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Pension Systems under Pressure  
Explaining the Variety in Pension Adjustment  
Mechanisms across OECD-countries

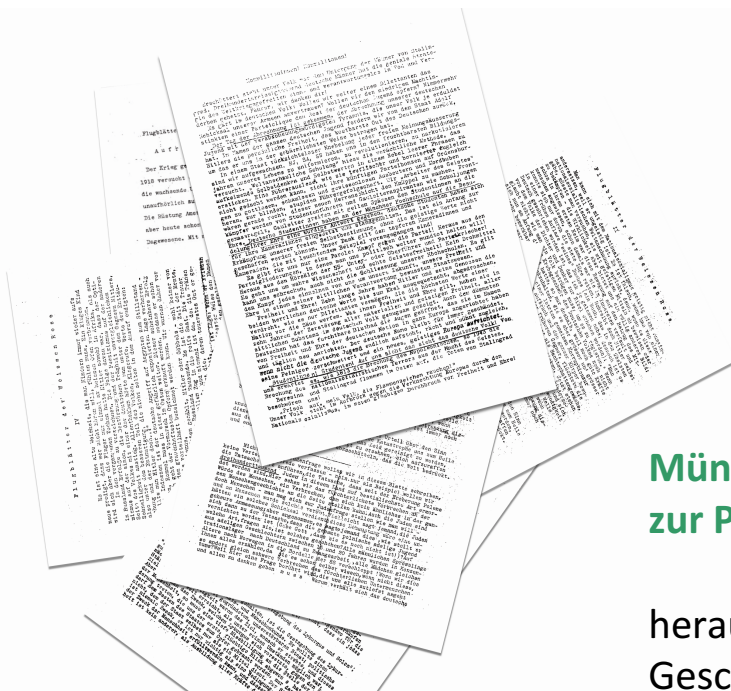
## **Bachelorarbeit, Sommersemester 2024**

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**2024**

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**Pension Systems under Pressure.  
Explaining the Variety in Pension  
Adjustment Mechanisms across  
OECD-countries**

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Bachelorarbeit bei  
Prof. Dr. Laura Seelkopf  
2024

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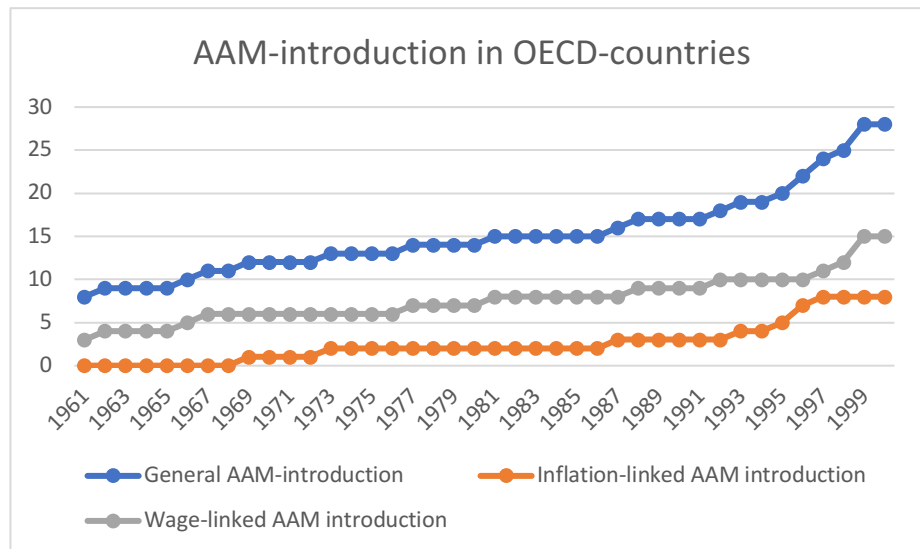
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## 1. Introduction

Pension systems around the world are facing unprecedented pressure to adapt to the demographic and economic challenges that have emerged in recent decades. The primary challenge facing states is to achieve a balance between maintaining a robust financial foundation and ensuring comprehensive pension security for individual retirees (Hinrichs, 2021; Komp, 2018; Kuitto & Helmdag, 2021; Weaver, 2016). A particularly prominent reform instrument used to achieve this goal is the introduction of indexation mechanisms, so called Automatic Adjustment Mechanisms (AAM) in pension systems. Therefore, Automatic Adjustment Mechanisms are even described as “the most important innovation of pension policy over the last decades” (OECD, 2021, p. 110). Using this instrument, the amount of pension revenues is linked to objective economic indicators such as wage or price development to prevent a relative decline in the value of pension levels compared to the overall economic development (Hinrichs, 2021; Komp, 2018; Kuitto & Helmdag, 2021; Van Kersbergen et al., 2014; Weaver, 2016). In light of the growing importance of this instrument, comparative policy research has already addressed numerous questions on the subject, with a particular focus on identifying the determinants that facilitate the introduction of Automatic Adjustment Mechanisms. It was shown that economic pressures, as well as the participation of certain political parties in government, can particularly explain the adoption of AAMs (Fernández, 2012). In addition to the general observation that AAMs are increasingly being established into pension systems, a peculiar trend emerges: states vary significantly in the design of AAM they introduce. Broadly speaking, two distinct designs can be observed: linking pension levels to price developments (inflation-linked AAM) or indexing them to the average wage development (wage-linked AAM). The question which factors influence the decision to adopt one of those forms is still unanswered. This paper addresses this gap by examining the factors which determine the form of indexation mechanism implemented by countries. Thus, the research question of this paper is as follows: What drives the decision of policymakers to implement a specific design of Automatic Adjustment Mechanism? I argue that the decision of national policymakers regarding the specific form of a pension indexation mechanism is significantly driven by the power resources of social democratic and christian democratic parties whereas the degree of transnational influence from other countries does not have an impact.

But why is a deeper understanding of the implementation of different AAM-designs important at all? Firstly, there is a theoretical interest, as the existing literature does not provide an explanation for the observed phenomenon. The question arises whether theories that explain the general adoption of this policy can also adequately account for the decision to implement a specific form of AAM. This paper aims to provide an answer to this theoretical gap. The importance of gaining a better understanding of the introduction of various AAM-designs is underscored by practical consequences: both the sustainability of AAMs and their economic distribution effects are closely tied to their specific design. As shown by Weaver (2016) and Schoyen and Stamati (2013), a long-term integration of pension indexation mechanisms within a pension system significantly depends on its design. Furthermore, the design of AAMs has notable economic distribution impacts: inflation-linked AAMs tend to have progressive distribution effects within the group of retirees, while wage-linked AAMs generally benefit higher earners (Whitehouse, 2009). Hence, it becomes evident that gaining a deeper understanding of the conditions influencing the decision for a specific AAM-form is of great theoretical and practical interest.

Table 1 gives an empirical overview on the extent to which AAMs have been implemented globally. Two developments stand out: first, it becomes evident that the forms of AAMs introduced differ significantly. Both inflation-linked and wage-linked AAMs are implemented across countries, without any immediately discernible pattern. Second, it is primarily wealthy OECD-countries that have integrated indexation mechanisms into their pension systems. This is primarily due to the substantial demographic adjustment pressures confronting these pension systems (Hinrichs, 2021; Hinrichs & Jessoula, 2014).



**Figure 1:** Overview of AAM-introductions in OECD-countries (1961-2000)

To explain the adoption of specific AAM-designs, this paper builds on diffusion as well as partisanship theories. Diffusion theories attribute the implementation of a specific type of AAM to the influence of the international environment. Thus, policymakers' decision regarding a particular AAM-design are significantly shaped by their integration into the international context. In contrast, partisanship theories state that the variance in AAM-designs can be explained by the differing power dynamics of the governing parties. The central premise of this theoretical framework is: "parties matter". Methodologically, this paper employs a two-step event-history-analysis. Given that the decision for a particular form of AAM is significantly influenced by whether any form of AAM is introduced at all, the aim of step one is to identify factors that generally affect the introduction of AAMs. In a second step, I will explore factors that explain the choice of policy-makers for a specific design of AAM. This approach allows for a nuanced identification of the factors that have influenced the decision for each particular AAM-design. Empirically, the AAM-introductions of every country of the Organization for Economic Cooperation and Development (OECD) over the period from 1961 to 2000 are considered.

Consistent with the findings of Fernández (2012), the first step reveals that power resources of christian-democratic parties significantly increase the likelihood of introducing AAMs. The results of the second step show that party configurations have also an influence on the decision for a specific design of AAM. In particular, high power-resources of social democratic and christian democratic parties increase the probability of inflation-linked AAMs.

The presence of certain types of AAMs in interdependent countries had no effect on further implementation of specific AAM-types, which contradicts the assumptions of diffusion theory. The results further indicate that policy-making is highly influenced by contextual factors and national path dependencies.

This paper provides a comprehensive and nuanced contribution to explain the implementation of specific designs of indexation policies within pension systems and enriches the literature in two significant ways. First, the findings of this study provide an explanation for the variance in AAM-designs across different countries. Second, broader conclusions about the trend of policy-indexation can be drawn: the results of my study identify factors that fundamentally play a role in the implementation of indexation mechanisms by demonstrating that party configurations within national political systems significantly influence the choice of a particular form of indexation mechanism.

The structure of the paper is as follows: first, an overview of current AAM research and literature on welfare policy design decisions in other areas is provided. Subsequently, I introduce the theories utilized in my study, from which the hypotheses to be tested are derived. Following this, I discuss the case selection and the methodology employed in my research, and then present and discuss the results of my statistical analysis. Finally, this paper concludes by presenting limitations of the study and suggesting promising directions for future research.

## **2. Literature Review**

The following section aims to provide an overview of the current state of research on Automatic Adjustment Mechanisms in order to identify the gap in the literature this paper addresses. In a second step, a comprehensive review of prior works within policy design research will be conducted. This review will focus on identifying relevant theories and frameworks that can be applied to address the specific research question posed in my study.

