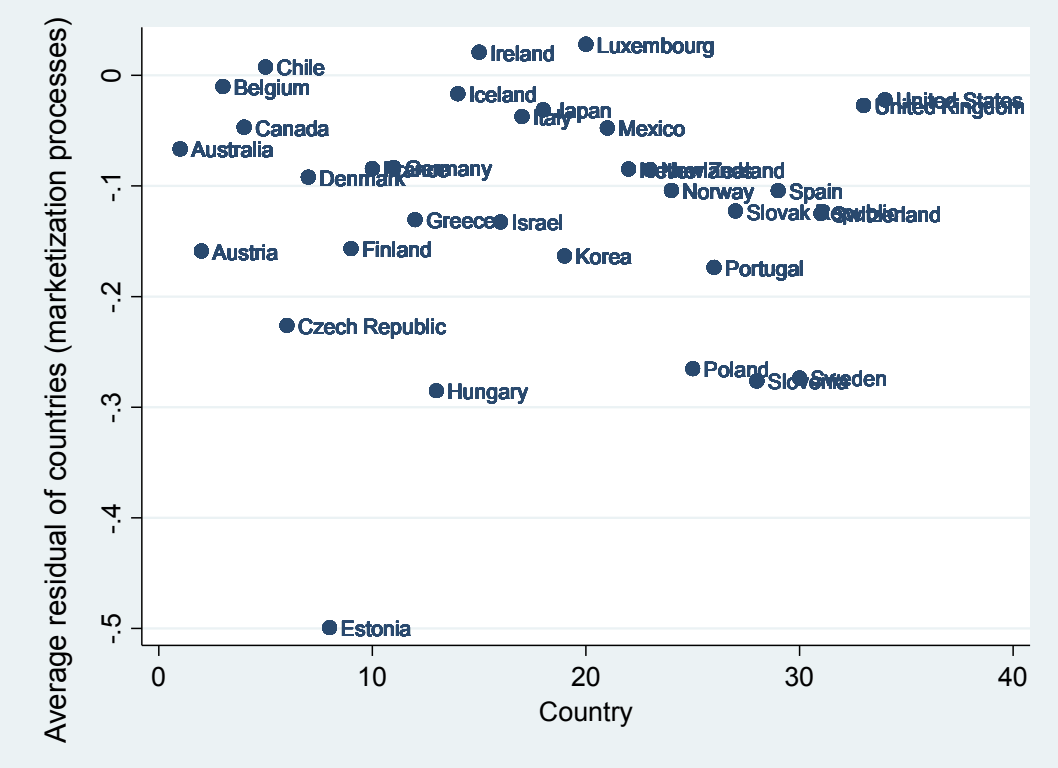
2.6.4 Deviant cases

After discussing the general regression results, I will zoom in on five specially selected deviant cases. These deviant cases are interesting because they can suggest some further refinements of the theoretical framework or suggest the importance of neglected factors. The deviant cases were selected in a two-step manner, following Gary King (1997; 2004). Just as King (1997; 2004) suggested, I used large-scale quantitative data on a large group of cases (33 countries) to derive a small subset (two) of cases that are interesting to zoom in on. Firstly, by means of plotting the countries on different dimensions of marketization, as was done above, it was determined which countries showed an atypical pattern, for example because the dimensions correlated in an atypical way or because of their extremely high or low values on dimensions. Moreover, countries with notable trends were identified, for example because they had earlier or strongly delayed trends compared with the rest, or because of the steepness or abruptness of the changes. The discussion of remarkable country trends and static points has been given above.

In the second step of selecting deviant cases, the average residuals of the countries over the studied time periods were checked (see Figures 9-), and countries with large residuals were noted. Countries that attracted attention in both steps were marked as deviant cases and the most extreme were chosen. The regressions on which the residuals analysis was based, were the regression analyses for hypothesis 1 (Model 3, Table 4) for 1960-2016.

In the residuals analyses, the following countries attracted attention: Estonia, Hungary, Poland, Slovenia and Sweden. Note that the Eastern European countries have remarkably large residuals (larger than -2). In all, after the two steps, these five deviant countries were selected. Hungary and Slovenia were chosen because, as will appear later in Chapter 3 and 4, they have extremely high suicide rates. Moreover, Estonia, Hungary, Poland and Slovenia showed some remarkably steep marketization trends after the collapse of the Soviet Union (see for instance their decline in union rates in Figure 1).

Figure 9: Cross-national scatter plot of regression residuals, 1960-2016



How do these deviant cases relate to the overall broad pattern when it comes to the correlations between several key variables? What is immediately apparent is that the correlations for the all the countries in the sample together, are weaker. But this is rather the consequence of taking a wide variety of countries together, instead of looking at one country's average correlation over time. Lowering the bar for what is considered as a 'strong correlation' here (r >.30), there seems to be a clear correlation between more governmental influence and EPL strictness (r = .46, p <.001). Furthermore, more union density is related to more coordination (r = - .31, p <.001) and centralization (r = -.40, p <.001). Coordination is positively related to governmental influence (r = .35, p <.001) and negatively to FDI strictness (r = -.31).

Estonia shows some strong correlations between the marketization indicators. For instance, FDI strictness is highly correlated with union density (r = .91, p <.10), centralization of bargaining (r = .90, p <.10) and governmental influence over the bargain (r = .91, p <.10). Moreover, union density and governmental influence are highly intercorrelated (r = .75, p <.01), as well as EPL strictness with the degree of coordination (r= .63, p > .10) and centralization (r= .69, p >.10) of the bargaining process. Coordination of the bargaining process, moreover, is strongly negatively correlated with governmental influence (r = -.62, p <.01), indicating what Höpner (2007) remarked about organized versus coordinated capitalism. Coordination between labour market actors, he argued, does not need to be

top-down imposed with much governmental influence. Information about opening clauses was missing for Estonia, and therefore Estonia was one of the countries for which the 6-indicator (instead of the 7-indicator) variant of the marketization scale was used. This can have explained why Estonia turned out large regression residuals, because this measurement difference may have introduced some error in the measure. As already seen in the descriptive analysis and the previous literature, information about opening clauses is a crucial element for understanding the degree of marketization processes (Baccaro & Howell, 2017).

Hungary has much lower correlations between the marketization indicators, although some correlations come out relatively clear. For instance, bargain centralization and EPL strictness are highly intercorrelated ($r = .81$, $p < .05$) in Hungary – just as in Estonia. EPL is also relatively strongly related to the coordination of the bargain process ($r = .53$, $p < .01$), although not as strong as in Estonia. Bargain coordination is also strongly related to FDI strictness ($r = .55$, $p > .10$). Moreover, Hungary is an example where coordination and centralization are negatively intercorrelated ($r = -69$, $p < .10$), a pattern noted in the literature (Baccaro & Howell, 2017) and more often encountered in the data here. What may explain Hungary's large residuals is, again, the absence of data on opening clauses.

Poland is another country where data on opening clauses were absent. Moreover, Poland shows a strong correlation between union density and centralization of the bargain, just as Estonia ($r = .95$, $p < .01$). Moreover, governmental influence and coordination of the bargain are highly positively intercorrelated, in contrast to Estonia ($r = .70$, $p < .001$). FDI strictness is mostly bolstered by a larger union density ($r = .77$, $p > .10$).

Slovenia is another country where information on opening clauses is missing. But furthermore, Slovenia is also exceptional on its many strong correlations. Almost all marketization indicators are highly positively intercorrelated, especially governmental influence and bargain centralization ($r = .96$, $p > .10$) and, secondly, union density and EPL strictness ($r = .87$, $p < .05$). Strong negative intercorrelations are between centralization and coordination ($r = .96$, $p > .10$) and FDI strictness and coordination ($r = -.80$, $p < .05$).

Finally, Sweden is the only deviant case for which data on opening clauses are available. This can therefore not explain its large residuals. What is immediately noticeable in the correlations is the high proportion of negative correlations and of strong correlations. Strong negative correlations are between bargain coordination and EPL strictness ($r = -.83$, $p < .001$) and coordination and opening clauses ($r = -.79$, $p < .001$). Moreover, Sweden shows a negative correlation between union density and coordination of bargaining ($r = -.73$, $p < .001$). Strong *positive* correlations exist between union density and EPL strictness ($r = .93$, $p < .001$), FDI strictness and EPL strictness ($r = .92$, $p < .01$) and FDI strictness and union density ($r = .89$, $p < .05$). It thus seems, overall, that Sweden has a much more selective marketization strategy, where one indicator seems to exclude the other, than countries on average.

Turning towards the levels of resistance of the deviant cases, the following appears. Interesting about Hungary as a deviant case is that is appeared among the countries with the lowest resistance against marketization processes (see Table 3). In Estonia and Poland, on average 35 to 40% of the respondents resist marketization. In Slovenia it is somewhat lower (33.8%) and it Sweden strikingly higher (51.9%). It appears that the Central and Eastern European countries are somewhat below the general average (45.8%), whereas Sweden is above this average.

2.7 Conclusion

In this chapter I explored the diffusion of marketization processes across OECD countries. Marketization is thought to be a relevant determinant of the unemployment experience (Gallie & Paugam, 2000), and to have implications for suicide (Pierce & Schott, 2016; Weaver & Munro, 2013), which will be the focus of the later chapters. It should therefore be noted that this chapter is mostly focused on depicting the diffusion in marketization practices and therefore mainly descriptive, and to later suggest the impact on suicide rates. It is therefore not so much focused on theory about the genesis of the marketization trends or diffusion. Still, future research on this is highly needed. Still, I aim to do some interesting suggestions on the diffusion (and its mechanisms) of marketization across the OECD. Although diffusion also takes place across *time* (Leading countries), the current study mainly focuses on diffusion across *countries*.

Marketization has been defined in various ways, from policy-based indicators (Pierce & Schott, 2016) to attitude measures (Hövermann et al., 2015). This chapter aimed to provide a more multifaceted measure of marketization, recognizing the multidimensionality of the concept. Different aspects of marketization processes appeared to be weakly or even negatively intercorrelated. It appears that in countries where one indicator of marketization is low (e.g. a certain regulating institution is strong), powerful market actors compensate by playing into the most easily malleable other marketization criterion. For example, King & Rueda (2008) flexibilization showed for instance that countries where employment protection legislation is strong (an indicator of weak marketization), employers employ relatively many temporary workers (which could indicate of a strong marketization, although highly dependent also on macro-economic fluctuations). Kinderman (2014) also indicated that employers across all advanced economies are seeking to have their countries of operation adopt marketized policies. If this would not work one way, then they may try the other way. Denmark, a country with high social expenditures and well established unemployment insurance (an indicator of weak marketization), has weak employment protection legislation while Japan has the opposite (Auer and Cazes, 2003; Gash & Inanc, 2013). In yet other countries the two dimensions of marketization (social

expenditures and employment protection) highly collide, such as France (weak marketization) and the Anglo-Saxon countries (strong marketization) (Auer & Cazes, 2003; Gash & Inanc, 2013). This all indicated the importance containing the different dimensions of marketization into a scale to take them all into account.

The finding from the factor and correlational analyses (Table 1 and 2) that employment regulation strictness correlated negatively with foreign direct investment policy strictness, is highly interesting that requires more research in the future. It suggests the presence of different trajectories to the common outcome of liberalized economies: one through focusing on the labour market and the other focusing on international trade.

Across the OECD, marketization has clearly increased. The descriptive analyses on trends provided strong evidence of a commonly taken route towards more marketization (i.e. market deregulation). The routes taken appeared to be very heterogeneous. The present study contributed to the stock of knowledge by taking the different trajectories together in order to examine countries' overall, net-level of marketization, without being overly distracted by one specific area of marketization and overlooking alternative ones. Marketization proceeded in a more rapid and abrupt fashion in the transition countries and more gradually in the other countries. The pace of the changes also differed for each indicator. Trade liberalizations in foreign investment (FDI strictness) decreased only gradually and slowly over time, but one should note that data were only available for a select number of years with some large intervals between measured time points until annual data became available from 2010 on. Finland and Belgium dramatically lowered their trade barriers. Employment protection legislation strictness (EPL strictness) decreased also only gradually, and sometimes with some fluctuations such as in Australia.

The patterns found were in accordance to some recent literature challenging the Varieties of Capitalism scholarship. It was found that so-called coordinated market economies were much more likely than liberal market economies to have opening clauses in their collective agreements between labour and capital. This may be taken as an alternative way to provide capital with more liberty in how to handle the employment relationship, while the institutional framework of unions and tripartism may remain intact (Baccaro & Howell, 2011; 2017). Moreover, in the United States and United Kingdom the trend figures also lend some support to Wolfgang Streeck's notion of a 'revolt of capital' (Streeck, 2014). In the United Kingdom this occurred abruptly with a large assault on unions during the Thatcher government, represented in sharply declining union density rates in the first years after 1980.

Also, populations could resist against the trends of marketization in their societies, especially the disadvantaged (Spears et al., 2010). My data suggest that this resistance is widespread. Among the OECD, around 45% of the population thinks that their society puts too much emphasis on money and/

or work. It is therefore crucial to assess the impact of this resistance on countries' tendency to follow global trends of more marketization. This finding deserves more future research attention.

Union density also declined in most countries with some fluctuations, with some countries witnessing an increase until the mid-1970s. The earliest declines were in Anglo-Saxon countries such as New Zealand. Eastern European countries showed steep declines after the fall of communism.

Countries have witnessed different marketization processes over time, but clearly some convergence occurred and countries appear to follow other countries. Regarding hypothesis 1, countries appeared to follow their economic or military leaders in marketization trends. Especially military leading countries, such as the US, Israel, Norway, the UK and France, have a substantial impact on the direction that other countries take regarding marketization. This has a greater influence than the economic leading countries. Exemplary here is the United States, that have around the largest debt to other countries but still determine the world's political direction and dominate powerful institutions such as the IMF and World Bank, institutions that also often demand marketization policies in individual countries (Antonakakis & Collins, 2014; Copelovich, 2010).

Some notes on the definition of 'leading economies' is necessary. It remains to be doubted whether Luxembourg and Switzerland are the most influential countries globally. Another identified leading economy, the United States, however, is a more convincing case of a globally influential country given the geopolitical developments. The definition of leading countries is here limited to OECD countries, of which the data on the required variables were present, and there may be more ways conceivable of defining 'leading countries'. Using annual economic *growth* as an indicator of being a globally leading country would however be imperfect because it is biased to capture disproportionally many economic 'tigers' or transition countries, which are arguably not global leaders yet. Annual GDP level is a welcome additional indicator of leading countries because it powerfully captures the economic dimension of global dominance. Countries are likely to imitate the policies of countries that have been doing economically well over a sustained time period. And the longer a country has had the largest economic growth over time, the higher its score on the 'economic leader' variable. Thus, both variables supplement each other and each adds their part of the theoretical argument.

One should note that there are also alternative ways of conceptualizing and operationalizing 'leading countries'. For instance, regarding economic power, one could have picked the countries that belong to the G5 or the G8, or alternatively the countries with most power in the IMF or World Bank (Copelovitch, 2012; Leech & Leech, 2003). The G8 contains a group of most wealthy countries, so membership is likely to be taken as a worldwide indicator of economic success by other countries. However, a disadvantage is that the measure is constant over time, which comes down to copying data and, in fact, unduly increasing the statistical power. Therefore, GDP level was thought to be the best of several suboptimal indicator options for measuring global and regional economic leadership.

That said, the fact that I also found a role for economic leading countries, suggests that learning, emulation and competition mechanisms are also at play. This was not shown for EPL strictness, for which neither economic nor military leaders had an impact, but it was shown for FDI strictness, UD strictness and social expenditures.

Beckfield (2010) suggested that the world political order has been regionalizing instead of becoming a unified and centralized global order. As a consequence, policies would diffuse more between countries within regions than across regions. The results of the current study put some challenge on this. To the extent that any farily robust diffusion patterns were found, it originated from global economic leaders and not from regional leading economies.

As an important aside, states and representative institutions of class interests do not at all always successfully complete a deliberative strategy. Rather the chain of events is instigated as unintended consequences, such as Baccaro & Howell (2017: 9-10) noted with the process of collective bargaining decentralization in the 1980s and Streek & Thelen (2005) argued as well. Many overlooked contingencies may have sparked events that were not intended nor foreseen, and political cooperation is mostly more fragile than presupposed by functionalist theory (Baccaro & Howell, 2011). As unexpected events unfold, subsequently, class or state actors may respond strategically to them, but still not with a complete overview of the consequences of their actions. This may, after all, explain the common but divergent (and non-linear) trajectory towards more marketized, neoliberal political economies.

Overall, the data did not strongly support the hypothesized patterns, except on the influence of regime types on diffusion patterns. Considering, Hypothesis 1, a cross-national diffusion of marketization processes from global and regional leading economies to other countries was expected. However, once the regression model controlled for economic and population factors found no such diffusion pattern. Indeed, in the analysis over the 1997-2016 period, it appeared that countries were moving in the opposite direction relative to recent trends that occurred in global economic leaders. More likely, the speed of marketization processes in individual countries are still dependent on national or regional circumstances or, more importantly, external shocks. This becomes clear when looking at the trend figures that show more rapid marketization processes for transition countries than for 'economic leading countries'. Furthermore, the trend figures make clear that the time lag between the leading country setting a trend and the rest following, may be much larger. In the United States, the 'revolt of capital' occurred in the early 1970s (Streeck, 2014), the United Kingdom followed several years later with 'Thatcherism', and many other countries followed in the 1990s. During that decade, some countries went in the opposite direction for several years, rebuilding regulative frameworks – such as also noted in Baccaro & Howell (2017). According to the trend figures, this had been the case for Ireland, The Netherlands, Sweden, and even the transition country Slovenia. This may have altered the

coefficient in the analysis for the period from 1997 on. Focusing on annual changes only may cause one to lose the broader trend. This is why the graphical descriptive analyses are an important component to the total analysis of this chapter.

The overall coefficient for diffusion processes on marketization may conceal much differences between countries their proneness to follow global leading economies. Their proneness to follow leading economies in their marketization processes, appeared to depend strongly on the regime type of the country that is following. The pattern that was found is very interesting. Liberal market countries were most likely to follow leading economies in their recent marketization processes. Nordic, Conservative and Mediterranean countries, by contrast, were more likely to do the opposite. This would rather therefore support the Varieties of Capitalism account. Note that, in contrast to much Varieties of Capitalism work (as noted by Baccaro & Howell, 2017), the marketization index measure presently used in this study takes into account of the fact that different regime countries wander different marketization paths, *some of which leave coordinated institutional frameworks intact*. Yet, non-liberal market economies are less likely to follow economic leaders in their marketization processes.

Note that this pattern disappeared when analyzing it over the 1997-2016 time period. This could have two alternative explanations. One is that this time series actually gives a more reliable glance of marketization processes and their diffusion, because two indicators of marketization have only valid observations from that time period on and therefore there is less risk of capturing arbitrary trends from an inadequate extrapolation of data. A second explanation for the disappearance of the patterns is that they are not there for more recent decades. Countries may overall become more prone to follow global economic leaders because of an increasing international trade deregulation and globalization of capital.

At a closer look at the main tendencies of regime types to experience movements towards more marketization, a pattern that is supposedly contrary to the Variety of Capitalism account arises. Liberal market economies did not witness the strongest marketization processes, and are clearly outperformed by the Conservative countries in this. However, this may also be a consequence of focusing on annual, rapid processes rather than on gradual, long-term processes.

Supportive of Baccaro & Howell's (2011; 2017) challenge of the Varieties of Capitalism account is the finding that Nordic countries have not been more prone to move towards more regulative frameworks than liberal market economies. This is very likely the result of recognizing different trajectories towards deregulation, some of which keep unions and coordinated bargaining intact (Baccaro & Howell, 2017). Again, the importance of regime types indicated in this chapter indicates much path-dependency, while countries are – on the long-term – clearly on a trajectory to a common outcome: more marketization.

Contrary to regime types, popular resistance against these trends did not influence diffusion processes when confounding economic and population factors were taken into account that were not considered in the earlier regression models. Hypothesis 2 therefore could not be supported. GDP level and especially the population size of countries appeared to 'explain away' the influence of resistance on diffusion patterns. As noted earlier, previous studies such as the work of Svallfors (2003) indeed suggest that policy is not closely guided by the attitudes of the population.

Regarding the deviant cases (Estonia, Hungary, Poland, Slovenia and Sweden), it is striking that countries with complete missing data on the variable about opening clauses, almost all appear as deviant cases. Omitting this variable appears to have a large influence on the marketization index score of countries, at least in some cases. Their position as deviant cases is partly arbitrary therefore. However, the overrepresentation of transition countries among the deviant cases may also be caused by their special situation as Soviet countries before the 1990s. When running the analyses for later time periods, their residuals become smaller.

The specific position of Hungary may be explained by the fact that the country had been already a specific case both within the Soviet Union as well as in the wider global community in that it attempted to enter the global market economy. Already in 1982 it entered the IMF (IMF, 2017) and ambitiously applied marketization measures already years before the collapse of the Soviet union (Schroder & Ebenhausen, 1982).

A non-transition country that appeared as deviant was Sweden. It is puzzling as to why Sweden would appear as a deviant case in analyses about marketization processes, especially because the marketization index takes account of marketization processes that leave classical regulative institutional frameworks intact. Sweden may be a special case precisely because its large reliance on opening clauses and many negative intercorrelations between different marketization indicators. For instance, more wage-bargain coordination was surprisingly linked to less union density and less strict employment protection legislation in Sweden over time. In fact, these patterns are almost exactly as elaborated and found for this country by Baccaro & Howell (2017).

Finally, some of the control variables may be actually mechanisms and not factors that co-determine marketization trends in leading countries and subsequent marketization trends in other countries (i.e. a mechanism instead of a confounder). For instance, the economy of a particular nation may be influenced by previous trends in marketization in leading countries, which in turn induces certain subsequent marketization trends in this particular nation. Likely, some control variables such as GDP are both confounders and mechanisms. This would mean that part of the effect of marketization in previous countries is captured by the control terms in the regressions, while this part should be added by the total effect. Unfortunately, it is not possible with the data at hand to distinguish between the confounding part and the mechanism part of the control coefficient, and the results at hand should be

considered as conservative estimates that likely underestimate the true effect of marketization trends in leading countries. Fortunately, most control variables that I included are likely no mechanisms of the relationship of interest, such as divorce rate and urbanization rate.

Although this study was able to suggest the relative importance of the diffusion mechanism of coercion, it was much harder to suggest the relative role of the other three diffusion mechanisms. Countries imitating leading economic countries could indicate both learning, emulation and competition (i.e. looking at the strategies of the most successful). Only for emulation, which is mainly based on normative identification rather than on 'rational' adoption of best practices, it could be argued that countries follow those countries with which they share cultural norms, regional interests and histories. This might explain why regime type was found to be so important for both diffusion and countries' own tendency to marketization processes. An observable implication from this would be that countries follow their *regime-mates* rather than OECD-wide economic leaders. This would imply that emulation is at play, but that learning and competition are the more important mechanisms, followed by coercion which is the strongest mechanism.

Moreover, it was difficult to assess exactly *how* the mechanisms take place. For instance, when do the later adopters take up the new practices from the early adopters and why, because of which perceptions? Do they do so when they notice a high move of capital towards the early adopting countries? And why did, from a situation of highly regulated and protected countries as the norm, some nations suddenly start to change? Because we are dealing here with collective entities and not with individuals, it remains difficult to put a finger on these exact mechanisms as collective entities do not speak for themselves.

Some critical remarks are required on the concept of marketization. The chosen indicators were of course only a selection of potential indicators. There is not much consensus on the concept of marketization and its operationalization (e.g. Eikenberry & Kluver, 2004; Fairclough, 1993; Messner, Thome & Rosenfeld, 2008, p.174; Wei & Kong, 2014). Because of parsimonity and for the sake of keeping overview, only a few indicators were used here. Unfortunately, due to the focus on large-scale cross-national and cross-temporal comparisons, data on many potentially interesting indicators were unavailable such as the degree of private ownership of previously public service providers. Because of some of the pitfalls and lack of consensus about the proper measures, future research is invited to examine alternative notions in relation to the ones used here. The current study could be seen as a starting point in using multifaceted indicators.

Although the current chapter focused on the cross-national interdependence of marketization processes in countries, it should not be forgotten that internal marketization processes are also still determined by internal contingencies within countries such as macro-economic or demographic shifts (Rose &

Miller, 1992). Still, in the strategies that countries adopt to deal with these internal contingencies, they likely imitate leading countries as my results indicate.

In sum, the results provide some interesting suggestions for discussions about the world polity, such as the implications of the regionalization of the global order (Beckfield, 2010). The results also add to the literature on (transnational) diffusion by suggesting how marketization is diffused (through economic leading countries but contingent on welfare regime type), and through which mechanism.

As a prelude to the next chapter, marketization processes are important to study and frame well in relation to anomie. Several classical works, such as by Polanyi (1944), Merton (1939; 1968) and Durkheim (1975), have dealt with this question. Most directly, Polanyi (944) classified economies according to the relative role of cultural ethical norms backed by non-market based institutions at the one hand, and market logics backed by market-based institutions at the other. Marketization processes such as deregulation of international trade and the employment relationship, imply a withdrawal of the role of cultural ethical norms and non-market institutions in the economic domain. Polanyi (1944) called this a transformation towards a 'market society'. The wide deregulation of the economic space by cultural ethical norms would lead to a proliferation of market-based logics and institutions and to the predominance of egoist utility-maximizing thinking and acting. Thus, institutional changes would lead to corresponding changes in attitudes. Durkheim (1897; 1975) would call this situation anomic, stating similarly that trade liberalization, the collapse of unions and deregulation of employment all indicate a lessening regulatory power of key institutions, leaving actors in a state of normative boundlessness. The proliferation of egoist utility-maximizing behaviour would be called 'narrow utilitarianist egotism' or 'commercialism' by Durkheim (1975), which is also in his Integration Theory a consequence of the withdrawal of institutions that had traditionally integrated and regulated people. Merton (1939; 1968), would not frame the increasing predominance of market logic and institutions as deregulation, but rather as the introduction of new regulating institutions. Writing in a time of proliferating capitalism and the American Dream, Merton (1939; 1968) warned that the new dominant institutions of the market and their normative imperatives of economic success could leave a normative void for those that lack the means to conform to these imperatives. Similar as Durkheim and Polanyi, Merton's anomie-and-strain theory notices a disbalance in the importance assigned to market-based principles at the cost of non-market principles, but states that it is especially the people that are considered as unproductive defectors (e.g. the unemployed) for whom this is disintegrative and deregulating. They have now no positive non-market based institutions or roles to align to. Finally, institutional Anomie Theory (IAT), is a mix of these theoretical approaches, and mixes it together with Merton's anomie-and-strain theory. Also this approach frames marketization processes as the emergence of new norms and institutions rather than as only a collapse of norms and institutions. Just as in Merton (1939; 1968), IAT theorists assert that it is these new norms and institutions that can lead to disintegration and deregulation especially among the disadvantaged

(Messner and Rosenfeld, 1994). Chapter 3 and 4 will now dig more into the anomic impact of marketization, using the deepest key indicator and consequence of anomie, suicide.

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3. Unemployment, Marketization and Suicide

3.1 Introduction

Unemployment increases suicidality, both as a macro-economic condition (e.g. Stuckler et al., 2009; Page et al., 2013; Barr et al., 2012; Lin, 2006) and as an individual situation (e.g. Blakely, Collings & Atkinson, 2003; Yamauchi et al., 2012; Solano et al., 2011; Mäki & Martikainen, 2012). As an event that happens in individual lives, unemployment involves a disconnection of the individual with the institution of work in society (Durkheim, 1897; Reeves & Stuckler, 2015; Voss et al., 2004; Warr, 1987). As collateral damage, the individual's ties with other institutions can weaken as well: marriage, friends and associational life (Jahoda et al., 1974; Paugam & Russell, 2000). Becoming unemployed therefore implies a higher degree of disintegration and deregulation, and consequently a higher suicide risk. Changes in the unemployment rate have the largest suicidogenic impact of all macro-economic changes (A Tapia Granada, 2005), contributing to almost a fifth of all suicides (Nordt et al., 2015).

But a review of the current evidence -as well as the results in the previous chapter - shows that the effect of unemployment differs across societies (e.g. Norström and Grönqvist, 2015; Reeves and Stuckler, 2015; Stuckler et al., 2009). This signals that the impact of unemployment is conditioned by the social context, with some societies offering more protective environments than others. For instance, a generous welfare state protects people from the suicidogenic impact of unemployment (e.g. Cylus et al., 2014; Norström and Grönqvist, 2015; Stuckler et al., 2009). Furthermore, a previously high level of unemployment (Nordt et al., 2015), wealth-level (Noh, 2009) and gender-egalitarianism (Reeves & Stuckler, 2015) softened the suicidogenic impact of rising unemployment. Still, this list of protective forces is not exhaustive; after taking them into account, differences across countries and time periods in the effect of unemployment remains. It is still unclear what explains these remaining differences.

The societal (and individual) stressor that will be central in the present study, is unemployment. This and the next chapter suggest that the degree of marketization plays a role in the cross-national (and cross-temporal) variation in the effect size. The following question will be central in this chapter: *To what extent is the effect of unemployment on suicide strengthened or weakened by the degree of marketization in societies?* Marketization is here used as an umbrella term for certain cultural and structural processes in society. These processes constitute an increasing importance of market forces and market values such as profitability, which then permeate domains that were traditionally led by other principles. In light of this shift from non-market to market principles, I depart from two theories

on anomie: Durkheim's (1897) Integration Theory and Messner & Rosenfeld's (1994) Institutional Anomie Theorie (IAT). As will become clear, both theories arrive at contrasting expectations. Hoffman & Bearman (2015) already made a case for testing contrasting hypotheses, because such an approach is much more informative than only interpreting the evidence with regard to one theory. Testing both to see which one is more strongly supported by the findings will contribute to interesting theoretical debates and is more useful for achieving more theoretical progress.

The next session discusses the two theories. Next, section 3.3 provides information about the data, operationalization and some descriptive overview of the figures. Section 3.4 follows up with a test of the different hypotheses about the varying impact of the unemployment rate. Section 3.5 concludes.

3.1.1 Previous evidence

Because changes in the unemployment rate are related to economic shocks, I will also discuss the literature on changes in GDP or recessions here. That growing unemployment rates and economic shocks are related to a higher suicide rate, is a widely established fact (e.g. Brainerd, 2001; Nordt et al., 2015; Philips & Nugent, 2014). Across a wide array of industrialized societies, the suicide rate decreased between 2000 and 2008 and sharply increased from the 2008 crisis on (graphs in Nordt et al., 2015). At a first sight, the extent to which the unemployment rate is related to variances in the suicide rate, however, is similar across world regions. The relationship is also quite stable over time (graphs in Nordt et al., 2015). However, within these diffuse world regions, there is much cross national variability in this, as different studies showed (Norström and Grönqvist, 2015; Reeves and Stuckler, 2015; Stuckler et al., 2009), including my own data. Furthermore, Nordt et al. (2015) used very diffuse categorizations for world regions, pooling together North and Latin America, or countries in Oceania with Arabic and South East Easian countries. They also pool together all transition countries, whereas these countries are strongly heterogeneous in their suicidal response to economic shocks (Brainerd, 2001).

In South East Asia, the response of the suicide rate to a region-wide economic crisis was shown to differ across countries (Chang et al., 2009; Stuckler et al., 2009). For instance, there was a relationship between unemployment and suicide in Hong Kong, South Korea and Indonesia, but less clearly so in Japan, Singapore and Malaysia (Chang et al., 2009; Stuckler et al., 2009). Contrast to other (South) East Asian countries (e.g. Japan, Hong Kong), the increases in Korea and Taiwan preceded the economic crisis. Still, the crisis itself spurred a temporary additional increase, which was then stronger in Hong Kong than in the other countries. By contrast, the crisis had a smaller effect in Taiwan and Singapore, where the unemployment raised less or even declined (Singapore). Furthermore, the effect of the economy on the suicide rate changed over time and not only between countries. After the Asian crisis, from the late 1990s on, unemployment had a stronger effect on suicide in the Asian countries than before (Chang et al., 2009).

3.1.2 Factors that alter the effect of unemployment on suicide

Noh (2009) finds that the unemployment rate actually lowers the suicide rate for countries with a low level of wealth (below 8000 dollar per capita) whereas the unemployment rate becomes a factor that increases suicide above that level of wealth. Also Norström and Grönqvist (2015) and Stuckler et al. (2009) find that unemployment has a different effect on suicide in different countries, and that generous welfare states buffer the impact. Reeves and Stuckler (2015) find that the male suicide rate is less responsive to increases in unemployment in more gender egalitarian societies.

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3.2 Theory

3.2.1 Marketization

In this study I propose a new factor that could be an important factor altering the unemployment-suicide relationship: marketization. Marketization is a wider concept than merely welfare facilities. Marketization has been defined in Chapter 2 and the literature as the reduction of government constraints on economic behaviour (leading countries world), but also as a process in which market-based institutions and norms are becoming dominant, at the cost of non-market institutions and norms (Fairclough, 1993; Hövermann et al., 2015; Messner & Rozenfeld, 1994; Messner, Thome & Rosenfeld, 2008, p.174). This means that multiple domains are increasingly regulated through a market-logic instead of non-market norms. Additionally, it can involve the overall 'commodification' of people, meaning that people's subsistence-level is increasingly determined by market-forces rather than by non-market principles such as citizenship (Esping-Andersen, 1990). Besides this, marketization can also entail the increasing importance of market-actors in the provision of goods and services traditionally provided by state-actors (e.g. Wei & Kong, 2014). But instead of fully taking a market-versus-government stance, I follow Polanyi (1944), Messner & Rosenfeld (1994) and Merton

(1939; 1968) in stating that marketization also involves government agencies adopting market-logics.When market-institutions have gained dominance in the social structure, their norms may diffuse towards the now less influential non-market institutions. Alternatively, this spillover of market-based norms towards non-market domains can be a result of overall normative shifts that re-embed all existing institutions into this (Block & Somers, 2016). An example is social security agencies that take a more market-based approach towards welfare-recipients. Finally, market principles can permeate the domain of informal social interactions, in which some citizens are increasingly stigmatized as unprofitable and shunned (Kampen, Elshout & Tonkens, 2013). For example, the unemployed may face much public resentment in societies adopting a marketized logic (e.g. Boris, 2007; Hövermann et al., 2015; Jeene, Van Oorschot & Uunk, 2013).

As has been seen in Chapter 2, marketization practices have diffused from the leading countries to other countries, especially from global/ regional military leading countries. To date, no studies have assessed the potential relationship between marketization and suicide-rates, or the extent to which marketization processes accentuate the suicidogenic impact of unemployment, despite some hints from previous studies. Previous work shows a suicidogenic impact of austerity policies (e.g. Antonakakis & Collins, 2014; Karanikolos et al., 2013; Weaver & Munro, 2013), which are policy-means aimed at restricting public debts, achieved by cutbacks in government expenses and raising tax revenues (Antonakakis & Collins, 2014; Kentikelenis et al., 2014). Still, austerity policies and marketization do not necessarily imply each other, and these studies did not look at marketization per se. Of course, austerity policies may contain marketization, in that some services originally provided by the government are shifted towards the market-parties in order to lower governmental expenses. However, marketization can be part of a strong pro-market ideological policy-agenda that is aimed at a wider structural change and not merely at restricting public debts. Thus, the implementation of marketization measures may be a structural rather than a countercyclical trend. This makes it even more important to examine its health-impact.

3.2.2 Marketization in Integration Theory

Integration Theory would frame marketization as a process of weakening institutions (Durkheim, 1897; Flavin & Radcliff, 2009). Marketization, for example by an increasing labour market flexibilization and declining coordinated bargaining (Auer & Cazes, 2003; Gash & Inanc, 2013; Kalleberg, 2011; King & Rueda, 2008), may have weakened the integrative and regulative function of work. For instance, poorly protected workers are less able to invest in a stable settlement in their work-organization and several other institutions, because of frequent job-changes. Illustratively, Paugam & Russell (2000) showed substantially more social isolation among such workers. Moreover, these workers are exposed to more behavioural uncertainty because they frequently move to new work-organizations with different organizational norms and cultures (Sverke et al., 2002). This

invokes a chronic state of moral confusion, which is by definition anomic, according to Durkheim (1897). Furthermore, coordinated bargaining between employers and unions are considered crucial for shaping well-protected jobs through which workers are effectively integrated into their work-organization (Gallie, 2007; Hall & Soskice, 2002; Sverke et al., 2002). Moreover, strong unions may facilitate the integration of workers into a wider working class collectivity. When these institutions are weakening, people's behaviour is rendered relatively unregulated by shared social norms and fostering boundless personal egoistic desires. These boundless desires are more likely to remain unsatisfied, with the result of having more distressed and frustrated people.

Moreover, increasing international trade liberalization, the other indicator of marketization (leading countries world), also may weaken the integrative and regulative function of work. For instance, when international trade barriers are lifted, employers can move their production more easily towards low-wage countries. Therefore also remaining jobs become more precarious in the country, since employers now have a much better negotiation position.

Finally, social expenditures as an indicator of marketization can also indicate the extent to which a society is ran by market principes and not by non-market ethical norms (Zimmerman, 1987: 285). Moreover, social expenditures can anxiety for unemployment experienced by workers, because of guaranteeing a living standard independent of work status. It makes social participation in society more unconditional from having a job. By contrast, in societies with low social expenditures, one becomes more disintegrated and therefore deregulated through the loss of employment, because the risk of poverty and therefore social isolation is higher.

Besides this, and more importantly, this overall condition of moral disorientation has been hypothesized by Durkheimians to be distressing and the lack of normative guidelines demoralizing. This would be the case not only for those who lose their jobs, but for people in general. This anomic condition has a suicidogenic influence on people in two ways: people are *more pushed* towards suicide because of their elevated levels of distress, but also *less prevented* from suicide by norms forbidding this (Durkheim, 1897).

3.2.3 Direct effect of marketization on suicide

Involving the decline of important institutions such as the church, marriage and the state, marketization trends would be inherently anomic, regardless of the pace of the change. Allowing a *laissez-faire* capitalism, liberalizing all kinds of market behaviour, and downplaying the importance of several morals, marketization would unchain a boundless egoistic individualism that only follows the market rule of individual utility maximization and disregards traditional morals (Durkheim, 1975: 60). In Polanyi's (1944) terms, markets become dis-embedded; they lose their embeddedness in non-

market institutions and morals that guide and limit behaviour. Furthermore, others have argued that this 'dis-embeddedness' takes place at other domains as well: with non-market morals losing their importance in guiding people's behaviour in marriage and even in social relations in general. Increasingly, people would be judged according their market value and similar as in employment relationships, social relationships become more volatile and less loyal, more conditional on the instant entertainment value of people as friends or partners (e.g. Bauman, 2003; 2005; Hövermann et al., 2015). Thus, *more marketization lifts the suicide rate among the overall population, regardless of the macro-economic trends (H1).*

3.2.4 Marketization alters the experience of unemployment (or the experience of increases in unemployment)

Increases in unemployment, or becoming unemployed oneself, may be experienced differently by people in more and in less marketized societies. In marketized societies the employment relationship may have been deregulated and has been transformed into a more temporary insecure connection. The Varieties of Capitalism (VOC) literature calls these societies 'liberal market economies', contrasting those societies with 'coordinated market economies' where the employment conditions are centrally regulated by institutions representing all relevant parties: workers, employers and the collective interest (Hall & Soskice, 2002). A weak regulation and protection of employment relations lowers the mutual loyalty between employers and workers (Hall & Soskice, 2002; Kalleberg, 2011; Sennett, 2006). Having a smaller time-horizon with their work organization, workers will invest less in building relationships with their colleagues and identify less strongly with their work organization.

By contrast, in societies where the employment relationship is strongly regulated, employers make an effort in their workers' job satisfaction and skills, and in incorporating them as long-term meaningful members of their organization. In Warr's (1987) terms, being employed will be accompanied with enjoying more healthy aspects of life (*'job vitamins'*) – such as a clear position in society, a time structure, and social contacts. In societies with a strongly protected employment relationship, the loss of a job would therefore be more unsettling. In all, in marketized societies, the connection to the institution of work would mean less to workers in terms of Durkheim's integration and anomie. Besides this, a sharp rise in unemployment is less of a severe deviation from the normal patterns in such a volatile society. Living in a society that has already been facing declining institutions, increasing anomie, and more volatile and insecure commitments and connections, a sharply rising unemployment rate may be less unsettling. Because marketization involves the loss of these bounding and stable aspects of work, large shocks in the unemployment, or the loss of one's job, may make less difference. This implies that a stronger labour market flexibilization and weaker coordinated bargaining will weaken the suicidogenic impact of economic downturns for the working-aged population.

In sum, my second hypothesis states that *rising unemployment, has a less severe suicidogenic impact in more marketized societies (H2).*

3.2.5 Marketization in Institutional Anomie Theory

Institutional Anomie Theory derives from Merton's (1939; 1968) anomie-and-strain theory and questions the Durkheimian implicit assumption that institutions are always functional. A social evil (such as rising suicide rates) could also be explained by rising institutions rather than weakening institutions. These rising institutions may be, in some sense, dysfunctional. Institutional Anomie Theory directly addresses the issue of marketization. The approach would challenge the notion of marketization as involving a mere decline of institutions and norms. Some neo-polanyians have pointed towards a 're-embedding' of market institutions rather than 'disembedding', into a new normative framework that is strongly marketized: 'market fundamentalism' (Block & Somers, 2016). In the industrial relations literature, there is an increasing recognition of this. Baccaro & Howell (2011; 2017), for instance, stated that neoliberalism does not necessarily amount to 'institutional dismantling', but 'more often to a reengineering of existing institutions' (2017: 21). In their 2017 paper, they pointed to organized employer efforts in Germany to diffuse marketized normative ideas such as a normative pressure to have paid employment (even if it is a low-quality job) into the wider audience – as discussed shortly in the previous chapter. The institutional framework may have changed in its internal hierarchical ordering of 'interdependent institutions', as well as their meaning for different actors and the freedom they allow or pressure they impose on them (Baccaro & Howell, 2011: 525).

