



Programa de Doctorado en  
Economía

Tesis doctoral

# **Análisis Económico del Transfuguismo Político**

*Autora:*

**Francesca Passarelli**

*Directora:*  
Dra. Paula González

*Codirectora:*  
Dra. Socorro Puy

Departamento de Economía, Metodos  
Cuantitativos e Historia Económica

Universidad Pablo de Olavide Sevilla

Mayo 2017

## ***Agradecimientos***

Mis primeros agradecimientos van especialmente a mis directoras de tesis, Paula González y Socorro Puy.

A Paula gracias porque desde el principio ha demostrado gran interés en el tema de estudio que propuse y ha confiado en mí para llevar a cabo el proyecto. Trabajar juntos a ella en esos años me ha dado la oportunidad de ampliar mis conocimientos y aprender nuevos. Ha sido una óptima guía, además de una excelente profesora y siempre haré tesoro de sus buenos consejos y estimables enseñanzas.

A Socorro gracias porque se ha involucrado con ilusión en este proyecto y, a pesar de la distancia, ha demostrado gran disponibilidad y puntualidad en su atenta labor de supervisión. Gracias por su constante e incansable ayuda, por las ocasiones de quedar en Málaga y por las valiosas sugerencias que me ha dado en estos años de trabajo.

A las dos gracias por el apoyo y la motivación que me han transmitido constantemente: sin ellos, no habría sido posible la realización de esta Tesis doctoral.

Aprovecho también para agradecer a otros profesores del Departamento de Economía, Métodos Cuantitativos e Historia Económica. Gracias a Jesús Rodríguez, Juande Moreno, Dunia López, Marisa Hidalgo, José Ignacio García, Yolanda Rebollo, Antonio Villar, Carlos Usabiaga y Manolo Hidalgo. Considero que cada uno de ellos haya contribuido notablemente con sus provechosas enseñanzas a incrementar mi interés hacia la investigación, desde cuando empecé mi formación de postgrado en este Departamento hace unos años. Al igual que en este último año han hecho más fácil mis primeros pasos en la experiencia docente, acogiéndome y haciendo que me sintiera desde el primer día a gusto y plenamente integrada en el grupo.

Con Nacho y Yolanda me siento especialmente en deuda por el tiempo y las ayudas que en estos últimos meses de trabajo me han dedicado.

Mi gratitud va también a otro gran profesor que ha formado parte de este grupo de profesionales y que, juntos a Paula, ha sido mi director del trabajo de fin de Máster, Nicolás Porteiro. Gracias a él y a Paula he podido lanzar el origen de la modelización teórica sucesivamente desarrollada en esta Tesis y adquirir las herramientas adaptas para seguir formándome e investigando.

Extiendo mis agradecimientos a algunos compañeros del Departamento.

Gracias a los compañeros Alejandro y David por motivarme, por los consejos y las ayudas que me han dado cada vez que he necesitado.

Gracias a mis compañeros de despacho: Diego y Manuel, por haber sido testigos de algunos momentos difíciles y haberme animado a seguir adelante.

Gracias a Raúl y Ana por haberles conocido, por los almuerzos juntos y por las palabras de ánimo que siempre me han dado.

Y por último quiero destacar mi gratitud hacia aquellas personas sin las cuales no me hubiera sido posible conseguir este resultado.

Gracias a mi padre y mi madre, por no haberme nunca planteado otra alternativa que no fuera “estudiar”, por sus sacrificios invertido en ello y por su apoyo constante e incondicionado.

A mis hermanos: a Chiara por ser desde nuestra infancia un gran ejemplo para mí y a Matteo, por recordarme que no puedo caerme porque soy yo que debo ser su ejemplo.

Y finalmente quiero agradecer infinitamente a Pablo, porque con su presencia y sus continuas palabras de ánimo ha hecho que mis tropiezos se convirtiesen en soluciones, y que mis frustraciones se convirtiesen en desafíos. Gracias por haberme escuchado, por haber estado siempre pendiente de mis avances, por haber compartido los buenos momentos y haberme aguantado en los malos. Gracias por no haber dudado nunca de que iba a terminar este proyecto.

*"Qual é la sanzione che viene temuta di piú [dai parlamentari]: quella dell' elettorato, dell'apparato di partito o di terzi gruppi di sostegno?"*

*Giovanni Sartori*

# Contents

<b>1</b>	<b>Introducción</b>	<b>4</b>
1.1	Marco jurídico . . . . .	4
1.2	Antecedentes y Metodología . . . . .	10
1.3	Resumen . . . . .	14
	<b>Bibliography</b>	<b>19</b>
<b>2</b>	<b>Discipline, Party Switching, and Policy Convergence</b>	<b>22</b>
2.1	Introduction . . . . .	22
2.2	The Model . . . . .	27
2.3	Candidates' party label and legislative votes . . . . .	33
2.3.1	The strong party discipline scenario . . . . .	33
2.3.2	The weak party discipline scenario . . . . .	37
2.3.3	Comparing weak and strong party discipline . . . . .	39
2.4	The policy location of political parties . . . . .	41
2.4.1	The strong party discipline scenario . . . . .	41
2.4.2	The weak party discipline scenario . . . . .	45
2.4.3	Party discipline and policy convergence . . . . .	49
2.5	Conclusion . . . . .	50
	<b>Bibliography of Chapter 2</b>	<b>54</b>

<b>3 Party Switching and Independent Politicians</b>	<b>59</b>
3.1 Introduction . . . . .	59
3.2 The Model . . . . .	62
3.3 Results . . . . .	65
3.4 Conclusion . . . . .	74
<b>Bibliography of Chapter 3</b>	<b>76</b>
<b>4 Party Switching in Spain: Evidence from Municipal Elections</b>	<b>80</b>
4.1 Introduction . . . . .	80
4.2 Institutional background . . . . .	84
4.2.1 Spanish Municipal Elections . . . . .	85
4.2.2 Political Parties in Spain . . . . .	86
4.3 Data and Variable Definitions . . . . .	87
4.3.1 Data . . . . .	87
4.3.2 Variable Definitions . . . . .	88
4.4 Empirical Methodology . . . . .	91
4.4.1 Descriptive Statistics . . . . .	91
4.4.2 Logit Model . . . . .	93
4.4.3 Results . . . . .	96
4.5 Conclusions . . . . .	99
<b>Bibliography of Chapter 4</b>	<b>102</b>
<b>Appendix of Tables</b>	<b>106</b>

# Chapter 1

## Introducción

La presente Tesis Doctoral se enmarca en la literatura de la Economía Política y se compone de tres capítulos independientes ( además de este capítulo introductorio) en los que se lleva a cabo un estudio del fenómeno político, conocido como transfuguismo, desde una perspectiva de análisis económico.