### *Current state of research on Automatic Adjustment Mechanisms*

It is essential in my case to provide an overview of the current state of research on AAMs before looking at literature which explain the choice of policy-design. Therefore, I will



first focus on examinations on AAM introduction. Secondly, I will discuss the implications of AAM-design on viability and distributional consequences to show that the specific design of AAMs has indeed large implications.

One strand of AAM-research delves into understanding the factors driving the introduction of AAMs. Three key explanatory frameworks have been developed to understand the increasing implementation of AAMs: economic conditions, political party influence, and diffusion processes. The first approach involves explaining the introduction of AAMs through economic conditions. As demonstrated by Hockerts (1980) in a study of post-war Germany, economic development and inflation rates play a crucial role for the introduction of AAMs. These developments not only create the fiscal space necessary for implementing such indexations but also generate pressure for their introduction, particularly in response to inflationary trends. Similar explanations were found in studies examining the introduction of pension indexation in the Netherlands (Schuyt & Taverne, 2004) and Italy (Jessoula, 2010). In both cases, economic growth and price increases significantly influenced the introduction of AAMs, although the extent of their impact was contingent upon other contextual factors, such as political power dynamics. Additionally, studies beyond specific country cases which analyzed the introduction of AAMs underscored the critical importance of economic developments in explaining AAM introductions as well (Fernández, 2012). Consequently, economic developments represent a pivotal factor in explaining the introduction of pension indexations. Secondly, literature emphasized the importance of political parties in this context. Accordingly, the decision to index pension payments significantly depends on the party in power (Huber & Stephens, 2001). Van Kersbergen and Becker (1988) investigated this in the case of the Netherlands, concluding that the specific design of the Dutch welfare system, including the introduction of pension indexation, can be traced back to the power constellations of ruling parties. Similarly, Fernández (2012) finds that parties in government play a crucial role in determining whether AAMs are introduced. Both studies attribute the introduction of AAMs to the influence of parties from the christian democratic and social democratic party families. It is important to note, however, that these findings must be understood in conjunction with other contextual factors.

A third explanatory approach, significantly influenced by the works of Weaver (2010), focuses on more personal explanatory patterns concerning the politicians in power. According to this perspective, the introduction of indexation mechanisms is driven by "good-politics

objectives," "credit-claiming objectives," and "blame-avoidance objectives". This third strand explains the introduction of AAMs primarily with the strategic considerations of politicians.

Although the general introduction of AAMs and their facilitating contextual factors have been extensively studied, there is a lack of understanding regarding the decision on the specific form of indexation. Existing research gives an explanation on why AAMs are introduced but does not address which form of AAMs is chosen. To demonstrate addressing this gap is of great importance, I will explore two additional research trajectories related to pension indexation.

It is important to thoroughly understand the implementation of different indexation designs because they greatly affect the sustainability and distribution outcomes of AAMs. Regarding the sustainability aspect, research has examined the conditions that influence the sustainability of AAMs. It explores the factors that may lead to the abolition of established AAMs or political interventions that override the indexation mechanism. Weaver highlights that the design of AAMs is a critical factor for sustainability (2016). The design of indexation and its adjustment mechanism significantly influence whether and under what conditions policymakers may choose to abolish or overrule pension indexation (2016). Schoyen and Stamati (2013) reached similar conclusions, demonstrating that the design of AAMs, along with other factors, is crucial in determining whether indexation policies can survive in pension systems in the long run. To sum it up, the specific design of Automatic Adjustment Mechanisms indeed plays a crucial role in determining whether and for how long they can be established within a pension system. Another argument justifying a deeper analysis of AAM-design is the varying distributive implications of different indexation designs. Again, it is shown that inflation-linked and wage-linked Automatic Adjustment Mechanisms exert different impacts on the distributional effects within a pension system. Previous literature converges on the consensus that inflation-linked AAMs have a greater distributive impact on individual pension levels compared to wage-linked AAMs (Béland et al., 2024; Whitehouse, 2009). The conclusion emphasizes that the design of Automatic Adjustment Mechanisms significantly influences their distributional effects.

This review has shown that there is a gap in the literature on AAMs in explaining the design choices of AAMs. However, it becomes clear that this is important to understand considering the far-reaching consequences of AAM design. For this reason, the second part of

the literature review will now look at the existing literature that can explain policy-design decisions.

### *Existing literature on policy-design choices*

The lack of theoretical understanding of the determinants that explain the specific design of pension indexation, together with the far-reaching implications of the design of AAMs make a more detailed examination of this issue highly worthwhile. To address the identified gap, the next step is to review previous studies that have examined social policy design decision-making in other fields of welfare policy. Since my paper employs the identical theoretical frameworks, the literature review will primarily focus on studies that utilize diffusion and partisanship approaches to explain policy-design-implementation. This will be complemented by a concise overview of other theories relevant to policy design explanations. The review highlights that the diffusion and partisanship theories have proven highly effective in explaining the implementation of specific policy designs. These theories offer significant insights into the mechanisms and factors influencing policy design implementation, which underscores the utility of these theories for my research project.

The significant influence of parties on policy design has been extensively documented in numerous studies. An overview of the partisanship-approach is provided by the works of Wenzelburger (2023) and the meta-analysis by Bandau and Ahrens (2020). Both studies find an influence of parties on the design of welfare policies, but also emphasize that the effects depend strongly on party competition, the institutional context and changing framework conditions (Wenzelburger, 2023). Additionally, investigations confirm this connection across various fields of welfare politics. Allan and Scruggs (2004) demonstrate that, even under the new circumstances of welfare state retrenchment, partisanship continues to have a substantial impact on welfare state entitlements, specifically for unemployment insurance and sickness benefit replacement rates. Similarly, health policies are also influenced by party configurations and power structures within governments, which indirectly affect health outcomes through social policies (Falkenbach et al., 2020). This influence is also observed in redistributive policies, although the results vary significantly depending on contextual factors (Iversen & Soskice, 2006).

On contrary, diffusion theories, which emphasize that policy decisions are not made solely within the national framework but are significantly influenced by dependencies on other states, have been utilized in several studies as well (Jahn, 2023). This influence of international dependencies on legislation designs has been demonstrated in empirical studies, whereas it is differentiated between the various mechanisms through which these processes occur. First ones are learning processes: policymakers often look to successful welfare policies implemented abroad to address similar issues. Accordingly, they adapt the design of their welfare policies to previous examples. (Gilardi, 2010; Gilardi et al., 2009; Obinger et al., 2013). Secondly, the design of policies can also take place through competitive processes. Here, welfare policy designs are identified as a result of strategic interactions between states in order to remain competitive or to prevent other nations from falling behind in terms of social welfare benefits (Jahn, 2009). An explanation of policy-design diffusion with emulation mechanisms emphasizes the importance of the desire of policy-makers to belong to a certain norm group when considering policy-designs (Bearce & Bondanella, 2007; Finnemore & Sikkink, 1998), whereas coercion approaches highlight the influence of international organizations on the specific design of national welfare policies (Braun & Gilardi, 2006; Simmons et al., 2006). It can be concluded that both diffusion and partisanship approach indeed offer strong explanatory power regarding the question of why states choose a particular form of welfare policy design.

At this point, a brief examination of two alternative approaches that explain policy design implementation will be undertaken. On the one hand side, the influence of earlier, formative policies on welfare policy designs, as posited by the path-dependence approach, has been identified by scholars such as Huber and Stephens (2001), Kiess et al. (2017), and, albeit more critically, Fleckenstein (2013). Through this lens, policy-design choices are considered to be heavily influenced by existing national experiences and structures. On the other hand side, the impact of the EU on welfare policies has been observed (Börzel & Panke, 2022; Windhoff-Héritier, 2001). Within this theoretical framework, the strong influence of the EU on the policy-making of its member countries is emphasized.

In light of these diverse approaches to explaining policy designs, it becomes evident that a multitude of theoretical frameworks can account for the design of policies. The review of the preceding literature raises a variety of questions: What drives the decision of policy-makers to implement a specific design of pension indexation? Do theories of diffusion and

partisanship help to better understand this process? In order to answer these questions, this paper aims to further investigate this relationship and thus make an empirical contribution to the literature. To do so, the next step is to look deeper into the theoretical connection of partisanship, international interdependences and indexation-policy-introductions.

### **3. Theory**

First, the following section provides a deeper introduction into Automatic Adjustment Mechanisms and places them in the broader context of research on “automatic government” (Weaver, 2010). Second, theories employed in this work are then elucidated and applied to my specific field of investigation to derive hypotheses that are suitable for testing their significance.

#### *An introduction to Automatic Adjustment Mechanisms*

To establish a shared comprehension of Automatic Adjustment Mechanisms, I will first provide a clear definition of the term. Drawing on previous literature, AAMs are defined as statutory provisions designed to modify pension payments in accordance with fluctuations in an economic index (Fernández, 2012; Gannon et al., 2016). Through this mechanism, the amount of individual pension payments within a state pension system is thus linked to an economic index, resulting in the automatic adjustment of pension payments in accordance with the changes in this index. AAMs therefore allow an "automatic" adaptation of the individual pension level to general demographic and economic trends and offer significant advantages for policy-makers and pensioners: Firstly, Automatic Adjustment Mechanisms generally reduce uncertainty in pension systems concerning economic and demographic developments. The automatic adjustments of pensions protects against the risk of a divergence of overall economic developments and the pension provision level (OECD, 2021). Secondly, for policy-makers, AAMs advantageously de-politicize pension adjustment decisions and thus avoid political battles and blaming by voters in the absence of benefit extensions or pension cuts (Weaver, 1986, 2010, 2016). This aspect is particularly significant considering that, given the rising problem of aging societies, decisions regarding pension levels are increasingly conflict-ridden and are becoming continuously more concerns of the median voter

(De Walque, 2005). Thirdly, from a pensioner's perspective, AAMs offer the advantage of an automated adjustment of pension amounts to economic developments in order to compensate for a loss of purchasing power and a relative loss in value of their pension payments.