In this regard, one may be worried about the impact of several *newly* dominant institutions in society, causing some groups to feel alienated or stigmatized. In this regard, Merton (1939; 1968) and Messner & Rosenfeld (1994: 76) pointed towards the 'American Dream ethos', where profitability and economic success are the most salient moral guidelines for people in a broad range of social domains (eventually also in domains beyond the market) (e.g. Hövermann et al., 2015; Swierstra & Tonkens, 2008). Such virtues and goals are presumed to be elements of a wider and diffusing market-ethic. Scholars have warned that such a dominant normative framework fosters stigmas against the unemployed (Boris, 2007; Gustafson, 2009; Hövermann et al., 2015), which then can have adverse health- and wellbeing-impacts on them. Some scholars found an adverse impact of a strong society-wide normative emphasis to work on the relative happiness and well-being of the unemployed (Clark, 2003; Clark, Knabe & Rätzel, 2009; Stavrova, Schlösser & Fetchenhauer, 2011). Moreover, the materialism that is disseminated by the American Dream ethos has widely been shown to make people less happy, especially poorer households (Elliot & Leonard, 2004; Goldberg et al., 2003; Kasser et al., 2007; Martos & Kopp, 2012). Illustratively, in marketized states, the unemployed are continuously institutionally remembered of the urge of ending their situation, through many compulsory activating

labour market programmes and job search monitoring (Guimarães et al., 2010). Government policy programmes make strongly clear how marketization imposes strong norms on citizens rather than that the government withdraws from regulating. Because citizens are more expected and valued according to their market value, they are institutionally required to enhance their market value through workfare policies and benefit sanctions (Langenbucher, 2015; Lodemel, 2004).

In other words, in marketized societies the unemployed are not necessarily initially deregulated, but disintegrated. Thus, there is a strong norm on them to seek and find work, but as long as they cannot find this work, they are not considered as belonging to the society and as citizens that are less worthy (Hövermann et al., 2015; Kampen et al., 2013).

According to Institutional Anomie theorists, it is precisely this crowding out of non-market institutions and norms by market-based ones that has generated anomie. However, this anomie is concentrated among a narrower subpopulation, instead of the entire population. It is the groups in society that cannot comply with the norms of 'the market': people who are less efficient, out of work. In societies with a marketized normative framework, people and things are more evaluated according to market-principles (Hövermann et al., 2015). Unemployment is an undesirable transition period, a negative ascription that needs to be ended, that someone is supposed not to want to be. Even if the person is becoming engaged in 'work' in a broader sense, such as volunteering work or housework, the importance of this is still considered subordinate to work with market value (Kampen et al., 2013). The other positive bounds and roles (as volunteer or parent) only create ties of minor meaning.

The unemployed and other vulnerable groups are then at risk of being 'devalued' as being 'inefficient', 'economically burdensome' and 'unprofitable', as already outlined by Hövermann et al. (2015) Being disqualified as unprofitable by the overall dominant framework, there is no equally recognized non-market alternative for regaining a source of integration and a positive role (Swierstra & Tonkens, 2008). In such a situation, the unemployed, albeit strongly regulated by the new set of norms and institutions, are strongly disconnected from society.

Alternatively, some unemployed may also become deregulated because they experience a lack of positive guidelines that are feasible for them, given their current unemployment status. These individuals fall into a normative 'void', being both deregulated and disintegrated. Thus, initially, these unemployed are strongly regulated by the norm to seek and find employment (Guimarães et al., 2010).

AT builds further upon Merton's (1939; 1968) seminal work, and also derives insights from integration theory. Not only are ineffective institutions the culprits of anomie in societies, but also newly dominant institutions that impose different social norms on people. In 'equilibrium', non-market norms and institutions are supposed to serve an important counterbalancing function in market-societies, preventing widespread egoistic individualism or blind and harmful individual pursuits of

success (Durkheim, 1897; Polanyi, 1944). When such non-market institutions are weakened relative to market institutions, their norms are generally losing their normative power, and precedence is granted towards market-based norms (Hövermann et al., 2015). Indeed, some traditionally non-market institutions would even start adopting the newly dominant market-based norms (Hövermann et al., 2015; Messner & Rosenfeld, 1994). As a consequence of all this, the normative order of a society is said to be in disequilibrium: a disproportionate emphasis is granted to achieving economic success, whereas much less emphasis is granted to morally acceptable routes towards this success, or where to find alternative meaningful sources of integration and regulative guidelines for behaviour in the case that an individual is unable to pursue economic success[7]. In sum, anomie arises because the dominant normative order is regulating[8] people according to an incomplete, or unbalanced, set of social norms.

During this state of disequilibrium, IAT states that all people will initially feel uncertain about how to act (Featherstone & Deflem, 2003; Messner & Rosenfeld, 1994). Specifically, they will feel a high demand on them to strive for the prescribed success-aspirations, but are left disorientated regarding the routes to be taken (Hövermann et al., 2015; Messner & Rosenfeld, 1994). Nevertheless, most people would be able to create a comprehensive normative strategy. They will do so by adhering to the dominant success-aspirations *and* sticking with the (although now less emphasized) routes towards success as prescribed by non-market institutions. In doing so, people have created a balanced set of norms for themselves. However, some people are structurally barred from the resources required for taking the accepted routes (e.g. getting educated), and therefore cannot easily create this balanced set of norms for themselves. As a result, these people become deregulated in a specific subset of the normative framework: not the dominant goals, but the means, driving them towards one of several deviant responses (Featherstone & Deflem, 2003; Merton, 1939; 1968). Some individuals may even reject the entire marketized normative framework altogether: thus, both the dominant means *and* goals, becoming fully deregulated (Merton, 1939; 1968). One very specific (and more rarely occurring) response is thought to be suicide, a specific instance in which individuals have dissociated themselves[9] from both sets of norms.

Because the unemployed more often are barred from achieving the marketized ideal of the American Dream through the accepted routes, either by their individual characteristics or by structural factors, it is more often the case that they will suffer from feelings of disorientation and strain. This strain could incite people to reject their society's normative framework altogether and commit suicide.

[7] See Swierstra & Tonkens (2008) on this issue, where they plead for introducing alternative valuable role-opportunities for people for whom the American Dream ideal is unavailable

[8] Note the difference with Durkheim's (1879) anomie, in which *any* regulation is considered to be absent or weak

[9] A key difference with integration theory is that individuals that previously *did* care about complying to the normative demands, eventually are incited to disconnect themselves either partly or fully from their society's normative order. Thus, IAT grants more actorship to people than Durkheim did, where individuals suffering from anomie are indiscriminately disconnected from a society's through an external event; they have less choice in how to manage this for themselves.

Therefore, as a third hypothesis, I expect that *rising unemployment has a more severe suicidogenic impact in more marketized societies (H3).* Because marketization mainly affects the integration of those who do not fit the norms of this marketized society, I expect an even stronger suicidogenic effect ofmarketization among the unemployed, next the the population-wide effect. In light of the former discussion, the suicidogenic impacts of an increasing unemployment rate and marketization are both expected to be especially concentrated among the unemployed. It would then increase the overall suicide rate because of a larger number of vulnerable (unemployed) people in society. Thus as a fourth hypothesis: *H4: more marketization lifts the suicide rate in the population, but this reflects mainly the unemployed.*

3.3 Data, Methods and Descriptives

Data on male and female suicide-rates are taken from the WHO World Mortality Database, covering all 34 OECD countries. Turkey was eventually dropped because it contained suicide-rates from 2009 on only. Therefore the analyses contain 33 countries. For some analyses, only European countries could be analyzed. For this chapter, the analyses will be run over a time series from 1960 and 2016 for most analyses, depending on when sufficient data are available for the main indicator of marketization that is used in the analyses. Linear inter- and extrapolation was used to fill missing observations in the time series. But because the main interest is mainly in the impact of marketization *trends*, running the analyses with too many subsequent year-points being extrapolated can introduce much distortion in the effects. Because males and females have different risk-patterns and also the extent to which these differences are present varies cross-nationally and –temporally, the analyses were run for each gender separately.

Macro-economic data, information on the control variables and data for the indicators marketization were taken from the OECD-database and ICTWSS Data Version 5.1 (Visser, 2016). Data on attitudinal variables was taken from the World and European Values Survey (1981-2014).

Table 1 shows the descriptive statistics of the variables in this chapter. Because the previous chapter already discusses the descriptive statistics on GDP, leading economies, marketization processes and resistance against it, these will be not again discussed here. The discussion on the descriptive statistics in the present chapter will therefore start with a look at the unemployment rates. Looking at the average rate of the 1960-2016 period, Slovak Republic had the highest level of unemployment with 14% of the labour force, followed by Poland (12.6%), Spain (12.3%) and Greece (9.9%). Lowest is Switzerland with only 1.7% of the labour force that is unemployed. Switzerland is followed up by Iceland (2.3%), Japan (2.8%) and Norway (2.9%).

When it comes to the average annual growth in the unemployment rate, the following is striking: this time Switzerland scores highest (with 93.1 percent points in growth). Switzerland is followd by Luxembourg (42.2) and New Zealand (26.7). Notably, Greece is in the top five here with 24.8 percent points. The 2008 economic crisis has had a large, well-known impact on the Greek unemployment rate. Lowest in unemployment growth are countries that even have an average negative growth in unemployment rates, such as Israel (-1.07), Chile (-.51 and Slovak Republic (-.22).

Now the discussion will proceed towards the variables that describe the composition of the unemployed population. First of all, the percentage of unemployed with tertiary education is considered. Here, Greece has on average the highest score with 14.5% of the unemployed with such educational degrees. This may again be bolstered by the 2008 economic crisis, leaving many university-educated people unemployed – especially young people. Greece is followed by Spain (12.8%), Italy (7.6%) and Portugal (7.2%), where the crisis also had a large impact. Lowest are two Nordic countries, Norway (2.1%) and Iceland (2.3%), and Czech Republic (2.7%).

Looking to the percentage of young people (15-24 years old) in unemployment, the Southern European countries again are on top: Spain has had on average 35.1% youth unemployment rate, which was even higher during the 2010-2012 aftermath of the economic crisis of 2008 (between 41 and 53%). Spain is then closely followed by the Greek rate of 32.3%, and the Italian rate of 30.1%. Lowest on youth unemployment are, on average, Switzerland (6.9%), Mexico (7.4%) and Japan (7.5%). As can be noted, overall, young people have higher unemployment rates than the overall working population.

Looking at the proportion of long-term unemployed (> 1 year), Slovak Republic is on top with 58.8% of the unemployed being in long-term unemployment. Thus, Slovak Republic does not only have the highest unemployment rates, but this unemployment also tends to be – on average – in the majority long-term. Slovak Republic is closely followed by Italy, having a rate of 58.5%. After Italy come Belgium (56.8%) and another country high on general unemployment: Greece (51.9%).

Looking at social expenditures, the following can be noted: France spends almost a third of its GDP on public goods and services. The French public sector is known to be large: in 1999, French public employment was 18.3 compared to, for instance, 11% in Germany and Austria (Brock & Lipsky, 2003: 26). France is followed by Sweden (27.1%), Belgium (26.5%) and Finland (26.1%). Lowest are Mexico (4.6%), Korea (7.1%) and Chile (10.6%). Iceland, for a Nordic country, also scores remarkably low (as the 4th lowest country with 15.5% of GDP spent on public goods and services).

Turning towards the suicide rates, finally, the data revealed the following pattern. Highest on male suicides are several Eastern European countries such as Hungary (56%), Estonia (49.06%) and Slovenia (45.8%). Throughout the literature it is well-known that transition countries have large

suicide rates and scholars even speak of a 'mortality belt' (Brainerd, 2001: 1008). High also are Finland (39.2%) and Austria (35%). Lowest are Greece (5.8%), Mexico (6.7%), Italy (11%) and Spain (11.2%).

With regard to female suicides, again Hungary scores highest with a rate of 18.2%, which is much lower than the male rate but still highest compared to other countries. Hungary is followed by Japan with a rate of 14.4%, Denmark (13.5%) and Korea (12%). Lowest are, again: Mexico (1.1%), Greece (1.8%) and Chile (2.7%) and Spain (3.2%).

The two final variables in the table describe the average position a country had in individual years in its suicide rate compared to other countries. Here, a negative score indicates that a country's suicide rate has been – on average – below-average, whereas a positive score indicates that a country's rate has been above-average. Closer to zero means that a country is close to the average pattern. With regard to the male suicide rate, Estonia, Slovenia and Hungary turn out to be clear high-suicide countries with more than 30 points above the cross-national average. Lowest are Mexico, Greece, Italy and Spain, being more than 13 points below this average. For the female rate, again, Mexico and Greece turn out to be low-suicide countries. Note that the cross-national distribution for female suicide rates has a much smaller range. The lowest suicide countries are, on average, 'only' 5 points removed from the average. Hungary and Slovenia again appear as high-suicide countries for women, as well as Japan and Estonia. These countries are more than 6 points above the average.

3.3.1 Suicide data

Whereas the previous chapter derived the suicide rate from the OECD, the current chapter used the WHO Mortality Database for deriving the suicide rates. This was done in order to more closely follow the literature, and because this database provides age specific rates for those in primary working age (25-74). Within this age group, the suicide data were age-standardized using the WHO World Standard. These data were available from 1979 to 2012. This dependent variable was logarithmized to correct for a skewed distribution. During the study period, different classification of causes of deaths have been used, (ICD-9 and 10), and to be sure, dummy variables capturing these were included in a robustness check. The descriptive figures are displayed in Table 1. Between 1960 and 2016, only 6.3% of the country-time points had missing values on the male and female suicide rate.

3.3.2 Unemployment rate

The annual in-percentage growth in the unemployment rate, the annual percentage of unemployment in the civil labour force, was used. The unemployment rate was derived from the OECD (2015c). Most countries had only few gaps in their time series, linear inter- and extrapolation was used to impute missing values. Across the entire time range, only 7.02 % of the values had to be imputed for this

variable. From this, the annual percentage change in the unemployment rate was used as a final variable.

3.3.3 Marketization

Marketization was measured in the same way as in the previous chapter. More information about these four indicators can be found in Chapter 2.

Moreover, besides looking at objective marketization is it also interesting to look at the degree of resistance against marketization among populations. This could indicate that populations themselves do not necessarily agree with the strong societal emphasis on market-value.

As seen in Chapter 2, because of the different strategies of marketization, constructing a scale index for marketization was recommendable.

The two resistance attitudes could be reliably combined in a scale. More information about these items are in Chapter 2. The two items originate from the European and World Values Survey and ask respondents whether it would be a good change if the emphasis on work and money would reduce in society. People who answered in the confirmative are counted as people who resist against marketization.

Table 1: Descriptive statistics over countries

Country	GDP (1)	Leading economic country (2)	Negative index for marketization processes (3)	Resistance (4)	Unemployment rate (5)	Unemployment growth (6)	High educated unemployment (7)	Young unemployment (8)	Long term unemployment (9)
Australia	29848.720	.070	-.052	.432	5.777	2.663	3.227	13.250	.232
Austria	32036.950	.000	-.121	.430	3.514	4.687	2.937	8.027	.259
Belgium	31088.100	.000	.000	.570	7.456	3.542	4.183	19.511	.567
Canada	32396.560	.000	-.054	.442	7.508	1.179	5.579	14.127	.103
Chile	13948.820	.000	-.044	.416	7.626	-0.505	5.599	17.302	
Czech Republic	23411.500	.000	-.192	.377	6.007	13.08	2.661	13.470	.412
Denmark	33938.390	.019	-.075	.549	5.800	7.322	4.020	10.304	.246
Estonia	19115.130	.000	-.225	.294	8.549	26.422	5.500	17.241	.432
Finland	28600.480	.000	-.050	.462	6.385	6.756	4.709	25.458	.225
France	26458.270	.000	-.079	.611	6.261	4.497	5.940	22.661	.362
Germany	31260.870	.000	-.055	.391	5.280	8.603	4.257	9.398	.467
Greece	22019.130	.000	-.105	.666	9.907	24.823	14.469	32.290	.518
Hungary	19226.860	.000	-.221	.324	8.592	-0.009	2.815	18.618	.457
Iceland	30430.300	.000	-.014	.544	2.333	18.014	2.315	9.160	.120
Ireland	28528.000	.042	.113	.557	9.323	3.202	4.558	16.995	.495
Israel	26828.780	.000	-.161	.545	7.747	-1.066	5.495	15.999	.146
Italy	29225.570	.000	.004	.494	8.525	1.679	7.630	30.508	.585
Japan	28139.880	.000	-.024	.166	2.792	2.538	3.727	7.472	.240
Korea	15927.470	.000	-.187	.279	4.019	1.420	3.274	9.328	.018
Luxembourg	57905.480	1.000	-.008	.638	3.434	42.210	3.825	11.727	.282
Mexico	13202.830	.000	-.016	.410	3.837	1.927	4.960	7.392	.013

Table 1 (continued): Descriptive statistics over countries

Country	GDP (1)	Leading economic country (2)	Negative index for marketization processes (3)	Resistance (4)	Unemployment rate (5)	Unemployment growth (6)	High educated unemployment (7)	Young unemployment (8)	Long term unemployment (9)
Netherlands	34188.540	.000	-.123	.414	6.316	-0.213	2.895	8.853	.398
New Zealand	25344.340	.000	-.097	.375	3.932	26.718	3.211	13.752	.143
Norway	43962.510	.723	-.080	.416	2.907	4.624	2.139	11.318	.116
Poland	16233.800	.000	-.218	.355	12.595	0.507	5.616	28.145	.388
Portugal	20524.410	.000	-.166	.556	7.387	4.574	7.216	18.301	.463
Slovak Republic	19751.730	.000	-.123	.322	14.279	-0.215	4.935	28.244	.587
Slovenia	24951.600	.000	-.173	.311	6.993	3.662	4.316	17.330	.496
Spain	24350.880	.000	-.107	.552	12.288	6.451	12.836	35.067	.432
Sweden	31856.300	.000	-.089	.496	4.682	10.096	3.463	19.890	.157
Switzerland	44474.170	.957	-.113	.631	1.721	93.110	3.451	6.906	.314
United Kingdom	25326.560	.000	-.048	.557	5.832	5.470	2.871	15.017	.337
United States	37939.190	.276	-.030	.415	6.071	1.003	3.298	12.614	.102
All country-years	**28820.730**	**.103**	**-.089**	**.438**	**6.194**	**9.500**	**4.818**	**16.536**	**.310**

1 General Domestic Product per head, US dollars, constant prices, constant prices, constant PPPs (reference year 2010). OECD (2018a). Over 1960-2016.
2 Average score over time based on a dummy variable (0 = non-leading in year X, 1 = leading in year X). Over 1960-2016.
3 Negative index for marketization processes (see Chapter 2). Over 1960-2016.
4 Proportion of the population that thinks that there is too much emphasis on work and/ or money in society. Based on two survey items from the World and European Values Survey (1981-2014). Over 1981-2012.
5 Unemployment rate of civil labour force, from the OECD (2018b), over 1960-2016 .
6 Average based on the annual percentage change in the unemployment rate under (5). 1960-2016
7 Proportion of unemployed with tertiary education, from the World Bank (2018a). Over 1998-2016.
8 Youth unemployment rate (15-24 years old), derived from the World Bank (2018b). Over 1991-2016.
9 Percentage of total unemployment that has lasted for at least one year, derived from the OECD (2018c). Over 1960-2016.

Table 1 (continued): Descriptive statistics over countries

Country	Social expenditures (10)	Suicide rate (11)		Centred suicide rate (12)	
		Male	Female	Male	Female
Australia	16.248	20.296	7.009	-4.231	-0.868
Austria	25.877	34.961	11.435	10.536	3.660
Belgium	26.542	28.553	10.966	4.145	3.183
Canada	16.598	19.762	6.061	-4.688	-1.753
Chile	10.555	15.398	2.667	-8.975	-5.110
Czech Republic	18.356	27.748	6.912	9.363	2.656
Denmark	25.501	27.960	13.523	3.356	5.614
Estonia	15.917	49.057	10.506	35.984	6.487
Finland	26.057	39.228	10.041	14.640	2.247
France	28.327	29.705	9.625	5.200	1.831
Germany	24.369	20.419	6.415	2.328	1.196
Greece	20.518	5.781	1.800	-18.643	-5.974
Hungary	21.395	56.029	18.226	31.604	10.451
Iceland	15.509	20.208	6.275	-4.216	-1.499
Ireland	17.519	12.863	3.638	-11.208	-4.070
Israel	16.355	11.585	4.278	-12.490	-2.576
Italy	24.440	11.010	3.525	-13.411	-4.262
Japan	15.753	28.523	14.389	4.133	6.523
Korea	7.132	30.235	12.029	-10.104	-2.730
Luxembourg	20.900	23.534	8.210	-0.401	0.643
Mexico	4.592	6.702	1.097	-18.980	-6.866
Netherlands	22.200	13.631	7.010	-10.793	-0.763
New Zealand	18.714	19.274	6.729	-5.005	-1.106
Norway	21.237	17.496	6.201	-6.897	-1.545
Poland	19.649	24.613	4.445	0.295	-3.320
Portugal	19.194	17.357	4.344	-7.281	-3.453
Slovak Republic	18.158	23.700	3.760	5.083	-2.378
Slovenia	20.645	45.783	11.496	33.842	7.970
Spain	21.824	11.160	3.225	-13.265	-4.553
Sweden	27.114	24.547	9.550	0.122	1.776
Switzerland	16.845	30.342	11.135	5.793	3.318
United Kingdom	19.426	12.056	5.152	-12.402	-2.718
United States	16.276	21.010	5.791	-3.430	-2.008
All	**19.889**	**23.215**	**7.571**	**8.67e-08**	**-2.24e-08**

10 Percentage of total GDP. OECD (2018d). Over 1980-2016.
11 Per 100,000 people. OECD (2018e). 1960-2016.
12 Average based on annual centred score of national suicide rate in the distribution of rates of all considered countries. 1960-2016.

3.3.4 Control variables

In selecting important potential confounders to control for, the previous literature was followed (e.g. Chuang & Huang, 1997; Matsubayashi & Ueda, 2011; Reeves & Stuckler, 2015). The following variables were taken into account: wealth (GDP per head in US dollars, constant PPPs), a continuous variable counting the years, transition-country status (0 = no communism and no transition period, 1 = transition period, between 1989 and 1999, 2 = period under communism, pre-1990), population size, antidepressants consumption (daily dosage per 1 000 inhabitants), GDP growth (annual change in GDP), educational stock (percentage of the labour force with tertiary education), divorce rate (divorces per 1 000 inhabitants), and urbanization (percentage of population living in cities). Wealth, antidepressants intake and the divorce rate were taken from the OECD Database (OECD, 2018a; f; g). The educational stock and urbanization were taken from the World Bank (2018c; d). To my knowledge, no previous studies have controlled for antidepressants consumption, which is here taken as an indicator of the availability of mental health care services. The control for transition status automatically also controls of the potential influence of having many missing data points on the suicide and unemployment rates before 1990, as many transition countries had only valid observations from the mid-1980s or 1990 on. Because not only marketization can diffuse from leading countries to other countries (see Chapter 2), but also suicide, control variables were included for the previous average trend in the suicide rate in the leading countries.

Moreover, one final model controls for the 'normality of suicide' in the country itself, by taking the country's year-specific centred value around the year specific mean of the entire cross-national distribution of suicide scores. This centred value was entered in the analysis in its 1-year lagged form, because the normality of suicide likely diffuses over time. Countries that score relatively high can said to have a more 'normalized' culture of suicide, whereas countries that have low scores highly condemn this. For all these variables (trends in lead countries and country-specific centred variable around year-specific international mean), the natural (i.e. non-logaritmized) suicide rates were used with imputed values for missings (linear inter- and extrapolation). Finally, the effects can depend on the composition of the unemployed population in different countries and time-periods. Therefore three control variables were taken along that account for these: the proportion of highly educated (people with tertiary education) in unemployment, the unemployment rate among young people (15-24 years old), and the proportion of long term unemployment (unemployment spells of at least one year) in total unemployment. The first two statistics were derived from the World Bank (2018a; 2018b), the last from the OECD Database (2018c).

3.3.5 Methods

Time Series Cross Sectional – Just as in the previous chapter, cross sectional time series methods are deployed for the current analyses. Again, models were run with panel corrected standard errors. Because of indications of contemporaneous error correlation, autocorrelation and heteroscedastic error distributions, the model specification was adjusted to this. The model specification used panel corrected standard errors.

In the literature on suicide rates, fixed-effects analysis is the most widely adopted technique in the study of population-wide suicide rates (e.g. Andres, 2005; Matsubayashi & Ueda, 2011; Neumayer, 2003; Reeves & Stuckler, 2015). Indeed, recent studies have critized previous work that did not properly account for unspecified country-differences and strongly urged for using a fixed effects approach (Andres, 2005; Neumayer, 2003). The current chapter more closely follows this literature's advice and uses fixed effects analyses to exclude the influence of confounding country- differences on unmeasured factors.

However, as explained in the previous chapter, there are also some caveats with fixed effects estimation. Restricting oneself to analysing within-country effects makes it hard to assess the impact of cultural factors that barely change over time (Beck, 2001; Pluemper & Troeger, 2007). In the present study, this is the case with the attitudinal variables measuring the degree of marketization in society. Because of this, robustness analyses looking at the random effects were ran for the models looking at attitudinal variables. Furthermore, many of the key variables vary more between countries than within countries. However, the difference between these variances is not large: for many variables, there is almost as much variance over time as between countries.

Just as in Chapter 2, the interaction effects were also evaluated graphically and by examining the marginal effect of one of the variables at different levels of the other variable. This was then displayed graphically only for those interaction effects that revealed a statistical significant effect.

Ecological inference – The hypotheses of this study mainly are directed at individual level mechanisms, whereas the data with which these are tested are only on the macrolevel. How can we know, for instance, whether a higher suicide rates -when marketization or unemployment trends are strong- have to do with what is happening to the unemployed rather than the population as a whole? Therefore there is the risk of ecological fallacy (Robinson, 1950). The fact that more individuals commit suicide when the unemployment rate increases, does not necessarily imply that this concerns the unemployed, or even that this concerns individuals that experience anomie as a result of uncertain, quickly changing macro-economic circumstances. Gary King (1997) and King, Rosen & Tanner

(2010) proposed some solutions for this problem of having only macro-level data to deal with micro-level hypotheses. Although the data at hand are not suitable for his proposed methods, I still follow his suggestions to guide better inferences of the results.

A two-step approach was taken in getting to better inferences at the micro-level. Firstly, the coefficient of the effects of unemployment and marketization trends can be used as absolute benchmarks or confidence intervals for the extent to which the unemployed respond to these trends by committing suicide. It can be computed how many unemployed would have committed suicide due to these trends *maximally*. Maximally, because a subset of this number can also be non-unemployed who also respond to these supposedly anomic trends, as hypothesized by Hypothesis 1 and 2. We also want to know to which extent the group that responds suicidal to these trends consist of truly unemployed and of the wider population. To make better micro-level inferences about this, previous studies were consulted that used individual-level data about suicide deaths and the corresponding gender and employment status. Mostly the statistics were not available or would only be available in a format that are too time and resource consuming to prepare for the purposes here. Fortunately, many studies report usable statistics that I could use in my own dataset: odds ratios of the extent to which the unemployed commit more suicide than the employed. For each available country and year, I could compute the suicide odds ratio of unemployed individuals versus employed individuals, summarized here as the 'excess suicide rate of the unemployed'. In some instances, I could find some ready-prepared data myself (e.g. New Zealand and Japan) and did not have to rely on the limited reports in the research articles themselves. In the end, there were five countries for which I could analyse this data over time: Australia, Finland, Italy, Japan and New Zealand. On Sweden there were also many previous reports, but not with a list of suicide odds ratios over time. Nevertheless, I will shortly reflect on that literature as well.

About the data – Each study or dataset used was country-specific and not cross-national. There is no standardized anonymous recording by a comprehensive international institute of such statistics. As a consequence, I had to collect the figures from different studies and databases that did not reveal cross-nationally comparative figures. Any differences between countries could well be the result of differences in computation and information. Moreover, data was only available on five countries. This is why these statistics were not used in the main analyses but only for this in-depth ecological inference analysis. Country comparisons were avoided as much as possible, and the focus was rather on trends within countries. I will now shortly describe the data used for the different countries.

Australia – Data for Australia were derived from Milner et al. (2014) and consisted of an average odds ratio of excess suicide among unemployed over 2004-2010 for people aged above 25. The disadvantage of this measure is that trends cannot be assessed, but at least it gives some picture of the individual-level effect of unemployment on suicide in this decade in Australia.

Finland – Statistics were derived directly from Mäki & Martikainen (2012). These were not annual figures, but 4-year averages between 1988 and 2003. Unfortunately, the ratios were only based on the employed versus the long-term unemployed, and more so: these long-term unemployed were sampled by following a specific active labour market programme. The figures for Finland may therefore be less representative for all unemployed and much less comparable with the statistics for other countries.

Italy – Data were directly generated from Preti & Miotto (1999). They reported the ratio of suicide rates (per 100,000 population) of unemployed and employed. Gender-specific data were available from 1982 to 1994. Another more recent article also reported gender-specific suicide odds ratios for 2001-2008 (Solano et al., 2011), but unfortunately they only reported a 9-year average over this period. Combining this with the figures of Preti & Miotto (1999) would give an artificial trend figure, or one also has to compute a 9-year average for years between 1982-1994. This would mean a large information loss, larger than the gain when including Solano et al. (2011)'s figures. Figures were for people aged 15 and above. Data were available for all years between 1982 and 1994.

Japan – Figures were directly derived from Suzuki et al. (2013), and data were available from 1980 to 1995 for 25 to 64 years old. One disadvantage of these data is the fact that data were only available on the suicide rates of non-employed versus employed. The non-employed group could also consist of economically inactive besides the unemployed. Data were available for 1980, 1985, 1990, 1995, 2000 and 2005. Ready-cleaned and aggregated data were available for Japan from the Official Statistics Japan website (2015: www.e-stat.go.jp).

These contained data between 1995 and 2012. Unfortunately, when running correlations between statistics that I derived from this database directly and Suzuki et al.'s (2013) estimates, the correlations were extremely low for the overlapping years (1980, 1985, 1990, 1995, 2000, 2005): r = -.01, p = .99; rho = -.50, p =.67. Merging these data with Suzuki et al.'s (2013) estimates would likely reveal arbitrary trends. One of the reasons for these differences is that the figures available in the database considered people aged 15 and above. Probably young people in Japan show very different responses to unemployment than older people. In all, I decided to stick with Suzuki et al.'s (2013) estimates.

New Zealand –figures for 25 tot 74 years old could be directly derived from an university website (New Zealand Census-Mortality Study, 2015: www.otago.ac.nz). The figures were 4-year averages and again dealt with the truly unemployed versus the employed. Data were available from 1981 to 2004.

As seen, the figures for countries are not comparable across countries. But the specific biases introduced by choosing one rather than another calculation approach are constant *within* countries. Therefore I can more easily derive conclusions about effects over time within countries. In the results

section a descriptive and regression analysis will be discussed and in the conclusion I will reflect on the meaning of these results.

3.3.6 Deviant cases

Here a glance will be taken to the deviant countries from the former chapter. The analyses in Chapter 2 indicated that Estonia, Hungary, Slovenia Poland and Sweden are interesting deviant cases, because of their atypical marketization trends and levels (in timing and degrees) and because of their relatively large regression residuals. Notably, almost all of these outlier countries appear to have comparatively high suicide rates.

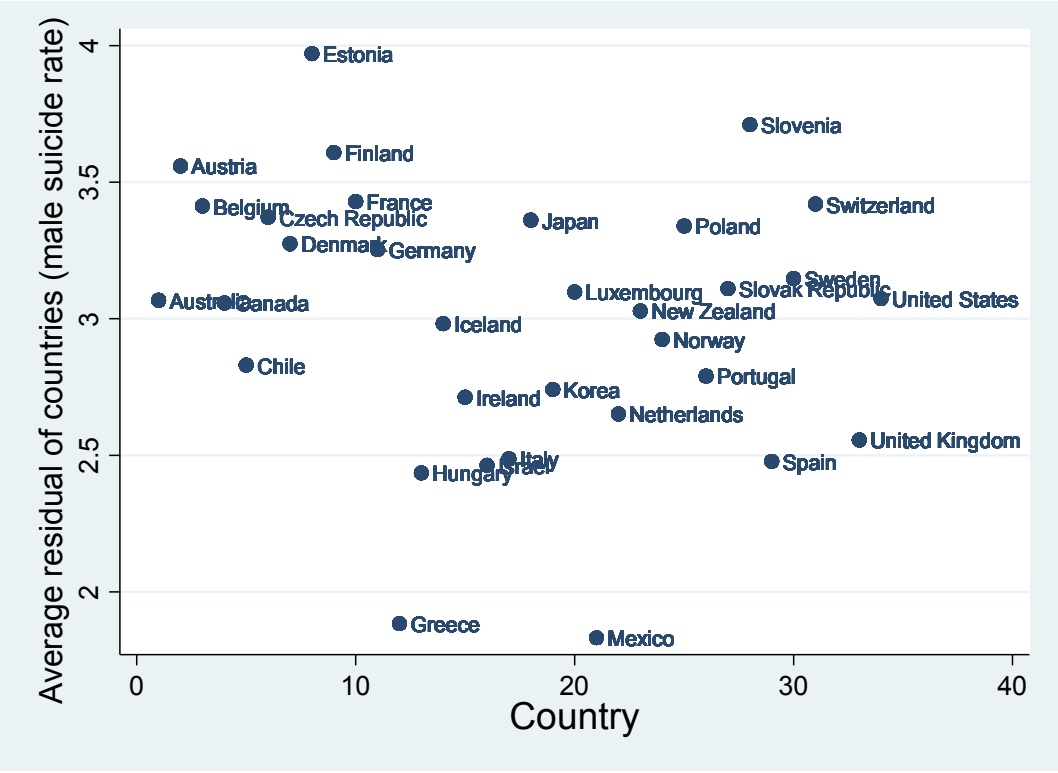
Looking at the correlations between several key variables in these countries, it appears that in all countries (deviant and non-deviant) the male and female suicide rates correlate highly ($r > .80$ in most cases). The deviant countries are not extraordinary in this regard. Remind that the correlations are typically higher in the correlation analyses for individual countries than for the total sample, which combines much more variation. Moreover, the p-value level is likely much larger for individual countries than for the entire country sample, which is then more likely to return statistically significant correlations than the individual countries. Rather interesting for the purpose of comparing deviant cases with the overall sample, is looking in which variables correlate relatively strongly and in what direction. For instance, for the general country sample, resistance is negatively correlated with the male suicide rate ($r = .34$, $p < .001$) and female suicide rate ($r = 28$, $p < .001$). In Estonia, however, the correlations are strongly positive ($r = .78$ and $r = .74$ respectively). Slovenia also turns out modest positive correlations: $r = .33$ and $r = .30$ respectively. Also in Hungary the correlation with the male suicide rate is positive, but much smaller ($r = .19$). Finally, in Sweden and Poland, the correlations are clearly negative ($r = .58$ and -.61 for Sweden and -.25 and -.22 for Poland.

Moreover, in the overall country sample, unemployment correlates modestly strong with the female suicide rate – negatively so ($r = -.30$, $p < .001$), while it does weakly so with the male suicide rate ($r = -.12$, $p < .001$). All deviant cases except Hungary turn out negative correlations as well. For instance, in Sweden the correlation is relatively strong: $r = -.84$ and $r = -.81$ respectively), with a stronger correlation for the male rate. In Estonia, by contrast, the correlation is rather weak ($r = .03$) for the male rate, but modestly strong for the female rates ($r = -.33$, $p < .10$).

Finally, it is interesting to see some relatively strong correlations between the unemployment rate and resistance in some deviant cases, while this is not the case for the overall country sample ($r = -.05$, $p > .10$). Especially in Estonia the two are highly positively intercorrelated ($r = .99$), while in Hungary they are strongly negatively correlated ($r = -.79$). Only Poland does not reveal a strong correlation between the two ($r = -.05$), looking more like the overall cross-national pattern. The other two deviant countries, Slovenia and Sweden, show negative correlations.

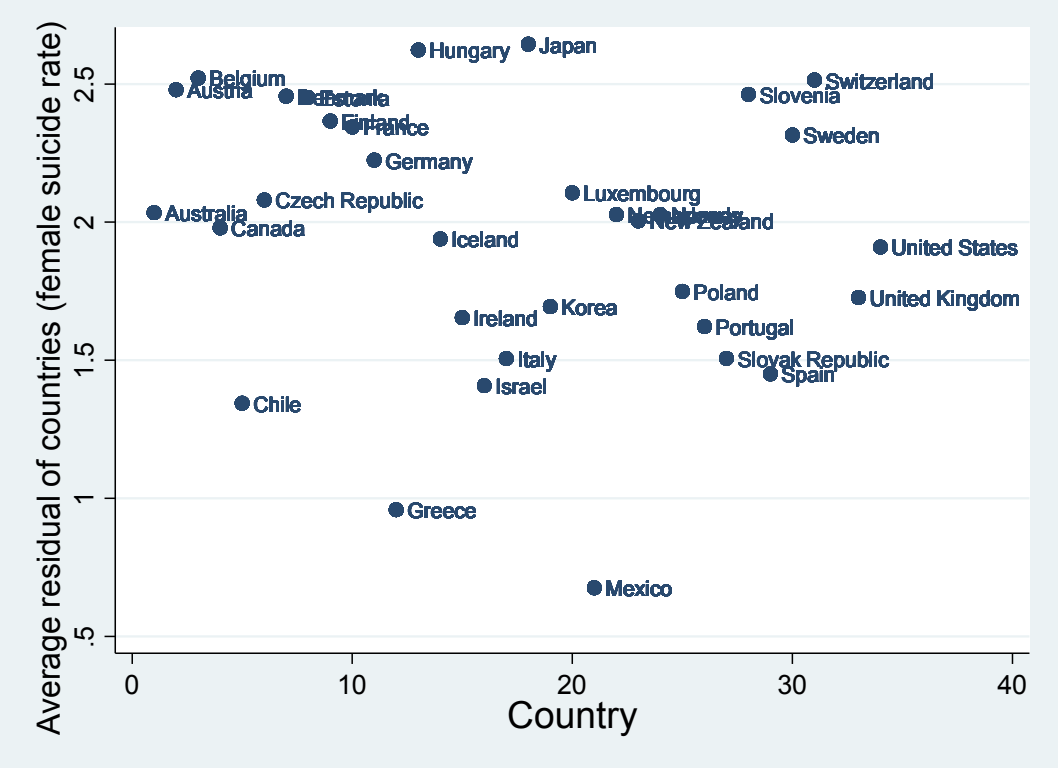
Running the regression with marketization processes, unemployment growth and some control variables (see Model 5 Table 2 and 4) on the male and female suicide rate respectively, reveals again that Estonia and Slovena have strikingly large residuals. Together with Austria and Finland they have residuals larger than 3.5. These countries have unexplainably high suicide rates, considered from the control variables considered. Moreover, Austria and another high suicide country, Finland, appear as deviant cases with large residuals. With regard to the model ran for Model 5 Table 4 (female suicide rates), the residuals are somewhat smaller, but again Hungary stands out, just as Japan, with residuals clearly larger than 2.5.

Figure 1a: Cross-national scatter plot of regression residuals for men, 1960-2016



Estimation of the residuals based on the fixed effects model from Model 5, Table 2

Figure 1b: Cross-national scatter plot of regression residuals for women, 1960-2016.



Estimation of the residuals based on Model 5, Table 4.

3.3.7 Model

Model 1 examines the effects of institutional marketization/ cultural (anti-)marketization (resistance) and unemployment, while accounting for country fixed-effects and the passing of the years (with a continuous year counter variable). Model 2 adds the interaction effect between marketization and unemployment. Model 3 then adds the economic control variables: GDP and GDP growth. Model 4 includes additional control variables about (dis)integrating factors such as the divorcerate, urbanization and social expenditures, as well as population variables such as population size and the incidence of tertiary educated people. Model 5 relaces these additional control variables by variables that describe the composition of the unemployed population: the proportion of tertiary educated, long-term unemployed and young people (15-24 years old) in total unemployment. Model 6 controls for the suicide culture (Neumayer, 2003) of a country as well as for the average suicide rate of leading economies. Model 7 substitutes these control variables for categorical dummy variables capturing transition status and regime type. Model 8 substitutes these dummy variables for the antidepressants consumption rate. Model 9 controls for the fact that some variables (some marketization indicators

such as employment protection legislation strictness) have observed time series that only start in 1997, adding a dummy variable distinguishing this time period from previous years. Model 10, finally, performs a more reliable control for the fact that some variables (among which resistance), have only observed time series from 1980 on, by leaving out the years before 1980. The models were all ran on the lead value of the suicide rate, as it was thought that what has happened in the year before (regarding the unemployment rate and marketization trends) matter for the current suicide rate. Moreover, by ensuring the correct chronological order of the correlations (x occurs first, followed by y), causality is made more probable.

The models, then look as follows:

Hypothesis 1 and 4:

$$suicide_{it+1} = \beta_0 + marketization \ \beta_1 + \ controls \ \beta_4 + year \ + country \ + \varepsilon_{it}$$

Hypothesis 2 and 3:

$$suicide_{it+1} = \beta_0 + marketization \ \beta_1 + unemployment \ \beta_2 + marketization * unemployment \ \beta_3 + controls \ \beta_4 + year \ + country + \varepsilon_{it}$$

Where *i* is country i and *t* is year t, β_1 is the coefficient for marketization, β_2 is the coefficient for unemployment, and β_3 is the coefficient for the interaction effect between unemployment growth and marketization. β_4 is the coefficient for the vector of control variables.

3.3.8 Robustness checks

Robustness checks were conducted on the level of unemployment instead of the annual change in unemployment. Furthermore, the level of marketization was used instead of the annual change, to see its effects. Finally, the models were run as 1-first difference regressions to see how the results differ, although the results are difficult to interpret since the key independent variables are themselves already first differences.

3.4 Results

To recap, the results will be evaluated with regard to the following four hypotheses:

H1: more marketization lifts the suicide rate among the overall population, regardless of the macro-economic trends.
H2: rising unemployment, has a less severe suicidogenic impact in more marketized societies.
H3: rising unemployment has a more severe suicidogenic impact in more marketized societies.

H4: more marketization lifts the suicide rate in the population, but this reflects mainly the unemployed.