Este primer Capítulo contiene una introducción a la temática que trataremos a lo largo de la tesis. En el se dedica un breve espacio a la ubicación del marco teórico doctrinal sobre el que se gesta el fenómeno del transfuguismo y a la presentación del ordenamiento jurídico y de la jurisprudencia existente en torno al mismo en España. Se procede presentando brevemente las metodologías teóricas y empíricas utilizadas a lo largo del análisis y la literatura en donde estas se enmarcan y finalmente se realiza un resumen detallado de los tres capítulos que componen la presente Tesis.

### 1.1 Marco jurídico

La Real Academia Española de la Lengua define al tráfuga como “aquella persona que pasa de una ideología o colectividad a otra”. La definición de tráfuga se presenta en otra de sus acepciones restringida al campo de la vida política y señala que un tráfuga es “aquella persona que con un cargo público no abandona éste al separarse del partido

que lo presentó como candidato”.

En línea con esta segunda acepción, Tomás Mallén (2002) define transfuguismo como aquel comportamiento de un político que “consiste en ubicarse voluntariamente en una posición representativa distinta a la pretendida por el partido o formación en cuyas listas se presentó ante los electores, bien desde el inicio del desempeño del cargo público representativo, bien posteriormente a causa de un cambio de grupo”.

En definitiva, con el concepto de transfuguismo se suele indicar aquel fenómeno de movilidad parlamentaria que se realiza durante una legislatura y que consiste en que un individuo, caracterizado como representante popular democráticamente elegido, no abandona su cargo pero sí abandona la formación política con la que concurrió a las elecciones para pasar a formar parte de otra.

En España, el fenómeno del transfuguismo surgió en el periodo de la Restauración (1874-1931), y ha sido una nota distintiva del sistema político español hasta la fecha actual. Con la Restauración canovista se superó el sistema de partido único y se diseñó un sistema político bipartidista. No obstante, dicho sistema estaba basado en un bipartidismo ficticio, y el transfuguismo surgió de manera natural convirtiéndose en un comportamiento indispensable para el perfecto funcionamiento del mismo. En este “contexto falsamente bipartidista”<sup>1</sup> de la Restauración, los tránsitos que los representantes efectuaban tenían como puntos de origen y/o destino los partidos Liberal-Conservador y Conservador-Liberal, cuyas denominaciones ya demuestran de por sí el carácter de reversibilidad de los mismos.

El transfuguismo vuelve a institucionalizarse en España con la recuperación de las libertades democráticas tras el final de la dictadura franquista. En este momento, los fenómenos de movilidad parlamentaria alcanzan una dimensión socio-política tal que permiten utilizar plenamente el término de transfuguismo. Además, dichos cambios ya no se realizarán de un partido a su contrario, sino que los partidos receptores de los tránsfugas serán aquellos (en la mayoría de los casos) más próximos ideológicamente a los respectivos

---

<sup>1</sup>Véase Reniu Vilamala (1996).



partidos de origen. Esto implica, a diferencia de lo que ocurría en la Restauración, que la democracia representativa se encuentra amenazada por sus propios mecanismos de funcionamiento, en especial por su principal instrumento, la representación política. Y es, precisamente, en la crisis de la representación política donde se ubica el marco doctrinal sobre el que se gesta el fenómeno del transfuguismo político.

Generalmente, la idea de representación democrática se asocia a la idea de elección, en tanto que, para conseguir el objetivo de instaurar un enlace entre ciudadanos y organización autoritaria la mejor forma de alcanzarlo es la existencia de una relación de carácter electoral entre diputado y colectividad.<sup>2</sup> Tradicionalmente, se ha reconocido la existencia de dos elementos que integran la representación política –el representante y el representado–, y su principal característica radica en la existencia de tensiones y conflictos originada por el incumplimiento, por parte del primero, de la voluntad del segundo. Es decir, surgen discrepancias entre los intereses de los representados y las actuaciones de sus representantes.

La concepción medieval del mandato imperativo trataba de superar estas tensiones mediante dos instrumentos: los cuadernos de instrucciones (donde se establecían los contenidos que debían tener las actuaciones del representante) y la revocabilidad del mandato: los representados tenían, en la capacidad de revocación, su seguro contra cualquier desviación por parte del representante. Sin embargo, con la Revolución francesa este esquema se rompe, ya que se va formando una idea de representante en el sentido de representante de la Nación en su conjunto, y no del grupo que lo eligió. Asimismo, desaparece la relación específica entre representante y representado en el proceso de formación de la voluntad de la Nación puesto que la reunión de los diputados en la Asamblea expresa directamente y soberanamente la voluntad de la Nación. Desaparecen, por tanto, los instrumentos de control medieval anteriormente mencionados y se instaura el concepto de representación nacional.

---

<sup>2</sup>A tal proposito, véase Crisafulli (1990), quien afirma que el representante, para ejercer correctamente su tarea, tiene que ser representativo de sus electores.

La evolución de las sociedades, la extensión del sufragio y el surgimiento y consolidación de los partidos políticos ha complicado inevitablemente la relación representativa tal y como ésta se venía interpretando. Especialmente, los partidos políticos se han convertido en el centro del proceso político, lo cual implica que la representación adquiere ahora una doble función. Por un lado, vertebrar estas sociedades plurales y, por otro, legitimarlas vía consenso mayoritario. En la nueva formulación de la representación hay tres sujetos: el representante, los representados y los partidos políticos, que se sitúan como órgano intermedio entre la esfera del gobierno y la esfera de la ciudadanía y modulan la dualidad inicial entre representante y representado. Surge, de este modo, una doble relación: la que liga a los representados (caracterizados como electores) con el partido; y la que se asemeja al tradicional mandato imperativo que vincula a los representantes con el partido al cual pertenecen.

A priori, la existencia de los partidos no debería cambiar la relación entre representantes y representados, ya que los representados transmitirían a los partidos políticos una serie de principios que se ejecutarían a través de los representantes por ellos propuestos. Pero lo cierto es que el surgimiento de los partidos políticos ha hecho que cobren fuerza nuevos conceptos representativos, tales como el mandato ideológico o el mandato de partido, y que la representación política se articule a través de dichos conceptos, apuntándose hacia la sustitución, mediante los programas electorales, de los antiguos cuadernos de instrucciones típicos del mandato imperativo. Como resultado, se produce la quiebra del mandato representativo, ya que se hurta a los representados de la potestad de control expresada en la concepción de la representación como responsabilidad, a través de la potestad del partido para la confección de las candidaturas.