Empirically, it can be observed that varying forms of AAMs are implemented in different countries (see Table 1). A key dividing line in designs of AAMs is the question to which parameter the indexation of pension is linked. A main differentiation in this regard is an adaption to inflation developments (inflation-linked AAMs) or wage development (wage-linked AAMs) (Fernández, 2012; Whitehouse, 2009). Inflation-linked AAMs adjust the pension level to the national price trend in order to prevent a divergence between the nominal and real value of pensions. In contrast, wage-linked AAMs adjust the pension level to the average wage level of a country. While inflation-linked AAMs adjust pensions relative to the costs of living, wage-linked AAMs lead to a relative adjustment of pensions to the standard of living of people in work (Whitehouse, 2009). Due to the different rules and mechanisms for adjustment, different AAM-designs have enormous influence on both the sustainability of the pension system and the individual pension entitlement, as already shown in the literature review.

AAMs thus represent an automatic mechanism of adjustment for pensions and fit into the trend of increasing indexation of policy decisions. As noted by Weaver, decisions that were previously part of the political arena are increasingly being transferred to the legislative arena through the introduction of automatic mechanisms (Weaver, 2010). As AAMs also replace the political decision to adjust pensions by a formal indexation mechanism, they fit very well into this trend.

### *Explaining the implementation of AAMs*

But how can the introduction of different forms of AAMs in different countries be explained? To address this question, this paper draws on the theoretical frameworks of partisanship and diffusion theory, as both have demonstrated significant explanatory power in previous studies on policy design implementation and highlight important aspects of the policy design decision-making process. In the following, I will give a brief overview on both theories to finally derive hypothesis which will be tested in the following sections.

Diffusion approaches explain the implementation of policies through transnational and supranational interdependencies that influence the decision-making process. Whether and which form of policy is implemented in a particular country is therefore significantly impacted by previous policy implementations in other countries (Gilardi & Wasserfallen, 2019; Obinger et al., 2013). They therefore take policy-implementation processes out of the national perspective and emphasize the transnational dependencies as well as the embeddedness in the international context in order to understand them (Dobbin et al., 2007). This process primarily unfolds via four channels: 1) *Learning*: In order to minimize political risks when introducing new policies, countries use successful other policies as a guide and learn from the existing policies of neighboring countries (Gilardi, 2010; Gilardi et al., 2009; Obinger et al., 2013). 2) *Emulation*: Policy-makers choose existing policies because they want to be part of an international group that shares common standards and values (Bearce & Bondanella, 2007; Finnemore & Sikkink, 1998). 3) *Competition*: Aiming to maximize their own benefits, countries set policies based on both anticipatory and reactive responses to the actions of other nations (Jahn, 2009, 2023). 4) *Coercion*: Policies are diffused through coercion due to vertical and horizontal asymmetries (Braun & Gilardi, 2006; Simmons et al., 2006). It is important to note that these causal pathways do not occur separately from each other, but are mutually dependent: they interact, overlap, mitigate or sequentially follow one another (Lütz, 2007). In summary, understanding policy design implementation through diffusion approaches necessitates examining the international context and its impact on national policy decisions.

It was chosen for this approach as it offers the significant advantage of considering the international entanglement of policy-setting. A factor which is often overlooked by other theories. Particularly in the context of increasing internationalization and globalization of politics, diffusion theories provide valuable deeper insights into the determinants of policy introductions. With their international perspective, they are particularly beneficial in explaining how policies spread and are adopted across different countries, contributing to a deeper understanding of global policy dynamics.

Through the lens of diffusion approaches, an explanation of both the implementation of pension indexation in general (1. step) and its specific design-choice (2. step) is possible. To identify the determinants influencing the general introduction of AAMs, the following hypothesis could be derived:  $H_1$ : *The presence of Automatic Adjustment Mechanisms among dependent states increases the probability that the state being examined will also adopt an*

*indexation mechanism in its pension system.* The assumption posits that a growing number of established AAMs, regardless of their specific design, increases the likelihood of an AAM-adoption in other countries. Following the same logic, implementation of specific designs of Automatic Adjustment Mechanisms can be better understood by examining the international environment as well. If interdependent states have successfully established a particular form of indexation, the likelihood that other national governments will adopt a similar AAM-design increases due to diffusion processes. Therefore, the following next hypothesis can be derived: *H<sub>2</sub>: The presence of specific types of Automatic Adjustment Mechanisms among interdependent states increases the adoption probability of a similar kind of indexation mechanism in other countries.* Accordingly, Hypothesis 2 links the selection of a specific type of AAM to the international context as well: the adoption of a particular AAM design by other states influences national policy-setting in other countries. In consideration of these hypotheses, it can be summarized that diffusion approaches explain implementation of AAMs and the choice for a specific type through international diffusion effects, offering the significant advantage of giving substantial consideration to the impact of the international environment.

In contrast, partisan or power-constellation approaches set the frame in a very different way by focusing on national parties as main drivers of policy-implementation. This theory can be summarized as: parties play a role in shaping policy. I decided to use this theory as the focus on political parties involved in the policy-making process allows for a deeper understanding of parties as “one of the main explanatory variables in the study of public policies” (Engler & Zohlnhöfer, 2019). Additionally, numerous studies have already demonstrated the significant explanatory power of party effects on policy implementation and design (Huber & Stephens, 2001). However, it is important to recognize that the parties’ influence is highly contingent upon the chosen research methods, contextual factors, and the specific dependent variables analyzed (Garritzmann & Seng, 2020; Wenzelburger, 2023). Power-constellation-theories of policy implementation, while insightful, have certain weaknesses. One significant limitation is that parties influence policies only over the long term, making it challenging to establish a direct correlation between party participation in national government and the policies implemented. To address this issue, a lagging of the party-variables has been made in this study, which will be discussed in the methodology chapter later. Additionally, the applicability of these theories is limited to developed states



(Wenzelburger, 2023). This research project addresses this limitation by an appropriate case selection of only OECD-countries.

But how do partisanship approaches explain why parties implement different (types of) policies? By implementing policies, parties pursue two primary goals: to secure their own re-election (*vote-seeking*) and to enforce their preferred policies (*policy-seeking*) (Von Beyme, 2000). From vote-seeking perspective, political parties implement policies in accordance with their voter's preferences to gain advantages in electoral competition (Engler & Zohlnhöfer, 2019). So, by establishing specific policies, parties aim to differentiate themselves from their competitors and address the preferences of its electorate, hoping for continued voter support (Wenzelburger, 2023). Additionally, parties aim to implement concrete policies that align with their political ideology. As Wenzelburger (2023) describes, policies are in that sense a manifestation of policy-seeking by different parties, i.e. the implementation of their respective party and election programs through the concrete design of policies. Following the argumentation of Fernández (2012), these assumptions suggest that social democratic and christian democratic parties are particularly inclined to support the indexation of pensions through AAMs. Why specifically these parties? Social democratic parties in government advocate for AAM-introductions as these mechanisms align with their expansionary ideological views and the preferences of their voter base. Similarly, christian democratic parties in government increase the likelihood of AAM-introductions for three reasons: 1) they represent an expansion of welfare systems, 2) they provide a means to mitigate class conflicts, and 3) they have the potential to attract new voter bases (for a more detailed explanation of this argument, see Fernández, 2012). On that basis, the following hypothesis regarding the general introduction of AAMs can be derived: H<sub>3</sub>: *The greater the relative power of Social Democratic and/or Christian Democratic parties in government, the higher the probability that any type of AAM will be implemented.*

Following the same logic, the design-choice for an specific AAM can be understood as a result of vote- and policy-seeking goals of parties as well. As already mentioned, inflation-linked AAMs have a more progressive distribution effect within the group of pensioners than wage-linked AAMs do (Whitehouse, 2009). It can therefore be assumed that social democratic parties whose goal is greater social equality are more likely to introduce inflation-linked AAMs. The constellation of power approach therefore allows the following hypothesis regarding the design of AAMs to be made: H<sub>4</sub>: *The greater the share of social democratic parties in national*

*governments, the greater the likelihood that AAMs that link indexation to inflationary trends will be implemented.* Hypothesis H<sub>4</sub> thus specifies the relationship from H<sub>3</sub>: The decision in favor of a particular form of indexation is strongly dependent on how different types of AAMs support the policy and vote-seeking objectives of parties. As the influence of social democratic parties on the policy form can be traced more directly, this study concentrates exclusively on the influence of parties from this party family.

In conclusion, the overview of the theoretical assumptions has led to the formulation of four distinct hypotheses, which postulate different assumptions concerning the factors influencing the implementation of AAMs in general as well as its specific design. While H<sub>1</sub> and H<sub>2</sub> were derived from diffusion approaches and emphasize the decision for a (specific form of) indexation mechanism as being highly dependent on interdependent countries, H<sub>3</sub> and H<sub>4</sub>, in contrast, highlights the influence of parties in government on AAM-implementation and design. Therefore, the next section will address the methodological approach of this study which is used to test the validity of these hypotheses.

## **4. Methodology & Data**

In this section, I will first discuss the methodological approach of this paper which is a two-step event history analysis. Then, the operationalization of the dependent and independent variables as well as the controls integrated into my analysis are presented. I will conclude with an overview of the case selection of my study.

### *Methodological approach of this paper*

I will employ a two-step analysis to identify the precise determinants behind the formation of AAM-design implementation. In a first step, the factors influencing the general introduction of AAMs are explored. In a second step, I will differentiate between two forms of AAMs to further identify the influences leading to each specific form of AAM. To control for selection bias, I integrate the results from Step 1 in Step 2 by using an inverse Mills ratio (Heckman, 1990).

Both steps analyze the duration until the event, the introduction of an AAM, occurs. An event history analysis is particularly well-suited for capturing this. The event history analysis is

a statistical method that examines the transition of subjects from one state to another. Furthermore, the duration that a subject remains in a specific state before experiencing an event is of relevance. Through this analysis, one obtains hazard ratios as results, which indicate the immediate risk of an event occurring within an infinitesimally small time frame, provided that the event has not occurred up until that point (Hildebrandt et al., 2015). This approach allows for the examination of both the time until the event occurs and the factors that either accelerate or delay the occurrence of the event (Jäckle, 2018). The application of event-history analysis is therefore particularly well-suited for examining my research question due to its focus and methodological approach.