3.4.1 Men – Marketization

M1

Table 2 examines the relationship between marketization, unemployment growth and the male suicide rate. Model 1 enters the basic control variables (country fixed-effects and year counter). As can be seen, there seem to be no unaccounted time factors that explain variations in the suicide rate across country-years, since the coefficient is small and not statistically significant (b = -.001, p >.10). However, marketization processes do also not account for the suicide rate (b = .001, p >.10), and neither do recent changes in unemployment level (b = .001, p >.10). **Therefore, Hypothesis 1 is not supported for men.**

Adding the interaction effect (Model 2) between marketization processes and recent changes in unemployment, the previous conclusions seem to be robust. Moreover, there is no support for an interaction effect: its coefficient is tiny and not statistically significant (b =- .001, p >.10). **The data on males therefore support neither Hypothesis 2, nor 3.**

Adding economic control variables (Model 3) does still not alter these results. Interestingly, the GDP level has small but statistically significant relationship with the male suicide rate. The higher the GDP, the lower the male suicide rate (b = -.001, p <.05). GDP growth, by contrast, has no such relationship with suicide rates.

Model 4 adds population variables that may influence the degree of anomie in society as well as the level of development, such as population size, urbanization, divorce rate and educational stock. The main results remain robust against this change. GDP level still retains its small protective effect (b = -.001, p <.05) and population size has, by contrast, a tiny suicide-enhancing effect (b = .001, p <.001). Moreover, the male suicide rate tends to be higher in more urbanized country-years (b = .030, p <.001), and in societies with a higher divorce rate (b = .062, p <.001). Higher social expenditures have a protective effect against higher suicide rates (b -.014, p <.01).

Model 5, in addition, takes the distribution of the unemployed population into account. The general results with regard to the main and interaction effects, as well as for the previous control variables, are robust. However, the distribution of the unemployed population has no apparent influence on the male suicide rate: not youth unemployment, nor the prevalence of tertiary education, or long-term unemployment does.

Model 6 substitutes the unemployment composition variables for two control variables: one indicating the mean suicide rate in leading economies and another indicating the country's position in the cross-national distribution of suicide rates. The latter is meant to indicate a country's 'suicide culture', as said. Only the latter has an apparent influence on the current suicide rate: the more 'above-average' a country tends to be, the higher its present suicide rate ($b = .022$, $p < .001$). In this model, the prevalence of tertiary education in the wider population gains a protective, small influence against high suicide rates ($b = -.003$, $p < .05$).

Model 7 substitutes the previously added two control variables by another two: a country-years's transition status (post-soviet, soviet or never have been soviet country) and its welfare regime type. In this model, the prevalence of tertiary education loses statistical significance, but the other previously significant control variables remain robust. Compared to liberal market economies, moreover, transition and Nordic countries tend to have higher suicide rates ($b = 1.84$ and $b = .472$ respectively, both at $p < .001$) and Mediterranean countries tend to have lower rates ($b = .253$, $p > .10$), albeit marginally statistically significantly. Conservative countries are not significantly different from their liberal market counterparts.

Model 8, subsequently, substitutes the transition- and regime dummy variables for another control variable: antidepressants consumption. While antidepressants intake has no influence on the suicide rate, adding this variable leaves the main results intact. Note that there were relatively many missing observations on this variable, and that the high imputation-to-observation ratio may have introduced much error in this measure – making it harder to reveal effects.

Model 9, then, substitutes the antidepressants control variable by a dummy variable distinguishing the period in which the valid time series started for some variables (such as two marketization indicators), from the period for which values had to be extrapolated on those variables. This variable had no independent influence on the suicide rates, or on the other results.

Model 10, finally, leaves out the first two decades of the considered time period, to more robustly take account of the influence of extrapolated time series for a number of variables where observations were only available from 1980 on. The model repeats Model 5 for this shorter time period. Approximately 300 units (country-years) were lost by this. This time, the year variable has a statistically significant influence on the suicide rate, with more recent years having lower suicide rates ($b = -.007$, $p < .05$).

Note that there is much variance and fluctuation hiding behind this coefficient, as seen in Chapter 1. This time, interestingly, the prevalence of tertiary education among the unemployed has a suicidogenic impact ($b = .012$, $p < .01$), while the other composition variables still have no relationship with suicide rates. Moreover, marketization processes and changes in unemployment still have no main influence on the suicide rate, nor are they interacting in their effects.

Table 2: Regression analysis on the male suicide rate with (negative) marketization processes, 1960-2016

	Model 1			Model 2			Model 3			Model 4		
	β	SE		β	SE		β	SE		β	SE	
Constant	3.085	2.838	***	3.087	0.059	***	3.185	0.112	***	0.822	0.112	*
Unemployment growth	0	0		0	0		0	0		0	0	
Negative marketization	0.001	0.002		0.001	0.002		0.001	0.002		0.001	0.002	
Interaction effects				0	0		0	0		0	0	
Unemployment growth X Negative marketization												
Control variables included												
Country fixed-effects	X			X			X			X		
Year counter	X			X			X			X		
GDP							X			X		
GDP growth							X			X		
Population size										X		
Percentage tertiary educated										X		
Urbanization										X		
Divorce rate										X		
Social expenditures										X		
Tertiary educated in total unemployment												
Young people in total unemployment												
Long-term unemployment in total unemployment												
Average suicide rate leading economies												
Suicide culture												
Welfare regime												
Liberal market (ref.)												
Conservative												
Mediterranean												
Transition												
Nordic												
Transition country status												
Not during transition years (ref.)												
During transition years (1989-1999)												
Antidepressants consumption												
Period after 1996 (dummy)												

$^{+}p < .1$, $^{*}p < .05$, $^{**}p < .01$, $^{***}p < .001$. *N = 1,360 country-years (1,067 for Model 10).* Standardized coefficients, except the intercept. Control variables were included but not displayed, and can be requested from the author.

Table 2 (continued): Regression analysis on the male suicide rate with (negative) marketization processes, 1960-2016

	Model 5		Model 6		Model 7	
	β	SE	β	SE	β	SE
Constant	0.607	0.35 +	2.323	0.154 ***	0.726	0.371 *
Unemployment growth	0	0	0	0	0	0
Negative marketization	0.001	0.002	0	0.003	0.001	0.002
Interaction effects	0	0	0	0	0	0
Unemployment growth						
X						
Negative marketization						
Control variables included						
Country fixed-effects	X		X		X	
Year counter	X		X		X	
GDP	X		X		X	
GDP growth	X		X		X	
Population size	X		X		X	
Percentage tertiary educated	X		X		X	
Urbanization	X		X		X	
Divorce rate	X		X		X	
Social expenditures	X					
Tertiary educated in total unemployment	X					
Young people in total unemployment	X					
Long-term unemployment in total unemployment	X					
Average suicide rate leading economies			X			
Suicide culture			X			
Welfare regime					X	
Liberal market (ref.)						
Conservative						
Mediterranean						
Transition						
Nordic						
Transition country status					X	
Not during transition years (ref.)						
During transition years (1989-1999)						
Antidepressants consumption						
Period after 1996 (dummy)						

$^{+}$ $p < .1$, * $p < .05$, ** $p < .01$, *** $p < .001$. *N = 1,360 country-years (1,067 for Model 10).* Standardized coefficients, except the intercept. Control variables were included but not displayed, and can be requested from the author.

Table 2 (continued): Regression analysis on the male suicide rate with (negative) marketization processes, 1960-2016

	Model 8			Model 9			Model 10		
	β	SE		β	SE		β	SE	
Constant	0.914	0.373	*	0.828	0.341	*	1.287	0.334	***
Unemployment growth	0	0		0	0		-0.011	0	
Negative marketization	0.001	0.002		0.001	0.002		0	0.003	
Interaction effects	0	0		0	0		0	0	
Unemployment growth X Negative marketization									
Control variables included									
Country fixed-effects	X			X			X		
Year counter	X			X			X		
GDP	X			X			X		
GDP growth	X			X			X		
Population size	X			X			X		
Percentage tertiary educated	X			X			X		
Urbanization	X			X			X		
Divorce rate	X			X			X		
Social expenditures							X		
Tertiary educated in total unemployment							X		
Young people in total unemployment							X		
Long-term unemployment in total unemployment							X		
Average suicide rate leading economies									
Suicide culture									
Welfare regime									
Liberal market (ref.)									
Conservative									
Mediterranean									
Transition									
Nordic									
Transition country status									
Not during transition years (ref.)									
During transition years (1989-1999)									
Antidepressants consumption	X								
Period after 1996 (dummy)				X					

$^{+}$ $p < .1$, * $p < .05$, ** $p < .01$, *** $p < .001$. *N = 1,360 country-years (1,067 for Model 10).* Standardized coefficients, except the intercept. Control variables were included but not displayed, and can be requested from the author.

3.4.2 Men – Resistance

Table 3's Model 1, containing the basic control variables of the country fixed-effects and a year counter, shows that the degree of resistance against marketization does not influence the suicide rate (b -.173, p >.10). Neither do recent changes in unemployment level (b = .001, p >.10). **If resistance against marketization is taken as a cultural or attitudinal indicator of marketization, it would mean that Hypothesis 1 is not supported by the data.**

Model 2 adds the interaction effect between resistance and recent changes in unemployment. This reveals no support for the presumed interaction effect (b = .001, p >.10). **Again, if resistance against marketization is taken as an attitudinal indicator of marketization, Hypothesis 2 and 3 could not be supported by the data. Unemployment growth is not less or more suicidogenic in societies with a more popular anti-marketized attitudinal framework.** Moreover, resistance and unemployment growth still appear to be unrelated with the male suicide rate.

Model 3 adds the economic control variables. The former results remain intact. Interestingly, again, GDP has again a small protective influence against higher male suicide rates: b = -.001, p <.05. The passing of the years now has a small, marginally significant positive relationship with the male suicide rate (b = .004, p <.10).

Model 4 adds the population and development variables. This leaves the previous results intact, except that the passing of the years loses its statistically significant influence. As in Table 2, areas with a larger population have a somewhat larger suicide rate (b = .001, p <.001), and the same goes for more urbanized societies (b = .030, p <.001) with higher divorce rates (b = .059, p <.01). Social expenditures again appear to have a protective influence (b = -.013, p <.01). Again, resistance and unemployment growth are not related to the male suicide rate, and the same goes for their interaction.

Model 5 takes into consideration the compositional characteristics of the unemployed population. From these, only the prevalence of tertiary education is related to the suicide rate: societies with a larger stock of tertiary education among their unemployed have a higher suicide rate (b = .007, p <.05). Still, none of the hypothesized relationships are found.

Model 6 substitutes the unemployment composition variables for the mean suicide rate in leading economies and a country's 'suicide culture'. Again, only the suicide culture appears to have a statistically significant, but small, relationship with the male suicide rate (b = .022, p <.001). Moreover, the passing of the years again now has a small negative impact on the suicide rate (b = -.004, p <.001). Interestingly, resistance has a suicidogenic impact in this model (b = .347, p <.001). **This would mean a direct contradiction to Hypothesis 1: a more anti-marketization cultural framework would rather lead to lower suicides according to this hypothesis.** Still, resistance does

not moderate the relationship between unemployment changes and suicide, nor does unemployment growth itself have an apparent influence here.

Model 7 substitutes the previously added two control variables by another two: a country-years's transition status and the regime type. In this model, the year variable and resistance both lose statistical significance. Again, being a Nordic country appears to be related to higher average suicide rates (1.03 $p < .001$), as well as being a transition country ($b = .90$, $p < .001$), compared to being a liberal market economy. In this model, Mediterranean countries do not significantly have lower suicide rates than liberal market economies. Transition period for post-soviet countries (soviet country past the collapse of the soviet union until the 2000s) is related to higher suicide rates as well ($b = .113$, $p < .01$). Again, none of the hypothesized main or interaction effects is supported in this model.

Model 8 takes account of the antidepressants consumption. This has no influence on suicide rates. Interestingly, however, taking this variable into account reveals a suicidogenic influence of resistance ($b = .262$, $p < .05$). Still, resistance does not alter the relationship between unemployment changes and suicide, which relationship stays to be non-supported by the data.

Model 9 accounts for the period for which values had to be extrapolated on variables with more recent time series. This had no influence on the suicide rates, or on the other results, except that the resistance coefficient declines and loses its statistical significance again.

Model 10, finally, leaves out the first two decades of the considered time period, to more robustly take account of the influence of extrapolated time series for a number of variables where observations were only available from 1980 on. Resistance is one of those variables, and it is likely that this model reveals more reliable and valid results here. Again, note that this model repeats Model 5 for this shorter time period. Indeed, resistance turns out to have a protective influence against higher suicide rates ($b = -.309$, $p < .05$). **This provides some strong support for Hypothesis 1: suicide rates appear to be lower in countries with a stronger anti-marketization cultural framework.** Moreover, the stock of tertiary education in unemployment becomes a small suicidogenic factor again (b .012, $p < .001$). Still, however, changes in unemployment is unrelated with male suicide rates, and this relationship is unaffected by resistance.

Table 3: Regression analysis on the male suicide rate with popular resistance, 1960-2016

	Model 1			Model 2			Model 3			Model 4		
	β	SE		β	SE		β	SE		β	SE	
Constant	3.154	0.018	***	3.155	0.082	***	3.28	0.084	***	0.791	0.36	*
Unemployment growth	0	0		-0.005	0		-0.016	0		-0.006	0	
Resistance	-0.173	0.165		-0.164	0.165		-0.244	0.151		0.118	0.141	
Interaction effects				0	0		0	0		0	0	
Unemployment growth X Resistance												
Control variables included												
Country fixed-effects	X			X			X			X		
Year counter	X			X			X			X		
GDP							X			X		
GDP growth							X			X		
Population size										X		
Percentage tertiary educated										X		
Urbanization										X		
Divorce rate										X		
Social expenditures										X		
Tertiary educated in total unemployment												
Young people in total unemployment												
Long-term unemployment in total unemployment												
Average suicide rate leading economies												
Suicide culture												
Welfare regime												
Liberal market (ref.)												
Conservative												
Mediterranean												
Transition												
Nordic												
Transition country status												
Not during transition years (ref.)												
During transition years (1989-1999)												
Antidepressants consumption												
Period after 1996 (dummy)												

$^{+}$ $p < .1$, * $p < .05$, ** $p < .01$, *** $p < .001$. *N = 1,360 country-years (1,067 for Model 10).* Standardized coefficients, except the intercept. Control variables were included but not displayed, and can be requested from the author.

Table 3 (continued): Regression analysis on the male suicide rate with popular resistance, 1960-2016

	Model 5			Model 6			Model 7		
	β	SE		β	SE		β	SE	
Constant	0.681	0.363	+	2.089	0.159	***	0.694	0.37	+
Unemployment growth	0	0		0	0		0	0	
Resistance	-0.04	0.135		0.347	0.08	***	0.081	0.141	
Interaction effects	0	0		0	0		0	0	
Unemployment growth X Resistance									
Control variables included									
Country fixed-effects	X			X			X		
Year counter	X			X			X		
GDP	X			X			X		
GDP growth	X			X			X		
Population size	X			X			X		
Percentage tertiary educated	X			X			X		
Urbanization	X			X			X		
Divorce rate	X			X			X		
Social expenditures	X								
Tertiary educated in total unemployment	X								
Young people in total unemployment	X								
Long-term unemployment in total unemployment	X								
Average suicide rate leading economies				X					
Suicide culture				X					
Welfare regime							X		
Liberal market (ref.)									
Conservative									
Mediterranean									
Transition									
Nordic									
Transition country status							X		
Not during transition years (ref.)									
During transition years (1989-1999)									
Antidepressants consumption									
Period after 1996 (dummy)									

$^{+}$ $p < .1$, * $p < .05$, ** $p < .01$, *** $p < .001$. *N = 1,360 country-years (1,067 for Model 10).* Standardized coefficients, except the intercept. Control variables were included but not displayed, and can be requested from the author.

Table 3 (continued): Regression analysis on the male suicide rate with popular resistance, 1960-2016

	Model 8			Model 9		
	β	SE		β	SE	
Constant	0.722	0.377	+	0.757	0.344	*
Unemployment growth	0	0		0	0	
Resistance	0.262	0.132	*	0.162	0.137	
Interaction effects	0	0		0	0	
Unemployment growth						
X						
Resistance						
Control variables included						
Country fixed-effects	X			X		
Year counter	X			X		
GDP	X			X		
GDP growth	X			X		
Population size	X			X		
Percentage tertiary educated	X			X		
Urbanization	X			X		
Divorce rate	X			X		
Social expenditures						
Tertiary educated in total unemployment						
Young people in total unemployment						
Long-term unemployment in total unemployment						
Average suicide rate leading economies						
Suicide culture						
Welfare regime						
Liberal market (ref.)						
Conservative						
Mediterranean						
Transition						
Nordic						
Transition country status						
Not during transition years (ref.)						
During transition years (1989-1999)						
Antidepressants consumption	X					
Period after 1996 (dummy)				X		

$^{+}$ $p < .1$, * $p < .05$, ** $p < .01$, *** $p < .001$. *N = 1,360 country-years (1,067 for Model 10).* Standardized coefficients, except the intercept. Control variables were included but not displayed, and can be requested from the author.

Table 3 (continued): Regression analysis on the male suicide rate with popular resistance, 1960-2016

	Model 8			Model 9			Model 10		
	β	SE		β	SE		β	SE	
Constant	0.722	0.377	+	0.757	0.344	*	1.67	0.353	***
Unemployment growth	0	0		0	0		0	0	
Resistance	0.262	0.132	*	0.162	0.137		-0.309	0.135	*
Interaction effects	0	0		0	0		0	0.001	
Unemployment growth X Resistance									
Control variables included									
Country fixed-effects	X			X			X		
Year counter	X			X			X		
GDP	X			X			X		
GDP growth	X			X			X		
Population size	X			X			X		
Percentage tertiary educated	X			X			X		
Urbanization	X			X			X		
Divorce rate	X			X			X		
Social expenditures							X		
Tertiary educated in total unemployment							X		
Young people in total unemployment							X		
Long-term unemployment in total unemployment							X		
Average suicide rate leading economies									
Suicide culture									
Welfare regime									
Liberal market (ref.)									
Conservative									
Mediterranean									
Transition									
Nordic									
Transition country status									
Not during transition years (ref.)									
During transition years (1989-1999)									
Antidepressants consumption	X								
Period after 1996 (dummy)				X					

$^{+}$ $p < .1$, * $p < .05$, ** $p < .01$, *** $p < .001$. *N = 1,360 country-years (1,067 for Model 10).* Standardized coefficients, except the intercept. Control variables were included but not displayed, and can be requested from the author.

3.4.3 Women – Marketization

Table 4 and 5 turn the focus on female suicide rates. Model 1 contains the basic control variables of the country fixed-effects and a year counter. The year counter coefficient seems to indicate that the female suicide rate, on average, had declined (b = -.007, p < .001). Note again that this broad coefficient conceals much cross-national variance in trends. Female suicide rates do not appear to be related to marketization processes (b = .003, p > .10), nor to recent changes in unemployment (b = .001, p > .10). **Thus, also for women, Hypothesis 1 is not supported.**

Model 2 adds the interaction effect between resistance and recent changes in unemployment and – given the tiny effect coefficient and the non-significant p-value (b = .001, > .10). **Therefore Hypotheses 2 and 3 could not be supported for women as well.**

Model 3 adds the economic control variables of GDP and GDP growth. The former results remain intact. GDP itself appears to have a small negative relationship with the suicide rate, of marginal statistical significance (b = -.001, p <.10). Female suicide rates are, just like male suicide rates, unresponsive to changes in GDP growth.

Model 4 adds the population and development variables. This again leaves the previous results intact, except that GDP has no statistically significant relationship anymore with female suicide rates. Population size does also not affect the female suicide rate, but urbanization does and in a manner consistent as with male suicide rates (b = .033, p <.001). As with males, the suicide rate is higher when the divorce rate is higher (albeit marginally significantly: b = .033, p <. 10) and lower when social expenditures are higher (b = -.016, p <.001). Again, nor marketization or unemployment growth are related with suicide rates.

Model 5 includes control variables about the characteristics of the unemployed population. This leaves the former results intact. None of the compositional variables themselves are related to the suicide rate.

Model 6 includes the average suicide rate of leading economies and countries own 'suicide culture'. In this model, the GDP level has a small, protective influence again (b = -.001, p <.05) and the divorce rate gains in statistical significance but not in size (b = .028, p <.05). Interestingly, both the average suicide rate in leading economies as well as countries' own suicide culture are related with female suicide rates. Both have an uplifting influence on the suicide rate (b = .003, p <.05 and b = .066, p <.001 respectively). Again, marketization processes and changes in unemployment growth have no influence on the suicide rate, nor are they interacting.

Model 7 include categorical dummy variables for country-years's transition status and the regime type. Despite the inclusion of additional dummy variables, most control variables retain (or even gain in) statistical significance, such as the divorce rate, social expenditures and urbanization. As with the

male suicide rates, the Nordic and transition countries have on average higher suicide rates. This time, the transition countries are higher (b= 1.567, p <.001) than the Nordic regime (b = .665, p <.01), all compared to liberal market countries. Moreover, this time for female suicide rates, conservative countries have statistically significantly higher suicide rates than the liberal market economies (b = .603, p <.05). Transition status of post-soviet countries (during 1989-2000) contributes additionally to higher suicide rates (b = .148, p <.001). Still, the hypothezised influences of marketization, unemployment growth or their interaction, were not found.

Model 8 takes account of the antidepressants consumption. This has amply any influence on the results, and has no independent influence on the suicide rates.

Model 9 accounts for the period for which values had to be extrapolated on variables with more recent time series. This had no independent influence on the suicide rates and its inclusion did not affect the other results.

Model 10, finally, leaves out the first two decades of the considered time period, to more robustly take account of the influence of extrapolated time series for a number of variables where observations were only available from 1980 on. Especially for the marketization index, this may matter. Some of its indicators have valid (i.e. non-extrapolated) data only after 1980 on. However, marketization processes still did not affect the female suicide rate, and neither does it alter the (non-)effect of unemployment growth. **This makes the previous falsification of Hypothesis 1, 2 and 3 (by the previous models) even stronger and more reliable.** The findings across this shorter time series resembled the previous results, and this time population size had a small, but statistically significant influence on the suicide rate (b = .001, p <.001), as well as the presence of tertiary educated among the unemployed (b = .012, p <.01). The presence of long-term unemployment had a marginally statistically significant but still substantial protective influence (b = -.171, p <.10).

Table 4: Regression analysis on the female suicide rate with (negative) marketization processes, 1960-2016

	Model 1			Model 2			Model 3			Model 4	
	β	SE		β	SE		β	SE		β	SE
Constant	2.25	0.078	***	2.252	0.077	***	2.324	0.089	***	-0.164	0.334
Unemployment growth	0	0		0	0		0	0		0	0
Negative marketization	0.003	0.002		0.003	0.003		0.003	0.003		0.002	0.003
Interaction effects				0	0		0	0		0	0
Unemployment growth X Negative marketization											
Control variables included											
Country fixed-effects	X			X			X			X	
Year counter	X			X			X			X	
GDP							X			X	
GDP growth							X			X	
Population size										X	
Percentage tertiary educated										X	
Urbanization										X	
Divorce rate										X	
Social expenditures										X	
Tertiary educated in total unemployment											
Young people in total unemployment											
Long-term unemployment in total unemployment											
Average suicide rate leading economies											
Suicide culture											
Welfare regime											
Liberal market (ref.)											
Conservative											
Mediterranean											
Transition											
Nordic											
Transition country status											
Not during transition years (ref.)											
During transition years (1989-1999)											
Antidepressants consumption											
Period after 1996 (dummy)											

$^{+}p < .1$, $^{*}p < .05$, $^{**}p < .01$, $^{***}p < .001$. *N = 1,360 country-years (1,067 for Model 10).* Standardized coefficients, except the intercept. Control variables were included but not displayed, and can be requested from the author.

Table 4 (continued): Regression analysis on the female suicide rate with (negative) marketization processes, 1960-2016

	Model 5		Model 6			Model 7	
	β	SE	β	SE		β	SE
Constant	-0.132	0.329	1.446	0.161	***	-0.197	0.327
Unemployment growth	0	0	0	0		0	0
Negative marketization	0.002	0.003	0.003	0.003		0.002	0.003
Interaction effects	0	0	0	0		0	0
Unemployment growth X Negative marketization							
Control variables included							
Country fixed-effects	X		X			X	
Year counter	X		X			X	
GDP	X		X			X	
GDP growth	X		X			X	
Population size	X		X			X	
Percentage tertiary educated	X		X			X	
Urbanization	X		X			X	
Divorce rate	X		X			X	
Social expenditures	X						
Tertiary educated in total unemployment	X						
Young people in total unemployment	X						
Long-term unemployment in total unemployment	X						
Average suicide rate leading economies			X				
Suicide culture			X				
Welfare regime						X	
Liberal market (ref.)							
Conservative							
Mediterranean							
Transition							
Nordic							
Transition country status						X	
Not during transition years (ref.)							
During transition years (1989-1999)							
Antidepressants consumption							
Period after 1996 (dummy)							

$^{+}p < .1$, $^{*}p < .05$, $^{**}p < .01$, $^{***}p < .001$. *N = 1,360 country-years (1,067 for Model 10).* Standardized coefficients, except the intercept. Control variables were included but not displayed, and can be requested from the author.

Table 4 (continued): Regression analysis on the female suicide rate with (negative) marketization processes, 1960-2016

	Model 8		Model 9	
	β	SE	β	SE
Constant	-0.235	0.328	-0.16	0.33
Unemployment growth	0	0	0	0
Negative marketization	0.002	0.003	0.002	0.003
Interaction effects	0	0	0	0
Unemployment growth				
X				
Negative marketization				
Control variables included				
Country fixed-effects	X		X	
Year counter	X		X	
GDP	X		X	
GDP growth	X		X	
Population size	X		X	
Percentage tertiary educated	X		X	
Urbanization	X		X	
Divorce rate	X		X	
Social expenditures				
Tertiary educated in total unemployment				
Young people in total unemployment				
Long-term unemployment in total unemployment				
Average suicide rate leading economies				
Suicide culture				
Welfare regime				
Liberal market (ref.)				
Conservative				
Mediterranean				
Transition				
Nordic				
Transition country status				
Not during transition years (ref.)				
During transition years (1989-1999)				
Antidepressants consumption	X			
Period after 1996 (dummy)			X	

$^{+}p < .1$, $^{*}p < .05$, $^{**}p < .01$, $^{***}p < .001$. *N = 1,360 country-years (1,067 for Model 10).* Standardized coefficients, except the inte
displayed, and can be requested from the author.

3.4.4 Women – Resistance

Model 1 of Table 5 immediately starts to show interesting results. Next to the previous finding of slightly lower suicide rates in later years (b = -.007, p < .001), resistance appears to have a meaningful protective impact (b = -.427, p <.05). **This finding is supportive of Hypothesis 1, as resistance describes the degree of marketization of the cultural (rather than institutional) framework of a society.** Changes in unemployment growth, however, did not influence the female suicide rate (b = .001, p >.10).

Model 2 adds the interaction term between resistance and unemployment growth. It leaves the main results intact, and shows that resistance did not alter the (nul-)relationship between unemployment growth and suicide. **Therefore, Hypothesis 2 and 3 are not supported by the data.**

Model 3 adds the economic control variables of GDP and GDP growth. Again, this leaves the main results intact. The coefficient for resistance and its statistical significance even grew slightly (-.500, p <.01). Accounting for resistance apparently leaves no relationship between GDP and female suicide rates.

Model 4 adds the population and development variables. This leaves the main results intact, although the influence of resistance now becomes marginally statistically significant and smaller (b = -.281, p <.10). Again, urbanization has a suicide-uplifting contribution (b = .032, p <.001), while social expenditures have a protective influence (b = -.018, p <.001). The divorce rate is again marginally statistically significantly related to suicide rates(b= .030, p <.10).

Model 5 controls for the composition of the unemployed population. This leaves the former results intact. Resistance gains a stronger coefficient and p-value: b -.331, p <.05.

Model 6 accounts for the average suicide rate of leading economies and the 'suicide culture' of individual countries. In this model, the GDP level gains a small, protective influence (b = -.001, p <.05). Population size gains a statistically significant relationship with female suicide rates, albeit of a tiny size (b = .001, p <.001). Both the average suicide rate in leading economies and countries' own suicide culture contribute to higher suicide rates (b = .003, p <.05 and b = .066, p <.001 respectively). In this model, resistance loses its influence on female suicide rates (b = -.054, p > .10). **Therefore the support for Hypothesis 1 found in previously models is not robust or reliable.**

Model 7 considers country-years's transition status and the regime type. The results are mainly robust against the inclusion of these factors. Again, being a transition country is related to having the highest suicide rates (b = 1.137, p <.001) and being a transition country during the transition years (1989-2000) is related with an additionally high suicide rate (b = .134, p <.001). Again, the models shows a strong absence of any influence of unemployment growth or its interaction with resistance. Resistance

has no statistically significant relationship with the suicide rate in this model (b = -.171, p >.10). **Again, this shows that the support for Hypothesis 1 found in previously models is not robust or reliable, and that previously found relationships were likely the result of confounders that later models control for.**

Model 8 includes a control variable for antidepressants consumption. Again, the suicide rate is not influenced by antidepressants consumption and the previous findings are largely intact. Resistance, however, regains statistical significance and a meaningful coefficient (b = -.280, p <.05).

Model 9 accounts for the period for which values had to be extrapolated on variables with more recent time series. This had no independent influence on the suicide rates and its inclusion did not affect the previous results.

Model 10, finally, leaves out the first two decades of the considered time period, to more robustly take account of the influence of extrapolated time series for a number of variables where observations were only available from 1980 on. Again, as said when discussion the results on the male suicide rate, this intervention may be important for analyses on the effect of resistance: the first observations on this variable were in 1980. Indeed, resistance has a strong coefficient in this model (b = -.30, p <.05), although not substantially stronger than in the models with extrapolated series. However, as indicated by previous models with more control variables, this relationship seems to be spurious and brought forward by unaccounted confounding third variables. Moreover, the share of tertiary educated among the unemployed starts to have a suicide-enhancing influence (b = .013, p <.01). Still, any contributions of unemployment growth and its interaction with resistance are unsupported by the data.

Table 5: Regression analysis on the female suicide rate with popular resistance, 1960-2016

	Model 1			Model 2			Model 3			Model 4		
	β	SE		β	SE		β	SE		β	SE	
Constant	2.442	0.091	***	2.441	0.091	***	2.527	0.093	***	0.016	0.338	
Unemployment growth	0	0		0	0		0	0		0	0	
Resistance	-0.427	0.167	*	-0.415	0.168	*	-0.500	0.155	**	-0.281	0.144	+
Interaction effects				0	0		0	0		0	0	
Unemployment growth X Resistance												
Control variables included												
Country fixed-effects	X			X			X			X		
Year counter	X			X			X			X		
GDP							X			X		
GDP growth							X			X		
Population size										X		
Percentage tertiary educated										X		
Urbanization										X		
Divorce rate										X		
Social expenditures										X		
Tertiary educated in total unemployment												
Young people in total unemployment												
Long-term unemployment in total unemployment												
Average suicide rate leading economies												
Suicide culture												
Welfare regime												
Liberal market (ref.)												
Conservative												
Mediterranean												
Transition												
Nordic												
Transition country status												
Not during transition years (ref.)												
During transition years (1989-1999)												
Antidepressants consumption												
Period after 1996 (dummy)												

$^{+}p < .1$, $^{*}p < .05$, $^{**}p < .01$, $^{***}p < .001$. *N = 1,360 country-years (1,067 for Model 10).* Standardized coefficients, except the intercept. Control variables were included but not displayed, and can be requested from the author.

Table 5 (continued): Regression analysis on the female suicide rate with popular resistance, 1960-2016

	Model 5			Model 6			Model 7	
	β	SE		β	SE		β	SE
Constant	0.08	0.327		1.481	0.151	***	-0.083	0.336
Unemployment growth	0	0		0	0		0	0
Resistance	-0.331	0.139	*	-0.054	0.086		-0.171	0.148
Interaction effects	0	0		0	0		0	0
Unemployment growth								
X								
Resistance								
Control variables included								
Country fixed-effects	X			X			X	
Year counter	X			X			X	
GDP	X			X			X	
GDP growth	X			X			X	
Population size	X			X			X	
Percentage tertiary educated	X			X			X	
Urbanization	X			X			X	
Divorce rate	X			X			X	
Social expenditures	X							
Tertiary educated in total unemployment	X							
Young people in total unemployment	X							
Long-term unemployment in total unemployment	X							
Average suicide rate leading economies				X				
Suicide culture				X				
Welfare regime							X	
Liberal market (ref.)								
Conservative								
Mediterranean								
Transition								
Nordic								
Transition country status							X	
Not during transition years (ref.)								
During transition years (1989-1999)								
Antidepressants consumption								
Period after 1996 (dummy)								

$^{+}p < .1$, $^{*}p < .05$, $^{**}p < .01$, $^{***}p < .001$. *N = 1,360 country-years (1,067 for Model 10).* Standardized coefficients, except the intercept. Control variables were included but not displayed, and can be requested from the author.

Table 5 (continued): Regression analysis on the female suicide rate with popular resistance, 1960-2016

	Model 8			Model 9			Model 10		
	β	SE		β	SE		β	SE	
Constant	-0.054	0.332		0.018	0.333		0.429	0.334	
Unemployment growth	0	0		0	0		0	0	
Resistance	-0.280	0.142	*	-0.278	0.144	+	-0.302	0.149	*
Interaction effects	0	0		0	0		0	0.001	
Unemployment growth X Resistance									
Control variables included									
Country fixed-effects	X			X			X		
Year counter	X			X			X		
GDP	X			X			X		
GDP growth	X			X			X		
Population size	X			X			X		
Percentage tertiary educated	X			X			X		
Urbanization	X			X			X		
Divorce rate	X			X			X		
Social expenditures							X		
Tertiary educated in total unemployment							X		
Young people in total unemployment							X		
Long-term unemployment in total unemployment							X		
Average suicide rate leading economies									
Suicide culture									
Welfare regime									
Liberal market (ref.)									
Conservative									
Mediterranean									
Transition									
Nordic									
Transition country status									
Not during transition years (ref.)									
During transition years (1989-1999)									
Antidepressants consumption	X								
Period after 1996 (dummy)				X					

$^{+}$ $p < .1$, * $p < .05$, ** $p < .01$, *** $p < .001$. *N = 1,360 country-years (1,067 for Model 10).* Standardized coefficients, except the intercept. Control variables were included but not displayed, and can be requested from the author.

3.4.5 Ecological inference analyses

Gary King (1997) and King et al. (2010) suggest how to interpret macro-level findings to make better inferences about individual hypotheses. To start, there is the method of bounds (King et al. (2010). This method states that if there are *X* additional individuals that committed suicide with a 1% increase in unemployment rate, then maximally *X* of them are individuals who are (a) unemployed and commit suicide for reasons as hypothesized, or (b) not unemployed but also commit suicide for reasons as hypothesized when unemployment or marketization increases. Thus, the confidence level lies between zero and *X*. The real value of people who committed suicide related to hypothesized reasons must lie between this range. Another method is using statistical information. However, this requires the assumption that the unemployed commit suicide in the same proportions in country-years where there are many unemployed as in country-years where there are not many unemployed. This is a problem for the data and questions at hand, because this interferes with the question at hand.

With regard to marketization-induced suicides, not much is there to say. Generally, marketization processes did not appear to be related to the suicide rate. The same applies to unemployment growth, which did not contribute to more or less suicides overall. Only resistance, as a measure of cultural anti-marketization, appeared to decrease the male suicide rate in the most reliable model (Model 10 for 1980-2016). Controlled for other factors, a 1 percent point increase in resistance contributed to a decline of .309 (per 10,000 inhabitants) male suicides (Model 10 Table 3) and .302 of female suicides (Model 10 Table 5). For both men and women separately, a 10 percent point increase in resistance would therefore lead to three lesser suicides a year per 10,000 inhabitants. For a country with 20 million inhabitants, this means 6,000 fewer suicides (for each sex separately) with a 10 percent point increase in resistance (which is the mean increase observed in time). For the sexes combined, this would mean 6,000*2 = 12,000 fewer suicides.

These concrete numbers of suicides prevented directly or indirectly by resistance against marketization are to be seen as the *maximal* number of suicides *by unemployed* that are prevented by this mechanism (as hypothesized by Hypothesis 3 and 4). Following King (1997) and King et al., (2010), these are also the maximal number of suicides by *people other than the unemployed* that are prevented by this mechanism (as hypothesized by Hypothesis 1 and 2). But how large is each group (i.e. unemployed and other members of the society) for whom these mechanisms are at play?

The second step of the ecological inference analysis will look into this. To get more certainty about what mechanisms are at hand at the individual level within the abovementioned confidence level, previous estimates from the earlier literature will be deployed. Firstly, some studies have been conducted to the extent to which the unemployed have a higher suicide risk than the employed, using individual-level data. The reason why the current study did not use these data, is that these country-specific data are only available for some countries and the calculation of the higher risk ratios are not

done in a cross-nationally comparative way[10]. Nonetheless, the values from this study can provide some additional certainty about the values of interest of this study, as the group of countries for which these are available is rather varied and contains largely the full range of regimes: Finland, Italy, New Zealand and Japan.

Descriptive analysis – First of all, in all five countries a higher tendency to commit suicide was found among unemployed (compared with employed) individuals (see Figure 2ab). With this, it is even more certain that the unemployment- and marketization-induced suicides contain a substantial share of unemployed.

Moreover, all countries show trends (except Australia, which is obviously artificial). Interestingly, as far as can be concluded, trends differ cross-nationally. Italy, a representing Mediterranean countries, and Japan, representing the East Asian OECD region, both show a large rise for both sexes and especially for men (Figure 2a). Other countries, by contrast, witnessed a decline (New Zealand and Finland), and this cannot be attributed to the fact that they use 4-year averages and the other two countries do not. For New Zealand, the trend differs across sexes: for women there is a small rise (Figure 2b).

It also appears almost universally that men have a higher suicide risk when they are unemployed instead of employed than women have. This is especially the case in Italy and Japan. In Finland, by contrast, unemployment elevates the risk more strongly for women than for men. In any case, the analyses indicate that the macro-level patterns found in this chapter likely influence both men and women, but softer so for women.

[10] For instance, some countries use the non-employed versus the employed, including also people with sickness benefits or hometakers together with the unemployed, while other countries only look at the unemployed versus employed. Some countries have only sex- and age-specific figures while others pull all age-sex groups together.

Figure 2a: Excess suicide rate of unemployed compared to employed men, 1980-2012

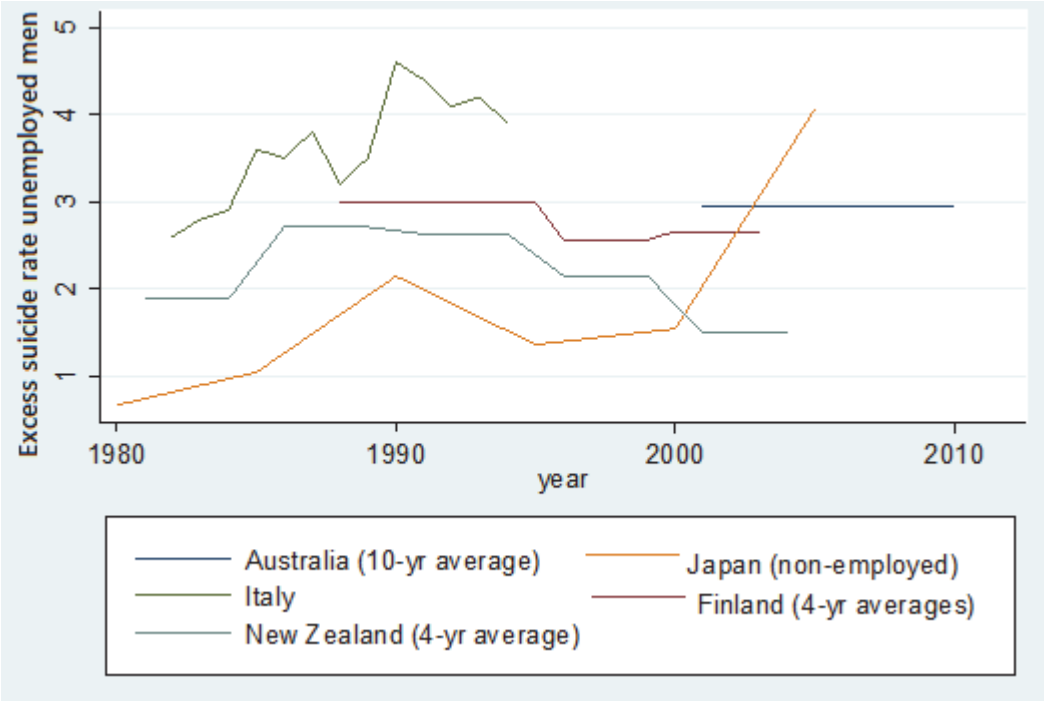
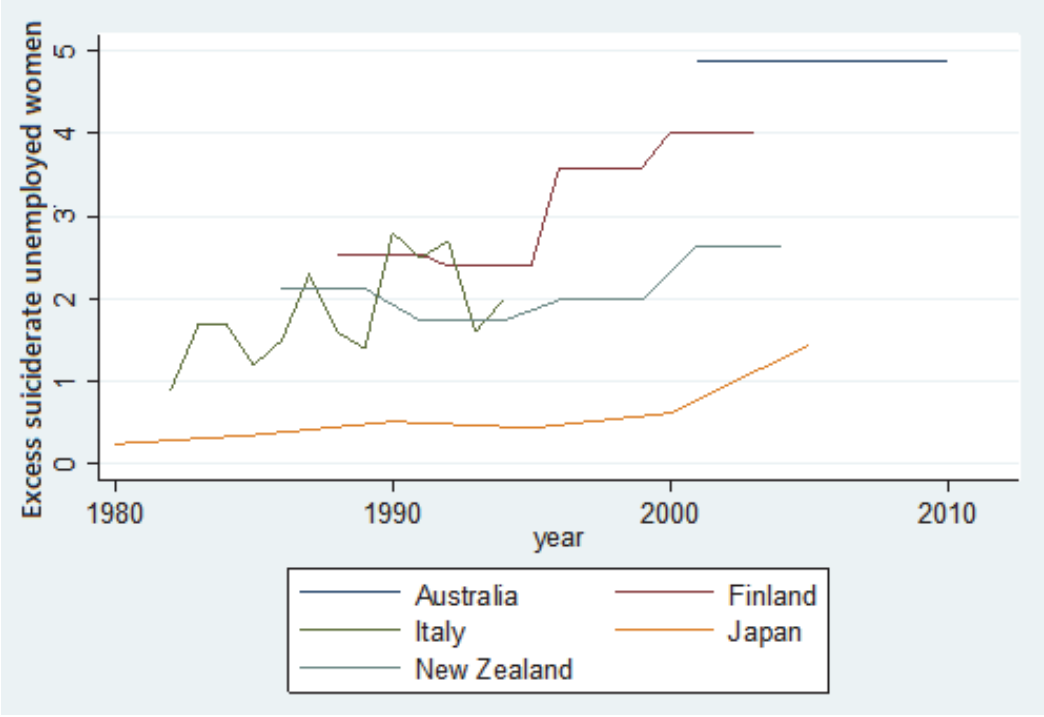


Figure 2b: Excess suicide rate of unemployed compared to employed women, 1980-2012



How do these patterns correlate with trends in marketization and unemployment in these societies? A graphic picture is given here by Figures 3-4. The trends in the excess suicide rate of the unemployed appear to be only weakly correlated with trends in marketization and unemployment. This resonates with the findings on the macro-level analyses. Finnish males appeared to have reacted strongly to the Finnish crisis in the early 1990s, and same so for Japanese men to their economic crisis during that time, while Finnish women appeared to respond in the opposite way (relatively low excess suicide rate during and right after this crisis). Interestingly, resistance against marketization appeared to have responded to the economic crisis in 2008 and its aftermath, being bolstered by it.