Sin embargo, las contradicciones que surgirán en el ámbito jurídico terminan frenando esta hegemonía de los partidos teniendo como resultado, en muchos casos, la permisividad de conductas que se desvían de lo acordado en sede interna a la formación política.

Son varios los autores que han señalado que uno de los motivos del transfuguismo se debe a la cobertura jurídica que se otorga a dicho fenómeno en varias democracias

contemporáneas.

Muchas de las Constituciones Democráticas Contemporáneas, si por un lado otorgan a los partidos políticos un papel central en el proceso de formación de la voluntad popular en cuanto instrumentos fundamentales para la participación, por otro lado prohíben que diputados y senadores estén ligados por mandato imperativo. España pertenece a estas Democracias Contemporáneas en donde esta ambigüedad emerge en su legislación.

El ordenamiento constitucional español contempla los elementos de la teoría clásica de la representación a lo largo de su articulado. El primero de dichos principios se establece en el artículo 1.2 de la Constitución Española (CE, de ahora en adelante), al señalar que “La soberanía nacional reside en el pueblo español, de la que emanan los poderes del Estado”. Al establecer que la soberanía reside en el pueblo, la Constitución establece un régimen político democrático: el hecho de asignar la titularidad de la soberanía a un sujeto unitario y abstracto (el pueblo español) hace necesario que el ejercicio de la misma sea realizado por personas determinadas que actuarán como representantes del pueblo.

De conformidad con el artículo 66.1 CE, la soberanía es ejercida a través de representantes agrupados en las Cortes Generales. Y el artículo 67.2 CE prohíbe que los diputados y los senadores estén ligados por mandato imperativo, gozando de garantías que aseguran su libertad de expresión y su libertad personal, consagrada en el artículo 71 CE. De acuerdo con tales principios, el artículo 79.3 CE garantiza el voto personal e indelegable de los Senadores y Diputados, tratando de reconocer al más alto nivel jurídico la libertad de los representantes. Se deduce de aquí que los parlamentarios representan cada uno a toda la nación y que no hay intermediarios entre los individuos que la componen y el Parlamento. En tanto los representantes no están sujetos a ningún mandato ni disciplina alguna, cada escaño pertenece al elegido y nadie le puede revocar.

Sin embargo, frente a esta concepción clásica de la representación, se ha venido constituyendo también en el ordenamiento jurídico español una nueva forma de concebir la representación que reconoce el papel central de intermediación representativa de los

partidos políticos.<sup>3</sup> Precisamente, en el artículo 6 CE se establece que “los partidos expresan el pluralismo político, concurren a la formación y manifestación de la voluntad y son instrumentos fundamentales para la participación”. Es decir, se les otorga un papel del cual se deduce que sin ellos no se puede participar en las decisiones del Estado. El artículo 23 CE profundiza aún más sobre ello, al señalar que “los ciudadanos tienen el derecho a participar en los asuntos públicos [...] por medio de representantes, libremente elegidos en elecciones periódicas por sufragio universal”. Y, como ya lo expresaba el artículo 6 CE, los representantes deben pertenecer a un partido político. Por último, el artículo 68.3 CE establece los criterios de elección basados en un sistema proporcional, y la fórmula electoral proporcional sólo se puede llevar a la práctica si existen partidos políticos.

Observamos, por tanto, que en el ordenamiento jurídico español conviven la concepción clásica de la representación –la del “mandato representativo”–, y una concepción moderna fundamentada en los partidos –la del “mandato ideológico”–. Esta ambigüedad en la legislación respecto del viejo y el nuevo concepto de representación, ha ocasionado en varias ocasiones fenómenos de movilidad parlamentaria.

En particular, hay un argumento jurídico que sostiene las prácticas del transfuguismo, y es el de la titularidad personal del escaño. Es a este argumento al que la jurisprudencia, en varias ocasiones ha atendido, permitiendo de este modo fenómenos de nomadismo político y parlamentario. El artículo 23.1 CE contempla un reconocimiento genérico, afirmando que “los ciudadanos tienen el derecho a participar en los asuntos públicos, directamente o por medio de representantes, libremente elegidos por sufragio universal”. El apartado 2 del mismo artículo añade: “Asimismo tienen derecho a acceder en condiciones de igualdad a las funciones y cargos públicos, con los requisitos que señalen las leyes”. De este modo, el derecho comprendido en el artículo 23.2 CE contempla no sólo el derecho de acceso al cargo público sino también el derecho a permanecer en el mismo sin

---

<sup>3</sup>De hecho, en la mayoría de los textos constitucionales de las democracias contemporáneas se reconoce el papel central de intermediación representativa de los partidos políticos en el proceso de organización del pluralismo social.

perturbaciones ilegítimas a las facultades o derechos a él inherentes, todo ello conforme lo “señalan las leyes”, pues no existiría propiamente protección del derecho de acceso si la permanencia en el cargo no estuviera garantizada. De hecho, el derecho a permanecer en el cargo público es un elemento clave de la relación representativa, tal y como lo ha declarado el Tribunal Constitucional en alguna de sus sentencias. Dichas sentencias han introducido mayor confusión, si cabe, en el esquema de representación política, al negar el papel central de los partidos políticos en el proceso de formación de la voluntad popular.<sup>4</sup>

Parece, por tanto, que la interpretación constitucional prevaleciente es la de que un individuo, una vez electo, es dueño de su escaño y, por consiguiente, puede marcharse libremente a otro partido distinto de aquel con el que concurrió a las elecciones, sin que de ello se derive consideración alguna en cuanto al falseamiento del proceso de expresión real de la voluntad popular. Esta interpretación, sin duda, supone la cobertura jurídica perfecta para el transfuguismo, en tanto que dicho comportamiento aparece como jurídicamente irreprochable e inatacable, con lo que la única crítica que cabría hacer es de índole puramente moral.

## 1.2 Antecedentes y Metodología

Los estudios existentes relativos a los fenómenos de movilidad parlamentaria se encuentran básicamente en la literatura de ciencias políticas.