In my analysis, it is essential to establish a preliminary model as a first step: Model 1 analyzes the factors that facilitate the introduction of AAMs in general. This step 1 is needed methodologically to construct Model 2 afterwards in order to account for the fact that choosing a specific form of AAM is closely related to the overall decision to index pensions (Heckman, 1980, 1990). The first step of the methodology can thus be regarded as the "base model," as the different designs of AAMs are not yet distinguished concerning the dependent variable. To measure the influence of the factors, a Cox Proportional-Hazards Model, a method of semi-parametric event history analysis, will be employed. This approach is also suitable as it represents an established method for examining policy introductions in political science (Baybeck et al., 2011; Berry & Berry, 1990; Gilardi et al., 2009).

Step 2 of the methodological approach delves deeper into the research question by differentiating the impact of determinants across different AAM-types. As previously described, Step 2 integrates the results from the first step as inverse Mills ratios to control for sample selection bias. This represents a significant advantage compared to the study by Fernández (2012). For Model 2, a Latent Survivor Time Model for competing risks is employed, which measures the influences on the implementation of competing end states of AAMs. This model assumes that there are  $k$  different end states for AAM-implementation, each associated with distinct survival times (Box-Steffensmeier & Jones, 2004). In my case,  $k$  includes two possible outcomes: inflation-linked AAMs or wage-linked AAMs. Only the survival time of the first adopted design for each country is observed, while all other duration times are censored (Box-Steffensmeier & Jones, 2004; Crowder, 2012). By considering different AAM designs as competing events, the model effectively captures the potential variations in the impact of variables between the two AAM-designs (Box-Steffensmeier & Jones, 2004). Step 2 thus

represents a large extension compared to Step 1: While Model 1 only examines the factors influencing the introduction of AAMs across all forms of AAMs on average, Step 2 differentiates by considering these factors for both forms of AAMs separately.

To increase the robustness of the test results, further measures have been implemented in both steps. Clustered robust standard errors are used in both steps to exclude possible bias due to heteroskedasticity (Hoechle, 2007). Secondly, the sample selection bias is controlled by integrating the inverse Mills ratio in both models of step 2. Thus, the inverse Mills ratios function as an additional explanatory variable in the models. The integration of inverse Mills ratios in my approach ensures that the effects of endogenous sample selection are mitigated, thereby improving the reliability of the regression results (Heckman, 1980, 1990).

To adhere to the methodological requirements of Event-History Analysis, cases are excluded once the respective countries have established an AAM. In Model 2, this process is more specific: a country falls out from the study only if the specific type of AAM under investigation has been implemented in that country. Dropping cases is necessary for a reliable event history analysis (Box-Steffensmeier & Jones, 2004; Hildebrandt et al., 2015; Jäckle, 2018). In addition, this step allows me to ignore the occurrence of potential removals or reintroductions of AAMs. Although this potentially introduces some inaccuracies, it also makes it much easier for me to construct this model.

Another question in the study was addressing how to handle mixed cases. The approach to these cases of mixed AAM-systems will be briefly introduced. In mixed indexations, for example in Portugal, where both inflationary and wage developments are reflected in the indexation, the binary classification of AAMs as either inflation-induced or wage-induced is not sufficient. To address this issue, these indexations are categorized under both AAM-designs in Model 2. In the competing event analysis of step 2, Portugal is thus counted as an event for both inflation-AAM and wage-AAM. Although this introduces potential ambiguity, this approach was chosen to increase the sample size and because, despite the supplementary mechanisms, the indexing can still be considered as adhering to the respective design.

Given the complex methodological approach of this study, the steps are summarized briefly. In a first step, the analysis investigates the determinants of the general introduction of AAMs. In the second step, the analysis distinguishes between inflation-linked AAMs and wage-linked AAMs using a competing-event approach. This step aims to identify the determinants

of introduction for each form separately. To control for sample selection bias, the second step incorporates the inverse Mills ratios derived from the first step. As the result of analysis, the hazard-ratios provide information about the relative risk of introduction of each type of AAM occurring at any given point in time, given that an introduction has not yet occurred. This methodological approach represents a significant advantage over previous studies, as this study no longer examines the average influence on general AAM productions, but instead takes specific account of the various forms of AAMs.

### *Dependent Variable*

As emphasized by Bandau and Ahrens (2020), it is of great significance to attach importance to the correct operationalization of the dependent variables when investigating the determinants on policy decisions. For this reason, I will elaborate on both operationalizations for the dependent variable in step 1 and step 2.

As step 1 of the analysis identifies the factors influencing the general introduction of AAMs, a binary dependent variable is used for this event. Over the whole period, the value of the dependent variable stays at the value of 0 for each country and year as long as no AAM is introduced in this country. Only when a country introduces any form of AAM does the value change to 1. This operationalization follows the methodology of previous papers that have successfully employed the same approach to capture AAM-introductions (Fernández, 2012; Whitehouse, 2009).

Since step 2 of the analysis also captures the different forms of AAMs, I have chosen a more differentiated operationalization here, which distinguishes between inflation-linked and wage-linked types of AAMs. Given that my second step involves two statistical models, one for each type of AAM, the operationalization of the dependent variables is accordingly structured. In the first competing model (Model 2), which investigates the determinants of the implementation of inflation-linked AAMs, the annual value of the dependent variable remains at 0 until such an AAM-form is introduced in the respective country. Conversely, the same principle applies to the second competing model (Model 3) in relation to wage-linked AAMs. The data for this was drawn from the “OECD - Pension at a Glance 2021”-report (OECD, 2021).

To illustrate the operationalization, I briefly consider the example of Italy. The data capturing the timing and type of AAM in Italy retains at the value of 0 in Model 1 until an

inflation-linked AAM is introduced (1966). From this point onward, the time series displays a value of 1 for the subsequent years. In the wage-AAM model, the value retains 0 for the whole time, as no wage-linked AAM is introduced at all. Indeed, this binary classification cannot fully encapsulate the diversity of AAM types and mechanisms. Nevertheless, this operationalization provides a substantial insight for analyzing policy-setting in the context of pension indexations by utilizing an established operationalization.

In summary, this study measures the introduction of AAMs in general and the introduction of specific forms of AAMs as follows: Step 1 uses a binary measurement for each country to indicate whether any form of AAM is introduced (1) or not introduced (0) in a given year. In Step 2, this measurement is treated in a more differentiated manner: in the inflation-AAM model, the value changes to 1 only if an inflation-linked AAM is introduced. Conversely, in the wage-linked AAM model, the value changes to 1 only if a wage-linked AAM is introduced, while it remains 0 for the introduction of an inflation-linked AAM.

### *Independent Variables*

The operationalization of the independent variables is again based on the previous study by Fernández (2012). Diffusion approaches emphasize the significant role of interdependent states in policy-making. To quantify this influence, two variables are incorporated into the model. The first variable (*Diffusion*) records the percentage share of OECD-countries that have already established AAMs up to the corresponding year. With this operationalization, the influence of diffusion increases with the number OECD-countries with established AAMs as well as decreases with the number of OECD-members for each year. In step 1, the value for the percentage share increases for each introduced AAM, whereas in step 2, the variable is more nuanced, with separate counts for inflation-linked and wage-linked AAMs to account for the varying influences of the IVs on different AAM-designs. Both variables are based on the data from OECD (OECD, 2017, 2021).

It is argued that diffusion processes occur with a certain time lag (Fernández, 2012). To minimize any bias due to the temporal component in my model, a second variable is constructed to capture the lagged influence of diffusion. This variable is calculated similarly to the first diffusion variable but accounts for the time lag with a 3-year lag (*Diffusion\_lagged*).

This second variable thus allows for capturing the long-term influence of interdependent states on a country's policy setting.

It should be noted that this operationalization of the diffusion variables is relatively simple and does not fully account for the multiple dependencies and channels through which policy diffusion can occur. However, this method was chosen because measuring the percentage share of other OECD-countries provides a reliable proxy for interdependence.

In capturing the influence of political parties on policy-making, this model departs from previous studies, primarily due to the lack of access to relevant data (Fernández, 2012; Huber & Stephens, 2001). What method, then, was employed in this study to account for party influence? To measure the influence of parties on policy-making, four variables were integrated into the model on the basis of *parlgov*-dataset (Döring et al., 2022). All four variables measure the power resources of parties when they are part of the national government. This measurement is conducted for both social democratic and Christian democratic parties in their respective countries. The process is as follows: firstly, each year is coded binarily to indicate whether a social democratic or christian democratic party is part of the government. Secondly, the vote share in the parliament for each year is measured. The variable integrated into the model combines these two values: if the party was not part of the government in a given year, the variable in the model assigns a value of 0. If the party was part of the government, the variable's value corresponds to its seat share in the national parliament. This measurement is performed for each christian democratic and social democratic party (*SD\_participation*; *CD\_participation*). In order to decide which party within each country belongs to which party family, a simple procedure was used: those parties that have the terms "social", "labour", or "Christian" in their official party names were included in the study (see Appendix). In fact, this can only be an approximation of the complicated categorization of parties into party families, but was used for my case due to its simplicity. Further, it must be noted that the operationalization only approximates the power resources within governments, as it measures the seat share in parliament in case of government participation. Due to limited data access, this operationalization was chosen, as seat percentages in national parliaments indeed serve as a proxy for power resources within a government (Kriesi, 2009). Additionally, along with the two variables that measure the current power resources of social democratic and Christian democratic parties, lagged variables (by 2 years) are also incorporated into the model to

account for the long-term effect of parties in government (*SD\_participation\_lagged*; *CD\_participation\_lagged*).