Figure 3: Resistance against marketization, 1980-2012

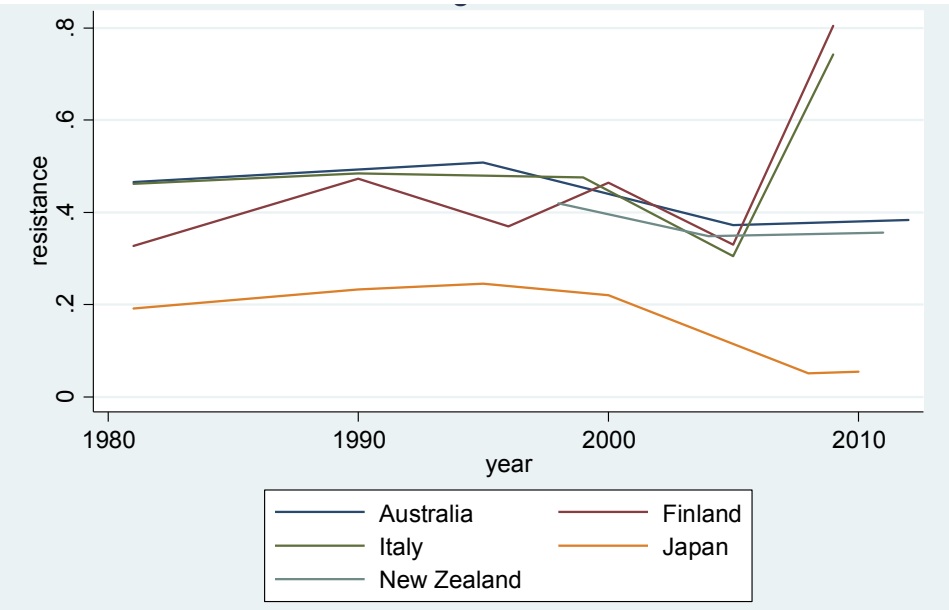


Figure 4: Annual unemployment growth, 1980-2012

To avoid problems with unbalanced data, missing data points between observations were imputed assuming a linear trend.

It is hard posing conclusions from such a descriptive analysis, without having controlled for other factors that vary over time. With a time series cross-sectional analysis with country fixed effects, the influence of cross-national differences in statistics is eliminated because such an analysis strictly only focuses on the temporal differences while omitting any cross-national differences (Beck, 2001). Meanwhile, it deploys the advantage of having multiple countries to conduct time series on, having more information and generalizing power than in the case of a pure time series analysis on just one country. The analysis was set up as follows. Model 1 consists of all control variables. Some control variables are omitted to prevent model overload, given the large reduction of the number of observations by having only five countries. Factors that are likely to vary over time (1980-2016) within countries were kept whereas factors that mainly differ across countries were omitted. Model 2 adds the effects of trends in marketization and unemployment. Finally, Model 3 includes some more control variables as a robustness check: countries' relative suicide rate position in the year-specific distribution of suicide rates of all 33 countries, and variables reflecting the composition of the unemployed group (highly educated, long-term unemployed and young).

If we look at the fixed effects regressions with these excess suicide rates, in which no cross-country comparisons will be made, the following is interesting. Table 6 examines the relationship between marketization and the excess suicide rate of employed males. Model 1 includes the country fixed-effects and year counter. The time counter indicates that the heightened risk of suicide among

unemployed men (compared to employed men) has increased somewhat over time (b = .056, p <.001). Changes in unemployment rates are not related to the magnitude of the excess suicide rate of unemployed men (b = -.001, p >.10), and neither are marketization processes (b = -.005, p > .10). **This latter results implies that Hypothesis 4 is falsified, as this hypothesis expected that stronger marketization processes would bolster the relative suicide rate of the unemployed.**

More control variables are added to Model 2. This leaves the main results intact, as well as shows some interesting side-results. The divorce rate is related to heightened excess suicide rates of unemployed men compared to employed men (b = .522, p <.01). GDP and the suicide rate in leading economies, by contrast, do not influence these rates.

More control variables are added to Model 3, which leaves the results intact. Interestingly, youth unemployment appears to slightly increase the excess suicide rates of unemployed (b= .018, p <.01), while more tertiary educated among the unemployed appears to lower this (b = -.0822, p <.01). Countries' 'suicide culture' is marginally statistically significantly related to the excess suicide risk of male unemployed (b = .021, p <.10).

Table 6: Regression analysis on the excess suicide rate of unemployed compared to employed men (indep var: marketization), 1980-2016

	Model 1		Model 2		Model 3	
	β	SE	β	SE	β	SE
Constant	0.939	0.539 +	1.465	0.467 **	1.449	0.527 **
Unemployment growth	-0.001	0.001	-0.001	0.001	0	0.001
Negative marketization	-0.005	0.01	0.003	0.013	-0.004	0.017
Control variables included						
Country fixed-effects	X		X		X	
Year counter	X		X		X	
GDP			X		X	
Average suicide rate leading economies			X		X	
Divorce rate			X		X	
Suicide culture					X	
GDP growth					X	
Tertiary educated in total unemployment					X	
Young people in total unemployment					X	
Long-term unemployment in total unemployment					X	

$^{+}p < .1$, $^{*}p < .05$, $^{**}p < .01$, $^{***}p < .001$. *N = 160 country-years.* Standardized coefficients, except the intercept. Control variables were included but not displayed, and can be requested from the author.

Table 7 displays the analyses on the relationship between popular resistance and the excess suicide rate of male unemployed. The first model contains only the basic control variables (country fixed-effects and a year counter). Again, note that the country fixed-effects are likely to capture especially factors that are related to cross-national measurement differences, besides genuine cross-national differences in rates.). The time counter indicates that later years have slightly higher excess suicide rates of unemployed compared to employed males (b = .067, p <.001). Changes in unemployment rates do not appear to influence the excess suicide rate of unemployed men compared to employed males. However, resistance against marketization appears to shrink the gap between unemployed and employed men, lowering the excess tendency of unemployed men to end their lives (b= -4.147, p <.05). **This implies some support for Hypothesis 4 when it comes to the cultural dimension of marketization.**

Model 2 adds some additional control variables, such as the GDP level, the average suicide rate in leading economies, and the divorce rate. This leaves the main results intact. Indeed, the coefficient of resistance has grown: b = -4.784, p <.05. Interestingly, higher divorce rates appear to increase the excess risk of suicide among unemployed men compared to employed men (b = .434, p <.01).

Model 3, finally, adds the control variable capturing countries 'suicide culture', as well as some control variables on the composition of the unemployed population. Countries' 'suicide culture' is not related to the higher risk of unemployed men of suicide. However, the higher suicide risk of unemployed compared to employed men becomes smaller with more tertiary educated among the unemployed (b = -.075, p <.05), but is unaffected by the proportion of young people or long-term unemployed in total unemployment. Interestingly, the unstandardized coefficient of resistance now became considerably large, and is still negative: b = -9.434, p <.001.

Table 7: Regression analysis on the excess suicide rate of unemployed compared to employed men (indep var: resistance), 1980-2016

	Model 1			Model 2			Model 3		
	β	SE		β	SE		β	SE	
Constant	2.613	1.049	*	2.354	0.835	*	4.098	1.190	**
Unemployment growth	-0.010	0.001		-0.003	0.001		0.002	0.001	
Resistance	-0.364	2.051	*	-.421	2.038	*	-0.829	2.584	***
Control variables included									
Country fixed-effects	X			X			X		
Year counter	X			X			X		
GDP				X			X		
Average suicide rate leading economies				X			X		
Divorce rate				X			X		
Suicide culture							X		
GDP growth							X		
Tertiary educated in total unemployment							X		
Young people in total unemployment							X		
Long-term unemployment in total unemployment							X		

$^{+}p < .1$, $^{*}p < .05$, $^{**}p < .01$, $^{***}p < .001$. *N = 160 country-years.* Standardized coefficients, except the intercept. Control variables were included but not displayed, and can be requested from the author.

Table 8 and 9 turn the attention towards the female rates. Model 1 shows that, for women as well, the time counter again reveals a small positive relationship with the excess risk of suicide of unemployed men compared to employed men (b = .079, p <.001). The country ordering is somewhat different for women than for men, although it is not clear whether this corresponds to substantive differences or to statistical artefacts. Neither unemployment growth, nor marketization processes, appear to influence the excess suicide rate of unemployed women (b = -.001, p >.10 and b = .001, p >.10 respectively). **Therefore Hypothesis 4 is not supported for women when it comes to the institutional dimension of marketization.**

Model 2 includes some additional control variables, such as the divorce rate and GDP level. This leaves the main results intact, as well as shows some interesting side-results. Just as for the male rates, the suicide rates of female unemployed (compared to employed) are affected by the divorce rate. A higher divorce rate is related to a heightened excess suicide rate of unemployed women (compared to employed women) (b = .340, p <.05). GDP, by contrast, appears to slightly decrease this excess suicide rate (b = -.001, p <.01). The average suicide rate of leading economies did not have any relationship with the excess suicide rate of female unemployed.

Model 3, finally, then adds additional control variables such as long-term unemployment and the country's 'suicide culture'. The previous findings are robust against this intervention. Interestingly, GDP growth is related to higher excess suicide rates of unemployed women compared to employed women (b = .031, p <.01). The composition of the unemployed population, however, was unrelated to this excess suicide rate.

Table 8: Regression analysis on the excess suicide rate of unemployed compared to employed women (indep var: marketization), 1980-2016

	Model 1			Model 2			Model 3		
	β	SE		β	SE		β	SE	
Constant	1.985	0.697	**	3.802	0.456	***	3.911	0.522	***
Unemployment growth	-0.001	0.001		-0.001	0.001		-0.001	0.001	
Negative marketization	0.001	0.013		0.008	0.015		0.013	0.017	
Control variables included									
Country fixed-effects	X			X			X		
Year counter	X			X			X		
GDP				X			X		
Average suicide rate leading economies				X			X		
Divorce rate				X			X		
Suicide culture							X		
GDP growth							X		
Tertiary educated in total unemployment							X		
Young people in total unemployment							X		
Long-term unemployment in total unemployment							X		

$^{+}p < .1$, $^{*}p < .05$, $^{**}p < .01$, $^{***}p < .001$. *N = 160 country-years.* Standardized coefficients, except the intercept. Control variables were included but not displayed, and can be requested from the author.

Table 9 deals with the relationship between resistance and the excess suicide rate of female unemployed. The results regarding the basic control variables of Model 1 are virtually identical as in Model 1 of Table 7. The resistance variable has, contrary to what was the case for the male excess suicide rates for unemployed, no influence on the female excess suicide rate of unemployed (b = .841, p >.10). The same applies to, just as for the male rates, unemployment growth (b = -.001, p >.10).

When adding additional control variables, such as the GDP rate and divorce rate, resistance becomes statistically significant and an inequality-enhancing factor (b = 7.354, p <.001). That is: it enlarges the gap in suicide rates between female unemployed versus employed females. **This clearly contradicts Hypothesis 4, which would expect that the inequality in suicide rates between unemployed and employed people would decrease with a stronger anti-marketization cultural framework in societies.** Again, the divorce rate also has such an effect, but much smaller (b = .399, p <.05). Unemployment growth, again, has no effects. GDP is a small inequality-declining influence (b = -.001, p <.01).

Model 3 includes more control variables, such as the youth unemployment rate and the country's 'suicide culture'. This does not alter the main results. Indeed, the coefficient of resistance becomes even larger (b = 8.976, p < .001). Next to resistance and the divorce rate, GDP growth again becomes a factor that – albeit slightly – enlarges the inequality between the suicide rates of unemployed versus employed females (b = .030, p <.01). A factor that slightly decreases this inequality is the prevalence of tertiary educated among the unemployed (b = -.070, p <.10).

Table 9: Regression analysis on the excess suicide rate of unemployed compared to employed women (indep var: resistance), 1980-2016

	Model 1		Model 2			Model 3		
	β	SE	β	SE		β	SE	
Constant	1.753	1.079	-.145	1.141		-.752	1.133	
Unemployment growth	-0.001	0.001	-0.001	0.001		0	0.001	
Resistance	0.841	2.274	7.354	2.078	***	8.976	2.001	***
Control variables included								
Country fixed-effects	X		X			X		
Year counter	X		X			X		
GDP			X			X		
Average suicide rate leading economies			X			X		
Divorce rate			X			X		
Suicide culture						X		
GDP growth						X		
Tertiary educated in total unemployment						X		
Young people in total unemployment						X		
Long-term unemployment in total unemployment						X		

$^{+}p < .1$, $^{*}p < .05$, $^{**}p < .01$, $^{***}p < .001$. *N = 160 country-years.* Standardized coefficients, except the intercept. Control variables were included but not displayed, and can be requested from the author.

3.5 Conclusion & Discussion

In this chapter it was examined whether the degree of marketization could partly explain why unemployment has some more detrimental suicidogenic impacts in some societies compared to others (Hypotheses 2 and 3) as well as whether marketization in itself brings more disintegration and anomie in society as a whole (Hypothesis 1) or among the unemployed only (Hypothesis 4), which disintegration and anomie are reflected through higher suicide rates. This question builds further on some classical Durkhemian accounts of suicide. Moreover, I extended this question to include notions of disintegration and anomie as used in Merton's (1939; 1968) anomie-and-strain theory and especially the modernized variant of this: Institutional Anomie Theory (Messner & Rosenfeld, 1994). The relationship between unemployment and suicide was assessed for 33 OECD countries over several decades. Contrary to many previous studies, the current study also looked at the impact of the variables of interest on the suicide rate one year later. In sum, together with the previous chapter, this study generated some interesting new findings: resistance appears to be an important protective factor against higher suicide rates, but its specific impact may differ remarkably between male and female unemployed.

It remains hard to pose conclusions about such micro-level processes from macro-level data. Micro-level data, for example on the extent to which the unemployed commit more suicide, are scarcely available over so many countries and time periods. Most data have been gathered and computed based on large national registers, and only a limited number of countries use such registers. Moreover, in retrospect it is not easy to determine what has driven people to suicide, and people themselves may not even know all relevant determinants for their behaviour (Hoffman & Bearman, 2015). The aim here was to assess macro-societal determinants of suicide over a wide range of countries and time periods. However, because the theory occasionally deals with micro-level mechanisms (anomia, being unemployed), the next chapter will more closely look into these mechanisms by including the micro-level. In contrast to much previous cross-nationally comparative quantitative work on suicide rates that tests hypotheses on individual-level mechanisms (such as Brainerd, 2001; Chuang & Huang, 1997; Karanikolos et al., 2013), the current chapter also already includes an in-depth ecological inference analysis to reach more certainty about the individual-level mechanisms at play.

With regard to *the main effect of marketization processes*, the first and fourth hypothesis, inspired by Integration Theory and IAT respectively, predicted *a higher suicide rate in more marketized societies.* With regard to this, the results showed that, for both sexes, the suicide rate was not higher in societies whose institutional frameworks were rapidly becoming more marketized. Moreover, stronger cultural anti-marketization sentiments had some influence on the suicide rate. There was some indication (Model 6, Table 3) that resistance against marketization would even increase the male suicide rate, but

this finding was not robust against considering different control variables. Nevertheless, resistance showed its protective effect in the more recent time period (1980-2016), for which the time series on resistance and marketization are much more valid. For women, resistance had a protective influence already for the 1960-2016 time series, although this finding was not fully robust. For the more recent time period, at least, Hypothesis 1 appears to be confirmed for both sexes when it comes to the protective effects of cultural anti-marketization sentiments. Note that this relationship was not found for some individual deviant cases in the transition region (except Poland).

My (non-)result could, firstly, mean that marketization does not induce more disintegration or anomie in the wider society. Following anomie-and-strain theory (Merton, 1939; 1968) and Institutional Anomie Theory (Messner & Rosenfeld, 1994), it appears that marketization processes just imply a replacement institutions and norms that are dominant in the institutional framework. As shown by the descriptive trend figures in Chapter 2, these processes mostly went gradual and not abrupt and unexpected (except for some transition countries). For the mainstream of society, these processes are therefore not introducing disintegration and anomie, because it is clear which norms and institutions people are to be aligned to. Van Houdt, Suvarierol & Schinkel (2011) call this a neoliberal-communitarian set of rules to follow to be a good citizen. This set of rules, sometimes summarized under 'the American Dream' (; Hövermann et al., 2015; Merton, 1939; 1968; Messner & Rozenfield, 1994: 76), consist of the norm to be economically productive (Stam et al., 2016) or to be potentially so (Van Houdt et al., 2011). Only for the relatively small although probably growing group of people that cannot fit in these norms, such as the unemployed, this new set of institutions and norms may become anomic. If this is the case, Hypothesis 4 would be supported while Hypothesis 1 is not. Finally, it could be the case that the anomic effects of marketization are not only absent for the mainstream of society, but also for the unemployed. In that case, both hypotheses are to be rejected.

Secondly, the results could indicate that marketization processes are anomic, but nevertheless do not lead to suicide. There are many other ways in which people can deal with anomic conditions, of which suicide is a relatively rare and extreme behaviour. Especially with the improved suicide prevention policies (Matsubayashi & Ueda, 2011), it is possible that people have become more resilient against suicide in conditions of being disconnected from society or experiencing anomia. In this case, Hypothesis 1 would be supported regarding anomie, but not regarding its predictions for suicide. Moreover, it could be the case that unemployed people are highly *disconnected* (disintegration), but not so much *deregulated* (anomie), and precisely because of this (strong regulation) be prevented them from committing suicide. While marketization processes highly exclude them from a worthy participation and recognition in society, this new set of norms still strongly regulates them, as well as the more general norm not to commit suicide. The norm is to seek work, not to end one's life (which is more unproductive). Chapter 4 will look more into a direct indicator of feeling disconnected from

society (disintegration), whereas suicide is rather a potential consequence of being disconnected instead of a straightforward indicator of it.

With regard to *the main effect of unemployment growth*, this mostly had an insignificant main impact on the suicide rate, just as often was found for the current unemployment rate. This contradicts earlier findings: for instance Nordt et al. (2015) found that the unemployment rate increased one year before the suicide rate increased. In light of previous research, it is surprising how little effect the rate of unemployment growth had on the suicide rate. For instance, several studies found a significant effect of unemployment (e.g. Nordt et al., 2015; Norstrom & Gronqvist, 2015; Page et al., 2013; Reeves & Stuckler, 2015; Stuckler et al., 2009). The different findings in the present study could be the result of taking different countries in the sample, because the effect of unemployment growth differs between societies. The overall estimate of the effect of unemployment growth on the suicide rate conceals much variation over time in some countries in the effect of unemployment. For example, in Japan the suicide rate responded heavily on the 1990s recession, and in Hungary the same happened in the 1980s in the years preceding the transition. In fact, consistent with previous studies (Brainerd, 2001; Noh, 2009; Norström and Grönqvist, 2015; Reeves & Stuckler, 2015; Stuckler et al., 2009), the effect of unemployment on suicide varies considerably between countries. In this study, the effect was even weakly negative for some countries, as in Stuckler et al. (2009).

However, it should not be overestimated how much previous evidence has accumulated of a suicidogenic effect of macro-level unemployment, as there are more studies where the effect of unemployment was at least not robust (Andres, 2006; Chang et al., 2009) or even not statistically significant – on a very similar sample, namely 21 OECD countries between 1980 and 2004 (Matsubayashi & Ueda, 2011). Still, the surprising absence prompted me to conduct some additional robustness analyses to support some explanations for the differences in results. The findings appeared to be highly sensitive to the use of the lead value of the suicide rate and to the set of control variables added to the model. This puts some challenge to previously identified results. Are the conclusions from these previous studies robust against controlling for a different set of potential confounding factors?

Although trends in unemployment did not relate to the suicide rate at the macro-level, individual unemployment was strongly related to suicidality according to previous research and the derived statistics considered here (Blakely et al., 2003; Preti & Miotto, 1999; Mäki & Martikainen, 2012; Milner et al., 2014; Suzuki et al., 2013). This was found among a very heterogeneous group of countries, which strengthens the generalizability of the finding to the OECD. Virtually all regime types (except the transition and conservative) are represented in the group of countries studied in the additional ecological inference analysis, and also relatively many OECD world regions (Oceania, East Asia, Scandinavia and Southern Europe). This indicates that it is especially the unemployed -and not

the population as a whole- that are affected in their suicidal ideations, when unemployment rises. The absence of a macro-level effect could be the result dealing with small numbers: not only is suicidal behaviour rare, but even more so when it is virtually only the unemployed and not the wider population that respond to trends. The problem of small numbers could lead to Type II errors, rejecting a hypothesis while it is correct (Royal College of Psychiatrists, 2008: 22-23).

Given that trends in institutional marketization and in unemployment were not related to additional suicides, it is not surprising that the excess suicide rate of individual unemployed people was not related to these marketization and unemployment trends. This latter is in contrast with earlier speculations that in societies where unemployment is more prevalent, individual unemployment is less stigmatizing and disintegrating and therefore less suicidogenic (Oesch & Lipps, 2013; Stavrova et al., 2011), or that the unemployed population consists of less vulnerable individuals during economic worse times (Platt & Kreitman, 1984; Preti & Miotto, 1999). While it may be correct that the unemployment experience is less detrimental for wellbeing and self-esteem when unemployment is a more normal phenomenon, individuals appear to be resilient against serious suicidal tendencies. As indicated before, perhaps exactly because these individuals are so sensitive to the dominant (new market-based) norms and expectations, they are prevented from committing suicide. They may be disintegrated but still regulated.

The results on the *interaction effect between unemployment growth and marketization or resistance* could reveal more clarity about the relative merit of Integration Theory and IAT. Their underlying Hypotheses (2+3) dealt with the way in which increases in unemployment have a different effect on suicide rates in more marketizing societies. Marketization in itself is possibly not anomic, but it may decrease the integrative (and/ or regulative) effect of employment to people. In marketized societies, the employment relationship may have been reduced to a one-shot economic transaction, stripped of the psychological contract and ethical norms of mutual loyalty (Sennett, 2006). Employment may also mean being less embedded into organizations such as one's own work organization, as people can be more easily fired, and the workers' union, as it has lost power during marketization processes. The difference in anomic conditions between the employed and unemployed has become smaller, and a rising unemployment rate is then less disintegrative and anomic in marketized societies. It should be noted, however, that this theoretical argument is now less plausible, because the results did not show an anomic effect of marketization on the population in the first place. Still, these are average effects of marketization, which may be different at different levels of unemployment growth. Vice versa, the average (non-effect) of unemployment may vary at different levels of marketization. Thus it is still worthwhile to reflect on the result concerning the interaction effects.

Interaction effects were virtually always absent. For both sexes, the degree of marketization processes did not alter the suicidogenic impact of changes in unemployment – which impact was itself not

found. Moreover, national cultural anti-marketization frameworks did not alter the impact of unemployment. Hypothesis 2 and 3 were clearly falsified by the data.Interesting are the findings on resistance and they require more research. Evaluating hypothesis 4 on the ecological analyses, stronger resistance against marketization (and not the institutional marketization processes themselves) appeared to lower the higher suicide risk of unemployed men. But for women, the opposite was found. Stronger resistance against marketization increased the higher suicide rate of unemployed women compared to that of their employed counterparts. This highly interesting result is puzzling and requires further research. It has some important implications for the literature on sex-specific determinants of suicide risk.

Please note that a higher resistance indicates a stronger view among the population that society places too much emphasis on work and/ or money. This also captures a *perception* that marketization is high (besides only a valuation that this is wrong). Apparently, what degree of marketization processes people perceive is more important than the actual degree of marketization processes for how unemployment affects suicide. Perceptions and the actual state of affairs do not always collide. Indeed, the descriptive statistics in Chapter 2 indicated that people's views of their society as too focused on market concerns was not related to living in an objectively more marketized society; indeed, social expenditures tended to be higher in these societies.

The protective main effect of resistance on the wider population and for unemployed men, resonates with an earlier application of Durkhemian Integration Theory that a strong shared resistance against certain trends may unite a population and through collective emotion and shared symbols and rituals reintegrate people (Burkitt, 2005). Apparently this shared sentiment also works protective against the suicidogenic impacts of unemployment. Indeed, it could be the case that the unemployed, in societies where more people disapprove of marketization processes and reject the importance of work and money, are less stigmatized and still more included in public and social life. This resonates with previous findings that show that in societies where the importance of work is less emphasized, the unemployed are less unhappy compared to the employed (Stavrova et al., 2011). If it is especially the unemployed rather than society as a whole that are influenced by more resistance against marketization, then IAT would be supported rather than Integration Theory. More resistance against marketization could then indicate that the top-down induced market-based dominant norms and institutions are not popularly shared, and that non-market norms and institutions are still dominant from a bottom-up perspective. In that case, the 'equilibrium' as described by Messner & Rosenfield (1994) and Polanyi (1944) is still there, but not if one only glances at what happens between the market and the state (and thereby forgets the more informal civil society: the public itself). A lower EPL or union density does not per se signal certain social norms about being economically successful and in paid employment, whereas a societal pressure on work and having money does. This may explain why, for Hypothesis 3, the interaction effects with the objective degree of marketization

processes were not supportive. This may indicate the larger importance of what people experience rather than what is actually the case.

The ecological inference analyses provided more insights in the question to which extent the identified patterns with resistance against marketization can be attributed to patterns among the unemployed only and to what extent also to patterns among the wider population. To recap, more resistance against marketization among a population appeared to lower the suicide rate. If a suicidogenic impact of unemployment is present, it may well be reduced by more resistance against marketization in one's society. This appears to be the case for men, and resonates with the macro-level finding that resistance is especially protective against male suicide. This again indicates, just as the macrolevel analyses, that the unemployed may feel less stigmatized in societies where the population resists more strongly against the societal emphasis on money and work. In societies where resistance is weaker, the rising male suicide rate and the more serious suicidogenic effect of unemployment therefore seem to indicate in combination with the findings here that especially the unemployed are affected. Moreover, it indicates the importance of people's experiences and attitudes. More important than the actual trends in policies, the unemployed appear to be sensitive to the 'gaze of the other' (original concept from Lacan, 1964) to the extent to which they are disapproved of and excluded because work is considered central to dignity. Yet, it is puzzling why these mechanisms do not appear to apply for female unemployed; or indeed appear to work in the opposite direction.

Indeed, the patterns are more clear at the micro-level (with individual unemployment) than for the macro-level (with unemployment growth), where the interaction effect was small and not entirely robust. This could reflect the large share of unemployed in the effects and the absence of a true macro-level (for the entire population) effect. Again, the problem of small numbers surrounding the relatively small group of unemployed for whom the mechanisms are at play and the rarity of suicide, may make that the relationship becomes less visible at the macro-level.

The protective effect of resistance against suicide (in particular by the unemployed) may even explain why in some countries the suicide rate remained remarkably low despite the large economic crisis of 2008. Not only did the economic crisis induced much financial uncertainty and potentially short-term anomie as result of a shock (Durkheim, 1897; Reeves & Stuckler, 2015), but also did it awaken much resistance and feelings of shared emotion and ideas, not only indicated by movements such as the Occupy Movement, but also by the trends on resistance against marketization during the 2000s as shown in this chapter. This could have served as a strong suicide preventive force during one of the largest economic crises since the Great Depression.

Finland is a clear case of this. Previous research found that in Finland, contrary to other European countries, unemployment growth did not lead to an increase in the suicide rate. Finland also appeared to be the country where 80% of the population resisted against marketization. In that case, it is

predicted that unemployment growth even becomes a protective factor (marginally statistically significant b = -.001, p <.10) (Table 3 and 9 and Figure 2 and 3). From a substantive viewpoint, is conceivable that job loss could potentially protect people against suicide in context where people reject marketization. In the context of a marketized society, many jobs can become increasingly intense, involving harsh competition, contracts becoming more contingent. In societies where more people resist against marketization, working in such jobs can feel more alienating and distressing to people than becoming unemployed. Becoming unemployed may even become interpreted as having got out of this rat race, while keeping one's job may be considered as a stressor.

The analyses also revealed some interesting side-findings. For instance, also interesting was the consistent effect of a country's relative position regarding its suicide rate in the cross-national distribution of rates, and the subsequent suicide rate a year later. This suggests that diffusion of suicide occurs within countries. Norms regarding suicide (the degree to which it is accepted) diffuse over time. Moreover, the results indicate that suicide also diffuses cross-nationally. The data provided some support for the notion that there would be a cross-national diffusion of suicide rates from the leading economies to the other countries – but only for women. Rather, one would expect the opposite: one would expect that men are still more sensitive to economic forces than women. Still, it is unlikely that individuals in their suicide decisions look consciously at what is typical in economically leading countries. The transnational diffusion of suicide could rather be the result of the fact that other processes that may (in combination with other factors) induce suicide, also diffuse from economically leading countries to other countries.

Moreover, another factor that appeared a robust protective force against higher suicide rates, was the level of wealth (GDP level). More urbanization and divorces were related to higher male suicide rates, which might support a Durkhemian integration framework – since urbanization and higher divorce rates have been taken as indicators of more disintegration.

It should be noted, however, there are some limitations to the measurement of marketization, which is a very broad construct that is difficult to conceptualize and operationalize. Moreover, one could accidentally capture the effect of another phenomenon (such as economic inequality) that is related with marketization, while barely capturing the effects of marketization itself. Therefore, this study used multiple indicators covering different facets of marketization, but this is still not a complete account. The strengths and limitations of this measure are extensively discussed in Chapter 2. Several objective indicators were considered: the strictness of employment protection legislation and union density. However, these indicators shed only light on one narrow aspect of marketization, namely that of the labour market. Furthermore, it is not clear whether a country with strong employment protection legislation for temporary workers and weak protection for permanent workers, is more marketized than a country with strong protection for the latter but weak protection for the first.

Considering the deviant cases, it appeared that in many of these countries (except Sweden and Poland), stronger resistance was related to higher suicide rates over time. This deviated from the general pattern across the entire sample of countries, because there stronger resistance was related with lower suicide rates. Generally, these countries were low-resistance countries. More research on this puzzling finding would potentially lead to more insights about the mechanism behind this. A potential preliminary explanation could be that resistance is related to higher unemployment rates in these deviant countries – while this is not the case for the total sample of countries. Resistance could be mainly a response to strongly growing unemployment rates, which might in turn be related to higher suicide rates in some countries.

Notably, all of these deviant countries have high suicide rates. Moreover, the residual analyses of the present chapter identified Austria and Finland as deviant cases, which are again countries with high suicide rates. For women, Japan was identified as a deviant case in the residual analyses: also a country with comparatively high (female) suicide rates. The large residuals for these countries indicate that their comparatively high position on suicide rates could – for a large part – still not be explained by the variables included in the regression models, such as unemployment growth, marketization processes, popular resistance, GDP and the composition of the unemployed population. Alcohol consumption could be such a not-included factor that contributes to comparatively high suicide rates, but were not accounted for in the model. For instance, previous research indicates that alcohol consumption is an important explanatory factor of higher suicide rates, as is clear for Finland (Pirjo & Saarinen, 1999) and transition countries (Brainerd, 2001). Another factor could be rapidly increasing gender equality (perhaps in a marketized fashion in that women are just as hardly expected to succeed economically as men). This could perhaps explain the large residuals of Japan in the female suicide rates, as the suicide rate of female unemployed had also been rising. For low suicide countries, such as Greece, the model apparently fitted much better – indicating that their low suicide rates were well-explained by these variables.

For Hungary and, in a lesser extent also other transition countries, there may be another explanation. From the late 1980s on, Hungary has experienced sharp marketization processes and its civil society proved not sufficiently strong to persist during these trends, such as in Poland (Buckowski, 1996; Lomax, 1997). It could be supposed, from a Durkhemian viewpoint, that anomie has been spread throughout the entire population, not only the unemployed, in Hungary. If this is the case, Hungary corresponds more to the Durkhemian Integration theoretical picture than the IAT expectations.

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4. Disintegration, Anomie and Shame: Driving the Effects of Marketization and Unemployment?

4.1 Introduction

4.1.1 Background

The theoretical propositions developed in the previous chapter will now be put to further test in the current chapter. The focus on this chapter is on the mechanisms at the micro-level: what actually happens with individuals in the face of marketization and unemployment?

Marketization processes have been thought to facilitate a general weakening of a society's main institutions (Durkheim, 1897; Flavin & Radcliff, 2009). Strong non-market based institutions, by contrast, indicate a stronger solidarity among communities, strong shared ethical values of how to tighten some market forces (Flavin & Radcliff, 2009). To recap from Chapter 3: Marketization refers to a societal process in which market-based institutions and norms become disproportionally powerful, crowding out non-market institutions and norms (Eikenberry & Kluver, 2004; Fairclough, 1993; Messner, Thome & Rozenfeld, 2008). This study will depart from three theoretical approaches. According to one, marketization processes lead to the weakening of a society's institutional and normative framework, as the marketized framework does not provide an alternative framework that integrates and regulates people: Integration Theory (Durkheim, 1897). The second theory, Institutional Anomie Theory (IAT), argues that marketization implements new norms and institutions to replace the previously non-market ones (Messner et al., 2008). In that view, traditionally non-economic domains are penetrated by market-based norms. This second and a third theory, Social Norms Theory, elaborates on the implications of these new norms for the unemployed.

Some previous evidence suggests that the suicide rate is higher in more marketized societies, by looking at the impact of austerity measures on the suicide rate (Antonakakis & Collins, 2014; Karanikolos et al., 2013; Weaver & Munro, 2013). The first question of interest here is: does this effect of marketization run through generating more anomie in society? Societies with strong non-market based institutions, such as the Nordic countries, have for example retained high levels of trust among their populations. In marketized societies, by contrast, such as the US and UK, by contrast, trust has decreased since the late 1970s, together with the rise of neoliberal policies that stimulated marketization in these countries (Larsen, 2013). Trust is one of the main indicators in Larsen (2013) of social cohesion, the reverse of anomie. Following Durkheim (1893), he argues that modern societies

are not held together by shared principles and similarity. Rather, modern societies are held together by trust, because this enables large scale societies with interdependent strangers to function (Durkheim 1893; Larsen, 2013).

Also Putnam showed for the US that social cohesion has declined during the rise of neoliberal policies and thinking, using several indicators for it under the term 'social capital': shared norms, but also collaboration and trust in that each member takes seriously his/ her task and role. Putnam's indicators of a lack of social solidarity, or anomie, are: declining membership in civil society organizations, declining voter turnout, declining union membership, the divorce rate, female labour force participation, and declining trust.

Another theory, Institutional Anomie Theory (IAT), suggests that it is not entire societies that become anomic through marketization, because marketization entails a shift from old institutions and/ or norms towards new ones. So far, IAT has amply been tested empirically. People will rather become attached to these new institutions and norms. However, these norms in marketized societies tend to exclude some people from inclusion and normative guidance: those who are 'unprofitable' according to the marketized framework. The most striking example of people considered 'unprofitable' is the unemployed (Hövermann et al., 2015). The second question of interest here is therefore: does marketization rather increase anomia[11] experienced by the unemployed and not by an entire society? And does it therefore strengthen the suicidogenic effect of unemployment?

Hövermann et al. (2015) found that more marketization contributed to more society-wide anomie, as predicted by Integration Theory, but even more strongly did it intensify negative attitudes towards the unemployed[12], disabled and homeless (Hövermann, Messner & Zick, 2015). Moreover, other studies found more disintegration among the unemployed. Unemployed people are less likely to have influential contacts (Gallie, 1999; Gallie, Paugam & Jacobs, 2003) and are overall more isolated than other people (Paugam & Russell, 2000). Several studies have documented the incidence of stigma against the unemployed and benefit recipients in general (Hövermann et al., 2015; Shildrick & McDonalds, 2013; Van Oorschot, 2006). Furthermore, the unemployed themselves also report to perceive this stigma (Kampen, 2013; Shildrick & McDonalds, 2013).

Besides anomie and disintegration, as a stigmatized group the unemployed are also vulnerable to excess feelings of shame (Stam et al., 2016; Stavrova, Schlösser & Fetchenhauer, 2011) according to Social Norms Theory (or the stigmatization hypothesis) (Clark, 2003; Kalmijn & Uunk, 2007; Stam et al., 2016; Stavrova et al., 2011). A third question of interest is therefore: do the unemployed in marketized societies have more excess feelings of shame, and does this affect the suicidogenic impact

[11] Anomia is the individual-level of the collective phenomenon anomie (Srole, 1959)
[12] Such as the item 'Most long-term unemployed are not really interested in finding a job' (Hövermann et al., 2015: 8)

of unemployment in such societies? Indeed, the unemployed had a lower well-being in areas that endorsed a stronger normative pressure to work (Clark, 2003; Oesch & Lipps, 2013; Stavrova et al., 2011). Overall, the empirical evidence from this literature lends much evidence towards the presence of shame among the unemployed. One indication that shame plays an important role, is the lower well-being of the unemployed in communities with a stronger work ethic, regardless of their own views about work (Stavrova et al., 2011). People's own views on work were not important for their well-being as unemployed, when the dominant views were taken into account. Kalmijn & Uunk (2007) similarly found that divorced people, another potentially stigmatized group in traditional communities, had a lower well-being than other people when they lived in communities with dominant anti-divorce norms.

Psychological studies outlined that people are highly aversive against being labeled a norm violator, disapproval and stigmatization, causing lower well-being and even adverse outcomes for physical health (e.g. Dickerson et al., 2004; Rusch et al., 2014).

4.1.2 What the current study adds

Survey-data enable to address questions about disintegration – the feeling of being left out of society – and feelings of shame. So far, most studies have only measured disintegration, or individual disconnection, indirectly – through the divorce rate, trust, or participation in organizations. This is surprising, since disintegration has often been dealt in theoretical work and theory sections of empirical work, but its effects have amply been genuinely tested. Most studies use very indirect measures of the degree of disintegration or disconnection, for example: the divorce rate or female labour force participation (e.g. Andrés, 2005; Noh, 2009; Neumayer, 2003; Philips, 2013), indicators whose validity can also change over time. For example, Mäkinen (1997) argues that in the most modern societies, a high divorce rate is not disintegrative anymore. Rather, the institution of marriage has been replaced by other important institutions in these societies, and disintegration is therefore indicated by other things than a high divorce rate. A similar point has been made in the social capital/ community literature: instead of decreasing community as pointed out by Putnam, there have been shifts in ways that people create communities (Suttles, 1972; Wellman, 1979). Studies that compared the employed with the unemployed mainly focused on their social contacts, which is not the same as the subjective experience of being disconnected or left out (Gallie, 1999; Nordenmark, 1999). It is important to assess the actual extent that individuals report to experience to be disconnected, because the circumstances in which they do differ over time. So it still remains unclear what impact disintegration has on the suicide rate.

The degree of experienced anomie (or 'anomia' at the individual level) could not be assessed in this study, but was examined in another study for Germany only (Höverman et al., 2015). In that study, respondents who agreed that 'nowadays things are so confusing that you sometimes do not know (a)

where you stand (b) what is going on', were identified as experiencing anomia. As a measure of marketization, people were also asked to indicate the extent to which they felt that several non-market institutions and connections with those have been alleviating. This is then a measure of perceived marketization of society. They were asked to do with regard to the institutions of parliamentary democracy, friendships and family. Furthermore, people's own endorsement of marketized attitudes were measured, namely in two respects: (a) the extent to which people evaluated other groups mainly in terms of market value, and (b) the extent to which people evaluated the function of relationships mainly as market transactions or as guided by non-market concerns[13]. This fruitful study was unfortunately only conducted on one country, because the survey it relied on was only taken in one country. The present study will take this forward and use direct survey-items of disintegration that are available for many countries.

Also shame has not been examined directly in previous quantitative empirical work. Recent qualitative studies that have studies shame among the unemployed are Guimaraes et al. (2010), Kampen et al. (2013) and Shildrick & McDonalds (2013), who have interviewed unemployed participants to assess how unemployment is experienced. But these qualitative studies were limited to a specific locality, and did not compare countries with nationally representative samples. Quantitative studies only used an indirect measure for shame. Shame was indicated by a lower well-being among unemployed individuals in societies with a strong work ethic (regardless of their own endorsement) (e.g. Stam et al., 2016; Stavrova et al., 2011). Studies that departed from theories about excess shame among the unemployed, focused on the theoretically poorer outcome variable of well-being, rather than the classical concept of anomie as theorized by Durkheim (Stavrova et al., 2011; Stam et al., 2016). Because of this sole empirical focus on well-being, the impact is of living in a marketized society on the degree of anomie among the unemployed is still unknown. Furthermore, these studies on well-being have often not directly measured the mechanisms of shame and guilt feelings, despite the wealth of survey-items that are available on this. The present study will jump into this gap and study whether living in marketized societies can increase anomia and shame among the unemployed, and therefore the suicidogenic effect of unemployment.

This chapter will proceed with a short discussion of the theoretical models of Integration Theory and Institutional Anomie Theory (IAT), as displayed in figure 1a and 1b respectively. The discussion will be brief, because a sound theoretical discussion has already been provided in chapters 1 and 3, I will thereafter immediately continue with discussing the data, results and evaluating the hypothesis tests (conclusion/ discussion). Then, I will turn to the theoretical model proposed by IAT and shame theory, as displayed in figure 1b. Also here I will first give a discussion of the previous empirical literature,

[13] Examples of items are 'no society can afford people who are not very useful' or 'we take in our society too much regard for losers' (Hövermann et al., 2015: 7).

then proceed with discussing the data, results and conclude. Finally, an overall conclusion will be given.