Aunque la literatura política ha ofrecido diferentes matizaciones del fenómeno del

---

<sup>4</sup>La STC 5/83, sobre el cese de cargo de alcalde por expulsión del partido, el Tribunal establece que siendo íntimamente relacionados los dos apartados del artículo 23CE, el segundo de ellos (derecho de acceso) solo puede comprenderse partiendo del primero (derecho de participación), precepto éste que evidencia que el derecho de los ciudadanos a participar en los asuntos políticos se hace efectivo a través de los representantes y, por consiguiente, la permanencia de estos últimos en los cargos públicos depende de la voluntad de los electores que lo expresan en periódicas elecciones. Asimismo, la STC 10/83, sobre la destitución de concejales, afirma que la titularidad del escaño pertenece exclusivamente y personalmente al electo que, una vez elegido, es representante no solamente de quienes lo hayan votado, sino de todo el electorado y, por tanto, es titular de una función pública que no puede serle destituida por decisiones de entidades que no son órganos del Estado. En ese sentido, el representante es independiente del partido que, por tanto, no puede revocarlo atendiendo a su status, constitucionalmente protegido, de titular de un cargo público representativo.

transfuguismo, este ha sido asociado en muchas ocasiones a un comportamiento de traición. Por ejemplo, Colomer (1990) señala que pueden ser muchas las motivaciones personales que inducen a los políticos a comportamientos trásfugas, citando entre ellas “el deseo de mejorar sus expectativas, ya que suelen abandonar grupos que en su opinión les ofrecen pocas garantías de llevar a cabo sus políticas preferidas, facilitarles el acceso a cargos o permitirles la reelección”. Siguiendo esta postura crítica, Reniu Vilamala (2001) habla del fenómeno exponiendo que generalmente el trásfuga no se suele dirigir hacia posiciones ideológicas aisladas y distantes del centro, sino hacia partidos cercanos sin que, en la mayoría de los casos, intervengan motivaciones ideológicas.<sup>5</sup>

Pese a la relevancia que el transfuguismo tiene en muchas democracias representativas, hay muy pocos trabajos en la literatura económica que hayan analizado de modo formal este fenómeno. Esta Tesis Doctoral pretende contribuir con aportaciones teóricas y empíricas a esta línea de investigación. Las aportaciones teóricas se desarrollarán en los Capítulos 2 y 3.

Estos capítulos están enfocados en analizar el fenómeno del transfuguismo en el ámbito científico que liga la política y la economía a través del Estado, utilizando modelos de Economía Política. Dichos modelos, utilizando las herramientas del Análisis Económico, tratan de estudiar el comportamiento de los agentes que actúan en el campo político. El punto de partida es el análisis de las motivaciones individuales de los agentes políticos para, considerando al Estado como la suma de las voluntades individuales, identificar los factores que determinan la definición de las políticas que son escogidas entre las diferentes opciones posibles.

Sobre esta base, los modelos de Economía Política resultan útiles para explicar una serie de comportamientos relacionados con la esfera pública, tales como el intercambio de votos, el gasto en situaciones de déficit, la corrupción y, en nuestro caso, fenómenos de movilidad parlamentaria protagonizados por políticos trásfugas.

---

<sup>5</sup>No obstante, existe otra corriente de pensamiento que defiende el transfuguismo al ser éste un mecanismo de protección frente al poder, en ocasiones abusivo, de los partidos (véanse, por ejemplo, los argumentos presentados por Jeambar y Roucate, 1990, y Monedero, 1993).

Los modelos teóricos que proponemos para el análisis del fenómeno del transfuguismo encajan en este marco conceptual en tanto que se centran en el análisis de los incentivos que los representantes políticos pueden tener para decidir estratégicamente (en su propio beneficio) moverse de la plataforma política con la que concurrieron a las elecciones.

Metodológicamente, nuestros modelos se basan en el modelo Downsiano de competencia electoral.<sup>6</sup> Estos modelos, llamados también a veces modelos de Downs-Hotelling por su similitud con el análisis oligopolístico de Hotelling,<sup>7</sup> se caracterizan por analizar situaciones en las que los votantes tienen preferencias unidimensionales y unimodales sobre una determinada decisión política. En esta dimensión “ideológica” se ubican los partidos políticos para tratar de atraer el voto de los ciudadanos.

Otro aspecto clave en la modelización es la motivación de los políticos y la capacidad de los votantes para ejercer control sobre ellos. En este aspecto, los modelos propuestos encajan dentro de los llamados Modelos Políticos de Agencia (véase Besley, 2006, para una introducción a estos modelos). Los modelos políticos de agencia enfatizan, predominantemente, las relaciones principal-agente que surgen entre los políticos y la ciudadanía. La clave de estos modelos radica en que, al contrario de los modelos estándar principal-agente en los que el decisor público es el principal (el regulador), aquí es la ciudadanía la que juega este papel, siendo los agentes (aquellos que deben ser supervisados), los políticos. En el enfoque de los Modelos Políticos de Agencia la sociedad delega la autoridad a los decisores públicos y tiene una capacidad imperfecta para supervisar el comportamiento de éstos, lo que genera incentivos a que surjan comportamientos estratégicos (oportunistas). Si bien el análisis que se desarrolla en esta Tesis no modeliza explícitamente a los votantes y, por tanto, no permite analizar el proceso de supervisión de los políticos, es consistente en cierto modo con este enfoque. En primer lugar, consideramos que el fenómeno del transfuguismo no se puede evitar (lo que, como hemos visto, es acorde con el ordenamiento jurídico existente) y, en segundo lugar, suponemos que

---

<sup>6</sup>Véase Downs (1957) para el análisis pionero en este campo.

<sup>7</sup>Véase Hotelling (1929).

la capacidad de los votantes para “castigar” dichos comportamientos es limitada e imperfecta. Un segundo aspecto relevante en este tipo de modelos es la motivación de los políticos. En este sentido, y en línea con la mayoría de los trabajos existentes en este campo (véase, por ejemplo la monografía de Persson y Tabellini, 2000), suponemos que los políticos obtienen un beneficio privado por el hecho de ser elegidos que les motiva a intentar maximizar su probabilidad de elección.<sup>8</sup>

En la literatura económica, el trabajo más cercano a los modelos teóricos que presentamos en esta Tesis es el reciente artículo de Huang (2010). En él, se estudia un modelo de competencia electoral bipartidista en el que hay distintos tipos de políticos: aquellos que pueden mentir sobre su verdadera posición ideológica y otros que, una vez electos, pueden modificar su posición por presiones de los grupos de interés. El objeto del artículo es analizar cómo estos comportamientos afectan al equilibrio político resultante. Aunque los fenómenos analizados por Huang no se pueden considerar transfuguismo político, al menos uno de ellos es conceptualmente similar al enfoque que la presente Tesis propone. Para Huang (2010) los políticos que mienten anuncian una determinada preferencia política cuando concurren a las elecciones, y luego modifican esta posición, a la hora de implementar realmente la política, incurriendo en un coste que es creciente en la divergencia entre la posición anunciada y la realmente implementada. La parte teórica de la presente Tesis adopta esta modelización al considerar que un político puede presentarse a las elecciones bajo el amparo de un determinado partido político (representado por una cierta posición ideológica), para luego abandonar el partido y ubicarse en otra posición ideológica. Al igual que en Huang (2010), ese cambio lleva aparejado un coste que es creciente en la distancia entre la posición del partido y la realmente elegida por el candidato.