### *Controls*

Step 1 and Step 2 also incorporate control variables to account for the influence of additional political, economic, and structural factors. This enhances the reliability and unbiasedness of the results. To control for the impact of price developments on both the general introduction of AAMs and their specific forms, two control variables are integrated into both steps (Eriksen et al., 2002; Fernández, 2012; Whitehouse, 2009). Both the average inflation rate of the year (*Inflation*) and a lagged inflation rate with a two-year lag are included in both steps (*Inflation\_lagged*). The data for measuring inflation rates are provided by the World Bank (Ha et al, 2023). It is argued that the type of the national welfare system also influences the type of AAM implemented (Bandau & Ahrens, 2020; Esping-Andersen, 2009; Jensen et al., 2018; Obinger et al., 2013). To capture this effect, both models include a nominal variable that represents the nature of the welfare system (*Welfare\_System\_Type*). This classification primarily follows Esping-Andersen's (2009) typology, distinguishing between liberal, conservative-corporatist, social-democratic, and mixed systems (see Appendix). The category of mixed systems was included due to the lack of clear classification for some countries, particularly Eastern European nations such as Hungary and the Czech Republic. Additionally, another control variable integrated into the model is the recording of whether the examined country is a member of the European Union in the respective year (*EU*). A binary variable was included that captures EU membership for each country and each year (0 = no EU membership; 1 = EU membership). This allows for the control of the impact of Europeanization on policy-making, which exerts another effect on policy-making (Börzel & Panke, 2022; Windhoff-Héritier, 2001). The percentage of the working population to the total population was also included as a demographic measure which exerts pressure on the introduction of pension-protecting instruments (Eriksen et al., 2002; Whitehouse, 2009). The data was taken from the OECD (OECD, 2024). The path-dependency literature emphasizes the impact that previous reforms have on the development of new indexing mechanisms (Huber & Stephens, 2001; Kiess et al., 2017). However, this effect can be disregarded in my study, as the focus is solely on the introduction of new AAMs. As there are no pre-existing indexation-mechanisms



that exert an influence in my case, it is not necessary to integrate a path-dependency control variable in my case.

### *Sample selection*

The empirical basis of this study is the examination of all AAM introductions in the 38 member countries of the Organization for Economic Co-operation and Development (OECD) over the period from 1961 to 2000. However, some countries were excluded from the analysis for various reasons. Firstly, there were OECD-countries, such as Germany and France, that had already integrated some form of AAM into their pension systems before the start of the study period. Since the event of interest had already occurred in these countries prior to the investigation, they were not included in the analysis. Secondly, countries that joined the OECD later, such as the Eastern European states Poland and Hungary, were included in the analysis only from the start year of their membership. Thirdly, in some countries it was not possible to detect any party which could be categorized as social democratic or christian democratic just by their names. Those countries also dropped out. Through this approach, the actual sample selection includes a total of 19 countries that were examined over the specified period. 16 of these countries also introduced some form of AAM during the period under review. The study period spans from 1961, the founding year of the OECD, to 2000. The end year of 2000 was chosen, primarily for methodological reasons, to ensure that the sample also includes OECD-countries that have not yet introduced any type of AAM. Table 2 provides an overview of all countries included in the analysis, their entry date into the OECD, the date of introduction of their pension indexation mechanisms, and the specific design of these mechanisms.

Country	Start of OECD-membership	Introduction year AAM	AAM-Design
Finland	1969	1969	wage-linked AAM
Ireland	1961	1961	wage-linked AAM
Italy	1961	1969	inflation-linked AAM
Japan	1964	1973	inflation-linked AAM
New Zealand	1973	1977	wage-linked AAM
Norway	1961	1967	wage-linked AAM
France	1961	1987	inflation-linked AAM
Republic of Korea	1996	1996	wage-linked AAM
Portugal	1961	1993	both designs
Czech Republic	1995	1996	wage-linked AAM
Mexico	1994	1997	wage-linked AAM
Spain	1961	1997	inflation-linked AAM
Hungary	1996	1998	wage-linked AAM
Poland	1996	1999	both designs
Sweden	1961	1999	wage-linked AAM
Turkey	1961	1999	wage-linked AAM
Greece	1961	///	///
Slovak Republic	2000	///	///
United Kingdom	1961	///	///

**Table 1:** Empirical overview of OECD-countries and AAM-introductions

It can indeed be argued that the selection of cases exclusively from OECD-countries limits the generalizability of the results, as it includes only wealthier and more developed nations. Nevertheless, several reasons justify this choice. Utilizing OECD-members as cases not only ensures easy data availability but also benefits from an pre-existing systematic classification of AAMs into different design types (OECD, 2017, 2021). From a methodological standpoint, this selection also offers the advantage of significant variance among the cases concerning independent and control variables, such as party participation in government (ranging from countries without any participation of Christian democratic or social democratic parties to countries with high shares of participation in national governments), the type of welfare state (as all types of welfare state were represented in the sample), or inflation developments.

All in all, the methodological approach to identify determinants influencing the implementation of different kinds of Automatic Adjustment Mechanisms in pension systems could be summarized as follows: Initially, a Cox Proportional-Hazards Model is employed to identify factors that increase the general likelihood of introducing a pension indexation mechanism. Subsequently, the results from this analysis are utilized to perform a more detailed investigation using a competing-event analysis, which examines the factors

influencing the decision for specific forms of AAMs. By integrating control variables and implementing further adjustments to validate the models, this approach aims to elucidate the variance in AAM designs across different countries. The empirical basis comprises an analysis of the introduction of AAM in all OECD-countries over the period 1961 to 2000.

## 5. Results

Model 1: General AAM-introduction

Parameter	Coefficient	Hazard Ratio	Standard Error	Robust SE	z-value	p-value	Significance
Diffusion	-89,18933694	1,84316E-39	9,04669676	108,235526	-0,8240302	0,4099224	
Diffusion_lagged	-94,74994807	7,08958E-42	10,33296921	134,0891721	-0,7066189	0,4798033	
SD_participation	0,10464549	1,110317	0,18408268	0,10671014	0,9806518	0,3267645	
CD_participation	1,06277454	2,89439	0,72440037	0,26984033	3,9385312	8,19819E-05	***
SD_participation_lagged	0,05384678	1,055323	0,1779625	0,08690989	0,6195702	0,5355408	
CD_participation_lagged	1,77889478	5,923306	0,71113003	0,28541103	6,2327472	4,58325E-10	***
Inflation	-0,04383005	0,9571166	0,01931304	0,01403847	-3,1221385	0,001795424	**
Inflation_lagged	-0,05753168	0,944092	0,02154115	0,01622226	-3,5464654	0,000390436	***
EU	-0,88995561	0,410674	0,14951654	0,09429013	-9,4384815	3,78221E-21	***
Work_Population	-0,01318666	0,9868999	0,03027937	0,06777531	-0,1945644	0,845734	
Welfare_System_Type	-0,22274344	0,8003201	0,0629707	0,05752121	-3,8723703	0,000107782	***

Dependent Variable: General AAM-introduction

C-index: 0,98098348

**Table 2:** Results of Cox-Proportional-Hazard-Model of the general introduction of AAMs

The first step of my analysis, which did not yet differentiate between the various forms of Automatic Adjustment Mechanisms, reveals the factors influencing the average probability of introduction across all AAM designs (Table 2). Since the focus of this analysis is on the competing-event analysis from step 2, the results of step 1 are only briefly presented and compared with findings from previous studies. It becomes evident that the same determinants identified by Fernández (2012) also influence the general introduction of AAMs in my study. This consistency exists despite the larger number of cases and the different investigation period.

A positive influence of the power resources of Christian democratic parties in the government on the likelihood of AAM-implementation is observed again, which is in line with H<sub>3</sub> of my paper. The influence of Christian democratic parties even strengthens over time while maintaining statistical significance. It can thus be confirmed that when Christian democratic parties are broadly represented in national governments, the probability of AAM-introductions increases. This influence is not observed for social democratic parties, again in line with the pre-existing results (Fernández, 2012; Huber/Stephens, 2001). A non-existence

of diffusion processes is also confirmed by the results: there is neither a direct nor a delayed influence of international dependence at a sufficient statistical significance level. These results contradict my first hypothesis, which suggested a diffusion effect on the introduction of AAMs. Again, these findings are similar to those of Fernández (2012). However, the results contradict the literature regarding the impact of inflation (Fernández, 2012; Hockerts, 1980; Jessoula, 2010; Schuyt & Taverne, 2004). Contrary to those assumptions, the results of my study indicate a weakly negative relationship between price development and the probability of AAM introduction. Furthermore, the results suggest that EU-membership and the type of welfare system also influence whether automatic adjustment mechanisms are introduced. In summary, the results of my study, despite the broader selection of cases and a different investigation period, largely confirm the findings of Fernández (2012): Christian democratic parties significantly influence the likelihood of general AAM-introductions, while the assumptions of diffusion approaches do not offer explanatory power.

Based on these results, the second step of my analysis will now be addressed to draw a more differentiated picture based on the distinction between different AAM-designs.