4.2 Theory

Figure 1a and 1b show the theoretical model of interest in this chapter. This theoretical model also guided the analyses in the previous chapter, but will be tested further in the present chapter.

4.2.1 Integration Theory

Durkheim defined anomie in societies as a social condition in which individuals in a society are provided little normative guidance, because individuals become detached from key institutions in the society (disintegration) (Durkheim, 1893). In such situations, a society's values are, the prescribed aspirations and the norms are unclear. This can be the result of one of the following situations. Firstly, a societal shock has suddenly caused moral disorientation and polarisation. This effect is most often temporary. For example, Durkheim (1893) described the quick shifts from a guild economy towards an economy based on skill differences in the division of labour as temporarily anomic. Secondly, anomie occurs when institutions lose their importance as integrators and regulators of people's behaviour, without new institutions that replace the role of the previously important ones. Thirdly, anomia (on an individual level) occurs when individuals lose their tie with key institutions, for example when they lost their job.

Why would marketization foster disintegration and anomie? Marketization permanently diminishes the role of key institutions and their norms in society, leaving a deregulated public space for people. The predominance of market thinking would stimulate the withdrawal of government institutions in regulating economic behaviour. In a Polanyian fashion, Durkheim argued that economic domains can be regulated by both market thinking and non-market based ethical norms. Non-market based ethical norms are highly internalized by the members of a community (e.g. honesty, paying attention to the collective interest, helping the weak) and also maintained by institutions. Ethical norms serve to stimulate self-regulating values and action by economic actors, while the absence of such norms would trigger a certain tendency in people to strive for unlimited aspirations and desires. Capitalism in itself is inherently coupled to an endless growth aspiration (Wright, 2013) and highly stimulates individual utility maximization (or what Durkheim (1975) would call 'boundless egotism' or 'narrow utilitarian commercialism'). In Polanyian terms, anomie would result from a disbalance between the role of market thinking and ethical norms in regulating the market. Whereas the two are thought to

balance each other when both are salient, an anomic situation arises when market thinking becomes dominant over ethical norms.

Market thinking frames relationships as transactions and the continuation of these relationships depends on their profitability. In a competitive market, the profitability of these relationships changes often and is volatile. Domains ruled by market thinking therefore are likely to adopt volatile, what Bauman (2003) called 'liquid' relationships. Indications of this happening at the labour market are the increasing flexibilization of work (Auer & Cazes, 2003; Gash & Inanc, 2013; Kalleberg, 2011; King & Rueda, 2008). This is in sharp contrast with the employment relationship being not only ruled by market thinking, but also ethical norms: a psychological contract of mutual loyalty (Kalleberg, 2011; Sennett, 2006) involving a high identification with the work organization and its values. Working would, in that context, imply a strong connection to society through one's employment (and a higher integration of society through work).

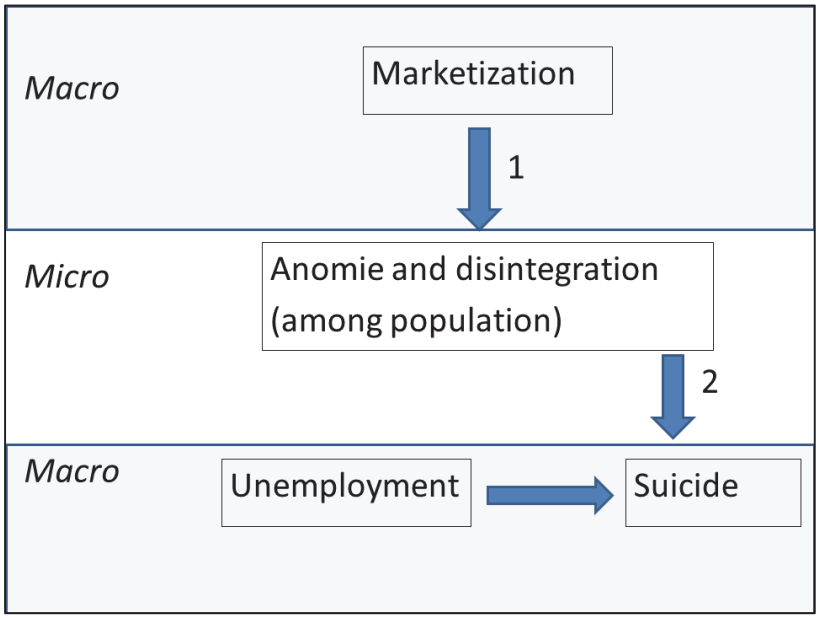
Marketization has also been defined as a process where market thinking not only becomes dominant in economic domains of public life, but also in other domains (Eikenberry & Kluver, 2004; Hövermann et al., 2015; Messner et al., 2008). Government welfare agencies, churches and marriages/ friendships can become more dominated by the principles of the market. This is probably why for example Bauman (2005) observes that relationships in all sorts of domains become more volatile. The divorce rate may have partly risen because of declining norms of commitment and an increasing analogous treatment of persons as products or employees in a competitive market (Baumann, 2005), next to other causes such as increasing female independence. It may also explain why voting behaviour has become less stable, as people 'shop' for their own political party based on their individual bundle of preferences and are less loyal to one wide ideology. In all, relationships and identifications with larger institutions have become much less stable and weaker, and experiences of losing ties with institutions more frequent in people's lives, which would all contribute to disintegration, and eventually, anomie.

Durkheim (1897) then theorizes that anomie can increase suicide risk. Because the normative framework by definition has been weakened in anomic situations, people face less self-restricting norms against suicide in the face of distress. Durkheim called this egoistic suicide (p. 281). Besides this, the increased insecurity and moral disorientation are distressing in itself, which may put already vulnerable people at a higher suicide risk.

Figure 1a shows the proposed links by Integration Theory. Marketization would lead to more disintegration and anomie among the population (arrow 1 and *Hypothesis 1*), which would then lead to a higher suicide rate (arrow 2, *Hypothesis 2*). In other words: marketization is thought to have an indirect impact on the suicide rate. Whereas the previous chapter only assessed the total effect (incorporating both its indirect effect through unspecified mechanisms, as well as its direct impact) of

marketization on suicide, this chapter looks at its indirect effect through specific theoretical mechanisms.

Figure 1a: theoretical model Integration Theory



From this, the following hypotheses can be derived:

H1: Societies with higher levels of marketization have a higher level of disintegration and anomie.

H2: Societies with a higher level of disintegration and anomie have higher suicide rates.

H3: Societies where the population more strongly resists against marketization, disintegration and anomie are lower.

4.2.2 Institutional Anomie Theory (IAT)

Marketization in Institutional Anomie theory does not amount to a collapse of ethical norms. The so called 'cold' market logic is also a set of normative guidelines that is rooted in broader values and disseminated by wider institutions. For instance, pure market logic takes a normative stance that individual profit is to be prioritized above certain other values, such as the maintenance of natural land or universal access to clean water. As Messner et al. (2008) and Hövermann et al. (2015) argued that people are held to conform to 'efficiency norms'in selecting the means to achieve goals, and probably

also the people they respect (Hövermann et al., 2015). The market logic also assigns more normative value to the time and opinion of a more 'profitable' person than of the 'unprofitable'. Messner & Rozenfield (1994) elaborate on the 'American Dream' as a marketized set of norms, dictating people to be efficient, achievement oriented, strive for money, and productive. Market logic follows a norm of reciprocity and of return of equivalent (or larger) outputs. Those who are most valuable are individuals who can offer the largest output. Those who have nothing to offer are considered and possibly treated as worthless and excluded (Somers, 2008).

There are examples of how market-norms are prioritized over non-market norms even in institutions outside of the economic domain. Westerlund (2002) argues that welfare agencies seem to frame unemployed mainly as unprofitable and increasingly ask a service from the unemployed person in return for welfare services. In marketized states, the unemployed are continuously institutionally reminded of the urge of ending their situation, through many compulsory activating labour market programmes and job search monitoring (Guimaraes et al., 2010).

Mating for marriage has also increasingly been framed as a marketized process by sociologists, and results show that people consider marketable attributes (i.e. income, education) in mating (Kalmijn & Flap, 2001; Kalmijn, 2010). The most 'profitable' candidates end up with the most profitable matches. Previously I cited evidence that unemployed people, deemed 'unprofitable', experience a similar disadvantage in friendships (Gallie, 1999; Nordenmark, 1999).

This set of norms has also penetrated to other areas, making economic achievement more salient than other non-market based achievements and virtues (Merton, 1939; 1968; Messner et al., 2008). Anomie arises when a disbalance in power arises between these non-market norms and market-based norms (Merton, 1939; 1968; Messner et al., 2008). When market-based norms and institutions are overall dominant, becoming more dominant on both the economic domain as well as in society in general, 'institutional disbalance' arises. Non-market institutions and roles within them can then not provide for any meaningful integration anymore as they are no longer considered meaningful. Because non-market roles are less rewarding, less people will pay attention to them, less participate in them and this will only further decrease the integrative power of these institutional roles. As a result of the prioritization of market-based norms above non-market norms, people conform to the new norms (i.e. of efficiency, profitability) sometimes by transgressing traditional non-market institutional norms (Merton, 1939; 1968; Messner et al., 2008).

It is from this that anomie arises. People may feel pressed to conform to the more dominant market-based norms, such as individual achievement, but are unclear about what the prescribed route is towards this prescribed aim (Merton, 1939; 1968; Messner et al., 2008). Still, some people are barred

from taking the generally accepted routes towards success, or from success at all. They cannot create harmony between market-based and non-market norms, or cannot even find a way to comply to the market-based norms. Being framed as a norm transgressor, it may be even harder for unemployed individuals to be positively included in society's main institutions. This social exclusion from 'mainstream society' can lead to more disintegration among society's 'unprofitable' (Durkheim, 1897; Hövermann et al., 2015; Merton, 1939; 1968; Messner et al., 2008). These individuals would then more likely reject the market-based norms (i.e. the prescribed aim of economic success), the non-market norms, reject both *or* still be regulated by these norms but unable to meet these social expectations (Merton, 1939; 1968). The latter people have already been encountered in the previously mentioned British study of Shildrick & McDonalds (2013), suggesting that it is people in poverty who were especially harsh in their judgement about people who ended up in poverty as well. This woul indicate that they may have accepted market-based beliefs about personal failure.

All these instances would result in continuous anomia experienced by these individuals, either through disintegration and deregulation, or through disintegration only. This can put these individuals at a higher suicide risk. Individuals who are especially at risk of anomia in marketized societies are the unemployed, because they do not fit the market-norms of economic success, efficiency and profitability and are considered lazy, unprofitable and economic failures.

From this, the following hypotheses can be derived:

H4: Societies with higher levels of marketization have a higher level of excess disintegration and anomie among the unemployed (compared to the employed).

H5: Societies with a higher level of excess disintegration and anomia among the unemployed show a stronger positive impact of the unemployment rate on the suicide rate.

4.2.3 Social norms theory & stigmatization hypothesis

Thus, at a macro level, marketization comprises a shift in the balance of power of different norm sets instead of a shift away from norms and institutions at all. Market-based institutional roles become predominant and non-market institutional roles become relatively unimportant. In other words: what one has achieved on the labour market or as entrepreneur becomes predominant for one's value as a citizen, not what one has achieved in non-market roles. A small group of people who do not conform (either by choice or not) to these market-based norms, fall into a space of normlessness and moral confusion (anomia). *Personally*, they do not know anymore what norms work for *them*.

While this is plausible, this does not change the societal situation of social norms that are present in their social surrounding that condemn economic failure, unprofitability and unemployment. Even individuals that have rejected these norms for themselves still feel the disapproval from their social surrounding on their failure to comply. The norms then still exert their pressure on the individuals, despite the fact that they have rejected the norms. A recent study indeed showed that even unemployed individuals that did not personally align to the social norm to work, still had a lower well-being in areas where this social norm was strong (Stavrova et al., 2011).

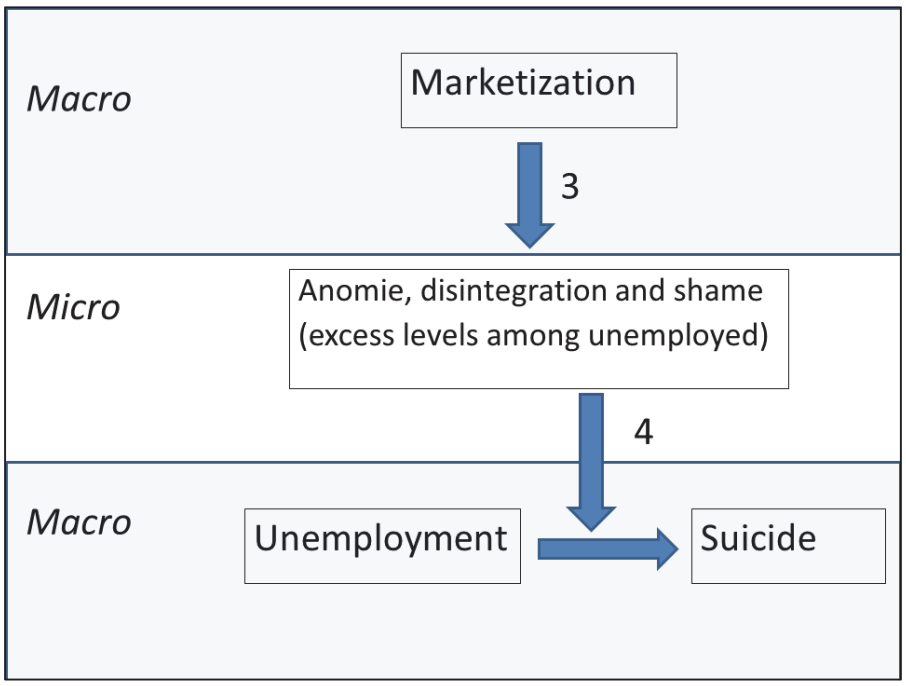
Being stigmatized as a norm violator invokes shame in individuals, as has been argued (Elster, 2007; Kalmijn & Uunk, 2007). Shame occurs in the abovementioned situation where individuals do not necessarily (but possibly) personally align to a certain norm, but feel ashamed because the social environment disapproves their norm transgression. Shame is thought to be highly stressful conditions that people are eager to avoid (Elster, 2007). When individuals cannot avoid shame, this can result in continued stress and may explain the lower mental health and well-being among the unemployed found in many studies (Clark, 2003; Oesch & Lipps, 2013; Stam et al., 2016; Stavrova et al., 2011). Field work studies (e.g. Guimaraes et al., 2010; Kampen, 2013) show that some unemployed individuals experience much stress due to social disapproval and some participants in Guimaraes et al. (2010) even expressed suicidal thoughts due to the perceived inescapability of their situation. The most vulnerable individuals may choose to commit suicide. Returning to Durkheim's (1897) work, this may even be categorized under 'altruistic suicide': suicide committed by individuals in a context where social norms are overly pressing on individuals. Although the individuals themselves may have rejected the norms, the maintenance of these norms in the social environment do not exempt these individuals from any negative normative pressure (e.g. social disapproval) on them.

Figure 1b shows the proposed links by this social norms-based Institutional Anomie Theory. The new imperatives introduced by marketization processes would lead to more disconnectedness, anomia and shame among the unemployed, while the employed are unaffected. Because unemployment is then more related with these negative states, unemployment would have a larger (positive) impact on suicide (arrow 4 and *Hypothesis 5 and 7*).

From this, the following hypotheses are derived:

H6: Marketization leads to more shame among the unemployed compared to the employed

Figure 1b: theoretical model Institutional Anomie Theory



H7: When the unemployed suffer more shame in society, unemployment in that society would have a larger suicidogenic impact than elsewhere.

H8: more resistance against marketization among the population can soften the impact of individual unemployment on experiencing (a) disconnectedness and anomia and (b) shame.

4.3 Data

As in chapter 2 and 3, the focus of the present study is on OECD countries. However, because of data availability, only European OECD countries could be analysed here. Data were available on these countries for 1993, 2001, 2009 and 2011.

A path model was estimated and the analyses were conducted in three steps. Each step has another dependent variable. The data are therefore discussed separately for each step. The Step 1 analyses all deal with the micro-level, apart from incorporating some macro-level control variables. These analyses, as a descriptive start, assess the effect of being unemployed (rather than employed) on the likelihood of individuals to experience anomia or shame. Step 2 analyses deal with the macro-level and test Hypotheses 1, 3, 4, 6 and 8ab. Step 3 analyses deal with the macro-level effect of anomie and shame on the suicide rate, and therefore on Hypotheses 2, 5 and 7.

PART 1

4.3.1 Dependent variables

To measure *disconnectedness or disintegration*, the present study deploys the most direct measure that is currently cross-nationally available: self-reported disintegration. This measure has been provided by some Eurobarometer (EB) surveys for years now, and it is therefore surprising that anomie scholars have not used it previously. Starting with the Eurobarometer survey 40 (1993), the 56.1 (2001), Eurobarometer 72.1 (2009) and the European Quality of Life Survey (EQLS) (2011/ 2012).

The item asks respondents to indicate their agreement with the following statement 'Generally, I feel left out of society'. In most years, answer categories ranged from (1) strongly agree to (5) strongly disagree. In 2006 the range was 1-4 because the neutral answer category (neither agree nor disagree) was omitted. In 2009 respondents could only indicate whether they (1) agreed or (0) disagreed. For all years, the item was converted into a dummy variable allocating a (1) to people that agreed (or agreed strongly) and a zero to other respondents with valid answers.

Data on *shame* were available for 2006 and 2011 on 23 countries. People could answer (1) strongly agree until (5) strongly disagree on the following item: "Some people look down on me because of my job situation or income". In 2001, the item was phrased as "I am disrespected because of my income/ job situation". The answer categories were recoded to get a dummy in which people who agreed (or agreed strongly) were assigned a 1 and other answer-categories a zero, to distinguish people who are ashamed of their employment status from people who are not. This variable was chosen because it constitutes perceived disapproval, or perceived stigma, by other people. This perception is often argued to invoke shame in people, which is the key reason people try to avoid being disapproved (Elster, 2007; Stavrova et al., 2011).

4.3.2 Independent variables

Data on employment status were derived from the survey item that asked respondents' employment status. Answer categories were 'employed' (or several occupational categories of employed in previous waves, such as 'farmer', 'supervisor', 'skilled manual worker', 'business proprietors', and other categories[14]), 'unemployed', 'unable to work', 'retired', 'homemaker', 'student', and 'other'. The answer categories representing an employment position were coded as zero and the unemployed were coded as 1, so that the effects represent the pattern of the unemployed compared to the employed. This analysis was run only for the employed and unemployed, excluding the inactive population.

[14] See for more: Eurobarometer (2015)

4.3.3 Control variables

Control variables were included for several individual-level factors (e.g. marital status, health, church attendance, income, age, and on the macrolevel again the unemployment rate and GDP). The selection of control variables was based on the selection observed in previous studies on well-being and happiness (e.g. Stam et al., 2015; Stavrova et al., 2011). Macro-level control variables that were included were the unemployment rate and variables representing the composition of the unemployed (youth unemployment rate, proportion highly educated in unemployment and proportion long-term unemployment in total unemployment). Note that the number of macro-level control variables was kept limited because of the limited macro-level N (only European countries on mostly four years). Moreover, year-dummies were included to control for year- or wave-specific factors that were not specified.

4.3.4 Methods

Logistic cross-sectional time series regression analyses were ran to examine the effect of individual unemployment on disintegration and shame. The analyses was conducted over the Eurobarometer survey 40 (1993), 56.1 (2001), Eurobarometer 72.1 (2009) and the European Quality of Life Survey (2011/ 2012). For the analyses on shame, only data on 2011/ 2012 were available and this was therefore a pure cross-section analyses.

Missing values were imputed through mean imputation for the individual-level control variables. In that case, the mean of that country-year was imputed. Macro-level variables were imputed using linear imputation. The main independent variable (employment status) and dependent variables were not imputed.

Model 1a examines the effects of the control variables for men, while Model 2a adds the effect of employment status (i.e. the effect of being unemployed rather than employed). Model 1b and 2b do the same for women.

PART 2

Whereas the Part 1 analyses are mainly descriptive, the path analyses starts with the Part 2 analyses. To test the IAT-inspired hypotheses, these analyses aggregate the excess likelihood of the unemployed (compared to the employed) to experience disintegration or shame to the country-year level, and aims to explain country-year differences in this. Moreover, to test the Integration Theory-inspired hypotheses, these analyses aggregate the degree of disintegration people experience to the country-year level, and aims to explain country-year differences in this.

4.3.5 Dependent variables

The variable representing disconnectedness was then aggregated to the country level to get the level of *disintegration* for each country-year: the proportion of people in a country-year that felt left out of society.

The society-characteristic the degree of *excess disconnectedness* and *shame* among the unemployed (compared to the employed) was calculated for each country-year, based on a year-specific logistic cross-sectional regression analysis in which the effect of being unemployed instead of employed was estimated for each country in terms of the odds ratio. These country-specific estimates of the odds ratio were done through including an interaction effect between country-dummies and employment status. The main effect of being unemployed was the odds ratio for unemployed (versus employed) in the reference country, and the coefficients of the other countries were derived by adding the coefficient of the country-specific interaction term to the coefficient of the main effect (reference country). This way, the scores are insensitive to which reference country is chosen: the sum-total of the interaction coefficient and the main effect will always be identical.

4.3.6 Independent variables

To measure countries' processes of *marketization*, the same indicators were used as in the previous chapters: trends in union density, social expenditures, employment protection legislation (EPL) strictness and foreign direct investment regulation (FDI) strictness. For more information, the reader can consult the data section of Chapter 2.

To measure unemployment growth, the annual in-percentage growth in the unemployment rate was calculated. The unemployment rate was derived from the OECD (2018). See Chapter 3 (data section) for more information about the unemployment rate.

4.3.7 Control variables

Data on macro-level control variables were derived from several official databases, such as the OECD-database (unemployment rate, divorce rate and proportion long-term unemployment in total unemployment) and the World Bank (composition of the unemployed: youth unemployment rate, proportion highly educated in unemployment). More information on this can be found in the previous chapter. The youth unemployment rate was the number of unemployed aged 15-24 years old as a percentage of the total workforce of that age. To count as long-term unemployed, unemployment spells of at least 1 year were needed.

4.3.8 Methods

Cross-sectional time series linear regression analyses were ran with panel-corrected standard errors, accounting for first-order panel-specific autocorrelation, panel heteroscedasticity and contemporaneously correlated errors. Missing values were imputed using linear imputation, but the analysis was not extended beyond before 1993, because it is hazardous to extrapolate people's experiences (or typical experiences) back (or forward) into time without having some observations around that time period for reference (which would make it interpolation). Only for one Model the time series were extended to cover a longer period, but with a cautious control dummy variable distinguishing the secure time period (1993-2012) from the period in which values on the Eurobarometer-values had to be fully extrapolated from the observed 1993-2012 time trend. Through imputing missing observations, the problem of unbalanced data and unequal time intervals was solved. The independent and control variables were ran on the lead (year $t + 1$) value of the dependent variables.

The three dependent variables (excess disconnectedness, excess shame, and population-wide disintegration) were ran in separate models. For the analyses on excess disconnectedness and excess shame among the unemployed, Model 1 examines the effects of marketization/ resistance and changes in unemployment on the higher presence of disintegration or shame among unemployed people versus employed people. As control variables it contains country fixed-effects and a year counter. Model 2 examines an interaction effect between marketization/ resistance and changes in unemployment. Model 3 adds additional control variables accounting for the divorce rate and composition of the unemployed population. Model 4 extends the time range to 1960-2016 and adds an additional dummy variable distinguishing the secure valid time period (1993-2012) from these added years. Model 1 examines the effects of the control variables on the degree of excess shame among the unemployed. Model 2 examines the effects of marketization processes and unemployment growth on this excess shame. This was done separately for each gender.

For the analyses on population-wide disintegration, Model 1 contains the basic control variables of country fixed-effects and a time conter, as well as the two substantive explanatory variables: unemployment growth and marketization processes. Subsequently, Model 2 examines whether there is an interaction effect between unemployment growth and marketization processes. Model 3 adds additional control variables that could both influence the degree of disconnectedness, and controls for differences in the composition of the unemployed (as seen in Chapter 3: young people in unemployment, tertiary educated in unemployment, and long-term unemployed). Model 4, finally, extends the time range and adds a control variable that distinguishes the time period for which entire time series had to be extrapolated (before 1993 and after 2012).

As a robustness check, the models were run as 1-first difference regressions to see how the results differ, although this has also its limitations because many values inbetween two observed time points had to be imputed (in years in between 1993, 2001, 2006, 2009 and 2011/ 2012) for the dependent variable and key independent variables.

PART 3

The Part 3 analyses constituted the second step in the path analyses, following the Part 2 analyses, and focus on the suicide rate.

4.3.9 Dependent variables

The same male and female *suicide-rates* on OECD countries were used as in Chapter 3, for people aged 25 to 74 years old. To achieve a normal distribution, the suicide rates were logarithmized (just as in Chapter 3).

4.3.10 Independent variables

The main independent variables used where population-wide disintegration, excess disconnectedness and shame among the unemployed, marketization processes and unemployment growth. These have already been discussed in detail in the data section parts on the Part1 and Part 2 analyses, or in Chapter 2 (for marketization). Note that the Part 3 analyses will only be conducted for those indicators of marketization that appeared to have statistically significant effects on disintegration, excess disconnectedness and/ or excess shame in the Part 2 analyses.

4.3.11 Control variables

For the sake of comparability, the same control variables were entered as in the Part 2 analyses. Note that fewer control variables were entered compared to the analyses on suicide in Chapter 3. This was done because the current analyses were conducted on significantly fewer cases.

4.3.12 Methods

Again, cross-sectional time series linear regression analyses were ran with panel-corrected standard errors were conducted. Missing values were also here imputed through linear imputation and the analyses focused on the period between 1993 and 2012. The independent and control variables were again regressed on the lead (year $t + 1$) value of the dependent variables.

Separate analyses were conducted on the male and female suicide rate. Model 1 again only includes the basic control variables of country fixed-effects and a year counter, examining the effects of

changes in unemployment, marketization processes, and disintegration/ shame on the suicide rate. Model 2 then examines the eventual interaction effect between excess disconnectedness/ shame among the unemployed and unemployment growth. Model 3 does the same, but with more control variables added, taking account of the divorce rate and the composition of the unemployed. Model 4, finally, examines the eventual interaction effect while extending the time range of the analysis.

Finally, a robustness check reran the models were run as 1-first difference regressions. Remember that this has also its caveats because many values in-between two observed time points had to be imputed for the key explanatory variables.

4.3.13 Ecological inference

With the analyses in the current chapter, we approach the individual level more closely than with the purely macro-level analyses in Chapter 3. However, the Step 3 analyses still suffer a problem of ecological inference (Robinson, 1950): the IAT hypotheses assume that effects on the suicide rate especially reflect additional suicides committed by the unemployed, because the mechanisms would be especially at play for the unemployed. However, by merely looking at the population-wide suicide rate, it is not possible to verify this. Fortunately, I could use previous calculations of the suicide odds ratios of previous studies on the following European countries: Italy (Preti & Miotto, 1999) and Finland Mäki & Martikainen (2012). Chapter 3 has already discussed these data for the additional ecological inference analyses in detail. Because of large differences in calculation methods (e.g. the Finnish data only represent long-term unemployed that attended a specific activation programme), the figures are not cross-nationally comparable, and instead the emphasis will be on how the effects are *over time within countries*. Specifically, the analyses will focus on whether changes in excess disconnectedness and shame among the unemployed, affect the excess suicide rate of the unemployed.

4.3.14 Descriptives for Integration Theory analysis

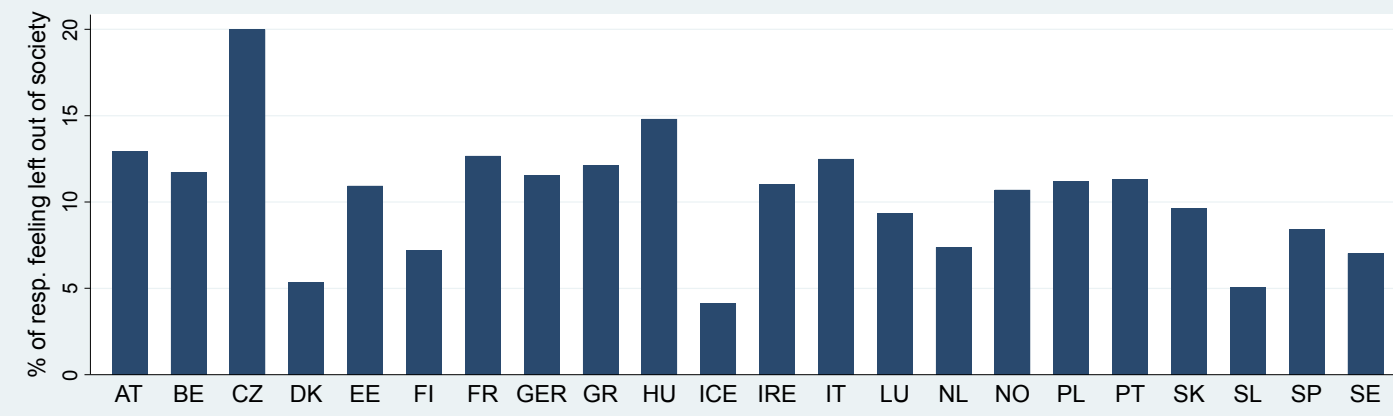
Table 1 displays the descriptive figures of the data of this study, and contains country averages of the 1993 and 2012 period. Because the suicide rates, unemployment rates and EPL have already been discussed with in the previous chapters, the attention will mainly centre on the newly introduced variables here. Again, it should be kept in mind here that the analysis of this Chapter only includes European societies.

As can be seen, there is some variance between societies in the degree of disintegration, although not too dramatically. In most countries, around 35% of the respondents experiences anomia (feels left out of society). But there are clearly interesting country differences. For example, disintegration is strikingly low in Sweden, with ‘only’ 29.8% of the respondents experiencing anomia. Disintegration is also low in Finland (32.5%), Spain (32.8%) and Norway (33.8%). This corresponds with the dominant

picture of the Nordic countries as high trust and high social cohesion countries (e.g. Larsen, 2013). It also supports Mäkinen's (1997) claim that the divorce rate and female labour force participation are no valid modern indicators of the degree of disintegration in societies, as these countries score among the highest values on those variables. Apparently, this high divorce rate and female labour force participation do not spark much disintegration in society, compared to other societies where the divorce rate and female labour force participation are lower. Given the literature on family cultures, which states that family ties are especially strong in Southern Europe (Gallie & Paugam, 2000), it could be expected that disintegration is also generally low in these countries. However, except Spain, the other Southern European countries in the sample (Greece, Italy and Portugal) are not exceptionally low regarding disintegration. Indeed, Greece ranks highest with 43.7% of the respondents reporting anomia feelings. Other high scoring countries are Czech Republic (43.7%), Slovenia (41.7%) and Denmark (41.6%). The case of Denmark is notably, because it deviates from the overall Nordic pattern of low disintegration, and because of previous evidence of comparably high levels of trust in Denmark (Larsen, 2013).

Overall, the differences between countries are modest. The standard deviation for the between-country variance indicates that, on average, countries differ with 7.8 percent-points of the respondents indicating anomia feelings. This variance is much smaller compared with the over-time (or within-country) variance, with on average 31.6 percent-point difference between time points in the % respondents indicating anomia. Thus, large time trends have taken place between 1993 and 2011 or even shorter time periods, in the degree of disintegration. This corresponds to Larsen's (2013) figures for marketized societies (UK and US) regarding the trust level, where also remarkably large declines took place over two decades. Figure 2a shows the degree of disintegration in countries and Figure 2b the trends.

Figure 2a: Disintegration in countries, averages 1993-2012



Disintegration in countries has been remarkably high during the crisis years (the survey wave of 2009), compared to the other years. The level also has returned to its stable average level in the 2011/ 2012 survey. Some countries also started relatively high in 1993, such as Germany, the UK and Norway. Iceland has been remarkably low on disintegration; high on integration. It is not clear why this is the case. The Icelandic have shown their unified concern about public goods several times, in 2009 and 2016 when an impressing share of the population went to the streets to protest. (Bergmann, 2016) Southern European that have been economically hit hard by the financial crisis of 2008 appear to have experienced the larged peak in disintegration, also resonating with Durkheim's thesis about the impact of abrupt shocks in society (Durkheim, 1897; Reeves & Stuckler, 2015). Also the fact that the effect of the economic crisis has been relatively short for disintegration, resonates with this thesis.

Figure 2b: Disintegration in countries, trends 1993-2012

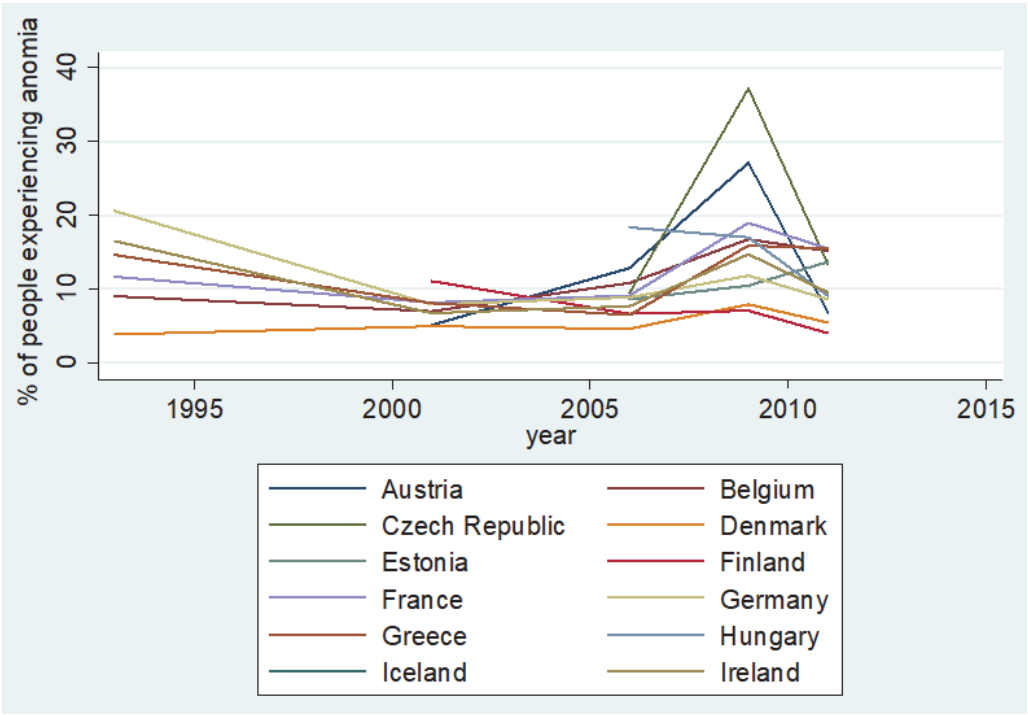


Figure 2b (continued): Disintegration in countries, trends 1993-2012

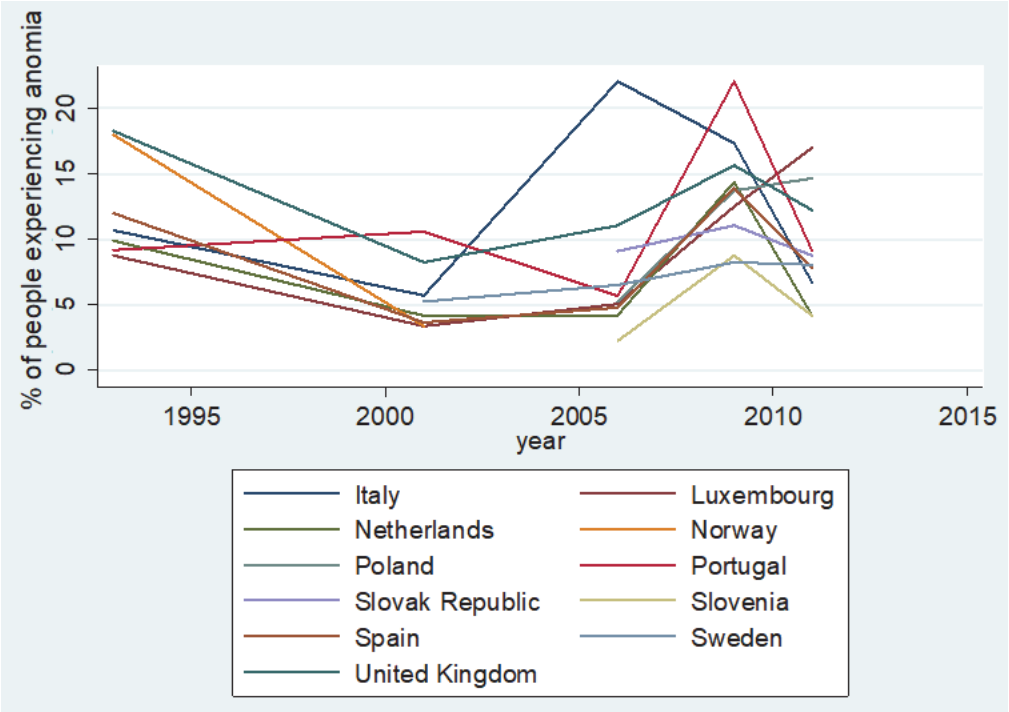
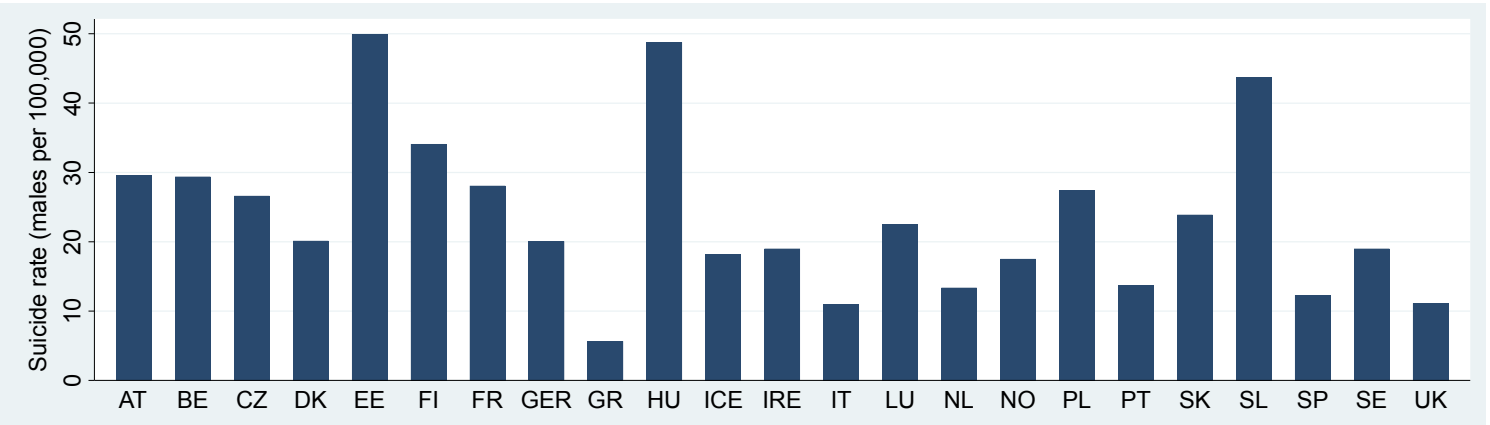
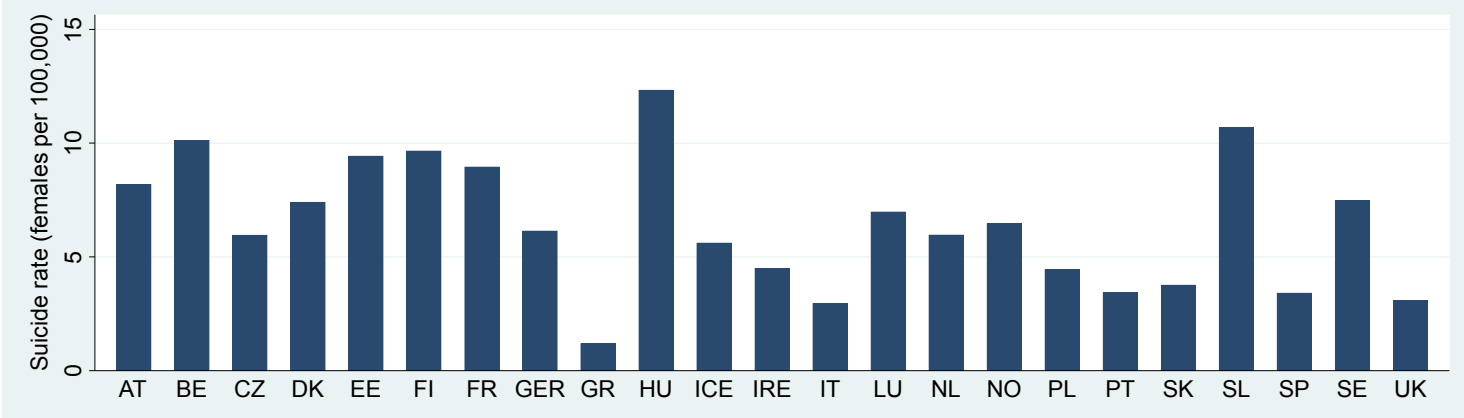


Figure 3a: Male suicide rates in countries



Descriptives based on non-imputed and non-logarithmized values

Figure 3b: Female suicide rates in countries



Descriptives based on non-imputed and non-logarithmized values

4.3.15 Descriptives for IAT and Social Norms Theory

Table 2 displays the descriptive statistics relevant for the analyses on the degree of excess disconnectedness and shame among the unemployed. As can be seen, countries differ remarkably regarding the degree that the unemployed experience these feelings more than the employed (see also Figure 4). For men, the excess disconnectedness among the unemployed is relatively low in Spain (2.5), Austria (2.5). In no countries do the unemployed experience *less* anomia than the employed. In most countries, however, disconnectedness feelings occur more than twice as much among the unemployed than among the employed. Especially high is the difference in Slovak Republic (4.3) and Denmark (5.4). On average, the difference between the unemployed and employed in anomia feelings differs 1.6 points across countries. This difference is virtually the same over time. For women the cross-national and cross-temporal differences are larger (2.1 and 3.5 respectively). For women also the cross-national ranking differs. High excess disconnectedness is found in Luxembourg and the Netherlands for female unemployed (9.2 and 8.6), while it is low in Portugal and Slovenia (2.2 and 2.0 respectively).