La parte empírica de la Tesis (desarrollada en el Capítulo 4) hará uso de herramientas micro econométricas, para implementar un ejercicio de cuantificación y valoración del

---

<sup>8</sup>Habitualmente, a este beneficio se le suele denominar “renta de ego” para enfatizar el hecho de que puede ir más allá de los pagos monetarios que el político en el poder pueda obtener (prestigio, contactos, satisfacción de la vanidad, etc.).



fenómeno del transfuguismo político en el panorama local de España. Si bien es cierto que en España la polémica que rodea la existencia de conductas tránsfugas es notable, apenas hay contribuciones que cuantifiquen el fenómeno. Hasta donde sabemos el único trabajo existente sobre el fenómeno de movimientos parlamentarios en España es el de la profesora Beatriz Tomás Mallén (2002). En él la autora realiza un análisis del contexto constitucional español en el que cuantifica el fenómeno del transfuguismo a través de una detallada enumeración de todos y cada uno de los movimientos parlamentarios que han tenido lugar desde la Legislatura Constituyente hasta la Legislatura XII, incluyendo nombres de los protagonistas, fechas y grupos parlamentarios de origen y destino.

En el contexto internacional, sin embargo, los fenómenos de movilidad parlamentaria sí han sido ampliamente estudiados en la literatura empírica. La mayoría de los artículos estudian el fenómeno centrándose en el escenario de alguno de los países más afectados por esta práctica: Brasil (Mainwaring and Pérez-Liñan, 1997; Desposato, 2006), Japón (Kato and Yamamoto, 2012), Taiwán (Fell, 2014), Italia (Heller and Mershon, 2005, 2008, 2009; Pinto, 2015), Rumanía (Klein, 2016); Polonia (Hug and Wüest, 2011).

La metodología empírica adoptada en esta Tesis se basa en el enfoque de estimación de la probabilidad de que un suceso ocurra (cambio de partido), medido por variables numéricas y categóricas. El objetivo es estimar la probabilidad del transfuguismo en el contexto de los municipios de España, y analizar sus correlaciones con ciertas variables cuantitativas y cualitativas.

### **1.3 Resumen**

El Capítulo 1 ofrece una introducción al fenómeno del transfuguismo y una ubicación del mismo en el correspondiente marco teórico doctrinal.

El Capítulo 2 ofrece un análisis teórico comparativo del transfuguismo en dos escenarios políticos diferentes. La motivación para la realización de este capítulo surge del análisis del poder otorgado a los partidos políticos durante la historia de la democracia

en España. Hasta 1983 los políticos legislaban bajo una fuerte disciplina de partido. A partir de esta fecha, se produce un cambio en la jurisprudencia constitucional (Sentencias del TC, 1983), que reconoce la titularidad del escaño al candidato electo y los partidos pierden el poder de control sobre sus miembros. Por tanto, se analiza un primer escenario en el que existe una fuerte disciplina de partido y donde aquellos políticos que no apoyan la línea política del partido al que pertenecen se enfrentan a una sanción “disciplinaria” (por ejemplo, la expulsión de los mismos del partido o la dimisión en el parlamento). Se analiza posteriormente un segundo escenario en el que dicha disciplina es débil o inexistente, de forma que los que incurren en comportamientos tráfugas no sufren consecuencias en la titularidad del escaño. La finalidad última del Capítulo es analizar cómo el comportamiento tráfuga puede verse afectado por la disciplina de partido y conjuntamente investigar si estos eventuales comportamientos tráfugas pueden afectar a la decisión de los propios partidos a la hora de anunciar la localización de sus plataformas políticas. Ello permitirá comparar los resultados de este capítulo con el resultado clásico de Downs (1957) que sugiere que los partidos fijarán políticas moderadas para atraer el mayor número de votos posibles y, por tanto, se situarán en el centro del espectro político.

Para abordar estos objetivos se utiliza un modelo de competencia electoral bipartidista de tipo Downsiano, en el que coexisten motivaciones tanto ideológicas como psicológicas en el comportamiento de los políticos (basadas en la ambición y/o la reputación). En una primera etapa, los partidos políticos establecen su posición electoral en el espectro político. En la segunda etapa los candidatos deben decidir con qué partido concurren a las elecciones. Posteriormente, los candidatos electos deciden si apoyar la línea política del mismo o apoyar la del otro partido, convirtiéndose en el segundo caso en tráfugas. Los resultados apuntan a que los comportamientos tráfugas sólo emergen en el escenario con disciplina de partido débil, y además muestran que el partido con ventaja electoral es la alternativa que satisface a aquellos candidatos con fuertes motivaciones ambiciosas. Por otro lado, se encuentra que cuando los motivos oportunistas de los can-

didatos ambiciosos son elevados, los partidos tienen incentivos a constituir plataformas políticas diferenciadas. En otro caso, los partidos convergerán al centro político, satisfaciéndose el resultado estándar de convergencia de Downs, mencionado anteriormente. Por último, se muestra que el escenario donde existe una disciplina de partido débil es más favorable si se quiere alcanzar la convergencia entre las dos plataformas políticas. Bajo una fuerte disciplina de partido, sólo se logra la convergencia de las dos plataformas políticas si las oportunidades de ambición relativas de los candidatos son suficientemente bajas.

En el Capítulo 3 se extiende el modelo de base diseñado en el segundo Capítulo de la Tesis Doctoral. En el Capítulo 2 los candidatos podían adoptar conductas tráfugas concurriendo a las elecciones con un partido político y, posteriormente, apoyando la línea política del otro partido. En este tercer capítulo se incluye la posibilidad de que los candidatos electorales, una vez elegidos, decidan romper la disciplina de su partido para implementar una política nueva, que no se corresponda con ninguna de las dos propuestas por los partidos ya existentes. Este tipo de conductas tráfugas se corresponde con el patrón más generalizado en la vida política española. Se trata de aquellos casos protagonizados por representantes políticos que rompen la disciplina de su propio partido no para unirse a las filas del partido político rival en las elecciones, sino para crear una formación política independiente y agruparse en el grupo Mixto. El objetivo del Capítulo 3 de esta Tesis Doctoral es, por tanto, analizar los incentivos de los candidatos electos a convertirse en independientes y representar a una nueva formación.