Model 2: Inflation AAM-introduction

Parameter	Coefficient	Hazard Ratio	Standard Error	Robust SE	z-value	p-value	Significance
Diffusion	-187,1437658	5,30268E-82	60,84196249	45,44581873	-4,1179534	3,8225E-05	***
Diffusion_lagged	-230,640708	6,8236E-101	105,6912355	256,7935728	-0,8981561	0,3691023	
SD_participation	1,05879951	2,882908	0,28657568	0,1139661	9,2904775	1,536E-20	***
CD_participation	2,84696284	17,23536	0,86603593	0,27393811	10,3927228	2,676E-25	***
SD_participation_lagged	0,83762914	2,310882	0,32898836	0,17109304	4,8957522	9,793E-07	***
CD_participation_lagged	1,35442907	3,874548	0,83735731	0,26779171	5,0577708	4,2419E-07	***
Inflation	-0,1397693	0,8695588	0,0499019	0,02358138	-5,9271048	3,0832E-09	***
Inflation_lagged	-0,01448121	0,9856231	0,0567843	0,02330411	-0,6214015	0,5343355	
EU	1,42805394	4,170575	0,39089344	0,19415382	7,3552709	1,9054E-13	***
Work_Population	0,21433308	1,239035	0,07651614	0,03864904	5,5456244	2,9291E-08	***
Welfare_System_Type	0,50950715	1,664471	0,18987419	0,09565353	5,3265904	1,0007E-07	***
IMR	-3,12555448	0,04391258	0,49940453	0,18904246	-16,533611	2,1017E-61	***

Dependent Variable: Inflation AAM-introduction

C-index: 0,98497718

**Table 3:** Results of the Competing-event-Analysis regarding inflation-linked AAM introduction

The competing event analysis, as the second step of the investigation, provides insights into the main research focus of this study. Differentiating between the two forms of AAMs, inflation-linked AAM and wage-linked AAM, allows for a more specific analysis of the influencing factors on each design. This distinction enables the identification of varying factors and the strength of their impact on each form. Table 3 presents the results of the investigation into the factors influencing the implementation of the specific form of inflation-linked AAMs. The findings indicate that indeed, the parties involved in the government exert a positive influence on the choice of AAM forms. In contrast, diffusion approaches do not contribute to explaining the implementation of inflation-linked AAMs. Both the power resources of social democratic and Christian democratic parties in government increase the likelihood of introducing inflation-linked AAMs by high statistical significance. These results align with the partisanship theory, which posits that political parties influence the specific form of AAMs. The same picture emerges, when considering the lagged values of power resources, which were also incorporated into the model. Higher power resources of these two parties are still associated with a higher probability of inflation-linked AAMs. These results support H<sub>4</sub>, which asserts that social democratic parties in government indeed influence the form of AAMs. The influence of christian democratic parties, on the other hand, suggests that while their power resources in government also have a short- and long-term impact on the probability of inflation-linked AAMs. Contrary to hypothesis H<sub>2</sub>, an increasing proportion of interdependent states that have already adopted an inflation-linked AAM reduces the likelihood of implementing this form of AAM. Thus, states do not simply adopt the same form of AAM from interdependent states but rather significantly differentiate from the policy implementations in the international environment. However, it must be noted that this diffusion effect loses its statistical significance over time. A more nuanced picture is provided by the measurement of the inflation variables: although current inflation developments, contrary to the assumptions of neo-functionalist literature, decrease the probability of inflation-linked AAM implementations, this effect seems to weaken over time, as the lagged inflation variable no longer shows a statistically significant influence.

The model's other control variables also impact AAM implementation: in accordance with the assumptions of Europeanization literature, EU membership has a significantly positive influence on policy adoption of the same design (Börzel & Panke, 2022; Windhoff-Héritier, 2001). The same holds true for the proportion of the working population. The influence of the

nature of welfare systems on policy design is also confirmed (Esping-Andersen, 2009). The results of the Inverse Mills Ratio variable indicate that the two-step approach methodologically undertaken in this study was indeed justified. The negative and highly significant coefficient of the IMR shows that a strong negative selection bias exists. A higher IMR is associated with a significantly lower risk of the event under investigation.

In contrast, the results of the competing events for wage-linked Automatic Adjustment Mechanisms present a different picture. Table 4 displays the results concerning the factors influencing the probability of wage-linked AAMs. It becomes evident that differences exist in the factors influencing each AAM-design. Unlike inflation-linked AAMs, neither the power capacities of social democratic nor Christian democratic parties affect the likelihood of this event, as none of the four variables show sufficiently high statistical significance. The influence of parties is therefore different between the AAM-designs. Nevertheless, these findings do not contradict H<sub>4</sub>, as it does not make statements about the influence on wage-linked AAMs.

Model 3: Wage AAM-introduction

Parameter	Coefficient	Hazard Ratio	Standard Error	Robust SE	z-value	p-value	Significance
Diffusion	-72,22085974	4,31399E-32	6,01262516	7,71510667	-9,3609671	7,901E-21	***
Diffusion_lagged	-97,6526275	3,89048E-43	9,31817048	16,74034834	-5,8333689	5,4319E-09	***
SD_participation	-0,49346097	0,6105098	0,2868739	0,25885931	-1,9062902	0,05661257	
CD_participation	-0,23658487	0,7893189	2,24981332	1,15535908	-0,2047717	0,8377505	
SD_participation_lagged	0,15618861	1,169047	0,2634443	0,24214785	0,6450134	0,5189185	
CD_participation_lagged	-1,18547281	0,3056017	2,74214651	1,64957193	-0,7186548	0,4723536	
Inflation	-0,0978562	0,9067793	0,02236437	0,03036735	-3,2224149	0,00127115	**
Inflation_lagged	-0,03622934	0,9644191	0,02135451	0,02264385	-1,5999636	0,1096067	
EU	-2,50502889	0,08167324	0,23196284	0,24636259	-10,168057	2,7535E-24	***
Work_Population	-0,15542237	0,8560535	0,03414433	0,04970821	-3,1266941	0,00176784	***
Welfare_System_Type	-0,51728194	0,5961387	0,08569232	0,07243638	-7,1411901	9,2526E-13	***
IMR	-3,82953229	0,02171977	0,37348088	0,39606501	-9,6689487	4,0855E-22	***

Dependent Variable: Wage AAM-introduction

C-index: 0,97475578

**Table 4:** Results of the Competing-event-Analysis regarding wage-linked AAM introduction

Once again, the results refute the diffusion hypothesis H<sub>2</sub>, as there is a negative relationship between the proportion of OECD-countries with wage-linked AAMs and the probability of the event's occurrence. Indeed, the assumptions of diffusion theories do not seem to have explanatory power for the implementation of different AAM designs. The results concerning control variables in this study align with those of the inflation-linkage investigation. For instance, price increases also reduce the likelihood of introducing the wage form of AAMs,

with the lagged variable showing statistical significance this time. Both the Europeanization variable and the proportion of the working population negatively influence this probability. Table 4 further illustrates that, on the one hand, the type of welfare state influences policy adoption. On the other hand, the statistically significant IMR value again serves as strong evidence that selection biases were corrected by the two-step approach.

Contrasting the competing models provides further insights into the decision-making process for AAM-designs. Two key findings emerge in this context: firstly, diffusion approaches do not offer explanatory power for the implementation of a specific type of AAM in either model. Even when a statistically significant influence was present, the direction of the influence was always contrary to the theoretical assumptions. At least the decision for a specific design of AAM appears to be unaffected by the international environment and transnational embedding. Secondly, greater resources of social democratic and christian democratic parties in a national government increase, on average, the probability of implementing inflation-linked AAMs, but have no impact on those linking pensions to wage developments. Thus, the determinants differ between the forms: the type of AAM is crucial in determining whether parties have a statistically significant influence on their likelihood of implementation. A comparison of the results from the first step and the second step also provides further insights. In particular, it should be noted that while only christian democratic parties exert an influence in the general introduction of AAM, model 2 shows that social democratic parties play a role in the AAM-design as well. This is a significant new finding compared to former studies.

Finally, a general evaluation of all models will be conducted. This evaluation will rely on the Concordance Index (C-index), a measure of the predictive accuracy of a survival model. The C-index measures the degree of concordance between the predicted risk scores and the actual survival outcomes, assessing the model's ability to correctly rank the survival times based on the predicted risk scores from 0.5 to 1 (Yamaguchi, 1991). Both the model from Step 1 and the two competing models from Step 2 exhibit high values close to 1. Specifically, Model 1 has a C-index of 0.980983, the model measuring the determinants for inflation-linked AAMs has a C-index of 0.984977, and the wage-linked AAM model has a C-index of 0.9747. Therefore, it can be concluded that all three models possess the ability to correctly rank the survival times based on the predicted risk scores.

## 6. Discussion

As demonstrated in the previous section, political parties indeed exert an influence on the design of policies within the context of pension indexation. This influence varies depending on the type of Automatic Adjustment Mechanism. Conversely, the findings reveal that diffusion processes do not play a role in either inflation-linked or wage-linked AAMs. Given these divergent results, the question arises regarding how to finally draw a conclusion about the explanatory power of partisanship and diffusion theory. How can it be that inflation-linked AAMs seem to be significantly influenced by the ruling parties, while wage-linked AAMs are not? And is the decision for a particular form of AAM truly made independently of international influences? In the following, I will further elaborate on the individual results and explore possible explanations for these differences.

### *Diffusion yes, but through which channels?*

Despite the theoretical basis and the frequently confirmed influence on social policy implementation (Finnemore & Sikkink, 1998; Jahn, 2009; Obinger et al., 2013), diffusion determinants appear to have no impact in my study. Interestingly, even an opposite influence is observed: the greater the proportion of OECD-countries that have adopted a particular form of AAM, the lower the likelihood of its adoption in another country. How can this contradiction be explained? I address two possible factors that may have influenced the results. First, it is important to consider the multitude of diffusion mechanisms, which can interact and potentially counteract each other (Lütz, 2007). As outlined in the theoretical chapter, the literature identifies at least four pathways through which diffusion processes unfold. These pathways can operate concurrently, influencing and potentially neutralizing each other's effects. Therefore, one possible explanation for the non-findings is the mutual neutralization of diffusion processes. Second, as Lütz (2007) points out, diffusion processes do not inevitably result in the convergence of policy models. Political actors possess diverse strategies for incorporating insights and experiences from the international environment into their own political systems, which can include deviating from established policies. My study focused only on the aspect of policy convergence through diffusion. However, this is not the sole pathway through which diffusion can occur. In summary, despite the findings of my analysis, diffusion influences may still affect the decision for a specific AAM design. The fact that none of these



influences were found could be due to the mutual neutralization of diffusion processes or the study's exclusive focus on policy convergence through diffusion.