The degree to which the unemployed experience more disintegration than the employed has increased sharply some years after the crisis. Whereas population-wide disintegration is high during and short after a shock, the effect may linger longer for the unemployed. Remarkably, the post-crisis odds ratios are especially high for countries with relatively strong welfare states such as Denmark. It is also high in some Eastern European countries, such as Estonia and Slovak Republic, that saw some sharpening welfare sanction policies (Langenbucher, 2015). Some other countries have seen remarkably stable patterns in the excess disconnectedness among the unemployed: Portugal, Poland, Spain, Italy.

For women the effects of the economic shock in 2008 are also present, but excess disconnectedness among the unemployed was highest during the 2001 wave. This was especially the case in The

Netherlands, Luxembourg, Ireland, Germany and Denmark. Greece, Portugal and Belgium, by contrast, saw remarkable stable patterns.

Shame is also overall more apparent among the unemployed compared to the employed, in all countries. Unemployed men experienced only little more shame feelings than the employed in the following countries: Austria (2.2) and Spain (2.5). The unemployed experienced relatively much shame compared to the employed in the following countries: Denmark (6.5) and Germany (5.3). In most countries, the unemployed experienced twice as much shame as the employed. Overall, the difference between countries was approximately 1.22 points. Time trends could not be assessed because the item on shame was only in one Eurobarometer wave. For unemployed women, the cross-national differences were much smaller and most scores circled closely around 3 times more likely to experience shame. High were Sweden (4.8) and Ireland (4.3), whereas Spain (2.9) and Austria (2.2) were again low.

Overall, the following country appears to offer a relatively consistently favourable environment for the unemployed in terms of excess disconnectedness and shame: Spain and Austria. By contrast, Denmark appeared to offer a relatively unfavourable environment for the unemployed in these respects. Finally, Table 2 shows the descriptive statistics for the individual level variables.

Table 1: Descriptive statistics

Country	Suicide rate Males	Females	Excess disconnectedness unemployed Males	Excess disconnectedness unemployed Females	Excess shame unemployed Males	Excess shame Unemployed Females	Disintegration
Austria	29.56	8.19	2.453	1.107	2.241	2.363	.344
Belgium	29.385	10.135	3.056	2.078	3.502	3.155	.366
Chech	26.61	5.96	3.603	2.906	3.413	2.870	.437
Denmark	20.13	7.41	5.357	4.589	6.527	4.221	.416
Estonia	49.935	9.44	5.529	4.994	4.299	3.423	.356
Finland	34.085	9.66	4.079	4.521	3.045	3.337	.325
France	28.075	8.96	3.328	2.863	3.106	2.799	.371
Germany	20.045	6.145	3.048	4.268	5.270	4.016	.386
Greece	5.65	1.195	3.389	2.091	3.163	3.025	.437
Hungary	48.785	12.335	3.339	3.699	3.696	3.678	.377
Ireland	18.995	4.5	3.781	4.840	3.535	4.248	.395
Italy	10.985	2.96	3.361	2.511	3.386	2.924	.401
Luxembourg	22.57	6.98	3.127	9.190	3.167	3.057	.411
Netherlands	13.365	5.965	3.732	8.670	3.973	3.535	.384
Norway	17.52	6.475	3.085	6.710			.338
Poland	27.433333	4.4444444	3.535	2.209	3.228	3.011	.367
Portugal	13.705882	3.4294118	2.763	2.191	3.029	4.205	.382
Slovak Republic	23.888235	3.7647059	9.368	4.298	3.723	3.375	.417
Slovenia	43.735	10.685	3.213	2.013	2.886	3.607	.361
Spain	12.31	3.415	2.496	4.209	2.477	2.864	.328
Sweden	18.995	7.48	4.259	5.898	4.792	4.824	.298
UK	11.136842	3.0947368	3.818	3.397	3.448	4.083	.368
Variance (sd) between countries	**11.73073**	**3.9783**	**1.661**	**2.083**	**1.262**	**.605**	**.078**
Variance (sd) over time	**5.83906**	**2.61347**	**1.950**	**3.523**	**.000**	**.000**	**.316**

Table 1: Descriptive statistics (continued)

Country	Negative index for marketization processes	Resistance	Unemployment growth
Austria	-.1964749	.450	2.224057
Belgium	.0554247	.629	-1.021622
Chech	-.2468114	.417	6.695481
Denmark	-.0391736	.585	.9868983
Estonia	-.4721453	.294	10.41635
Finland	-.2606252	.492	-1.362076
France	-.1267485	.616	.7027418
Germany	-.1554943	.379	-.5550274
Greece	-.2222505	.666	6.23331
Hungary	-.2978007	.341	1.113247
Ireland	-.2212847	.635	2.731084
Italy	-.2126798	.507	.4888823
Luxembourg	.1216721	.638	8.228554
Netherlands	-.1966116	.375	1.986692
Norway	-.1597669	.439	-2.169371
Poland	-.1611757	.327	-.2090648
Portugal	-.2286563	.586	8.058182
Slovak Republic	-.1560497	.387	.3554023
Slovenia	-.3300125	.312	3.392559
Spain	-.0956175	.545	3.058007
Sweden	-.3020497	.529	3.048031
UK	.0000133	.611	-.2884136
Variance (sd) between countries	**.0767769**	**.132**	**17.84755**
Variance (sd) over time	**.844230**	**.108**	**118.9319**

Table 2: Descriptive statistics individual level variables

Variable	Mean	SD	Min	Max
Shame	.165	.371	0	1
Anomia	.203	.402	0	1
Employment status (% employed)	85.810	n/a	0	100
Educational level	.220	.943	-3.091	15.249
Age	35.306	17.698	1	98
Health status	.206	.860	-3.327	1.246
Income	.164	.989	-2.119	1.873
Church Attendance	-.065	.927	-1.767	2.543
Gender (% male)	51.590	n/a	0	100

N = 22,241 with shame; 47,878 with anomia

Figure 4: Excess disconnectedness among the unemployed (compared to employed), 1993-2012 averages

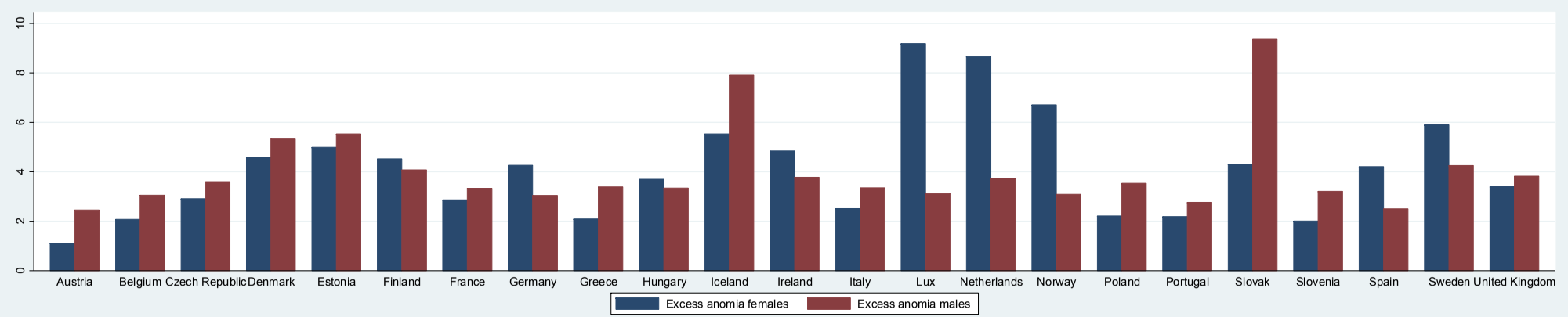


Figure 4: Excess shame among the unemployed (compared to employed), 2011/ 2012 averages (continued)

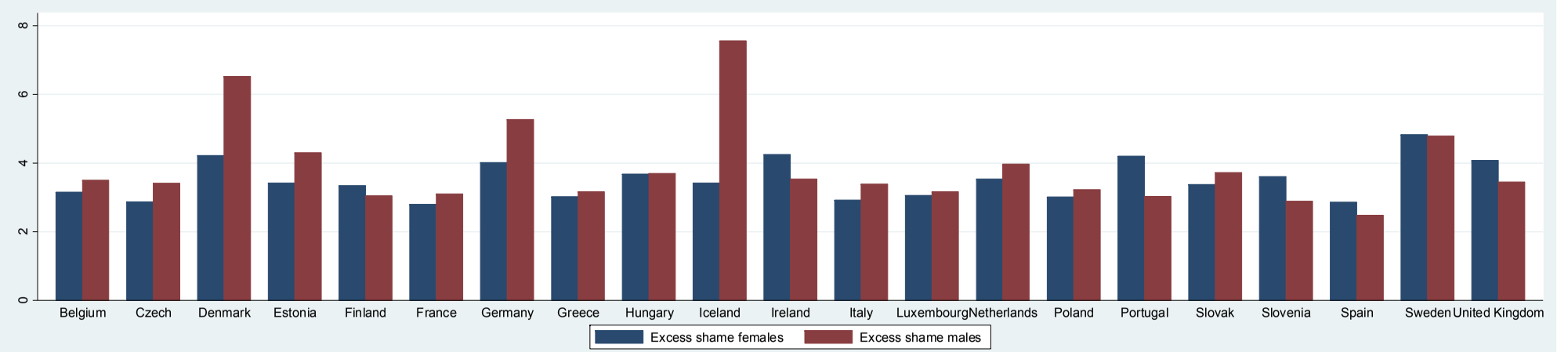


Figure 5: Excess disconnectedness among the unemployed (compared to employed), 1993-2012 trends, men

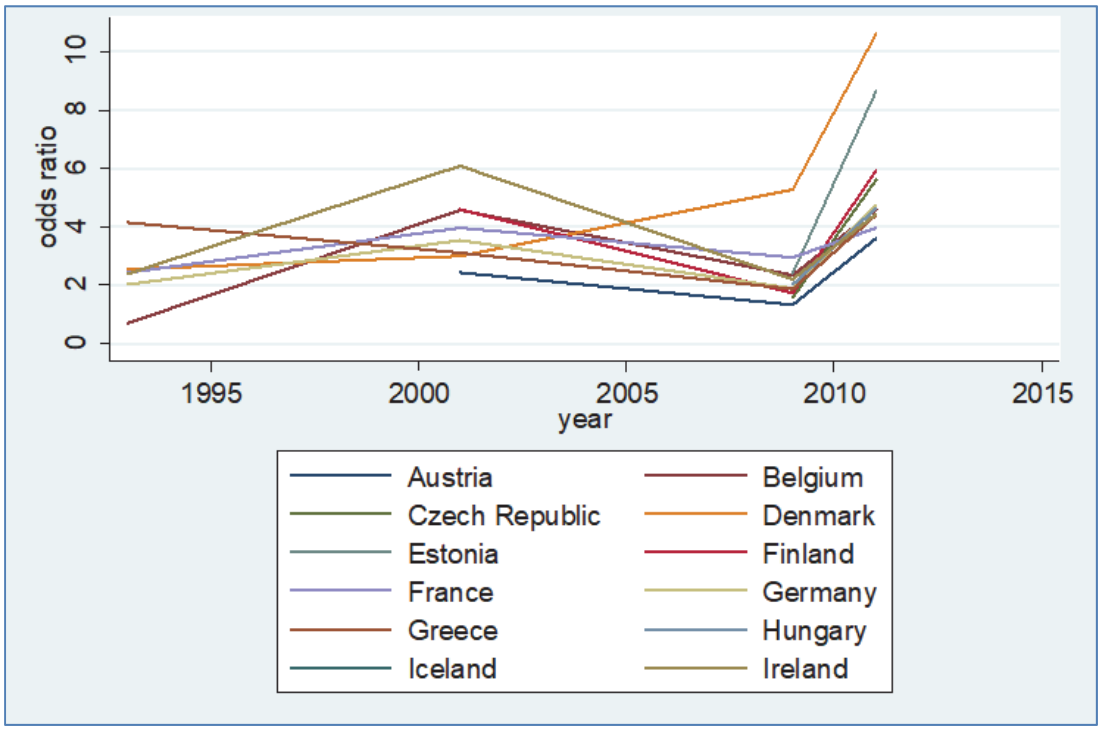


Figure 5 (continued): Excess disconnectedness among the unemployed (compared to employed), 1993-2012 trends, men

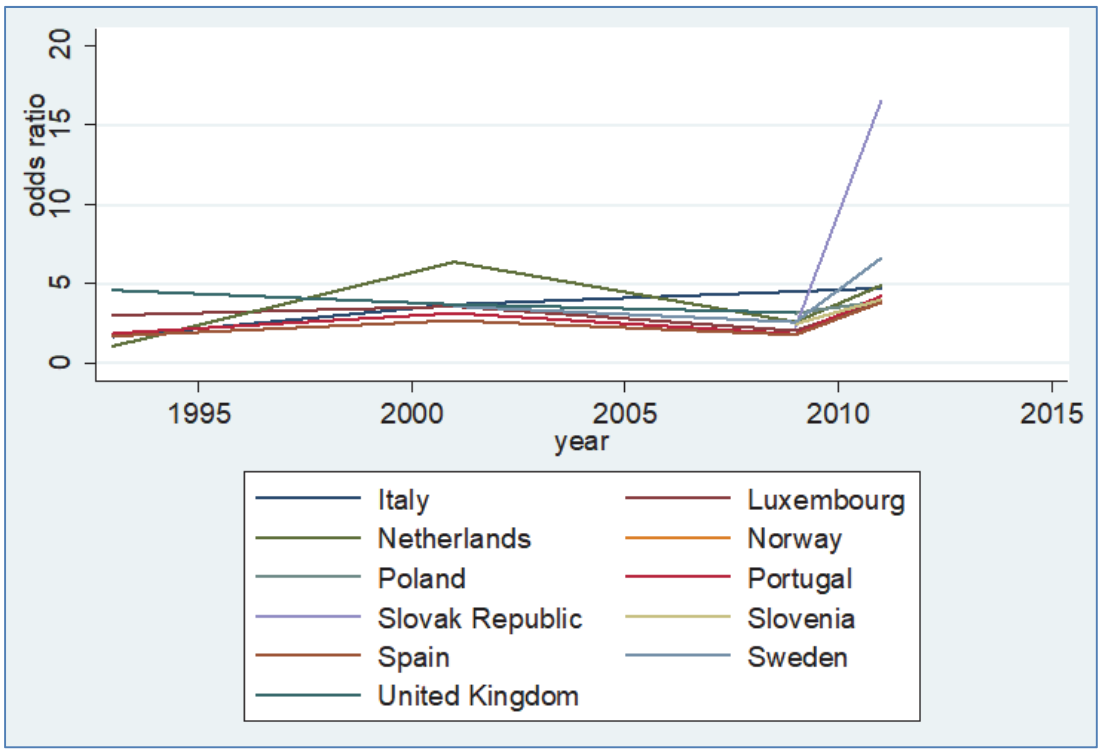


Figure 6: Excess disconnectedness among the unemployed (compared to employed), 1993-2012 trends, women

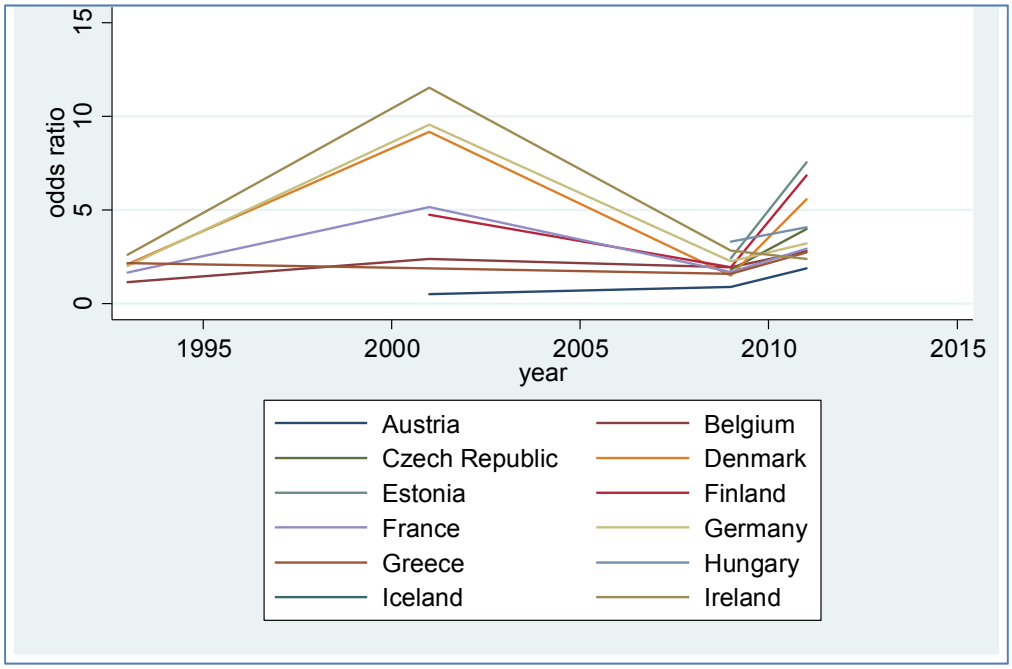
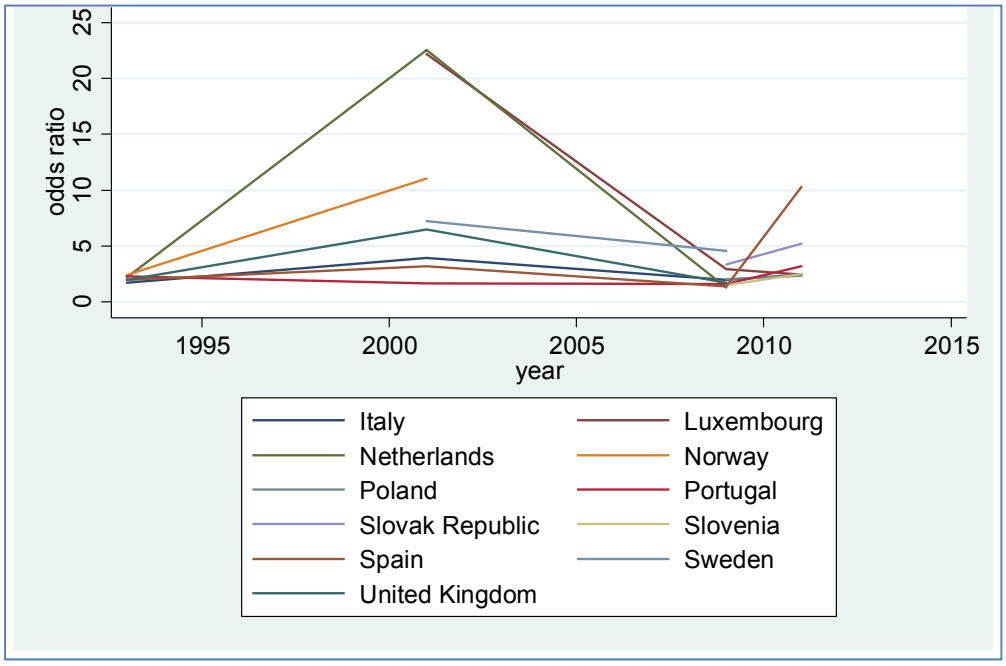


Figure 6 (continued): Excess disconnectedness among the unemployed (compared to employed), 1993-2012 trends, women



4.4 Results

4.4.1 Step 1 Analyses

Table 3 shows the results of the analysis testing all individual-level hypotheses regarding the feeling of being left out, now called anomia. Model 1a displays the effects of the control variables on the likelihood of individuals to experience anomia for men. Note that the coefficients in the table represent log odds, and the odds ratios are generated through taking the exponential of these log odds, which is done in the text for the effects of interest.

The degree of anomia experienced is negatively related to educational level but not statistically significant with income. Interestingly, the more recent the survey wave, the less anomia the respondents experience. This could also have to do with the widening in the group of participating countries over time. Moreover, the divorced/ separated experience more anomia than married persons, but the other marital statuses (e.g. widowed, single) and a better self-reported health is related to less anomia. The unemployment rate and the composition of the unemployed population in one's society are not related to the degree of anomia experienced by individuals.

Model 2a adds the effect of employment status (i.e. the effect of being unemployed instead of employed). **It indeed appears that the unemployed suffer more anomia than employed** ($b = .770$, $p < .001$). Taking the exponent of this coefficient reveals that the unemployed are 2.2 times as likely to experience anomia than the employed.

Model 1b shows the effects of the control variables for women. This shows that the effects are virtually identical for women. Having more highly educated among the unemployed in one's society appears to lower the anomia experienced by individuals, although marginally statistically significantly so. A higher youth unemployment rate is related to more anomia in society for women.

Model 2b adds the effect of being unemployed for females. This shows again that the unemployed have a significantly higher likelihood of experiencing anomia than the employed ($b = .516$, $p <.001$). The effect is somewhat weaker, but still substantial. **Female unemployed are almost twice as likely (1.7 times) than their employed counterparts to experience anomia.**

Table 3: Multi-level logistic regression on feeling left out (anomia), 1993-2012

	Model 1 a			Model 2a			Model 1b			Model 2b		
	Men						Women					
	b	SE		b	SE		b	SE		b	SE	
Constant	1.278	0.397	**	1.022	0.355	**	0.845	0.328	*	0.69	0.306	*
Individual level												
Age	0.012	0.013		0.015	0.013		0.003	0.014		0.005	0.014	
Age squared	0	0		0	0		0	0		0	0	
Education	-0.073	0.025	**	-0.07	0.025	**	-0.068	0.026	**	-0.064	0.025	*
Religiousness	0.05	0.033		0.051	0.033		0.02	0.034		0.022	0.034	
Income	-0.006	0.03		0.008	0.03		-0.044	0.03		-0.032	0.03	
Marital status												
Married (ref.)												
Divorced/ Separated	0.253	0.074	***	0.245	0.074	***	0.205	0.064	**	0.205	0.064	**
Widowed	0.246	0.201		0.244	0.2		0.058	0.122		0.059	0.122	
Single	0.061	0.055		0.048	0.055		-0.039	0.062		-0.043	0.062	
Health status	-0.135	0.025	***	-0.129	0.025	***	-0.107	0.026	***	-0.103	0.026	***
Employment status												
Employed (ref.)												
Unemployed				0.77	0.132	***				0.516	0.114	***
National level												
Unemployment rate	-0.025	0.04		-0.035	0.036		-0.051	0.033		-0.055	0.03	+
Long-term unemployment in total unemployment	-0.003	0.007		-0.003	0.006		0.003	0.006		0.003	0.005	
Tertiary educated in total unemployment	-0.02	0.014		-0.021	0.012	+	-0.02	0.011	+	-0.02	0.01	*
Young people in total unemployment	0.011	0.017		0.014	0.015	+	0.024	0.014		0.024	0.013	+

$^{+}p < .1$, $^{*}p < .05$, $^{**}p < .01$, $^{***}p < .001$. *Country-fixed effects were included but not displayed. N (male) = 19532; N (female) = 18673.* Year dummy variables (1993, 2001, 2009, 2011) and dummy variables for values imputed as married or divorced/ separated were included but not displayed, and can be requested from the author.

Table 4 shows the results of the analyses of the analyses testing the hypotheses on the feeling of being looked down at, now called shame. Model 1a displays the effects of the control variables on the likelihood of men to experience shame. Age does at first glance not influence the likelihood to experience shame, but appears to be negatively correlated to shame at older ages. Moreover, a higher educational degree and higher income are both related to less likelihood to experience shame. Remind that the shame, or feeling to be looked down at, were asked with regard to one's job and income position. Also non-income variables are associated with shame: being divorced/ separated or single instead of married is related to more shame (note: net from income differences). A higher health status is related with less shame. Men that live in societies with a higher youth unemployment rate are more likely to experience feelings of shame, whereas a higher overall unemployment rate is related to lower shame.

Model 2a shows that **unemployed men are 2.7 times (b= .981, p <.001) more likely to feel ashamed because of their job/ income situation than employed men.**

Model 1b and 2b show the effects for females. The patterns appear to be virtually identical for women (Model 1a). Being unemployed has also for women a positive effect on being ashamed (Model 2b): **unemployed females are 2.1 times more likely than employed women to experience shame (b = .752, p <.001).**

Table 4: Multi-level logistic regression on feeling looked down upon (shame), 2011/ 2012

	Model 1 a			Model 2a			Model 1b			Model 2b		
	Men						Women					
	b	SE		b	SE		b	SE		b	SE	
Constant	-1.588	0.43	***	-1.946	0.441	***	-1.595	0.439	***	-2.002	0.447	***
Individual level												
Age	0.02	0.02		0.038	0.02	+	0.017	0.021		0.033	0.021	
Age squared	0	0	*	0	0	**	0	0	+	0	0	*
Education	-0.239	0.039	***	-0.182	0.039	***	-0.269	0.036	***	-0.227	0.037	***
Religiousness	-0.004	0.039		0.004	0.039		-0.026	0.037		-0.032	0.037	
Income	-0.262	0.065	***	-0.208	0.066	**	-0.174	0.061	**	-0.122	0.062	*
Marital status												
Married (ref.)												
Divorced/ Separated	0.291	0.105	**	0.197	0.107	+	0.349	0.086	***	0.312	0.087	***
Widowed	0.342	0.254		0.272	0.258		0.411	0.158	**	0.395	0.159	*
Single	0.18	0.087	*	0.052	0.089		0.349	0.089	***	0.286	0.091	**
Health status	-0.382	0.038	***	-0.328	0.039	***	-0.37	0.037	***	-0.34	0.037	***
Employment status												
Employed (ref.)												
Unemployed				0.981	0.085	***				0.752	0.083	***
National level												
Unemployment rate	-0.089	0.021	***	-0.113	0.021	***	-0.104	0.02	***	-0.118	0.021	***
Long-term unemployment in total unemployment	-0.002	0.003		-0.002	0.003		-0.005	0.003		-0.004	0.003	
Tertiary educated in total unemployment	0.003	0.007		0.001	0.007		0.004	0.007	+	0.003	0.007	
Young people in total unemployment	0.036	0.008	***	0.041	0.008	***	0.044	0.008	***	0.047	0.008	***

$^{+}p < .1$, $^{*}p < .05$, $^{**}p < .01$, $^{***}p < .001$. *Country-fixed effects were included but not displayed. N (male) = 19532; N (female) = 18673.* Year dummy variables (1993, 2001, 2009, 2011) and dummy variables for values imputed as married or divorced/ separated were included but not displayed, and can be requested from the author.

4.4.2 Step 2 Analyses

Table 5 shows the results of the macro-level analyses of the effect of marketization processes (negatively measured by the marketization index) on the excess prevalence of disintegration among unemployed men compared to their employed counterparts, across different societies. Model 1 contains the basic control variables (i.e. the country fixed-effects and a year counter), as well as the substantive independent variables: marketization processes and changes in unemployment. First of all, the statistically significant time counter indicates that the unemployed men have gotten a larger chance of feeling left out (compared to employed men) in later years. The coefficient is also substantial. Assuming a linear time trend, every year goes accompanied with another .146 point increase in the rate ratio for the extent to which unemployed men feel more left out ($b = .146$, $p < .01$). Marketization processes and unemployment growth have, by contrast, no influence on this rate ratio ($b = .008$, $p > .10$ and $b = .001$, $p > .10$ respectively). **This contradicts Hypothesis 4, which expected that societies with higher levels of marketization have a higher level of excess disconnectedness among unemployed men.**

Model 2 adds the interaction effect between the two substantive independent variables: marketization processes and changes in unemployment. This reveals that marketization alters the relationship between changes in unemployment and the higher tendency of disintegration among unemployed men ($b = .003$, $p < .05$). Remind that the index for marketization is a negative one, and that larger negative values indicate *stronger* movements towards more marketization instead of less. However, these values seem to be out of the observed range and plotting the interaction effect would be merely fictional. If the observed range would be there, the interaction coefficient suggests that unemployment growth has a larger risk-enhancing influence on unemployed men, in those institutional frameworks that are more strongly moving towards more regulation (i.e. less marketization). Stated differently: when societies strongly move towards marketization, unemployment growth less dramatically (or not at all) enlarges the higher tendency towards disintegration of unemployed men (compared to employed men). **If this were the case, this would even more directly contradicts Hypothesis 4, which expected precisely the opposite interaction effect.** At last, the main coefficient for unemployment growth ($b = .010$, $p < .10$) becomes marginally statistically significant and indicates the relationship between unemployment changes and disintegration tendencies of the unemployed *at a level of zero marketization (or regulation) changes.*

Model 3 adds additional control variables to the previous model: the divorce rate, the percentage of tertiary educated within the unemployed population, the percentage of young people within this population and, finally, the proportion of unemployed people that are also long-term unemployed. The main results of the previous model remain intact. None of the added control variables have an apparent influence on the higher tendency to disintegration of unemployed males, only youth unemployment

appears to (marginally significantly) increase the disintegration tendency of the unemployed (b = .056, p <.10).

Model 4 repeats the previous model, but extends the time range from 1993-2012 to 1960-2016. This means that values had to be extrapolated on many subsequent years for variables such as disintegration or the excess shame of the unemployed (with only valid observations between 1993 and 2012), or resistance (with only valid observations between 1980 and 2012). Therefore a control dummy variable distinguishing the secure 1993-2012 period from the outer year-intervals, was included in this model. Again, this leaves the main results intact.

Table 5: Macro-level linear regression on excess disconnectedness of male unemployed (indep variable: marketization), 1993-2012

	Model 1			Model 2			Model 3			Model 4		
	b	SE		b	SE		b	SE		b	SE	
Constant	-4.983	2.262	*	-4.916	2.171	*	-3.323	1.944	+	-3.323	1.944	+
Unemployment growth	0.007	0.005		0.01	0.006	+	0.005	0.005		0.005	0.005	
Negative marketization	0.001	0.046		-0.032	0.052		-0.025	0.052		-0.025	0.052	
Interaction effects				0.003	0.002	*	0.003	0.002	*	0.003	0.002	*
Unemployment growth												
X												
Negative marketization												
Control variables included												
Country fixed-effects	X			X			X			X		
Year counter	X			X			X			X		
Divorce rate							X			X		
Tertiary educated in total unemployment							X			X		
Young people in total unemployment							X			X		
Long-term unemployment in total unemployment							X			X		
Extrapolated series (dummy)										X		

$^{+}p < .1$, $^{*}p < .05$, $^{**}p < .01$, $^{***}p < .001$. *N = 437 country-years.* Control variables were included but not displayed, and can be requested from the author.

Table 6 shows the macro-level effects of marketization processes the degree to which unemployed men in societies were more often ashamed for their job or income situation compared to employed men. Model 1 again here includes the basic control variables, as well as the index for marketization processes and changes in unemployment. As with the higher tendency of unemployed men to disintegration, their higher suffering of shame is only influenced by time effects (b = .094, p <.05) and not by unemployment growth (b= .001, p >.10) or by marketization processes (b = .030, p >.10). **This finding challenges Hypothesis 6, as marketization does not seem to be related to more income- or job-based shame among the unemployed.**

Model 2 adds the interaction effect between the two substantive independent variables: marketization processes and changes in unemployment. **A similar interaction effect was found (b = .004, p <.01).** Remind that marketization processes are indicated by a negative index. When societies are more strongly moving towards marketization, unemployment growth less dramatically (or not at all) enlarges the higher shame felt among unemployed men (compared to employed men). **This directly contradicts Hypothesis 6, which expected the opposite interaction effect.** Importantly, for excess shame of the unemployed, the interaction effect is at play within the observed range. Figure and Table 7 display the exact interaction effect that was found. For the sample of countries and years, values of negative marketization processes ranged between -5.5 and 2.6. At levels where societies are clearly moving towards more marketized institutional frameworks (i.e. at negative values of the negative marketization index), unemployment growth has a statistically significant (albeit small) influence on the extent to which unemployed feel more ashamed than employed men. With more unemployment growth, this gap declines somewhat – when societies are witnessing marketization processes (see Table 7 and Figure 7): the unemployment growth coefficients vary from -.016 and -.009 at a p-value smaller than .10. From smaller marketization processes on (at an index value of -3), unemployment growth ceases to have any statistically significant influence. From relatively strong movements towards regulation on (at an index value larger than 2), however, unemployment growth starts to increase the shame inequality between unemployed and employed men – albeit at a marginally statistical significance (b = .014, p <.10). **Again, this all clearly contradicts Hypothesis 6**.

Model 3 adds some extra control variables in it: the divorce rate and some compositional characteristics of the unemployed population. This leaves the previous results intact. The coefficient for the interaction effect remains identically strong (b = .004, p <.01). Interestingly, more tertiary educated among the unemployed appears to increase the higher presence of shame among unemployed men compared to the employed, although at a marginal statistical significance (b = .079, p <.10). Moreover, a higher proportion of young people among the unemployed increases this as well, but to a smaller extent and at a marginal statistical significance (b = .035, p <.10). Model 4 repeats the previous model, but extends the time range from 1993-2012 to 1960-2016 with a dummy variable to

account for extrapolated time series. The previously identified patterns appear strikingly robust against this change.

Table 6: Macro-level linear regression on excess shame of male unemployed (indep variable: marketization), 1993-2012

	Model 1		Model 2		Model 3		Model 4	
	b	SE	b	SE	b	SE	b	SE
Constant	-3.011	1.868	-3.032	1.849	-4.467	1.975 *	-4.467	1.975 *
Unemployment growth	0.002	0.005	0.004	0.005	0.003	0.005	0.003	0.005
Negative marketization	0.03	0.043	-0.006	0.047	0.001	0.049	0.001	0.049
Interaction effects			0.004	0.001 **	0.004	0.001 **	0.004	0.001 **
Unemployment growth								
X								
Negative marketization								
Control variables included								
Country fixed-effects	X		X		X		X	
Year counter	X		X		X		X	
Divorce rate					X		X	
Tertiary educated in total unemployment					X		X	
Young people in total unemployment					X		X	
Long-term unemployment in total unemployment					X		X	
Extrapolated series (dummy)							X	

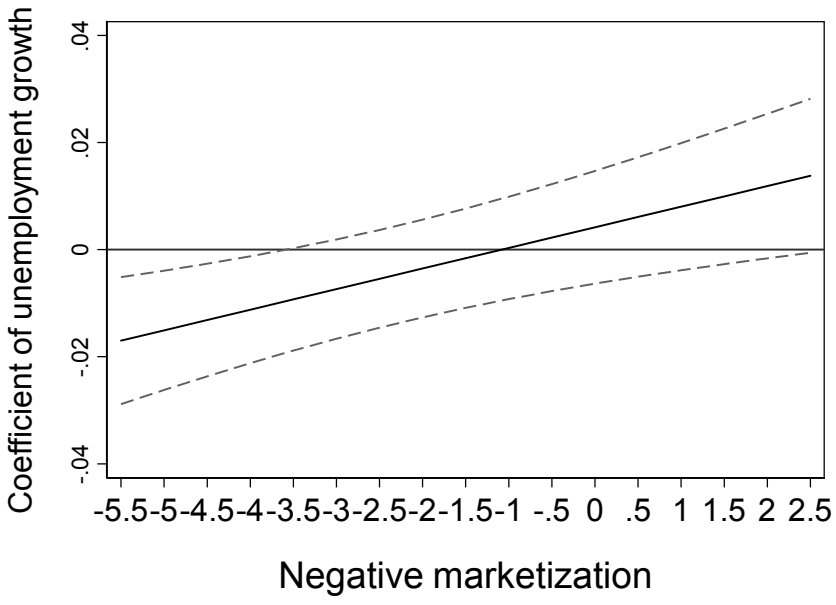
$^{+}p < .1$, $^{*}p < .05$, $^{**}p < .01$, $^{***}p < .001$. *N = 399 country-years.* Control variables were included but not displayed, and can be requested from the author.

Table 7: Marginal effects of unemployment growth at different levels of marketization, for men

Level of negative marketization	b unemployment growth	SE	
-5.5	-0.016	0.006	**
-5	-0.015	0.006	**
-4.5	-0.013	0.005	*
-4	-0.011	0.005	*
-3.5	-0.009	0.005	+
-3	-0.007	0.005	
-2.5	-0.005	0.005	
-2	-0.003	0.005	
-1.5	-0.001	0.005	
-1	0	0.005	
-0.5	0.002	0.005	
0	0.004	0.005	
0.5	0.006	0.005	
1	0.008	0.006	
1.5	0.009	0.006	
2	0.012	0.007	+
2.5	0.014	0.007	+

$^{+}p < .1$, $^{*}p < .05$, $^{**}p < .01$, $^{***}p < .001$. *N = 399 country-years.* Based on Model 2 Table 6.

Figure 7: Interaction effect between unemployment growth and marketization, for men



The next analyses focus on *popular resistance* against marketization instead of on the marketization processes themselves. **Model 1 in Table 8, containing the basic control variables, shows that the higher tendency of unemployed men to feel left out (compared to their employed counterparts) *increases* when there is more popular resistance against marketization** (b = 9.632, p <.001). Strikingly, the influence seems to be substantial: the rate ratio between unemployed and employed men appears to increase with 9 points at every proportion-point increase of popular resistance. **This clearly contradicts Hypothesis 8a, where more resistance in society was expected to soften the impact of individual unemployment on disconnectedness.** Changes in unemployment again have no main influence in Model 1 (b = .008, p >.10).

Model 2 adds the interaction effect between resistance and growth in unemployment. When taking account of a potential interaction effect, it appears that the level of resistance in societies changes the influence of unemployment growth, considering the statistically significant interaction coefficient (b = -.074, p <.05). **With more resistance in societies, unemployment growth ceases to have an impact on the higher disintegration among the unemployed. At very high levels of resistance, unemployment growth may even start to decrease the higher disintegration tendency of unemployed men. So with regard to Hypothesis 6, it appears that while popular resistance *increases* the disintegrating impact of *individual* unemployment, it *decreases* the disintegrating impact of *collective* unemployment.**

Model 3 adds additional control variables to the previous model: the divorce rate, the percentage of tertiary educated within the unemployed population, the percentage of young people within this population and, finally, the proportion of unemployed people that are also long-term unemployed. The main results of the previous model remain intact. The interaction effect, however, is now only marginally statistically significant (b = -.072, p <.10). Again, none of the added control variables have any influence on the higher tendency to disintegration of unemployed males, except youth unemployment (b = .046, p <.10). Finally, Model 4 repeats the previous model, but extends the time range from 1993-2012 to 1960-2016 and controls for the time period for which many values had to be extrapolated. The findings from the previous model appear to be strikingly robust.

Table 8: Macro-level linear regression on excess disconnectedness of male unemployed (indep variable: resistance), 1993-2012

	Model 1			Model 2			Model 3			Model 4		
	b	SE		b	SE		b	SE		b	SE	
Constant	-5.868	2.1	**	-6.705	1.982	***	-6.597	2.132	**	-6.597	2.132	**
Unemployment growth	0.008	0.005		0.046	0.021	*	0.041	0.022	+	0.041	0.022	
Resistance	9.632	2.204	***	10.800	2.071	***	10.510	2.387	***	10.510	2.387	***
Interaction effects				-0.074	0.037	*	-0.072	0.038	+	-0.072	0.038	+
Unemployment growth												
X												
Resistance												
Control variables included												
Country fixed-effects	X			X			X			X		
Year counter	X			X			X			X		
Divorce rate							X			X		
Tertiary educated in total unemployment							X			X		
Young people in total unemployment							X			X		
Long-term unemployment in total unemployment							X			X		
Extrapolated series (dummy)										X		

$^{+}p < .1$, $^{*}p < .05$, $^{**}p < .01$, $^{***}p < .001$. *N = 437 country-years.* Control variables were included but not displayed, and can be requested from the author.

Now the analyses turn to the higher presence of shame among unemployed men (compared to employed men). Model 1 in Table 9 shows that, this time, resistance has no apparent influence on the higher shame rate of unemployed men ($b = .081$, $p > .10$). This challenges Hypothesis 8b, which expected a protective influence from stronger resistance. Only the passing of time appears to have a statistically significant relationship with the higher presence of shame among unemployed males ($b = .094$, $p < .05$).

Model 2 examines whether resistance alters the relationship between the higher tendency towards shame of unemployed men and growth in unemployment rates. The small and statistically insignificant coefficient of this interaction variable indicates that this is not the case ($b = -.030$, $p > .10$), thereby again not supporting Hypothesis 8b.

Model 3 adds extra control variables, leaving the previous results intact. The results again remain identical after extending the time range in Model 4.

Table 9: Macro-level linear regression on excess shame of male unemployed (indep variable: resistance), 1993-2012

	Model 1		Model 2		Model 3		Model 4	
	b	SE	b	SE	b	SE	b	SE
Constant	-3.06	1.801 +	-3.403	1.79 +	-4.993	2.056 *	-4.993	2.056 *
Unemployment growth	0.002	0.005	0.017	0.014	0.018	0.015	0.018	0.015
Resistance	0.081	0.998	0.527	1.042	0.214	1.641	0.214	1.641
Interaction effects			-0.03	0.027	-0.032	0.028	-0.032	0.028
Unemployment growth								
X								
Resistance								
Control variables included								
Country fixed-effects	X		X		X		X	
Year counter	X		X		X		X	
Divorce rate					X		X	
Tertiary educated in total unemployment					X		X	
Young people in total unemployment					X		X	
Long-term unemployment in total unemployment					X		X	
Extrapolated series (dummy)							X	

$^{+}p < .1$, $^{*}p < .05$, $^{**}p < .01$, $^{***}p < .001$. *N = 437 country-years.* Control variables were included but not displayed, and can be requested from the author.

The following set of analyses look at women's patterns with identical models. To start with the higher tendency to experience disintegration of unemployed versus employed women, Model 1 in table 10 shows that this is not influenced by marketization processes ($b = -.049$, $p > .10$), nor by changes in unemployment ($b = -.001$, $p > .10$). **Thus Hypothesis 4 is not supported here.**

Model 2 adds the interaction effect between marketization processes and changes in unemployment. There does not appear to be such an interaction effect for women ($b = .001$, $p > .10$).

Model 3 adds additional control variables to the previous model: the divorce rate, the percentage of tertiary educated within the unemployed population, the percentage of young people within this population and, finally, the proportion of unemployed people that are also long-term unemployed. The main results of the previous model remain identical. None of the control variables appear to contribute to a larger or smaller tendency of female unemployed to feel disintegrated. Model 4, finally, shows that extending the time range does not affect the results.