Los resultados apuntan a que surgen diferencias significativas respecto a los incentivos de los candidatos encontrados en el Capítulo 2. Por un lado, mientras que en el modelo de base sólo surgían tráfugas en las filas del partido que presentaba ventaja electoral, ahora pueden surgir conductas tráfugas en ambos partidos. Esto está relacionado con el hecho de que en este nuevo escenario el transfuguismo resulta más atractivo para el político. Como ahora los candidatos electos tienen la libertad de moverse hacia aquella posición política que les es más afín a su ideología, el transfuguismo no surge sólo por

motivaciones oportunistas, sino también por motivaciones puramente ideológicas. El hecho de que puedan “graduar” el nivel de transfuguismo (la distancia ideológica a la que se sitúan con respecto al partido con el que concurrieron a las elecciones) reduce el coste de reputación asociado al transfuguismo y favorece la existencia del mismo. Por otro lado, los resultados dan lugar a dos escenarios distintos. Si bien en ambos escenarios los candidatos que tienen incentivos para hacer transfuguismo son aquellos que se sitúan en los extremos del espectro ideológico, sólo en uno de ellos surgen incentivos a comportamientos tráfugas para los candidatos del centro político.

Finalmente, el Capítulo 4 presenta un ejercicio empírico para cuantificar el fenómeno del transfuguismo en España. En concreto, este capítulo estima la frecuencia del transfuguismo en el panorama local de los municipios españoles. La decisión de trabajar con datos municipales se debe al hecho de que en España la aparición de conductas tráfugas es mucho más frecuente en el ámbito local. Partiendo de la información facilitada por el Ministerio del Interior sobre los resultados de las elecciones municipales en España de los años 2003, 2007 y 2011, se ha construido una rica base de datos que ha sido la fuente del análisis realizado en este capítulo. Dicha base de datos se ha completado además con información del Instituto Nacional de Estadística referente a las características sociodemográficas de los municipios españoles.

No disponiendo de la información acerca de los movimientos de candidatos tráfugas durante el transcurso de las legislaturas, el estudio se enfoca en los cambios de partido realizados por los candidatos entre una legislatura y otra.

Se realiza un análisis descriptivo de los datos y una posterior regresión logística para tratar de entender la incidencia y los patrones de conducta de los fenómenos de movilidad entre partidos en España. El objetivo es estimar la probabilidad del transfuguismo en el contexto de los municipios de España, y analizar sus correlaciones con ciertas variables cuantitativas y cualitativas. Para ello, utilizamos un modelo de regresión logística, cuya implementación y desarrollo de su estimación ha sido realizado mediante el lenguaje de programación específico del paquete estadístico *Stata*.

Se pretende dar respuesta a una variedad de cuestiones. Para ello se estudia si existe relación entre el sexo de los candidatos, su ideología, sus motivaciones oportunistas, así como los factores geográficos y socioeconómicos de los municipios españoles y la ocurrencia del fenómeno de transfuguismo.

Los resultados del análisis demuestran que: i) los hombres son más proclives a cambiar partido que las mujeres; ii) aquellos candidatos que habían obtenido el escaño en su última candidatura política son menos dispuestos a cambiarse de partido, mientras que resultar electo en el año de elección en el que un candidato se ha cambiado de partido está relacionado positivamente con la ocurrencia de conductas tránsfugas; iii) los candidatos afiliados a partidos de centro o de extrema derecha presentan mayor inclinación a cambiarse de partido, mientras que los candidatos de izquierda resultan los menos probables en incurrir en movimientos entre partidos; iv) los candidatos que pertenecen a capitales de provincias son menos proclives a hacer transfuguismo, mientras que los que se presentan como representantes de municipios con alta renta per cápita son más probables en incurrir en conductas tránsfugas que los que pertenecen a municipios de renta media y de renta baja; v) las conductas tránsfugas emergen con mayor frecuencia en los municipios con población inferior a 1.000 habitantes y resulta que hay una relación negativa entre la ocurrencia del fenómeno del transfuguismo y el tamaño de la población de los municipios españoles. Este último resultado nos parece particularmente interesante pues consideramos que se debe a que las asuntos que normalmente están al centro del debate político de las pequeñas realidades, como son los pueblos, van más allá de lo que es la lucha de partidos, pues se sitúan en ámbitos en donde las decisiones que se adoptan rompen con la ideología de los partidos. Esto nos lleva a concluir que los políticos de municipios más pequeños tienen mayores incentivos en cambiarse de partido, porque reciben menores “castigos” por parte de sus electores respecto a las ciudades grandes: los ciudadanos de estos municipios tienen en cuenta otras características del político más bien que su lealtad a la afiliación política.

# Bibliography

- [1] Besley, T. (2006). *Principled Agents? The Political Economy of Good Government*. Oxford University Press, London, UK.
- [2] Colomer, J.M. (1990). *El Arte de la Manipulación Política*. Barcelona. Anagrama.
- [3] Crisafulli, V. (1990). *Commentario breve alla costituzione*. CEDAM.
- [4] Desposato, S.W. (2006). “Parties for Rent? Ambition, Ideology, and Party Switching in Brazil’s Chamber of Deputies.” *American Journal of Political Science*, 50: 62-80.
- [5] Downs, A. (1957). *An Economic Theory of Democracy*. 1<sup>a</sup> ed. New York: Harper & Row Publishers.
- [6] Fell, D. (2014). “Should I Stay or Should I Go? Patterns of Party Switching in Multiparty Taiwan”. *Journal of East Asian Studies*, 14: 31-52.
- [7] Heller, W.B. and Mershon, C. (2005). “Party switching in the Italian Chamber of Deputies, 1996-2001.” *Journal of Politics*, 67: 536-559.
- [8] Heller, W.B. and Mershon, C. (2008). “Dealing in Discipline: Party Switching and Legislative Voting in the Italian Chamber of Deputies, 1988–2000.” *American Journal of Political Science*, 52: 910-925.
- [9] Heller, W.B. and Mershon, C. (2009). “Taking Stock of Party Switching.” En: *Political Parties and Legislative Party Switching*. Palgrave Macmillan.

- [10] Hotelling, H. (1929). “Stability in Competition”. *The Economic Journal*, 39 (153): 41-57.
- [11] Huang H. (2010). “Electoral Competition When Some Candidates Lie and Others Pander”. *Journal of Theoretical Politics*, 22(3): 333-358.
- [12] Hug, S., Wüest, R. (2011). “Ideological Positions of Party Switching”. Paper presented at 2011 ECPR Joint Sessions, St. Gallen, Switzerland.
- [13] Jeambar, D., Roucate, Y. (1990). *Elogio de la Traición*. Gedisa, Barcelona.
- [14] Kato, J., Yamamoto K. (2012). “Party Switching, Partisan Dynamics, and Government Formation: Stability and Flux in a Dynamic Legislative Party System in Japan”. Paper prepared for presentation at the 2012 Annual Meetings of the American Political Science Association, New Orleans, LA, August 29 to September 2, 2012.
- [15] Klein, E. (2016). “Electoral Rules and Party Switching: How Legislators Prioritize Their Goals”. *Legislative Studies Quarterly*, 41 (3): 715- 738.
- [16] Mainwaring, S. and Pérez Liñan, A. (1997). “Party Discipline in the Brazilian Constitutional Congress.” *Legislative Studies Quarterly*, 22: 453-483.
- [17] Monedero, J.C. (1993). “De la representación como trasunto del poder, el orden y la legitimidad”. Mimeo, Madrid.
- [18] Persson, T., Tabellini, G. (2000). *Political Economics: Explaining Economic Policy*. MIT Press, Cambridge, MA.
- [19] Pinto, L. (2015). “The Time Path of Legislative Party Switching and the Dynamics of Political Competition: The Italian Case (1996- 2011)”. *The Journal of Legislative Studies*, 21(3): 323-341.