### *When do parties play a role?*

The findings regarding the influence of political parties on the choice of policy design also warrant further investigation. Given the results, a critical question arises: Do parties play a role in the decision which design of Automatic Adjustment Mechanisms is adopted? The answer to this question must be differentiated. When examining the adoption of inflation-linked AAMs, there is indeed evidence of party influence. Both christian democratic and social democratic parties in government increase the likelihood of adopting this form of AAM. Thus, Hypothesis 4, which posits that the probability of adopting inflation-linked AAMs increases with the proportion of social democratic parties, can be confirmed. However, there is also an observable influence from christian democratic parties. The explanation for this lies in the significant role of contextual factors and path dependencies that are crucial in deciding on a particular form of AAM (Fleckenstein, 2013; Huber & Stephens, 2021; Kiess et al., 2017). Even though control variables were included to account for a range of these factors, it is likely that other national conditions exert a strong influence on policy-making. As well, this concern can be used to explain why no party influence was found for wage-linked AAMs. In addition, a relatively vague operationalization of the parties and their party family affiliation was carried out in this study. This is another potential explanatory factor for the findings.

It can be inferred that political parties could indeed have an impact on policy design, consistent with the theoretical assumptions of partisanship theory. Nonetheless, the influence of contextual factors and national path-dependencies must always be considered. It can be concluded: while parties can exert an influence, the extent and scope of this influence are significantly constrained by other national and structural determinants.

## **7. Conclusion**

Even though numerous studies have already provided broad insights into Automatic Adjustment Mechanisms, there has been a lack of investigation into how the various forms of AAMs can be explained. This study addresses this gap and analyzes the factors explaining the

introduction of different AAM-designs in OECD-countries. This was done by examining the introduction of AAMs in OECD-countries from 1961 to 2000. The following findings were identified: Political parties influence the type of indexation that policymakers choose. First, in accordance with previous studies (Fernández, 2012; Huber/Stephens, 2001), it is evident that the involvement of christian democratic parties indeed impacts the general likelihood of AAM introduction. Regarding the factors determining the introduction of specific AAM-designs, a nuanced picture emerges. Parties indeed influence the introduction of inflation-linked AAMs. Increasing power resources of both social democratic and christian democratic parties in national governments raise the likelihood of introducing this form of pension indexation. Conversely, this influence of parties is not observed for wage-linked AAMs. These results emphasize the interplay of various contextual factors that influence policy implementations. Contrary to the assumptions of diffusion theories, the analysis suggests no influence of international interdependencies on policy design implementation. However, it must be noted as a limitation that it was not possible to fully measure the influences of diffusion within the scope of this study. However, what can be said on the basis of my results: Diffusion influences can certainly play a role, but do at least not lead to a convergence of AAM-designs.

Overall, the findings of this article have implications for AAMs specifically as well as for the general trend of “automatic government” (Weaver, 2010). Theoretically and empirically, a contribution to a more differentiated understanding of AAM-introductions has been made. The theoretical contribution lies in a comprehensive evaluation of the explanatory power of partisanship and diffusion theories in explaining under what conditions policymakers choose a specific AAM-design. Building on pre-existing literature, this study not only identifies the contextual factors which explain whether an AAM is introduced but also asks which form of AAM is more likely under certain conditions. With the selection of cases and the period studied, this paper also makes an empirical contribution, as it is the first to analyze AAM introductions across all OECD-countries from the founding date of OECD in 1961 to 2000. The findings also contribute to the broader research field observing the increasing trend of “automatic government”-policies, which can be seen in various policy areas (Weaver, 1986, 2010). This study has thus broadened the understanding of factors that explain the introduction and design of "automatic-government" instruments.

Even though, certain limitations must be considered in this paper. The first limitation lies in the generalizability of the results. Even though a wide range of cases is covered by

studying all OECD-countries, one concern arises regarding a generalization of the results. The exclusive investigation of economically highly developed OECD-countries limits the possibility to extend the results to less developed countries. It remains questionable whether and to what extent the findings of this study apply to countries outside the OECD. Furthermore, it could be reasonably criticized that the quantitative approach pursued in this study may not fully capture the complexity of policy decisions. National particularities and path dependencies were only accounted for to a limited extent. Thirdly, the operationalization of independent variables can be a limiting factor for the reliability of the results. There are indeed arguments for alternative operationalizations of the independent variables. Although this study relied on established and previously successfully applied operationalizations, it is expected that studies employing even finer variable measurements might yield different results.

Given these limitations, future research building on this work promises to provide further valuable insights into AAM-introductions. As discussed, expanding the cases studied, especially by examining AAM-introductions in less economically developed countries or focusing on specific geographic regions, seems promising. Future studies could also enrich the strong quantitative focus on these questions with qualitative country studies. This approach can provide a better understanding of national influence factors and specific country characteristics on the introduction of indexation policies. Through these potential further research approaches, the understanding of AAMs as a central building component of pension systems under pressure can be further broadened.

## References

- Allan, J. P., & Scruggs, L. (2004). Political Partisanship and Welfare State Reform in Advanced Industrial Societies. *American Journal of Political Science*, 48(3), 496–512. <https://doi.org/10.1111/j.0092-5853.2004.00083.x>
- Bandau, F., & Ahrens, L. (2020). The impact of partisanship in the era of retrenchment: Insights from quantitative welfare state research. *Journal of European Social Policy*, 30(1), 34–47. <https://doi.org/10.1177/0958928719868446>
- Baybeck, B., Berry, W. D., & Siegel, D. A. (2011). A Strategic Theory of Policy Diffusion via Intergovernmental Competition. *The Journal of Politics*, 73(1), 232–247. <https://doi.org/10.1017/S0022381610000988>
- Bearce, D. H., & Bondanella, S. (2007). Intergovernmental Organizations, Socialization, and Member-State Interest Convergence. *International Organization*, 61(04). <https://doi.org/10.1017/S0020818307070245>
- Beck, N., Gleditsch, K. S., & Beardsley, K. (2006). Space Is More than Geography: Using Spatial Econometrics in the Study of Political Economy. *International Studies Quarterly*, 50(1), 27–44. <https://doi.org/10.1111/j.1468-2478.2006.00391.x>
- Béland, D., Dinan, S., Rocco, P., & Waddan, A. (2024). Social Policy Responses to Rising Inflation in Canada and the United States. *Social Policy and Society*, 23(1), 163–175. <https://doi.org/10.1017/S1474746423000222>
- Berry, F. S., & Berry, W. D. (1990). State Lottery Adoptions as Policy Innovations: An Event History Analysis. *American Political Science Review*, 84(2), 395–415. <https://doi.org/10.2307/1963526>
- Börzel, T. A., & Panke, D. (2022). Europäisierung. In G. Wenzelburger & R. Zohlnhöfer (Eds.), *Handbuch Policy-Forschung* (pp. 1–20). Springer Fachmedien Wiesbaden. [https://doi.org/10.1007/978-3-658-05678-0\\_8-1](https://doi.org/10.1007/978-3-658-05678-0_8-1)
- Box-Steffensmeier, J. M., & Jones, B. S. (2004). *Event History Modeling: A Guide for Social Scientists* (1st ed.). Cambridge University Press. <https://doi.org/10.1017/CBO9780511790874>
- Braun, D., & Gilardi, F. (2006). Taking ‘Galton’s Problem’ Seriously: Towards a Theory of Policy Diffusion. *Journal of Theoretical Politics*, 18(3), 298–322. <https://doi.org/10.1177/0951629806064351>
- Cao, X. (2010). Networks as Channels of Policy Diffusion: Explaining Worldwide Changes in Capital Taxation, 1998-2006: Networks as Channels of Policy Diffusion. *International Studies Quarterly*, 54(3), 823–854. <https://doi.org/10.1111/j.1468-2478.2010.00611.x>
- Crowder, M. J. (2012). *Multivariate survival analysis and competing risks*. Chapman & Hall/CRC.

De Walque, G. (2005). Voting on Pensions: A Survey. *Journal of Economic Surveys*, 19(2), 181–209. <https://doi.org/10.1111/j.0950-0804.2005.00244.x>

Dobbin, F., Simmons, B., & Garrett, G. (2007). The Global Diffusion of Public Policies: Social Construction, Coercion, Competition, or Learning? *Annual Review of Sociology*, 33(1), 449–472. <https://doi.org/10.1146/annurev.soc.33.090106.142507>

Döring, H., Huber, C., & Manow, P. (2022). *ParlGov 2022 Release* [dataset]. Harvard Dataverse. <https://doi.org/10.7910/DVN/UKILBE>

Engler, F., & Zohlnhöfer, R. (2019). Left parties, voter preferences, and economic policy-making in Europe. *Journal of European Public Policy*, 26(11), 1620–1638. <https://doi.org/10.1080/13501763.2018.1545796>

Eriksen, R. S., Mackuen, M., B., & Stimson, J. A. (2002). *The Macro Polity*. Cambridge University Press.

Esping-Andersen, G. (2009). *The three worlds of welfare capitalism* (Reprint). Polity Press.

Falkenbach, M., Bekker, M., & Greer, S. L. (2020). Do parties make a difference? A review of partisan effects on health and the welfare state. *European Journal of Public Health*, 30(4), 673–682. <https://doi.org/10.1093/eurpub/ckz133>

Fernández, J. J. (2012). Explaining the introduction of automatic pension indexation provisions in 17 OECD countries, 1945–2000. *Journal of European Social Policy*, 22(3), 241–258. <https://doi.org/10.1177/0958928712440202>

Finnemore, M., & Sikkink, K. (1998). International Norm Dynamics and Political Change. *International Organization*, 52(4), 887–917. <https://doi.org/10.1162/002081898550789>

Fleckenstein, T. (2013). Learning to Depart from a Policy Path: Institutional Change and the Reform of German Labour Market Policy. *Government and Opposition*, 48(1), 55–79. <https://doi.org/10.1017/gov.2012.3>

Gannon, F., Legros, F., & Touzé, V. (2016). *Sustainability of Pensions Schemes: Building a Smooth Automatic Balance Mechanism with an Application to the US Social Security*. Technical report, Sciences Po.