Table 10: Macro-level linear regression on excess disconnectedness of female unemployed (indep variable: marketization), 1993-2012

	Model 1		Model 2		Model 3		Model 4	
	b	SE	b	SE	b	SE	b	SE
Constant	-2.556	2.675	-2.684	2.773	-0.983	2.914	-0.983	2.914
Unemployment growth	0.001	0.005	0.002	0.006	-0.004	0.006	-0.004	0.006
Negative marketization	-0.049	0.081	-0.057	0.09	-0.054	0.091	-0.054	0.091
Interaction effects			0.001	0.002	0.001	0.002	0.001	0.002
Unemployment growth X Negative marketization								
Control variables included								
Country fixed-effects	X		X		X		X	
Year counter	X		X		X		X	
Divorce rate					X		X	
Tertiary educated in total unemployment					X		X	
Young people in total unemployment					X		X	
Long-term unemployment in total unemployment					X		X	
Extrapolated series (dummy)							X	

$^{+}p < .1$, $^{*}p < .05$, $^{**}p < .01$, $^{***}p < .001$. *N = 437 country-years.* Control variables were included but not displayed, and can be requested from the author.

Table 11 turns the focus towards the higher presence of shame among unemployed women (compared to employed women). Model 1 shows that, again, marketization processes do not influence the higher presence of shame among unemployed women (compared to employed women) (b = .033, p >.10). In this model, only the passing of time appears to have a statistically significant relationship with the higher presence of shame among unemployed females (b = .087, p <.05). The higher presence of shame among unemployed females is also unaffected by changes in unemployment (b = -.002, p >.10).

With Model 2, a similar interaction effect was identified as for men: **unemployment growth does not decrease the gap between unemployed and employed women anymore when their societies are moving back towards regulation, or when they witness weaker movements towards marketization** (b = .004, p >.01). **Put differently: in societies that are moving more strongly towards marketization instead of regulation, unemployment growth contributes *less* to higher experiences of shame among the unemployed (compared to employed) than in societies that move more strongly towards regulation**. Figure 8 and Table 12 display this interaction effect. They show that unemployment growth retains its small but statistically significant equalizing effect when it comes to employment-related shame, at many levels of (positive) marketization processes (until the index value of -2) – at more levels than for men. At the other spectrum, at high values for regulative processes, unemployment growth does not turn up with any marginally statistically significant inequality-enhancing influence for women (see Table 12). In all, Hypothesis 6 is also severely challenged with regard to the female patterns, having expected a lower excess shame incidence among unemployed females (compared to employed females) in those societies that face less strong marketization (or stronger regulative) processes.

Model 3 adds extra control variables, showing that the results are robust against this intervention. Interestingly, female unemployed have an even higher risk of feeling ashamed (compared to their employed counterparts) when there are more tertiary educated (b = .087, p <.10) and more young people among the unemployed (b = .040, p <.05). The results again remain identical after extending the time range in Model 4.

Table 11: Macro-level linear regression on excess shame of female unemployed (indep variable: marketization), 1993-2012

	Model 1		Model 2		Model 3		Model 4	
	b	SE	b	SE	b	SE	b	SE
Constant	-2.799	1.76	-2.793	1.734	-3.979	1.8 *	-3.979	1.8 *
Unemployment growth	-0.002	0.005	0.001	0.005	-0.002	0.004	-0.002	0.004
Negative marketization	0.033	0.04	-0.001	0.043	0.005	0.045	0.005	0.045
Interaction effects			0.004	0.001 **	0.004	0.001 ***	0.004	0.001 ***
Unemployment growth								
X								
Negative marketization								
Control variables included								
Country fixed-effects	X		X		X		X	
Year counter	X		X		X		X	
Divorce rate					X		X	
Tertiary educated in total unemployment					X		X	
Young people in total unemployment					X		X	
Long-term unemployment in total unemployment					X		X	
Extrapolated series (dummy)							X	

$^{+}p < .1$, $^{*}p < .05$, $^{**}p < .01$, $^{***}p < .001$. *N = 399 country-years.* Control variables were included but not displayed, and can be requested from the author.

Table 12 Marginal effects of unemployment growth at different levels of marketization, for women

Level of negative marketization	b unemployment growth	SE	
-5.5	-0.016	0.007	**
-5	-0.015	0.006	**
-4.5	-0.013	0.006	**
-4	-0.011	0.005	*
-3.5	-0.009	0.005	*
-3	-0.007	0.005	*
-2.5	-0.005	0.005	+
-2	-0.003	0.005	
-1.5	-0.001	0.005	
-1	0	0.004	
-0.5	0.002	0.005	
0	0.004	0.005	
0.5	0.006	0.005	
1	0.008	0.005	
1.5	0.009	0.005	
2	0.012	0.006	
2.5	0.014	0.006	

$^{+}p < .1$, $^{*}p < .05$, $^{**}p < .01$, $^{***}p < .001$. *N = 399 country-years.* Based on Model 2 Table 11.

Figure 8 Marginal effects of unemployment growth at different levels of marketization, for women

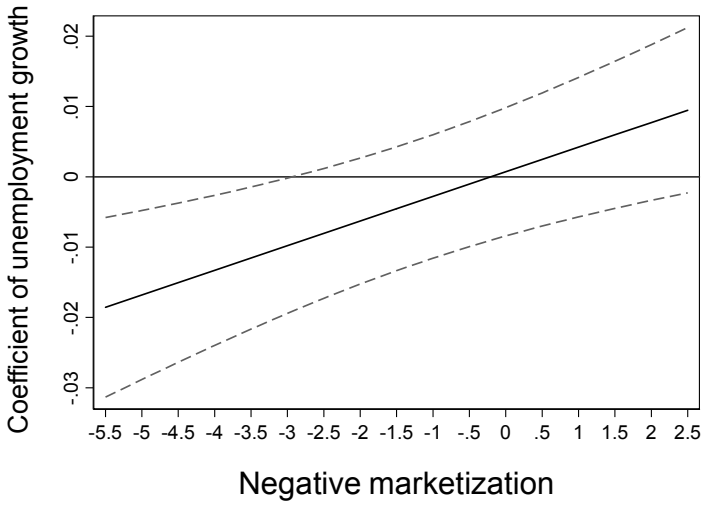


Table 13 and 14 proceed with the effects of *popular resistance* against marketization processes on women, rather than on marketization itself. The discussion will start with the higher tendency to experience disintegration of unemployed women. Model 1 Table 13 shows that popular resistance is substantially increasing the extent to which female unemployed feel more disintegrated than their employed counterparts ($b = 7.957$, $p < .05$). Just as for men, the contribution of resistance is quite large: every percent point increase in the proportion of people that oppose society's current large emphasis on money and work, is accompanied by an increase of 7.957 in the rate to which unemployed women have a higher tendency to feel disintegrated than employed women. **This severely contradicts hypothesis 8a, as was found for men as well.** Changes in the unemployment rate, however, does not influence this rate ratio ($b = .001$, $p > .10$).

Model 2 adds the interaction effect between resistance and changes in unemployment, showing no support for assuming such an interaction effect ($b = -.038$, $p > .10$). Thus, while resistance was protective for unemployed male in the face of growing unemployment, for women it has no such protective effect.

Model 3 shows that, despite adding extra control variables, the main results of the previous model remain identical and the coefficient for resistance remains large ($b = 9.687$, $p < .05$). The same applies for extending the time range (Model 4).

Table 13: Macro-level linear regression on excess disconnectedness of female unemployed (indep variable: resistance), 1993-2012

	Model 1			Model 2			Model 3			Model 4		
	b	SE		b	SE		b	SE		b	SE	
Constant	-4.813	2.626	+	-5.189	2.549	*	-3.623	2.633		-3.623	2.633	
Unemployment growth	0.001	0.005		0.021	0.018		0.008	0.019		0.008	0.019	
Resistance	7.957	3.568	*	8.684	3.467	*	9.687	3.833	*	9.687	3.833	*
Interaction effects				-0.038	0.035		-0.023	0.036		-0.023	0.036	
Unemployment growth												
X												
Resistance												
Control variables included												
Country fixed-effects	X			X			X			X		
Year counter	X			X			X			X		
Divorce rate							X			X		
Tertiary educated in total unemployment							X			X		
Young people in total unemployment							X			X		
Long-term unemployment in total unemployment							X			X		
Extrapolated series (dummy)										X		

$^{+}p < .1$, $^{*}p < .05$, $^{**}p < .01$, $^{***}p < .001$. *N = 437 country-years.* Control variables were included but not displayed, and can be requested from the author.

Now the analyses turn again to the higher presence of shame among unemployed women (compared to employed women). Model 1 shows that the degree of popular resistance does not influence the higher presence of shame among unemployed women (compared to employed women) (b = -.048, p >.10). **Therefore, Hypothesis 8b is not supported, but also not contradicted such as the case for Hypothesis 8a.** Neither does unemployment growth (b = -.002, p >.10).

Model 2 considers a potential interaction effect between changes in unemployment and marketization processes. Interestingly, the data provide support for assuming such an interaction effect. Unemployment growth less strongly increases the gap between unemployed and employed women in societies with more popular resistance against marketization (b = -.064, p >.01). **Indeed, it appears that at higher levels of resistance, unemployment growth starts to decrease the higher extent to which unemployed women feel ashamed compared to their employed counterparts.** At a closer look (see Table 15), it appears that unemployment growth increases the higher shame tendency of female unemployed *only* when less than approximately 30% of the population opposes their perceived current society's strong emphasis on money and work.

Finally, Model 3 shows that these patterns are robust against adding additional control variables, and Model 4 suggests that the same is the case for extending the time range.

Table 14: Macro-level linear regression on excess shame of female unemployed (indep variable: resistance), 1993-2012

	Model 1		Model 2			Model 3			Model 4		
	b	SE	b	SE		b	SE		b	SE	
Constant	-2.802	1.716	-3.502	1.624	*	-4.967*	1.941	*	-4.967	1.941	*
Unemployment growth	-0.002	0.005	0.031	0.012	**	0.031*	0.013	*	0.031	0.013	*
Resistance	-0.048	1.04	0.92	1.043		0.864	1.517		0.864	1.517	
Interaction effects			-0.064	0.023	**	-0.066	0.024	**	-0.066	0.024	**
Unemployment growth											
X											
Resistance											
Control variables included											
Country fixed-effects	X		X			X			X		
Year counter	X		X			X			X		
Divorce rate						X			X		
Tertiary educated in total unemployment						X			X		
Young people in total unemployment						X			X		
Long-term unemployment in total unemployment						X			X		
Extrapolated series (dummy)									X		

$^{+}p < .1$, $^{*}p < .05$, $^{**}p < .01$, $^{***}p < .001$. *N = 399 country-years.* Control variables were included but not displayed, and can be requested from the author.

Table 15 Marginal effects of unemployment growth at different levels of resistance, for women

Level of negative marketization	b unemployment growth	SE	
.20	0.018	0.008	*
.25	0.015	0.007	*
.30	0.012	0.006	+
.35	0.009	0.005	
.40	0.005	0.005	
.45	0.002	0.005	
.50	-0.001	0.004	
.55	-0.004	0.005	
.60	-0.007	0.005	

$^{+}p < .1$, $^{*}p < .05$, $^{**}p < .01$, $^{***}p < .001$. *N = 399 country-years.* Based on Model 2 Table 14.

The following subset of analyses focuses on the Durkheimian hypotheses about marketization processes (H1), popular resistance against these processes (H3), and society-wide disintegration. Model 1 of Table 16 contains the basic control variables: country fixed-effects and a time counter, as well as the two main independent variables: unemployment growth and marketization processes. Neither time, nor one of the independent variables appears to influence the degree of disintegration in societies. The coefficients of unemployment growth (b = -.001, p >.10) and marketization processes (b = .001, p >.10) are tiny and not statistically significant. **Therefore Hypothesis 1 is not supported. Hypothesis 1 expected that societies that witness stronger movements towards marketization, are more disintegrated.**

Model 2 adds an interaction effect between unemployment growth and marketization processes. The data do not support the hypotheses concerning this interaction effect. The coefficient is tiny and the p-value is excessively large to be statistically significant (b = -.001, p >.10).

Model 3 adds additional control variables such as the divorce rate, thought to influence the degree of anomie and disintegration, and accounts for the composition of the unemployed population. The main results are robust against adding these control variables. Interestingly, more tertiary educated among the unemployed is related to less disintegration felt in societies – although only in a small extent and at a marginally statistically significant p-value (b = -.003, p <.10).

Model 4, at last, extends the time range and adds a control variable that distinguishes the time period for which entire time series had to be extrapolated (before 1993 and after 2012). The findings from the previous models are robust against this intervention.

Table 16: Macro-level linear regression on society-wide disintegration (indep variable: marketization), 1993-2012

	Model 1		Model 2		Model 3		Model 4	
	b	SE	b	SE	b	SE	b	SE
Constant	0.015	0.075	0.015	0.07	0.004	0.066	0.004	0.066
Unemployment growth	0	0	0	0	0	0	0	0
Negative marketization	0	0	0	0	0	0	0	0
Interaction effects			0	0	0	0	0	0
Unemployment growth X Negative marketization								
Control variables included								
Country fixed-effects	X		X		X		X	
Year counter	X		X		X		X	
Divorce rate					X		X	
Tertiary educated in total unemployment					X		X	
Young people in total unemployment					X		X	
Long-term unemployment in total unemployment					X		X	
Extrapolated series (dummy)							X	

$^{+}p < .1$, $^{*}p < .05$, $^{**}p < .01$, $^{***}p < .001$. *N = 437 country-years.* Control variables were included but not displayed, and can be requested from the author.

Model 1 of Table 17 again includes only the country fixed-effects and a time counter as control variables, next to the two main independent variables: unemployment growth and popular resistance against marketization processes. The data show no support for Hypothesis 3 that **that societies with more popular resistance against these processes would be more integrated,** as the p-value is highly statistically insignificant ($b = .008$, $p > .10$).

Model 2 adds an interaction effect between unemployment growth and resistance against marketization processes. Again, the data do not support the hypothesized interaction effects, given the small coefficient and non-significant p-value ($b = .001$, $p > .10$).

These findings appear to be robust against controlling for the divorce rate and the composition of the unemployed population (Model 3), as well as for extending the time range (Model 4).

Table 17: Macro-level linear regression on society-wide disintegration (indep variable: resistance), 1993-2012

	Model 1		Model 2		Model 3		Model 4	
	b	SE	b	SE	b	SE	b	SE
Constant	0.012	0.073	0.018	0.058	0.011	0.061	0.011	0.061
Unemployment growth	0	0	-0.001	0.001	-0.001	0.001	-0.001	0.001
Resistance	0.008	0.062	0.008	0.061	0.004	0.059	0.004	0.059
Interaction effects			0.001	0.001	0.001	0.001	0.001	0.001
Unemployment growth								
X								
Resistance								
Control variables included								
Country fixed-effects	X		X		X		X	
Year counter	X		X		X		X	
Divorce rate					X		X	
Tertiary educated in total unemployment					X		X	
Young people in total unemployment					X		X	
Long-term unemployment in total unemployment					X		X	
Extrapolated series (dummy)							X	

$^{+}p < .1$, $^{*}p < .05$, $^{**}p < .01$, $^{***}p < .001$. *N = 437 country-years.* Control variables were included but not displayed, and can be requested from the author.

4.4.3 Step 3 Analyses

The following set of analyses check whether the male suicide rate is related to the extent to which unemployed men feel more disintegrated compared to their employed counterparts, and to the general degree of experienced disintegration in societies. Model 1 of Table 18 contains the basic control variables: country fixed-effects and a time counter, as well as the main independent variables: unemployment growth, marketization processes, disintegration, and the higher disintegration tendency of unemployed men. None of the independent variables appear to be related to the male suicide rate. Here, only the passing of the years has a small decreasing influence on the male suicide rate in this country sample ($b = -.015$, $p < .001$). **Interestingly, therefore, the classical Durkheimian hypothesis that suicide rates will be higher in more disintegrated societies (H2) is, at least with the present measure of disintegration and sample, falsified.**

Model 2 adds an interaction effect between unemployment growth and marketization processes. Interestingly, the data provide strong support of this interaction effect, albeit it is only a small effect ($b = -.001$, $p < .05$). The data indicate that in societies where unemployed men already have a larger tendency to feel disintegrated (compared to employed men), larger growth in unemployment rates is less suicidogenic. **This directly contradicts Hypothesis 5, which expected that stronger unemployment growth is *more* suicidogenic in societies where the unemployed feel more disconnected.**

Model 3 adds additional control variables such as the divorce rate, thought to influence the degree of anomie and disintegration, and accounts for the composition of the unemployed population. The main results are robust against adding these control variables. As an interesting side result, male suicide rates are higher in societies with more tertiary educated among the unemployed ($b = .012$, $p < .01$). These findings are robust against extending the time range (Model 4).

Table 18: Macro-level linear regression on the male suicide rate (indep variable: disintegration and marketization), 1993-2012

	Model 1		Model 2		Model 3		Model 4	
	b	SE	b	SE	b	SE	b	SE
Constant	4.055	0.068 ***	4.027	0.065 ***	4.047	0.091 ***	4.047	0.091 ***
Unemployment growth	0	0	0.001	0 *	0.001	0	0.001	0
Negative marketization	0.002	0.004	0.001	0.004	0.002	0.004	0.002	0.004
Excess disconnectedness male unemployed	0.004	0.003	0.003	0.002	0.002	0.003	0.002	0.003
Disintegration	-0.074	0.117	-0.024	0.117	0.002	0.138	0.002	0.138
Interaction effects			0	0 *	0	0 **	0	0 **
Unemployment growth								
X								
Excess disconnectedness male unemployed								
Control variables included								
Country fixed-effects	X		X		X		X	
Year counter	X		X		X		X	
Divorce rate					X		X	
Tertiary educated in total unemployment					X		X	
Young people in total unemployment					X		X	
Long-term unemployment in total unemployment					X		X	
Extrapolated series (dummy)							X	

$^{+}p < .1$, $^{*}p < .05$, $^{**}p < .01$, $^{***}p < .001$. *N = 460 country-years.* Control variables were included but not displayed, and can be requested from the author.

The next set of analyses focuses on the relationship between the higher presence of shame among unemployed men (compared to employed men) and the male suicide rate. Model 1 in Table 19 again includes only the country fixed-effects and a time counter as control variables, next to the two main independent variables: marketization processes, unemployment growth and the higher presence of shame among unemployed versus employed men. **Importantly, the higher presence of shame among unemployed men (compared to employed men) was related to higher male suicide rates (b= .009, p <.05).**

Model 2 adds an interaction effect between unemployment growth and the higher presence of shame among unemployed men. While the latter still has a clear main influence on the suicide rate (b = .009, p >.05), its influence is not altered by changes in unemployment – as indicated by the tiny and non-significant coefficient of the interaction term (b = .001, p >.10). Thus, Hypothesis 7 is not supported: when the unemployed suffer more shame in society, unemployment in that society does not have a larger suicidogenic impact than elsewhere. These findings remain the same against controlling for the divorce rate and the composition of the unemployed population (Model 3), as well as after extending the time range (Model 4).

Table 19: Macro-level linear regression on the male suicide rate (indep variable: shame and marketization), 1993-2012

	Model 1			Model 2			Model 3			Model 4		
	b	SE		b	SE		b	SE		b	SE	
Constant	4.052	0.055	***	4.038	0.059	***	4.076	0.112	***	4.076	0.112	***
Unemployment growth	0	0		0	0		0	0		0	0	
Negative marketization	0.003	0.004		0.003	0.004		0.003	0.004		0.003	0.004	
Excess shame male unemployed	0.009	0.005	*	0.009	0.004	*	0.01	0.005	*	0.01	0.005	*
Interaction effects		0		0	0		0	0		0	0	
Unemployment growth												
X												
Excess shame male unemployed												
Control variables included												
Country fixed-effects	X			X			X			X		
Year counter	X			X			X			X		
Divorce rate							X			X		
Tertiary educated in total unemployment							X			X		
Young people in total unemployment							X			X		
Long-term unemployment in total unemployment							X			X		
Extrapolated series (dummy)										X		

$^{+}p < .1$, $^{*}p < .05$, $^{**}p < .01$, $^{***}p < .001$. *N = 420 country-years.* Control variables were included but not displayed, and can be requested from the author.

The next analyses turn towards female suicide rate in relation to disintegration. Model 1 contains the basic control variables: country fixed-effects and a time counter, as well as the main independent variables: unemployment growth, marketization processes, disintegration, and the higher disintegration tendency of unemployed females. **Interestingly, the more disintegration unemployed females feel compared to their employed counterparts, the lower the female suicide rate – albeit only marginally statistically significantly so (b = -.007, p <.10**). Moreover, the female suicide rate appears to decline somewhat with the passing of the years (b = -.014, p <.001). **Importantly, the female patterns clearly contradict the classical Durkheimian hypothesis (H2) that more disintegration in society is related with *lower* (instead of higher) suicide rates (b = -.544, p <.001). Indeed, the coefficient is modestly strong given the fact that suicide involves a rare behaviour.**

Model 2 adds an interaction effect between unemployment growth and marketization processes. There is no support for assuming such an interaction effect (b = -.001, p >.10). **Therefore, Hypothesis 1 is not supported by the data.** These results are robust against controlling for the divorce rate and compositional factors of the unemployed population (Model 3), as well as for extending the time range (Model 4).

Table 20: Macro-level linear regression on the female suicide rate (indep variable: disintegration and marketization), 1993-2012

	Model 1			Model 2			Model 3			Model 4		
	b	SE		b	SE		b	SE		b	SE	
Constant	2.844	0.079	***	2.838	0.08	***	2.864	0.102	***	2.864	0.102	***
Unemployment growth	0	0		0.001	0		0	0.001		0	0.001	
Negative marketization	0.008	0.005		0.009	0.005	+	0.009	0.005	+	0.009	0.005	+
Excess disconnectedness female unemployed	-0.007	0.004	+	-0.007	0.004	+	-0.007	0.004	+	-0.007	0.004	+
Disintegration	-0.544	0.153	***	-0.548	0.155	***	-0.461	0.146	**	-0.461	0.146	**
Interaction effects				0	0		0	0		0	0	
Unemployment growth												
X												
Excess disconnectedness female unemployed												
Control variables included												
Country fixed-effects	X			X			X			X		
Year counter	X			X			X			X		
Divorce rate							X			X		
Tertiary educated in total unemployment							X			X		
Young people in total unemployment							X			X		
Long-term unemployment in total unemployment							X			X		
Extrapolated series (dummy)										X		

$^{+}p < .1$, $^{*}p < .05$, $^{**}p < .01$, $^{***}p < .001$. *N = 460 country-years.* Control variables were included but not displayed, and can be requested from the author.

The next set of analyses focuses on the relationship between the higher presence of shame among unemployed women (compared to employed women) and the female suicide rate. Model 1 suggests that stronger movements towards more regulation (instead of marketization) are slightly related to higher female suicide rates, albeit marginally statistically significantly ($b = .010$, $p < .10$). The higher presence of shame among unemployed women, by contrast, is unrelated to the female suicide rate ($n = -.009$, $p > .10$).

Model 2 adds an interaction effect between unemployment growth and the higher presence of shame among unemployed women. There seems to be no such interaction effect ($b = .001$, $p > .10$). **Therefore, Hypothesis 7 could not be supported.** Yet, the higher presence of shame among unemployed women still has a marginally statistically significant influence on the suicide rate – slightly increasing it ($b = .009$, $p < .10$.

These findings remain the same against controlling for the divorce rate and the composition of the unemployed population (Model 3). Indeed, the coefficient of the variable indicating the higher presence of shame among unemployed women now becomes more convincingly significant: $b = .011$, $p < .05$. Furthermore, the female suicide rate appears to be lower when there are more long term unemployed people among the unemployed ($b = .294$, $p < .05$), while suicide rates are higher when there are more tertiary educated among the unemployed ($b = .017$, $p < .001$). The results appear largely robust against extending the time range (Model 4).

Table 21: Macro-level linear regression on the female suicide rate (indep variable: shame and marketization), 1993-2012

	Model 1			Model 2			Model 3			Model 4		
	b	SE		b	SE		b	SE		b	SE	
Constant	3.061	0.081	***	3.063	0.078	***	3.168	0.126	***	3.168	0.126	***
Unemployment growth	0	0		0	0		0	0.001		0	0.001	
Negative marketization	0.01	0.005	+	0.01	0.005	+	0.01	0.005	+	0.01	0.005	+
Excess shame female unemployed	0.009	0.006		0.009	0.006	+	0.011	0.005	*	0.011	0.005	*
Interaction effects				0.001	0.001		0	0		0	0	
Unemployment growth												
X												
Excess shame female unemployed												
Control variables included												
Country fixed-effects	X			X			X			X		
Year counter	X			X			X			X		
Divorce rate							X			X		
Tertiary educated in total unemployment							X			X		
Young people in total unemployment							X			X		
Long-term unemployment in total unemployment							X			X		
Extrapolated series (dummy)										X		

$^{+}p < .1$, $^{*}p < .05$, $^{**}p < .01$, $^{***}p < .001$. *N = 420 country-years.* Control variables were included but not displayed, and can be requested from the author.

4.4.4 Ecological inference analyses

The following set of analyses look at two countries that appeared in the Eurobarometer surveys about disintegration and shame: Italy and Finland, for which there are suicide rate ratios available based on employment status.

First of all, among these two countries, the higher risk of suicide of male unemployed compared to employed men is lower in later years (b = -.174, p <.001), as indicated in Model 1a in Table 22. None of the other variables had any influence on this higher suicide risk. This suggests that a higher incidence of shame and disconnectedness among the unemployed (compared to the employed) does not translate in their higher suicide risks. Moreover, marketization apparently does not lift up the higher suicide risks of the unemployed.

Model 2a adds some additional control factors besides only the time counter and country fixed-effects. The divorce rate appears to lower the higher suicide rate of unemployed men compared to employed men (b = -4.116, p <.001). The composition of the unemployed population (i.e. young people, tertiary education and long-term unemployed), however, did not have any influence on this rate. That the excess suicide rate of the unemployed is not sensitive for the incidence of long-term unemployment is interesting, because for half of the data the odds ratios were based on a comparison between the long-term unemployed versus the employed (the data derived from Mäki & Martikainen, 2012).

The following analyses concern women. Model 1b interestingly shows that the higher risk of suicide among unemployed women (compared to **employed women), is surprisingly lower when unemployed women experience more disintegration compared to employed** women (b = -.141, p <.01). Rather, the higher risk of suicide of unemployed women increases when society-wide disintegration increases (b = 4.268, p <.10). Moreover, the higher rate of suicide by unemployed women compared to employed women appears to be higher in recent years – in contrast to what was found for men (b = .291, p <.001).

These results remain largely intact after controlling for the divorce rate and the composition of the unemployed population (Model 2b). Society-wide disintegration, however, loses its statistically significant influence, although the coefficient remains large (b = 2.790, p >.10). Interestingly, the higher suicide rate of unemployed women (compared to employed women) is further increased by a higher incidence of young people in unemployment (b = .031, p <.01) and, substantially, by a higher divorce rate (b = 2.601, p <.001).

Table 22: Macro-level linear regression on the excess suicide rate of unemployed men/ women compared to employed men/ women, 1980-2012

	Model 1a			Model 2a			Model 1a			Model 2b		
	Men						Women					
	b	SE		b	SE		b	SE		b	SE	
Constant	10.181	0.703	***	20.183	1.539		-8.271	0.788	***	-15.975	1.149	***
Unemployment growth	-0.001	0.003		-0.008	0.005		-0.001	0.005		0.001	0.004	
Negative marketization	-0.001	0.024		0.037	0.041		0.022	0.035		0.013	0.03	
Excess shame unemployed	-0.014	0.025		-0.067	0.043		0.054	0.046		0.053	0.034	
Excess disconnectedness unemployed	0.03	0.041		0.037	0.053		-0.141	0.053	**	-0.11	0.032	***
Disintegration	-1.697	1.762		-3.345	2.648		4.267	2.244	+	2.79	2.018	
Control variables included												
Country fixed-effects	X			X			X			X		
Year counter	X			X			X			X		
Divorcerate				X						X		
Tertiary educated in total unemployment				X						X		
Young people in total unemployment				X						X		
Long-term unemployment in total unemployment				X						X		
Extrapolated series (dummy)										X		

$^{+}p < .1$, $^{*}p < .05$, $^{**}p < .01$, $^{***}p < .001$. *N = 38 country-years.* Control variables were included but not displayed, and can be requested from the author.

4.5 Discussion/ Conclusion

The current study uses three theoretical frameworks to explore the links between unemployment, marketization, disintegration, anomie and suicide: Integration Theory, Institutional Anomie Theory (IAT) and Social Norms Theory. It is often argued that disintegration and anomie in societies lead to a higher incidence of suicides. This general statement from Integration Theory is tested with a relatively direct and new measure of disintegration: the degree to which people in a society feel left out. With Eurobarometer survey data combined with official data, regression analyses were conducted to explore links between unemployment, disintegration, anomie and suicide. In the third chapter it was impossible to distinguish between several theorized mechanisms and therefore between IAT and Social Norms Theory, because the analyses only focused on the macro level. This is a caveat in most studies: either they focus only on the macro level or only on the individual level. With the data in the current chapter, it is possible to both look at the effect of societal characteristics as well as look what mechanism are at play among individuals.

Under which societal and individual circumstances do individuals in societies feel more disconnected? With Integration Theory it was predicted that disintegration is higher in more marketized societies. In such societies, market thinking becomes dominant and weakens the institutions that traditionally provided a stable source of identification, belonging and restricting norms for people. This in contrast with societies where market thinking and non-market institutions are similarly important and keep each other balanced. However, in the sample at hand, consisting of European countries between 1993 and 2012, it was not found that anomie was higher in more marketized societies.

The main Durkheimian hypothesis that more disintegration in societies leads to higher suicide rates, was also tested. Interestingly, the hypothesis was not only not supported by the male patterns (no relationship), but even contradicted for females. Indeed, a1% percent increase in disintegration would lead to 219.2 fewer suicides in a year for a 40 million populated country (based on Model 2 of Table 20). In many countries disintegration has circulated around a stable point, but sharply increased during the financial crisis of 2008 and peaked highly, but decreased equally sharply to return to its presumed ‘equilibrium’ point (Durkheim, 1897; Messner & Rosenfeld, 1994; Polanyi, 1944). Importantly, this may explain why such weak (or often absent) suicidogenic effects of unemployment growth were found in the previous and current chapter, despite including the crisis years and its aftermath period – and has some key implications for the scholarship on suicide, economic shocks and Durkheim’s Integration Theory. The average change over time in anomie was increased to the happening of such a great economic shock in the 1993 – 2012 period, and probably has made the average change observed in countries (Table 1) higher: a 32 percent points change in the percentage of people that feel left out of society.

The fact that the Durkheimian hypothesis was contradicted for women, could be attributed to the fact that suicide is less a taboo and people more easily talk about this, which could function as a prevention mechanism (Canetto & Sakinofsky, 1998).

The results underscore the importance of employment for feeling included in societies. Especially the unemployed are vulnerable for feeling disconnected in marketized societies, not so much a society at large. In the descriptive analyses, it is notable how much the deviant cases from the two previous chapters are outstanding. Estonia was the second highest country with regard to the tendency of unemployed men to feel left out when they are unemployed instead of employed. Unemployed men agreed 5.5 times more to this survey item than their employed counterparts. Estonia is then followed up by some Nordic countries, such as Denmark, Sweden and Finland. In Sweden, another deviant case from the analyses in previous chapters, unemployed men have a 4.3 larger chance of feeling left out compared to their employed counterparts. For women, this rate is even higher in Sweden: 5.9. Perhaps, due to the high gender equality (in a labour market oriented way), Swedish women are highly expected to have paid employment as well and therefore may feel more disintegrated when they are out of paid work.

Note that even in the country with the lowest ratio, unemployed people have a larger likelihood of feeling left out when they are unemployed. In the lowest country, unemployed men are still two times as likely to feel disconnected from society. This indicates the importance of studying the wellbeing and health outcomes of unemployed people.

The study not only focused on feelings of disconnectedness, but also on feelings of shame among the unemployed. Specifically, it was assessed whether the unemployed more strongly perceived disapproval because of their job/ income situation (shame). Even when holding people's incomes constant, unemployed individuals still felt more ashamed because of their job/ income situation than their employed fellows. Thus, the shame of unemployed people for their job/ income situation has not only to do with their lower income. It has probably also to do with the stigma of being lazy and unprofitable for society, as shown in Hövermann and Shildrick & McDonalds (2013). As Sennett (2003) also writes: a job/ income position also reflects one's work attitude and talents in the popular thinking of modern economies. When marketization was (negatively) measured as trends in social expenditures, marketization strengthened the degree of shame experienced by the unemployed compared to the employed. This indeed indicates that the unemployed are sensitive for the previously mentioned 'gaze of the other' (Lacan, 1964) and for the negative discourse about being economically 'redundant' surrounding cutbacks in social expenditures.

For males, this was found to be highest, among the country sample, in Denmark. Danish male respondents had a 6.5 higher tendency to answer that they felt looked down upon than their employed

counterparts. Denmark is followed up by Germany (5.3), Sweden (4.8) and Estonia (4.3). Lowest is, again, Austria (2.2), followed by Spain (2.5), Slovenia (2.9) and Portugal (3.0). For females, the rates are highest in Sweden (4.8), Ireland (4.2) and Denmark (4.2) and lowest in Austria (2.4), France (2.8) and Spain (2.9). Again, the previously deviant cases stand out with their relatively high rate ratios, whereas Austria and some Southern European countries are notably low. It was found that some Southern European countries as well as France have a strong anti-marketization cultural framework (i.e. a strong popular resistance score), while countries such as Estonia has a very low prevalence of resistance. Yet, other countries with high relative disconnectedness and shame rates among the unemployed have also comparatively strong resistance rates, such as Sweden and Finland. Therefore these patterns require more future, field-directed research.

These higher rates of disconnectedness and shame felt among the unemployed remained strong even though controls were included for income, marital status educational level, health status, countries' GDP and unemployment rate. This is interesting, because anomia among the unemployed is not higher only because of financial reasons or because they may be more often divorced. Marketization processes only had an impact on the degree of excess disconnectedness when measured through trends in social expenditures and for women. For the feeling of belongingness as an unemployed citizen, social expenditures are likely more important than EPL strictness or union density, which rather increase the feeling of belongingness of employed workers. This also attests to Esping-Andersen's (1990) concept of the commodified citizenship. The more citizenship is commodified, the less the unemployed feel as citizens belonging to their society (compared to employed). With declines in social expenditures, the unemployed may feel that in order to have a proper living standard that enables one to participate in social life, one needs a job, and therefore they themselves do not belong to society. Moreover, declines in social expenditures are often accompanying a policy discourse that the unemployed are undeserving (Brown, 2002) and a discourse that being unemployed (or otherwise unproductive) implies being 'outside of society' (Guimaraes et al., 2010). For unemployed men, the effect of this is not so much on anomie, but rather on shame. Women are affected in both ways. This fits in with previous findings that shame is a more important part of being unemployed, especially for men (Stavrova et al., 2011). At this point, it is not clear how to interpret this gender difference and future research is needed on this.

Does this higher disintegration among the unemployed in marketized societies, mean that unemployment has more suicidogenic effects in those societies? When looking at the relationship between trends in the unemployment rate and suicide rate, this relationship was not stronger positive in more marketized societies. This could be the result of the problem of small numbers and with ecological inferences. With disintegration, a distinction was made at the individual level between the unemployed and employed, but this distinction could not be made with the purely macro-level

population-wide statistics about suicide. Ideally, the study would have looked whether the effect of *individual unemployment* on suicide is stronger in societies where unemployed people suffer more excess disconnectedness compared to employed. Unfortunately, it was not possible with the available data to do this.

Another explanation of the null-effect on suicide, could be that being disintegrated does not necessarily mean being unregulated or morally confused (anomia). People could also be imagined to be regulated by their own personal norms in the absence of strong connections with society. Unfortunately, with the data at hand it was only possible to measure individuals' experienced disconnectedness with society and not their experiences of anomia.

Still, I was able to use some previously calculated suicide odds ratios on unemployed versus employed individuals for Italy and Finland. My additional analyses on these figures interestingly showed that the excess suicide rate of the unemployed (compared to the employed) was not related to the degree to which the unemployed experienced more disintegration or shame. Although this analysis could just be done for two countries, these results again suggested that the unemployed who deal with disintegration and shame are more resilient in dealing with these stressors than thought (Spears et al., 2010), and/ or strongly prevented from committing suicide because they are (despite their disintegration) still strongly regulated by the dominant normative frameworks of their society. This again underlines the importance of theoretically distinguishing between the conditions of disintegration and of being deregulated as specified by Durkheim (1897), because they do not necessarily collide (Reeves & Stuckler, 2015).

Again, however, there is the risk of an ecological fallacy in the analyses, which could explain the absence of a relationship. Alternatively, the absence of the relationship has a substantive reason: because anomic people now can more easily talk about their suicidal feelings, they are prevented from actually committing of suicide. Recent upcoming evidence in social psychology indeed indicates that disadvantaged and stigmatized people are more resilient than expected and more likely to challenge their disadvantage rather than to internalize it and passively suffer (Spears et al., 2010).

Regarding the suicide rate, it appeared that larger differences between unemployed and employed men in the presence of shame feelings, were related to higher male suicide rates. For females, it was rather the difference between unemployed and employed females in their disintegration that mattered. These two findings raise the question whether it are especially the unemployed that are represented in these additional suicides. The ecological analyses suggest that this is not the case: the higher incidence of disconnectedness or shame among the unemployed was not related to their higher comparative suicide rates. Again, this could signal that people are more creative in their ways to cope with disintegrating

events than thought by anomie and integration scholars. Furthermore, it should be noted that the ecological analyses here could be performed on two countries only.

Surprising was the result that the higher suicide risk of unemployed women (compared to their employed counterparts) were more pronounced when the risk of disintegratedness of unemployed women was relatively lower. Rather, as noted in the Results section, the higher risk of suicide of unemployed women appeared to increase when society-wide disintegration increases. This suggests that unemployed women are more responsive to society-wide disintegration than the employed population.

Indeed, there was a preliminary indication of the opposite among *men* when it comes to the impact of macro-level unemployment: the effect of unemployment growth on the extent to which the unemployed are more prone to feel disconnected (compared to their employed counterparts) became weaker when societies experience weaker marketization trends (or stronger re-regulation trends). This might indicate what was conjectured in the previous chapter from Integration Theory: being employed matters more in terms of being connected to key institutions in societies with more regulative economic institutions such as strong employment protection legislation and coordinated bargains with strong unions. In more deregulated contexts, by contrast, employment can be precarious and therefore almost equally disintegrating as unemployment.

Moreover, in societies that are moving more strongly towards marketization instead of regulation, unemployment growth contributes *less* to higher experiences of *shame* among the unemployed This pattern took clearly place within observed ranges. Contrary to the theoretical expectations, marketization had a protective influence in combination with growing unemployment – for the unemployed. In the face of destabilizing transformations, people may be more creative in their coping strategies than presumed by theories of anomie and disintegration.

The above pattern, however, could also be explained in a Durkhemian way, consistent with an Integration Theory framework (but strongly inconsistent with an Institutional Anomie framework). It could be the case that the gap between unemployed and employed people decreases in societies with strong marketization processes and growing unemployed not because the unemployed feel less ashamed, but because the employed feel more ashamed (and perhaps therefore also more disconnected or morally confused). More further qualitative research is needed on this.

Considering resistance against marketization processes, it could also be the case that resistance has a significant effect on population-wide disintegration and anomie, and not only on that of the unemployed, leaving the balances between the unemployed and employed constant. This was also suggested in Chapter 3: that protest unites the population, effectively increasing social cohesion. Moreover, no support was found for Hypothesis 3 that expected that popular resistance would bolster a

society's degree of integration. As already noted, contradicting forces could be are at play simultaneously, because protest can unite (Burkitt, 2005) as well as cause conflict and division lines. The latter is, for instance, provisionally indicated by the so-called recent 'Yellow vests' movement – which anti-neoliberalization movement appears to deteriorate division lines across race and ethnicity, according to some commenters (Ramdani, 2018).

Rather than bolstering a society's degree of integration, popular resistance appeared to influence the degree of integration of unemployed men in the face of economic shocks such as rapidly growing unemployment rates. Resistance turned out to be a protective factor for unemployed *men* against feeling more disconnected in the face of economic shocks (i.e. stronger unemployment growth) – but not for women. This finding for men clearly supports Institutional Anomie Theory rather than Integration Theory. Unemployment and rising unemployment rates are thought to be especially disintegrating for the unemployed – not so much for the wider population – and especially so in normative institutional frameworks that require economic productivity for inclusion.

However, at a low rate of unemployment growth in a society, resistance appears to *increase* the risk of feeling disconnected of the unemployed. This clearly contradicts Hypothesis 8a, which – based on Institutional Anomie Theory – expected that popular resistance increases the connectedness of unemployed people with their society. Popular resistance challenges the normative institutional framework that excludes people that are not considered 'profitable' for the market, and therefore resistance can reopen doors for the unemployed to feel included. As already noted, the results at hand suggest that resistance at least decreases the disintegrating impact of *collective unemployment*, while it at the same time increases the disintegrating impact of *individual unemployment*. Challenging the dominant institutional framework of the society could be initially disintegrative, and additionally disintegrating for unemployed people who are already disconnected through their joblessness – except, apparently, when there is more other people unemployed as well. Future elaborations of Institutional Anomie Theory should be sensitive to the cumulative and interactive effects of different disintegrative events for different segments in a society.

For unemployed women, popular resistance was rather protective against the impact of unemployment growth on their higher *shame tendency rather than their disconnectedness*. The protective effect of resistance in the context of growing unemployment that was found for male unemployed with regard to their higher disintegration risk, is here found for their female counterparts with regard to their higher shame risk. It is not clear at this moment why this sex-difference appears in the specific mechanisms at play. More future research on this is needed.

The many protective factors against any potentially disintegrating and shame-inducing impact of growing unemployment on the unemployed, may explain why unemployment growth had no larger influence on the suicide rate in societies where the unemployed more strongly feel disintegrated or

ashamed (compared to employed people). With this latter finding, Hypotheses 5 and 7 were therefore clearly falsified.

In all, the results support Institutional Anomie Theory in that the people labelled as 'unprofitable' in marketized societies indeed suffer a larger degree of disintegration. But there is no evidence that this has consequences for their suicide risk. Probably people are more resilient than often thought. However, future research should ensure this conclusion by using individual-level data on suicide that enable to distinguish unemployed and employed people. So far, cross-nationally comparative data on this is not available. In all of Europe, unemployed people also feel more ashamed for their job/ income situation than employed people. All these modernized free market societies impose some expectation on its members to work (see Stam et al., 2016; Stavrova et al., 2011), and feelings of shame for being unemployed are likely to occur uniformly. Disintegration is probably a more extreme condition, the feeling of being left out and confused about what norms and aims to follow, and requires a widespread process of marketization in society.