- [20] Reniu Vilamala, J. (1996). “La representación política en crisis: el transfuguismo como estrategia política”. En: *El debate sobre la crisis de la representación política*. Porras Nadales, A.J. (edit.). Tecnos. Madrid.
- [21] Reniu Vilamala, J. (2001). “Voce: Transfuguismo”. En: Román, Reyes (Dir). *Diccionario Crítico de Ciencias Sociales. Terminología científico-social*. Madrid. UCM.
- [22] Tomás Mallén, B. (2002). *Transfugismo parlamentario y democracia de partidos*. Madrid: Centro de Estudios Políticos y Constitucionales.



## Chapter 2

# Discipline, Party Switching, and Policy Convergence

### 2.1 Introduction

In modern representative democracies, candidates for congress and parliament are usually grouped around different political parties. It is in the interest of political parties to define a common ideological ground for their affiliated candidates. The political party defines the ideology, which is the party label for its candidates (Snyder and Ting, 2001). When candidates' incentives are purely ideological, we would expect that like-minded ideological candidates would be sharing party membership. However, party labels do not only differ from each other on ideological principles, but also on their electoral prospects when facing new elections. This implies that different parties may offer different career opportunities for politicians, and ambitious candidates may opt for a party even when the party label does not represent their own ideology.

When citizens delegate decision making on public policies to parties and elected representatives, they expect legislators to stick to the party labels under which they were elected. It is not rare in some settings, however, for elected legislators to abandon one party and join another, even during the legislative term. When a legislator fails to toe the

party line and joins another party, the literature refers to such a legislator as a “switcher.” Broadly speaking, switchers do not only include legislators who voluntarily change their political party label during the legislative term, but also legislators who deviate from party-line voting.

Whereas legislative party switching is rare in some countries (e.g., Australia), it abounds in others. Thus, party switching by legislators or parliamentarians has been common in many countries such as Brazil, Ecuador, Italy, Japan, Nepal, the Philippines, Russia, and the Ukraine (Desposato, 2006; Mershon and Shvetsova, 2008). In Italy, for instance, almost one-fourth of the members of the Chamber of Deputies switched parties at least once between 1996 and 2001 (Heller and Mershon, 2005, 2008, 2009). Similarly, in Brazil, more than one-third of the Brazilian members of the parliament elected in 1986 transferred from one party to another by late 1990 (Mainwaring and Pérez-Liñán, 1997).

In this paper, we develop a behavioral spatial model of party switching where, besides ideological incentives, candidates for office face other incentives such as ambition opportunities and reputation. We then explore candidates’ incentives for party switching and the policy consequences arising from this. The novel point of our contribution is the analysis of endogenous political party platforms in a context where candidates make two decisions: they first select their party label and, once elected to parliament, vote for or against their party line. We argue that it is in the best interests of a political party to draw as many loyal candidates as possible to their party membership. Here is the trade-off: if party platforms are moderate, parties may increase their membership but some of their candidates, when elected to parliament, may not toe the party line. If the party platform tends to the left or to the right, it is harder to increase membership, but candidates are more partisan and may not deviate from party-line voting.

There are many empirical contributions analyzing the phenomenon of party switching all over the world: in Turkey (Turan, 1985), in Japan (Cox and Rosenbluth, 1995 and Reed and Scheiner, 2003), in Spain (Bowler et al. 1999 and Tomás Mallén, 2002), in Ecuador (Mejia Acosta, 2004), in Italy (Heller and Mershon, 2005, 2008, 2009 and

Mershon and Shvetsova, 2008, 2014), in Brazil (Desposato, 2006), in Russia (Mershon and Shvetsova, 2008), and in the U.S. and Canada (Mershon and Shvetsova, 2014). In contrast, there are few contributions analyzing party switching from a theoretical perspective. As far as we know, the first important theoretical contribution is the work by Aldrich and Bianco (1992), followed by Laver and Benoit (2003), Desposato (2006), Heller and Mershon (2008), Mershon and Heller (2009), and Mershon and Shvetsova (2014).<sup>1</sup>

All the above-mentioned literature highlights three elements as being the driving forces behind switching. The first one is the role of ambition (Aldrich and Bianco, 1992; Desposato, 2006; Mershon and Heller, 2008). Aldrich and Bianco (1992) show that switchers aim to enhance their prospects both for reelection and legislative influence. The second important element to understand switchers' behavior is the degree of ideological compatibility with their own ideal policies (Desposato, 2006; Mershon and Heller, 2008). The third driving force behind switching is the underlying formation of majority coalitions. As explained by Mershon and Shvetsova (2014) in a model of policy bargaining within parliaments, switching behavior is motivated by movements in the policy core. Against the benefits of switching, Desposato (2006) highlights some costs that act as a deterrent to switching.

In this paper, we identify two kinds of candidate incentive: ambition and ideology. Switching is also associated with a certain social cost that we call reputation cost. Ambition represents politicians' career opportunities. Ideology represents party label closeness to politicians' own ideals. Finally, the reputation cost is associated with the loss of credibility with voters and other partisan members (which potentially may truncate a candidate's political career). While Desposato (2006) and Laver and Benoit (2003) consider that political parties accept or reject membership as a function of the value added by the candidate to the party, we instead consider that the political party (or the party leader) is a decision maker that chooses the party's policy position in order to draw loyal

---

<sup>1</sup>See Mershon (2014) for an excellent survey on party switching.

candidates when possible, or to encourage party switching from a rival party.