Garrizmann, J. L., & Seng, K. (2020). Party effects on total and disaggregated welfare spending: A mixed-effects approach. *European Journal of Political Research*, 59(3), 624–645. <https://doi.org/10.1111/1475-6765.12371>

Gilardi, F. (2010). Who Learns from What in Policy Diffusion Processes? *American Journal of Political Science*, 54(3), 650–666. <https://doi.org/10.1111/j.1540-5907.2010.00452.x>

Gilardi, F., Fuglister, K., & Luyet, S. (2009). Learning From Others: The Diffusion of Hospital Financing Reforms in OECD Countries. *Comparative Political Studies*, 42(4), 549–573.

<https://doi.org/10.1177/0010414008327428>

Gilardi, F., & Wasserfallen, F. (2019). The politics of policy diffusion. *European Journal of Political Research*, 58(4), 1245–1256. <https://doi.org/10.1111/1475-6765.12326>

Ha, Jongrim, M. Ayhan Kose, and Franziska Ohnsorge (2023). "One-Stop Source: A Global Database of Inflation." *Journal of International Money and Finance* 137(October): 102896.

Heckman, J. J. (1980). Chapter 5. Sample Selection Bias As A Specification Error With An Application To The Estimation Of Labor Supply Functions. In J. P. Smith, *Female Labor Supply* (pp. 206–248). Princeton University Press. <https://doi.org/10.1515/9781400856992.206>

Heckman, J. J. (1990). Selection Bias and Self-selection. In J. Eatwell, M. Milgate, & P. Newman (Eds.), *Econometrics* (pp. 201–224). Palgrave Macmillan UK. [https://doi.org/10.1007/978-1-349-20570-7\\_29](https://doi.org/10.1007/978-1-349-20570-7_29)

Hildebrandt, A., Jäckle, S., Wolf, F., & Heindl, A. (2015). *Methodologie, Methoden, Forschungsdesign: Ein Lehrbuch für fortgeschrittene Studierende der Politikwissenschaft*. Springer Fachmedien Wiesbaden. <https://doi.org/10.1007/978-3-531-18993-2>

Hinrichs, K. (2021). Recent pension reforms in Europe: More challenges, new directions. An overview. *Social Policy & Administration*, 55(3), 409–422. <https://doi.org/10.1111/spol.12712>

Hinrichs, K., & Jessoula, M. (2014). *Labour market flexibility and pension reforms 2012*. Palgrave Macmillan.

Hockerts, H. G. (1980). *Sozialpolitische Entscheidungen im Nachkriegsdeutschland: Alliierte u. deutsche Sozialversicherungspolitik 1945 bis 1957* (1. Aufl). Klett-Cotta.

Hoechle, D. (2007). Robust Standard Errors for Panel Regressions with Cross-Sectional Dependence. *The Stata Journal: Promoting Communications on Statistics and Stata*, 7(3), 281–312. <https://doi.org/10.1177/1536867X0700700301>

Huber, E., & Stephens, J. D. (2001). *Development and crisis of the welfare state: Parties and policies in global markets* (2. [print.]). Univ. of Chicago Press.

Huber, E., & Stephens, J. D. (2021). *Development and Crisis of the Welfare State: Parties and Policies in Global Markets*. University of Chicago Press.

Iversen, T., & Soskice, D. (2006). Electoral Institutions and the Politics of Coalitions: Why Some Democracies Redistribute More Than Others. *American Political Science Review*, 100(2), 165–181. <https://doi.org/10.1017/S0003055406062083>

Jäckle, S. (2018). Event-History-Analysis. In M. Apelt, I. Bode, R. Hasse, U. Meyer, V. V. Groddeck, M. Wilkesmann, & A. Windeler (Eds.), *Handbuch Organisationssoziologie* (pp. 1–30). Springer Fachmedien Wiesbaden. [https://doi.org/10.1007/978-3-658-16937-4\\_45-1](https://doi.org/10.1007/978-3-658-16937-4_45-1)

Jahn, D. (2009). Globalisierung als Galton-Problem: Regionale und temporale Diffusionsschübe. In S. Pickel, G. Pickel, H.-J. Lauth, & D. Jahn (Eds.), *Methoden der vergleichenden Politik- und Sozialwissenschaft* (pp. 87–112). VS Verlag für Sozialwissenschaften. [https://doi.org/10.1007/978-3-531-91826-6\\_5](https://doi.org/10.1007/978-3-531-91826-6_5)

Jahn, D. (2023). Diffusion. In G. Wenzelburger & R. Zohlnhöfer (Eds.), *Handbuch Policy-Forschung* (pp. 223–249). Springer Fachmedien Wiesbaden. [https://doi.org/10.1007/978-3-658-34560-0\\_9](https://doi.org/10.1007/978-3-658-34560-0_9)

Jensen, C., Arndt, C., Lee, S., & Wenzelburger, G. (2018). Policy instruments and welfare state reform. *Journal of European Social Policy*, 28(2), 161–176. <https://doi.org/10.1177/0958928717711974>

Jessoula, M. (2010). Recalibrating the Italian Welfare State: A Politics Too Weak for a “Necessary” Policy? *Italian Politics*, 25(1). <https://doi.org/10.3167/ip.2009.250112>

Kiess, J., Norman, L., Temple, L., & Uba, K. (2017). Path dependency and convergence of three worlds of welfare policy during the Great Recession: UK, Germany and Sweden. *Journal of International and Comparative Social Policy*, 33(1), 1–17. <https://doi.org/10.1080/21699763.2017.1281832>

Komp, K. (2018). Shifts in the realized retirement age: Europe in times of pension reform and economic crisis. *Journal of European Social Policy*, 28(2), 130–142. <https://doi.org/10.1177/0958928717709174>

Kriesi, H. (2009). Political Mobilisation, Political Participation and the Power of the Vote. In K. H. Goetz, P. Mair, & G. R. Smith (Eds.), *European politics: Pasts, presents, futures*. Routledge.

Kuitto, K., & Helmdag, J. (2021). Extending working lives: How policies shape retirement and labour market participation of older workers. *Social Policy & Administration*, 55(3), 423–439. <https://doi.org/10.1111/spol.12717>

Lütz, S. (2007). Policy-Diffusion und Policy-Transfer—Gemeinsamkeiten und Unterschiede. In A. Benz, S. Lütz, U. Schimank, & G. Simonis (Eds.), *Handbuch Governance: Theoretische Grundlagen und empirische Anwendungsfelder* (1. Auflage, pp. 132–143). VS, Verlag für Sozialwissenschaften.

Obinger, H., Schmitt, C., & Starke, P. (2013). Policy Diffusion and Policy Transfer in Comparative Welfare State Research. *Social Policy & Administration*, 47(1), 111–129. <https://doi.org/10.1111/spol.12003>

OECD. (2017). *Preventing Ageing Unequally*. OECD. <https://doi.org/10.1787/9789264279087-en>

OECD. (2021). *Pensions at a Glance 2021: OECD and G20 Indicators*. OECD. <https://doi.org/10.1787/ca401ebd-en>

OECD (2024), *Employment rate (indicator)*. doi: 10.1787/1de68a9b-en (Accessed on 27 June

2024)

Schoyen, M. A., & Stamatii, F. (2013). The Political Sustainability of the NDC Pension Model: The Cases of Sweden and Italy. *European Journal of Social Security*, 15(1), 79–101. <https://doi.org/10.1177/138826271301500106>

Schuyt, C. J. M., & Taverne, E. R. M. (2004). *1950, prosperity and welfare*. Royal Van Gorcum.

Simmons, B. A., Dobbin, F., & Garrett, G. (2006). Introduction: The International Diffusion of Liberalism. *International Organization*, 60(04). <https://doi.org/10.1017/S0020818306060267>

Simmons, B. A., & Elkins, Z. (2004). The Globalization of Liberalization: Policy Diffusion in the International Political Economy. *American Political Science Review*, 98(1), 171–189. <https://doi.org/10.1017/S0003055404001078>

Van Kersbergen, K., & Becker, U. (1988). The Netherlands: A Passive Social Democratic Welfare State in a Christian Democratic Ruled Society. *Journal of Social Policy*, 17(4), 477–499. <https://doi.org/10.1017/S0047279400017025>

Van Kersbergen, K., Vis, B., & Hemerijck, A. (2014). The Great Recession and Welfare State Reform: Is Retrenchment Really the Only Game Left in Town? *Social Policy & Administration*, 48(7), 883–904. <https://doi.org/10.1111/spol.12063>

Von Beyme, K. (2000). *Parteien im Wandel*. VS Verlag für Sozialwissenschaften. <https://doi.org/10.1007/978-3-322-90730-1>

Weaver, R. K. (1986). The Politics of Blame Avoidance. *Journal of Public Policy*, 6(4), 371–398.

Weaver, R. K. (2010). *Automatic Government: The Politics of Indexation*. Brookings Institution Press.

Weaver, R. K. (2016). Privileging Policy Change? Sustaining Automatic Stabilizing Mechanisms in Public Pensions. *Social Policy & Administration*, 50(2), 148–164. <https://doi.org/10.1111/spol.12208>

Wenzelburger, G. (2023). Der Einfluss von Parteien auf Public Policies. In G. Wenzelburger & R. Zohlnhöfer (Eds.), *Handbuch Policy-Forschung* (pp. 67–99). Springer Fachmedien Wiesbaden. [https://doi.org/10.1007/978-3-658-34560-0\\_3](https://doi.org/10.1007/978-3-658-34560-0_3)

Whitehouse, E. (2009). *Pensions, Purchasing-Power Risk, Inflation and Indexation* (OECD Social, Employment and Migration Working Papers 77; OECD Social, Employment and Migration Working Papers, Vol. 77). <https://doi.org/10.1787/227182142567>

Windhoff-Héritier, A. (Ed.). (2001). *Differential Europe: The European Union impact on national policymaking*. Rowman & Littlefield.

Yamaguchi, K. (1991). *Event History Analysis*. SAGE Publications, Incorporated.