One caveat of testing Institutional Anomie Theory, however, is that the hypotheses are originally more focused on anomia, while this study only had data about people's disconnectedness (disintegration). Still, theoretical and empirical implications were derived on disintegration from Institutional Anomie Theory. It was theorized that people deemed 'unprofitable' do not only experience disconnectedness in marketized societies, but also are relatively socially excluded by such an institutional framework.

Finally, Integration Theory was somewhat supported by the results for men, but again only partly. While anomie is indeed related to more suicides, it was not found that marketization processes induce more anomie in societies. Rather, the Institutional Anomie notion receives support by the results that norms and institutions are shifting instead of disappearing. People in marketizing societies are still regulated by a strong shared normative framework, but this time it is a normative framework that spreads market-logics. People that fail to comply to these norms of productivity and economic success, become disintegrated and start to experience shame exactly because of this strong new set of norms and regulation from this new set of institutions. In sum, with marketization processes a shift in the normative and institutional framework occurs, where one set of norms, ethics and institutions becomes dominant over another, instead of an non-normative system (market thinking) banning all influence of norms and ethics.

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5. Conclusion

5.1 Introduction

With the vast amount of information provided in the last few chapters, it may be fruitful to first return to the core of this dissertation. The main question I aimed to answer was (Chapter 1):

How is suicide influenced by unemployment, and how does this influence depend on the societal context of (increasing) marketization? Do dominant institutions only restrict suicidality, or can they also increase suicidality?

In this study it was expected that marketization processes – diffused through economically and military leading towards other countries – have an impact on the suicide rates and on how unemployment influences the prevalence of suicide, especially among the unemployed. Using Durkheim's Integration Theory, marketization processes contain a weakening of institutions capacity to integrate and regulate people, which would lift the suicide rate because people commit more egoistic suicide (not being connected to anyone) or anomic suicide (being normless). Marketization processes would also diminish the integrative and regulative capacity of the institution of work, because the work relation is becoming more a one-shot market interaction rather than a 'psychological contract'. Therefore, however, the loss of work would mean less in terms of a loss of connection and regulative bounds. In more 'marketized' societies, therefore, the relationship between unemployment and the suicide rate would be weaker than in less 'marketized' societies.

Institutional Anomie Theory (Messner & Rosenfeld, 1994), by contrast, argues otherwise. Here, marketization is conceptualized as a process of shifting norms: market-based norms and institutions start to predominate in other domains of life, and also that within the market domain, market-based norms and institutions crowd out other norms and institutions. This means that people are still integrated and regulated by social institutions, but that a certain group of people – the 'unprofitable' – get left out of this. Marketization in itself would then not be disintegrative or anomic, or suicidogenic, but it would make that unemployment is more suicidogenic than otherwise. Market institutions do not get merely 'disembedded' from traditional normative frameworks, but are 're-embedded' in a new normative framework: 'market fundamentalism' (Block & Somers, 2016). When one gets unemployed, one is no longer a member of the predominant market-based institutions. As a result, people can start to feel left out (disintegration) and, eventually also turn down the norms of these institutions (anomie).

5.2 Bird's Eye View on the Findings

In this dissertation the aim was to gain insights with regard to the transnational diffusion of marketization, within and beyond regions, and its possible connection with suicide rates. Because marketization is still a vague concept with many facets that can differ widely between regions, I also explored the interrelation between the different facets. The aim of this was to arrive at a well-defined measure of marketization and to show the complexity of it. The dissertation aimed to assess cross-national differences in the pace of overall marketization processes and suicide rates, to explore whether there is a causal relationship between marketization, unemployment and suicide rates. Previous research often assumed the presence of diffusion from an absence of the role of structural factors, or from the portion of variance unexplained by structural factors (e.g. Neumayer, 2003a; 2003b). In the current study, by contrast, I combined the two.

Let me first focus on marketization, as I did in this dissertation with Chapter 2. In that chapter and the subsequent chapter I discussed the concept of marketization, coming close to Monahan's (2008) understanding of neoliberalism:

"The privatization of public programs and spaces, the re-scripting of citizens as consumers, and the corresponding increase in social control mechanisms, especially for those who do not neatly fit into the category of consumer-citizen"

(Monahan, 2008, p. 219)

In Chapter 2 I put more emphasis marketization as economic policies, and the degree of attitudinal resistance against the cultural emphasis on market-based values such as work and money. This latter could be seen as a measure of the unpopularity of the perceived 're-scripting of citizens as consumers'. I assessed the extent and the way in which marketizing economic policies diffused globally and regionally, and found that diffusion occurred occassionally through global leading countries. Examples of such economic leading countries are the United States, Luxembourg and Switzerland. Faster marketization processes that diffuse from global economic countries were also more robust against public disapproval (resistance) against 'too much emphasis on work/ money'. Thus, resistance from the population against marketization did not reduce the tendency of countries to imitate processes of increasing marketization from leading. I concluded that this combination of results indicates that marketization rather diffuses through learning or emulation.

These shifts in marketization policies can be seen as indicators of either structural processes of marketization at the institutional level, or of wider normative shifts. Here I argue that they should be considered as indicators for both, and both institutional, structural shifts as well as normative shifts are considered part of what 'marketization' entails.

Chapter 3 then assesses the consequences of this marketization process on the suicide rate and on the way in which unemployment influences the suicide rate. While economic policies of marketization had no effect, interesting effects were found for popular resistance against marketization processes. The more people think society puts too much cultural emphasis on money and work, the lower the male (1980-2016) and female (1960-2016) suicide rates. Moreover, stronger resistance against marketization softened the higher tendency of male unemployed (compared to employed men) to end their lives. Yet, as noted, for female unemployed (versus female employed), the opposite was found and therefore it appears that only employed (and economically 'inactive') females benefit from the overall protective influence of resistance against higher general female suicide rates.

The results that marketization policies do not influence the suicide rate, are in contrast with findings of previous studies. This contradicts earlier evidence of a positive relationship between trade liberalization and the suicide rate (Pierce & Schott, 2016). However, the present study used a richer measure for marketization, capturing the process on multiple dimensions and recognizing the presence of different routes towards a more deregulated economy (Baccaro & Howell, 2011; 2017; Gash & Inanc, 2013).

Chapter 4 focused deeper on the individual level and the perceptions of individuals, because the suggested theoretical mechanisms point strongly towards disintegration (feelings of disconnection or being left out) and shame for being poor/ jobless in a world with a strong emphasis on work/ money. It was indeed found that the unemployed felt more left out and ashamed of their position than the employed, in all countries. Please note that while Chapter 2 and 3 focused on OECD countries, Chapter 4 could only focus on European countries because of data availability.

Contrary to the expectations, it was not found that this higher tendency of the unemployed to feel left out or ashamed than the employed was more pronounced in more marketized societies. Although feelings of disconnectedness and shame were more prevalent among the unemployed than the employed, this difference was not larger in societies with stronger marketization processes. Surprisingly, resistance appeared to increase the degree to which unemployed felt more left out of society. Apparently, resistance only is relevant for preventing the general suicide rate of the population, but not for the unemployed regarding their feelings of being left out or ashamed. Probably, rather, these feelings provide the fuel for resistance and then this resistance 're-integrates' one into a (imagined) larger community, cancelling out a possible initial association with feeling left out, with resistance being a more constructive strategy than committing suicide to deal with these feelings. This framing of resistance and suicide as two mutually exclusive, alternative strategies to deal with these feelings may explain why no relationship was found between the degree to which the unemployed felt more left out or ashamed and their excess suicide risk. Future research should explore this possibility of alternative strategies further.

However, resistance started to protect the unemployed against higher feelings of disconnectedness and shame (compared to the employed) when unemployment growth was strong. At modestly high levels of resistance (from approximately 30% of the respondents resisting on), unemployment growth contributes *less* to higher experiences of shame among the unemployed. However, this was also the case for societies that moved more strongly towards more marketized institutional frameworks. It could be that these processes trigger stronger resistance, and that this may explain the patterns found.

The finding from this particular chapter clearly challenged Durkhemian Integration theory. First of all, marketization, as a measure of weakening regulation and institutions, did not lift the suicide rate. Secondly, another more basic Durkhemian hypothesis was clearly contradicted. Society-wide disintegration (measured through an aggregated attitudinal item 'I feel left out of society'), was related to *fewer* suicides among women– and not related to more or fewer suicides among men. At this point, it is still puzzling why this sex-difference was found, and future research should explore this further.

Looking at the employment-specific suicide rates, it appeared that especially the suicide rates of female unemployed was lifted in more disintegrated societies. The sex-difference could therefore have to do with the continued difference in expected role-patterns for men and women. Apparerently, being jobless as a man has more detrimental consequences in a society where generally more people feel left out. The collective efficacy of a community to include and support unemployed breadwinners may be lower in more disintegrated societies, leading to especially more suicides among unemployed men in these societies. Why these patterns again only applied for women, remains unclear at this point and requires more research.

As a general answer to the main question of this dissertation - *How is suicide influenced by unemployment, and how does this influence depend on the societal context of (increasing) marketization? Do dominant institutions only restrict suicidality, or can they also increase suicidality?* – I can state the following. First of all, marketization processes do not influence the suicide rate, nor does it influence the degree of disintegration, nor even only among the unemployed. Rather, it is people's perceptions of the marketization process and their evaluation of it that matters. This resonates with Larsen's (2016) constructivist approach of perceptions about inequality and about distribution, that now apply to perceptions about marketization. When more people perceive their society as marketizing ('too much emphasis on money/ work') and they disapprove of this, the male suicide rate decreases. Moreover, the suicide rate of both sexes increases only due to higher unemployment when this popular resistance against marketization is weak. Feeling initially disintegrated and ashamed possibly become channelled into popular resistance rather than in higher suicide rates when there is already a larger critical mass in society. Growing unemployment rates then cease to be disintegrating or shame-inducing for the unemployed and decrease the general suicide rates in European countries. Generally, it was interesting to find such no convincing association between growing unemployment

rates and the suicide rate, because individual unemployment was strongly related to suicidality according to previous research and the derived statistics considered here (Blakely et al., 2003; Mäki & Martikainen, 2012; Preti & Miotto, 1999; Suzuki et al., 2013). Also in international studies, a clear although weak relationship was found at the macro-level (Page et al., 2013; Stuckler et al., 2009). It should be kept in mind that suicide is an extreme, rare behaviour, and therefore it is less likely to find relationships at a macro-level with this variable. As noted in Chapter 3, additional robustness analyses indicated that the nul-effect of unemployment growth is highly sensitive to the set of control variables chosen – and findings from previous results may be contradicted as soon as other (or a larger number of) control variables are included in the model. Moreover, omitting the year-lag between the supposed effect (unemployment growth) and the consequence (suicide rates), a practice often forgotten by previous studies, contributed to a statistically significant effect – in addition to different and less control variables. This has some serious implications for the literature, as it indicates that the previous stock of evidence on the relationship between macro-level unemployment and suicide rates may be less strong and robust than commonly assumed.

5.3 Theoretical reflection

With regard to the transnational diffusion of marketization processes, only weak support was generated for the vital influence of economic leading countries – both globally and especially regionally. Rather, regime types were important for the diffusion of marketization processes. Countries may emulate the patterns of culturally similar countries and be restricted to the institutional setting in which they find themselves. Also indicative for this is the finding that popular resistance against marketization seemed not to be able to stop such processes. This finding also corresponds with Svallfors' (2003) finding that actual policies are not closely guided by the attitudes of the population. This pattern may also be class-layered: Elsässer, Hense & Schäfer (2017) show that actual policy choices are much less responsive to the preferences of the lower incomes in Germany. For the US, Gilens & Page (2014) have shown that the average citizen has virtually no policy influence, compared to a substantial influence that major business and their lobby organizations have. However, another explanation for that could also be the rather subtlety of the measured resistance: expressing dissatisfaction with the cultural emphasis on work and money as a survey respondent.

In Chapter 3 and 4, I examined the consequences of marketization processes on the effect of unemployment on suicide risk. It was generally found that marketization policies did not influence the suicide rate, while the amount of popular disapproval (or 'resistance') against marketization (the 're-scription as consumers'), was actually protective against suicide in a European sample of countries (Chapter 4).

This corresponds to the statement of Burkitt (2005) that popular disagreement against dominant tendencies can actually invoke a larger integration (sense of belonging in a collectively experienced emotion) in the community. It also helps to (re-)establish norms shared among a community, decreasing the amount of disintegration in society. Here it should be noted, however, that resistance enhanced the comparatively higher feelings of disconnectedness of unemployed people. As elaborated in the respective chapter (Chapter 4), rejecting the dominant institutional framework of a society could be initially disintegrative for unemployed people, because they are already disconnected through their joblessness. This may also explain why this harmful influence of resistance on unemployed people disappears at when the number of unemployed people is rapidly increasing.

Being unemployed was hypothesized to be disintegrative, but in any case no clear effect of the unemployment rate was found on the suicide rate. Yet, the ecological analyses showed that individual unemployment raised the individual suicide risk. There were some interesting national context identifiable that lifted the relative suicide risk of unemployed people in particular. For women, the relative suicide rate of the unemployed had increased over time, probably due to a stronger pressure on women to work. As Reeves & Stuckler (2015) and many others have theorized, unemployment disconnects one from the wider institutions of a society (disintegration), potentially leading to individual anomie (anomia), thus a lack of moral regulation and normlessness, as a result from this disintegration from institutions. This would be the case because institutions have a crucial function to regulate people's behaviour.

This Durkhemian assumption that individuals end up in a state of anomia when not integrated and therefore regulated by these wider institutions. Although institutions may be a crucial way to regulate people, they are not the only possible way through which this is conceivable. People could also be regulated by personal norms, partly internalized social norms (Elias, 1982; Heckhausen, 1999).

Indeed, while institutions can be crucial to regulate people's behaviour, sometimes precisely these norms may subsequently disintegrate people. This is the case when, for instance, many of society's institutions depart from this 'rescripting of citizens as consumers' (Monahan, 2008), according to which 'unprofitable citizens' (Hövermann et al., 2015) or 'defective consumers' (Bauman, 2011) do not longer belong to the community. Chapter 4 looks more into this disintegrativeness (individual experience of being left out of society), and indeed finds that this is more present among the unemployed.

According to Institutional anomie theorists, who still derive from the abovementioned Durkhemian assumption that being disconnected from institutions means that individuals becomes anomic, this situation of living in a society whose institutions which require you to be profitable, is therefore disintegrative and anomic, and would lead to a higher suicide risk. Although the unemployed where found to be at a higher suicide risk in the ecological analyses, this higher risk was not raised by

marketization processes. Neither was the higher risk of the unemployed to feel disintegrated from society related to their higher suicide risk. Only the society-wide disintegration was related to a higher suicide rate, but only for the suicide rate of men and for the suicide risk of unemployed men. These effects were relatively small, and for women even the contrary was found: more disintegration reduced their suicide rate.

This collection of results indeed indicate that while people may feel disconnected from a society that excluded them for being 'unprofitable', this does not mean people are not regulated by any principles. Indeed, the unemployed felt generally ashamed for their job/ income situation than the employed. Therefore, they appear to be still regulated in some sense by their society's norms of being productive. Moreover, the widespread resistance against the presupposed cultural marketization, possibly sets in motion the adoption of new norms and principles to guide people's behaviour. Such a shift in norms – often containing an individual or collective chaotic search to new normative principles – is conceived by Durkheim as a dangerous, period of unboundedness and a normative vacuum. It is conceived as harmful because people are supposed to not be able to deal with such a perplexing search: people would resort to limitless egotism, unrealistic aspirations or to extreme choices such as suicide. The results, however, suggest an inventive and resilient type of individuals, able to deal with this perplexity, and able to extract the creative potential out of it. People, even disintegrated unemployed people in a marketized cultural context that does not provide them with ready-made positive roles to fulfill – and who feel left out of society, disintegrated – do not commit suicide but choose to refuse the current normative framework, effectively searching for new norms to live with instead of ending their lives.

This more optimistic vision of 'anomie' has been expressed in the work of the philosopher John Dewey (1938) and the sociologist Stark (2009). They speak a 'perplexing situation' in which it has become unclear what principles to follow, how to value things, what information is useful. But instead that this situation leaves us helpless or even drives us towards self-destruction, these situations simply drive us to start a deeply creative search in which we invent or re-invent new principles and evaluations.

While Durkheim states that anomia and all the damaging results of that are often evoked by unanticipated, large shifts or events, Dewey and Stark, by contrast, present such changes as windows of opportunity for change: events that, precisely because of their disruption of normal routines, can induce new principles, innovation and creative reconnecting (Stark, 2009).

Fromm (1941) theorizes in 'Escape from Freedom' that individuals are again lost and lonely in the situation in which they themselves, not social institutions, have to define their life purpose and norms. But he differs from Durkheim in saying that this is only the case in certain cultural-economic contexts. Fromm indeed describes a historical change during the early renaissance, starting in Italy, which

process could be called marketization. For the middle class and those below, economic profitability and performance in market competition became more and more vital for subsistence and for one's personal identity, whereas first people where more secured of a prescribed, inherited subsistence and meaning of life. In such precarious economic contexts with a lack of an alternative domain of life to find meaning and food when one would fail economically, the 'freedom' to define one's own aspirations is rather inhibiting and fearful. In other cultural-economic contexts, however, it would be feasible for people to achieve maximal self-actualization when left free to determine their own norms and aspirations without feeling lost and lonely (Fromm, 1941).

The current results indicate that even within a relatively high marketization context, people were found able to deal with reinventing their own aspirations and norms, even if they cannot follow the current prescription of being a productive consumer-citizen. Indeed, the degree of marketization did not matter for the extent people were able to formulate their own principles. What sometimes did matter was the presence of more others who have decided to disapprove the supposedly strong culture of marketization (resistance). In contrast to the Durkhemian hypothesis (H1 in Chapter 3) that marketization processes are inherently disintegrative and anomic, support was rather found for a claim that people were able to reinvent their own norms. The results come closer to Institutional Anomie theory in that new norms replace old norms, although this theory is yet implicitly formulated rather top-down in that it emphasizes the constellation of dominant institutions. The finding that when resistance is sufficiently high, a faster unemployment growth could mean *fewer* suicides than otherwise, suggests that other spheres of social life have been created where people condemned as 'unprofitable' can find meaning and subsistence – can become re-connected.

Unfortunately I was not able to measure 'anomia' itself, only individual disconnection from society. Therefore I could not examine whether individuals who felt disconnected from society also experienced anomia. The finding that a higher unemployment rate was found to be less suicidogenic in countries where more people rejected the cultural emphasis on work and money, could be taken in two ways. It could provide support for an Institutional Anomie theory notion that this popular resistance against the presupposed cultural marketization processes imply the emergence of new norms that are now also more inclusive for the unemployed.

Finally, regarding the type of suicides that have been committed, as what kind can they be characterized? The association between society-wide disintegration and the male suicide rate indicates a portion of 'egoistic suicide': people who are disconnected from many intermediate institutions in their society and for whom it is easier to exert a final cut to their last connections with it. With regard to the higher suicide risk of the unemployed, this could not be attributed to 'egoistic' suicide. Although the unemployed more often felt left out of society, this did not explain their higher suicide risk – as the ecological analyses indicate. However, regarding the association between the

unemployment rate and suicide rate, resistance possibly provided a protective set of other connections which reduced the number of 'egoistic' unemployment-related suicides. Moreover, regardless of the unemployment rate, more resistance reduced the suicide rate, speaking for the case of fewer disconnected people and therefore fewer 'egoistic' suicides. Besides 'egoistic' suicide, there was not much evidence for 'anomic' suicide – which follows from the discussion above about anomia. Rather, I conjecture that the unemployment-related suicide rate – and the higher suicide risk of the unemployed – is related to more 'fatalistic' suicides: people with financial problems who do not see a way out of their poverty.

5.4 Interesting Side Findings

The following section focuses on side findings which are not essential for the main questions or theoretical framework of this dissertation, but that still provide interesting starting points for further research.

5.4.1 Marketization processes

As seen already in Chapter 2, marketization consists of very different dimensions. Countries show different marketization processes, where different dimensions were prevalent than in others. Some countries are marked by deunionization processes, others more by deregulation or by withdrawing in public service provision (social expenditures). Between these different indicators of marketization, the correlations were very weak, and it appears that these are rather different dimensions or styles of marketization than that they are a part of a simultaneous trend. Marketization processes proceed differently in each country, in a different chronology (some countries start by deregulating international trade, others by deregulating employment relations, others first tackle the unions, et cetera).

Despite the differences in the type of marketization that countries have adopted, some convergence is taking place. As seen in Chapter 2, countries are following the leading military and economic countries in their marketization processes.

Of all dimensions of marketization, union density is the dimension on which most change has probably occurred, and these are largely stories of sharp declines. Dimensions such as EPL and FDI strictness are likely slow to change rather than fast, because their levels depend on law changes that sometimes even also depend on changes in supranational conventions. Germany and the UK are marked exceptions on the common trend of small declines with modest increases in EPL strictness.

Marked examples of change in *union density* are the Anglo-Saxon countries such as New Zealand, the US and the UK, triggered by explicit anti-union policies. As already noted in the previous chapters, the abrupt and large trends observed in the United States during the 1970s reflected clearly what Streeck (2014) has called the 'revolt of capital'. Also Portugal and some Eastern European transition countries show marked declines. Mexico is an exception with a continuous, modest increase in union density. Many continental countries have a modest inverted-u shape trend between 1960 and 2012, with an increase during the 1970s and 1980s followed by a decline. The UK, France and Switzerland appear to be relatively early in this trend.

Also interesting is the low correlation between union density and EPL. It could be expected that in countries with a higher union density, employment legislation is likely to be more strict than in countries with a lower union density. It is often assumed that a larger membership of unions makes the unions more powerful and therefore more able to keep EPL strict, and vice versa are strong unions – empowered by a strong co-legislative position – more able to attract many members. But the power of unions is probably not well-determined by the number of members. Precisely in marketized societies, unions can adopt the market-logic and advertise themselves well to the workers, presenting themselves as influential (or influential in the future), while they are de facto not influential. Moreover, the marketized case for less strict employment protection could infiltrate the values of the union when the position of the spokespersons of the unions cannot easily be withdrawn by the workers, while the spokespersons are hierarchically located in a similar position as the ones they negotiate with.

5.4.2 Resistance

Resistance is an important phenomenon, not only because of its abovementioned effects, but also in its prevalence. In most of the countries, more than 40% of the respondents agrees with the statements that society should put less emphasis on work or money. Also in the US, 42% agrees, and in the UK, even 54% does so.

Resistance against marketization was strongest in Greece. The second measurement of this was taken during 2008. Although this year preceded the national events that unsettled a national economic crisis in Greece , followed by demands by the IMF in 2010 to Greece to deploy marketization policies (Antonakakis & Collins, 2014), 2008 was an important year of resistance in itself. In the year there were several protests against the economic policy of the central government, and the sphere discontent escalated in December when the young boy Alexandros Grigoropoulos was shot death by police. Moreover, Greece has a longer history of strong resistance against marketization with its strong anti-capitalist movements (Apoifis, 2016; Karamichas, 2009).

Resistance was also strong in some other countries where youth unemployment stroke high (France and Spain), and in the relatively more wealthy Switzerland, Luxembourg and Sweden. It is relatively

low in the Asian countries (Japan and South Korea). It is not clear why it is so low in these countries. It is known that Japan departs from a high work ethic, a high cultural importance ascribed to economic success, leading to overwork and even to death by overwork or suicides related to one's own perceived failure to meet job standards (Kondo & Oh, 2010).

It is not clear why some dimensions of marketizations correlate with resistance against marketization, while others do not. In countries where foreign direct investment is more tightly regulated and where social expenditures are higher, more people think that society should culturally focus less on money. Moreover, in countries where foreign direct investment is more tightly regulated, people are somewhat more likely to desire less cultural emphasis on work.

5.4.3 Unemployment and suicide rates

For women, by contrast, the relative suicide rate of unemployed compared to the employed increased when there are more higher educated in total unemployment. Future studies should investigate why this would be the case. Countries showed very different trends with regard to the excess suicide by unemployed, which were not explained by differences in marketization or changes in the unemployment rate. A sharp rise took place in Italy and New Zealand in the 1980s, and generally all countries saw some increase in the 1980s, followed by a decline early 1990s. In Japan a sharp rise took place after 200. For women, the picture is different. Finland saw a sharp increase later than for men, approximately since 1995. Italy shows continuous fluctuations. In all countries a general increase took place from 1995 or 2000 on, except in Italy. The increase was generally pronounced in Finland. These findings could be linked to more gender egalitarianism, in the narrow sense of a corporate feminism (Benn, 2013), which puts a similar pressure on women as on men to work. It is known that Finland has a higher score on gender egalitarianism indexes than Italy and Japan (Fuwa, 2004; Reeves & Stuckler, 2015), which fits the patterns.

5.4.4 Disintegration and shame

Interestingly, but not surprisingly, disintegration was remarkably higher in the 2009 survey, right after the Great Depression.

Finally, also surprising was the finding in Chapter 4 (Figure 2) that Iceland has a considerably low level of society-wide anomie, compared to other countries. Whereas the other considered countries circled around 30% of the respondents feeling left out of society, Iceland scores below 10%. One explanation could be its extremely small population density. Per square kilometres of land, Iceland's average population density (over the measured period) is only 2.7, compared to a 126.9 average of the entire sample of countries (World Bank, 2015).

Some would point out to the larger homogeneity of the Icelandic population. Although homogeneity of the population is often associated with a higher social cohesion (Alesina & La Ferrara, 2000), the opposite was also theorized and found (Crumley, 2005; You, 2012). That the Icelandic society is strongly cohesive, may also be traced back to the strong and time-persistent presence of the unions (as seen in Chapter 3) and, possibly, other civil society organizations. However, this can probably not account for the large difference between Iceland and the rest of Europe in their level of society-wide anomie – and further research is required.

5.5 Points for Further Research

The following section focuses on some caveats of the current study, some directions for future improvements and research.

5.5.1 Marketization

The concept of marketization in this study came close to Monahan's (2008) understanding of neoliberalism:

"The privatization of public programs and spaces, the re-scripting of citizens as consumers, and the corresponding increase in social control mechanisms, especially for those who do not neatly fit into the category of consumer-citizen"

(Monahan, 2008, p. 219)

In this dissertation, it was tried to emphase marketization both as economic policies, as well as a cultural practice in the extent of 'rescripting citizens as consumers' (Monahan, 2008, p. 219). A distinction should be made between dominant official attempts to 'rescript citizens as consumers', and I was only able to measure the latter. Specifically, I measured the unpopularity of the perceived 're-scripting of citizens as consumers'. I measured the percentage of respondents that agreed to the statement that society places 'too much emphasis on work' or 'money', and was able to construct a reliable scale of both items (the item about 'work' and 'money'). However, a disadvantage of the measure is that it contains both perceptions ('is') and evaluations ('ought to be') – and one risks to conflate the two. This means that the degree to which people dislike their 're-scription as consumers' depends on the perceived extent to which this 're-scription' happens, not only on the degree to which people would dislike this.

Another disadvantage of this resistance-measure, is that it is not clear who are the people that have answered 'neither agree nor disagree' to the statement that 'society places too much emphasis on work' or 'money'. Moreover, a high degree of resistance does not necessarily say that there are much

marketization processes in society. Perceptions of people may be incorrect, and their high resistance against this perceived state of affairs may keep the actual marketization tendencies weak. This was indicated by the finding in Chapter 2 that resistance lowered the tendency of a society to adopt previous marketization processes in leading countries. Perceptions of people, especially when popular, may have real-life impacts.

Interestingly, marketization processes exceed welfare regime borders, and have more dimensions than declining wage-bargain centralization or foreign trade liberalization (as Baccaro & Howell, 2011; 2017 and Höpner, 2007 have argued). Although countries' welfare regime tradition may influence the type of marketization process that is adopted, no clear pattern in this was revealed along traditional welfare type lines. Especially in operational teams, marketization is more multidimensional than the often adopted measures for welfare state regimes. Still, marketization diffusion processes were somewhat path dependent based on the welfare regime type. The results of this study have some important implications for the Varieties of Capitalism debate and the Industrial Relations scholarship (Baccaro & Howell, 2011; 2017), and further research into the phenomenon and diffusion of marketization processes, and their operationalizations and definitions, is highly needed.

Clearly, there are some disadvantages of the marketization measure. It is not a validated measure for the wider process 'marketization', which in turn has been defined in various ways (e.g. Messner & Rosenfeld, 1994; Pierce & Schott, 2016; Simmons et al., 2007; Wei & Kong, 2014). A clear advantage of the operationalization of this study was the multi-indicator approach. Most previous studies have only used one indicator of marketization, such as foreign direct investment strictness (FDI strictness) (Pierce & Schott, 2016). A question that arises with the multi-indicator measure in the current study, however, is why these seven policy-indicators were used and not others. For instance, I could have used the incidence of temporary work as an indicator. This was not done, because while a high percentage of temporary workers certainly indicates marketization processes, a low percentage does not necessarily indicate a low degree of marketization. A low prevalence of temporary workers could indicate that a country has already weak employment protection laws for standard workers (Auer & Cazes, 2003; Gash & Inanc, 2013; King & Rueda, 2008). Still, other possible indicators are conceivable, or another combination of indicators. The current study should be taken as a starting point in the field towards multi-indicator marketization measures, and future studies should further validate the currently used measure and of alternative measures.

Finally, it is obvious that OECD countries are a selection of countries where marketization processes have reached a relatively advanced point. Therefore the sample is rather selective and the range of levels of marketization (or in the rapidness of marketization processes) is rather small. In newly developing countries, marketization processes are probably more rapid because countries are adapting quickly to the standard of leading countries due to globalization, and initial marketization levels are

probably lower than in OECD countries. The results should clearly be taken in a context of countries in a relatively advanced state of marketization and not be generalized beyond this.

5.5.2 Economic leading countries

It is quite striking to see that the countries we associate with global leaders, are so low on their inter-year 'average' leading economic country. For instance, The US, the UK and France never have been an 'economic leader' between 1960-2013 based on their annual economic output level (GDP). Perhaps our vision of whose countries are the most powerful is dominantly determined by who is part of the G8, and not by its GDP level.

Some of the countries that appear as 'economic leaders' are not among the G8-countries (the Japan, Italy, Germany, France and Canada): the main industrial 'leading' countries. Only two of the G8 countries often appeared as 'leading economy': the United Kingdom and the United States. However, the arbitrariness of G8-membership with regarding to economic power is signalled by the suspension of Russia from the G8 for geopolitical rather than for purely economic reasons (Debaere, 2015

5.5.3 Anomia and Perplexing Situation

A dynamic test more located at individual experiences of dominant social norms and personal norms is needed to determine whether 'anomia' during a 'perplexing situation' – the intermediate search for new norms in the face of lost connection with previous norms – indeed makes individuals powerlessly distressed (Durkheim, 1897) or rather stimulates them to construct a new framework (Dewey, 1938; Stark, 2009). At this moment, it is not possible to know this.

It was unfortunate that these variables were measured only at several points in time (such as 1993, 2001 and 2011). Not all countries were covered in all these years. Moreover, the measures were only available for European countries.

5.5.4 Unemployment

The unemployment rate, underlying for the measure of the proportional unemployment growth, was taken from the OECD database. This agency demands official data from the individual countries in the same format, according to the same base operationalization. However, as a definition of the 'unemployed', everyone is included who is able and willing to work, and has taken steps the last 4 weeks to search for work – including work that takes only one hour a week. Therefore, students who are looking for a small job besides their main activity, studying, are also counted as 'unemployed'. Those who do not work and have withdrawn themselves from job search, are not counted as 'unemployed' and neither as work force. Therefore they also do not appear in the denominator in the

unemployment rate calculation (OECD, 2017). Of course it is questionable whether recently discouraged workers are not to be counted as 'unemployed'.

Obviously, the unemployment rate does not say something about the situation of the unemployed. Neither does comparing the suicide risk of the unemployed versus the employed. We can still not grasp what moves individuals who are unemployed and other individuals. The analyses on the Eurobarometer survey-data in Chapter 4 bring us a bit closer to that, but still the data reduce the rich situation and motives of the unemployed (and of others) into small preformed pieces. Qualitative research is clearly needed to validate the findings of this study.

5.5.5 Suicide rates

There are also some limitations on the suicide data. To start, the figures do not take into account suicide attempts. These are especially predominant among women compared to men (Canetto & Sakinofsky, 1998; Möller-Leimkühler, 2003). Suicide attempts can also indicate a disconnection from society or anomia. However, patterns that were not found for experienced disconnection from society (Chapter 4), will probably also not be related to attempted suicide, nor are they with actual suicide while not being associated with experienced disconnection.

A second disadvantage is that the reported suicide rates from post-soviet countries may be different in their reliability compared to other countries, especially before 199. Still, Wasserman & Varnik (1998) have found these statistics to be reliable.

5.5.6 Taking the step forwards

In the midst of an ongoing marketization of societies, this study suggested an interesting new protective factor against higher suicide rates: the degree of popular resistance against these marketization tendencies. More popular resistance against marketization appeared to lower the suicide rate of males and females. These figures did not appear to apply to individual unemployed, according to the ecological analysis, but to all people responding to a context of rapidly growing unemployment.

Also interesting was the direct empirical falsification of the classical Durkheimian hypothesis that the suicide rate would be higher in more disintegrated societies, in which a more direct measure of disintegration was used than in previous studies: in societies where more people felt disintegrated, the male suicide rate was higher. This did not apply to women, which gives an interesting point for further research.

The results provide some ground for an optimism that people in difficult situations have still a lot of agency, that the will to continue living is strong and that people rather reclaim their freedom to define their own goals and norms even if these are not – in their perception or de facto – carried by the key

social institutions in their society. Indeed, it was found that a larger number of people who did this (who rejected the perceived marketization processes of their culture), appeared to be protective against suicide.

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CV **Karlijn Liselore Anne Roex**

Telephone: +3168 523 23 32

Email: k.l.a.roex@gmail.com

Website: http://www.mpifg.de/forschung/wissdetails_en.asp?MitarbID=705

Date of birth: 20-04-1989

Present:

Doctoral researcher (PhD-fellow) at the Max Planck Institute for the Study of Societies, Cologne. Supervisors: Prof. dr. Mark Lutter (University of Cologne & Wuppertal) and Prof. dr. Aaron Reeves (LSE). Chair doctoral committee: Prof. dr. André Kaiser (University of Cologne).

Title dissertation: *Anomie, Shame and Resistance: The Impact of the Economy on Suicide*

Past Studies:

Master/ Graduate degree

- **Oct 2013 – Sept 2014**: Master in Sociology (MSc) at University of Oxford, graduated with Distinction. Specialisation: Economic Sociology.

Thesis: Inequality and Happiness: The Role of Perceptions of the Distributive Process**.** Supervisor: Dr. Tim Huijts.

Bachelor/ Undergraduate degree

- **Sept 2010 – July 2013**: Bachelor in Sociology (BSc) at Utrecht University, specialisation: Methods and Statistics (minor), as well as some additional courses in economics; *Result: GPA 4 (Netherlands: 8 out of 10, cum laude).*

Thesis: Favouring the Competition After You Have Lost. A Study of Support for Meritocratic Values in Various Societies among Different Individuals**.**

Supervisor: Tim Immerzeel, MSc

This thesis was nominated for Peter G. Swanborn Award 2013 (Utrecht University award for best social science bachelor thesis)

- **Sept 2011 – July 2013**: honours programmes:
  - disciplinary (Von Humboldt programme)
  - interdisciplinary (Descartes College)

Academic activities

Visiting scholarships

- **Sept-Dec 2016**: Columbia University, Department of Sociology. Visiting PhD student.

Review work

- **Jan 2017, Aug 2017 and Feb 2018**: Reviewer for *Social Indicators Research* (Impact Factor 2016: 1.380)

Conferences & Talks

- **Nov 2016:** lecture/ discussion about stigma and 'mental illness' at the Hearing Voices Network New York City (3 November)
- **Dec 2017:** lecture/ discussion about stigma and 'mental illness' at the New York ISPS-US meeting (17 December)
- **July 2017**: paper presentation 'Polarization in Attitudes to Income Inequality in Perceived Meritocracies' at the 24th International Conference for Europeanists
- **July 2017**: paper presentation 'Unemployment and Suicide in Highly Protected Labour Markets' at the 24th International Conference for Europeanists

- **Sept 2017**: lezing Filosofestival 'De Verwarde Mens', over verwardheid in de ineenstortende kapitalistische democratie, Utrecht
- **Nov 2017**: Oral presentation 'The Obamacare impact: States that provide for accessible health insurance have lower suicide rates'. European Public Health Conference, Stockholm.
- **Nov 2017**: Pitch presentation 'Suicide after discharge from psychiatric inpatient care: the role of intolerant societies'. European Public Health Conference, Stockholm.
- **Nov 2017**: presentation 'Vrijheid en Gelijkheid in de Chaosfobische Staat' at Café De Verheffing, Rotterdam
- **January 2018**: Paper presentation 'Toenemende onrust in de steeds ongelijkere samenleving en verward gedrag' at the Congres Personen met Verward Gedrag The Hague, Netherlands

Publications

- Roex, K.L.A., Huijts, T. & Sieben, I. (2018). Attitudes Towards Income Inequality: 'Winners' versus 'losers' of the perceived meritocracy. *Acta Sociologica*. http://journals.sagepub.com/doi/abs/10.1177/0001699317748340
- Roex, K.L.A. & Rozer, J.J. (2017). The Social Norm to Work and the Well-Being of the Short- and Long-Term Unemployed, *Social Indicators Research* https://link.springer.com/article/10.1007/s11205-017-1723-0
- Roex, K.L.A. & Riezen, Van. B. (2012). Counter-terrorism in the Netherlands and the United Kingdom: a comparative literature review study. *Social Cosmos, 1 (3),* 97-110. See at: http://socialcosmos.library.uu.nl/index.php/sc/index. This publication is a part of the Von Humboldt honours programme and written as a second-years undergraduate student.
- Forthcoming: Inkomensongelijkheid en de stijging in 'verward' gedrag. *Mens en Maatschappij.* (conditionally accepted)

Summer schools

- **Aug 2015**: Summer School Essex course Prof. Dr. Rob Walker.
- **July 2012** (one week + essay + reading preparation): Oslo Summer School in Comparative Social Science Studies, in which I attended the (PhD-) course "Citizenship: Inclusions and Exclusions", lectured by prof. dr. Yasemine Soysal (University of Essex). I wrote an essay on the substantial citizenship status of people who are presumed mentally ill or users/ survivors of psychiatric services

Past Employment:

- **March 2012-Aug 2012**: Internship with the department of Sociology (Utrecht University), in which I worked on a new research project: New Families in the Netherlands, under supervision of Anne-Rigt Poortman (http://nfn-onderzoek.nl/)
- **Sept 2012 – 2013**: Student assistantship with the department of Sociology; project New Families in the Netherlands. In this assistantship, I developed an automated administration system and prepared the scientific data for analysis. I also designed a leaflet aimed at recruiting respondents for our questionnaire (see attachment). Reference: a.poortman@uu.nl (Anne-Rigt Poortman, associate professor Utrecht University, Sociology Department).
- **October 2012** – **March 2013**: teaching additional tutorials for students having extra difficulties with statistics (at USOCIA, association of sociology students at Utrecht University)

Civil society & Volunteering

- **May 2017-present**: volunteer at *Wegloophuis Utrecht* (Utrecht, Netherlands), daily domestic business, social interaction and analysis & write-up of the (ex-)resident satisfaction survey data
- **Feb 2011- Aug 2013**: volunteer at *De Tussenvoorziening* (Utrecht, Netherlands), an organization which fosters the social inclusion of people who have been users/ survivors of psychiatric services. Position: buddy, engaging in social leisure activities with individuals.
- **September 2010- Februari 2012**: editor at *AGORA Magazine* (http://www.agora-magazine.nl/; example http://www.agora-magazine.nl/wp-content/uploads/2012/09/AGORA-2011-4-Platteland.pdf). Magazine about social-spatial issues.

Publications/ interviews in popular media

Groene Amsterdammer

1) De grip kwijt (7 Maart 2018). Article in which I appear as interviewee to critically reflect on current debates about the mental health system and public safety. https://www.groene.nl/artikel/de-grip-kwijt

Joop.nl

1) Wat ging er mis in Keulen (11 January 2016). Article addressing the criminalization of refugees.
2) Voorkom doden, laat verwarde mensen niet over aan de politie (20 september 2016). Article addressing force against and policing of the 'mentally ill'.

Deviant:

1) De ‘enge’ mens leeft met een betwistbare vrijheid (9 April 2016). Article criticizing the practice of forced psychiatry.

Elsewhere:

1) The Contested Freedom of the Scary (24 March 2016). Article criticizing the practice of forced psychiatry.
2) Martijn van der Linden & Karlijn Roex. (2011). Bestaan Noord-Groningen al sinds 1959 bedreigd. *AGORA, 27(4),* 34-37. (an interview)

Skills

Languages: Dutch, English, German, French. Software: Office-package, Adobe Photoshop, SPSS, Stata. Coding: R, html, CSS.

Statement of Academic Integrity

I hereby declare that I have completed the following work without help from third parties and without means of assistance, apart from those indicated. I have cited the sources of all direct and indirect quotations, dates, and ideas that are not my own. The following persons assisted me with the selection and evaluation of research materials as described below and for payment or without payment as indicated: none.

No other persons were involved in preparing the contents of this work. I certify that I have not used the paid services of consultation firms, and that I have paid no one, directly or indirectly, for tasks connected to the contents of this dissertation. The work has not yet been submitted in the same or similar form to another institution in Germany or abroad. I certify that this statement is true and complete to the best of my knowledge.

The International Max Planck Research School on the Social and Political Constitution of the Economy (IMPRS-SPCE) is a joint international PhD Program of the Max Planck Institute for the Study of Societies (MPIfG) and the Faculty of Management, Economics and Social Sciences of the University of Cologne. Its research explores the relationship between the modern economy and its social and political foundations. Building on a long tradition in sociology and political science, the school aims to combine and develop the approaches of new ecconomic sociology, comparative political economy, organization studies, and history. The Studies on the Social and Political Constitution of the Economy are a doctoral thesis series featuring dissertations by PhD students who have successfully completed the graduate training program of the IMPRS-SPCE.

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