We analyze two different political scenarios: one in which there is strong party discipline and those legislators who deviate from party-line voting face a disciplinary penalty, and another one where party discipline is weak. These two scenarios differ in the influence that political parties exert over their legislators. The Spanish political system provides a good example of these two alternative scenarios. The strong party discipline scenario reproduces the post-Constitutional period, from 1978 up to 1983, when political parties had strong power and could influence the decisions of their political legislators with control instruments. The weak party discipline scenario reproduces the legislative change that occurred after the 1983 Resolutions by the Spanish Constitutional Court, when legislators were considered to be entitled to their seats and, consequently, the party could not dismiss or expel its elected candidates. In the Spanish legislature, comparing 1982–1986 to 1986–1989, switching behavior in parliament increased from 1% to 12% (Tomás Mallén, 2002; Heller and Mershon, 2008). Other important examples of weak party discipline are the United States Congress and the Italian Parliament.

The purpose of this paper is twofold. First, we want to analyze candidates' incentives regarding their party affiliation, as well as elected candidates' incentives to deviate from party-line voting, in the two political scenarios mentioned above. Second, we investigate whether politicians' incentives to potentially deviate from party-line voting may impact parties' announced policy platforms. This allows us to study the conditions under which policy convergence is achieved in the two political scenarios: strong and weak party discipline.

Political parties are expected to pursue moderate policies to gain votes; therefore, two parties pursuing the same strategy will eventually converge. The theoretical basis for party convergence was first established through the seminal work by Downs (1957), where the author explains movement to the center ground as driven by the fundamental motivation of politicians to attain power. However, there is substantial evidence that convergence by parties to the electoral center is an extremely unlikely phenomenon (An-

solabehere, Snyder and Stewart, 2001; Klingemann et al., 2006) and there is a large theoretical literature predicting platform divergence-based factors such as entry deterrence (Palfrey, 1984; Osborne and Slivinski, 1996; Besley and Coate, 1997; Callander, 2005), politicians' policy preferences with uncertainty about voters' preferences (Calvert, 1985; Wittman, 1983), valence issues (Groseclose, 2001; Ansolabehere and Snyder, 2000; Aragonés and Palfrey, 2002) and other motives such as voter abstention, primary elections, party activists, and special interest groups.<sup>2</sup>

Our results show that switchers only arise in the weak party discipline scenario, and provided that one of the parties holds sufficiently high opportunistic advantage as to satisfy ambitious candidates. It is worth noticing that weak party discipline induces more “ideological voting,” namely, there is a higher fraction of elected candidates who vote for the policy which better fits their ideological position, instead of toeing their party line. Heller and Mershon (2008) show that in the Italian Chamber of Deputies for the period 1988–2000, strong party discipline created incentives for legislators to switch parties. For these authors, party discipline is measured by the degree of cohesion in the vote of partisan legislators. In our model, strong party discipline refers to parties with available disciplinary tools. The result we find, whereby strong party discipline deters switching behavior is, therefore, direct and is not in contradiction with Heller and Mershon (2008).

Our analysis on the location of party platforms in the two party discipline scenarios also provides us with some interesting results. First, we find that when parties show low opportunistic advantage with respect to their rivals, both the weak and the strong party discipline scenarios push parties to offer centrist platforms. Thus, the standard result in formal political theory, which states that parties in equilibrium adopt positions at the electoral center, holds (Hotelling, 1929; Downs, 1957). This finding highlights that policy divergence arises in our model because of the opportunistic incentives that satisfy

---

<sup>2</sup>Bernhardt et al. (2009, p. 570) describe several contributions in the literature that explain the separation of platforms.

ambitious candidates. Consider now that one party shows sufficiently high opportunistic advantage. Then, when there is strong party discipline and parties offer similar policies, candidates may affiliate to the party with better electoral prospects. In this case, the disadvantaged party can only attract candidates by offering a differentiated policy. When there is weak party discipline, the party with an electoral advantage is exposed to switching behavior in the legislative votes. In this case, the party with the advantage avoids switching behavior when offering a sufficiently differentiated platform, as this implies a substantive deviation from party-line voting, and entails some reputation cost for those candidates involved in switching behavior. Second, even when both the weak and the strong party discipline scenarios can induce policy divergence, we find that the weak party discipline scenario is more effective in guaranteeing convergence of parties' policy platforms. In the weak party discipline scenario, policy convergence is always achieved when candidates assign more weight to their ideology than to their reputation when switching. We show that policy divergence, as a tool that avoids switching behavior, is not efficacious when candidates assign low weight to their reputation and, as a result, parties support policy convergence strategies.

The structure of the paper is as follows. Section 2 presents the model. Section 3 characterizes candidates' behavior in the strong and weak party discipline scenarios respectively. Section 4 analyzes the endogenous location of policy platforms. Finally, the last section offers the conclusion.

## 2.2 The Model

There are two political parties,  $L$  and  $R$ . Each political party selects a policy proposal that is denoted by  $l$  and  $r$  respectively, where  $l, r \in [0, 1]$ . Party  $L$  is the “leftist” and party  $R$  is the “rightist.” There is a set of candidates who decide whether to run for office with one or the other political party, namely, they decide their party label.

Political parties compete in a parliamentary election, and a number of candidates

become legislators in parliament. Once in parliament, legislators submit their legislative votes. Legislators have the option of switching in making their legislative vote. This means that they can select one party label while voting in parliament for the policy proposal of the other party. That is, if their party label is party  $L$ , they switch when voting for policy  $r$ , and when their party label is party  $R$ , they switch when voting for policy  $l$ .<sup>3</sup> When a legislator does not toe the party line and votes for the other party proposal, we refer to such a legislator as a “switcher”.

We consider two different scenarios, one in which parties are endowed with strong discipline and can impose certain disciplinary measures or penalties  $F \geq 0$  on those legislators engaging in switching behavior, and another in which parties do not have the ability to impose penalties; this is the weak party discipline scenario.

We analyze the strategic decisions of two types of players: political parties and candidates. Political parties pursue strong support for their policy proposals in parliament. Candidates’ incentives are driven by different forces: ambition, ideology, and reputation. We analyze parties’ and candidates’ optimal strategies in the two abovementioned scenarios.

The timing of the proposed electoral game is as follows:

Stage 1: Parties announce their policy platforms and, only in the case of strong party discipline, specify disciplinary penalties.

Stage 2: Candidates observe the announced policy platforms and disciplinary penalties, and decide their party label.

Stage 3: Once general elections have been held, legislators vote in parliament.

We assume that political parties foresee candidates’ decision with respect to their chosen party label and subsequent voting decisions in parliament.

In order to provide a prediction of candidates’ and parties’ optimal decisions, we solve the proposed game by backward induction. That is, first, we analyze in Section 3

---

<sup>3</sup>We do not take elected candidates abstaining in parliament into account. This can, however, be an interesting extension of the model.

the two-stage candidates' decisions on their party label and subsequent legislative votes (stages 2 and 3) and, secondly, we analyze in Section 4 the political parties' optimal decision (stage 1). In the strong party discipline scenario, the optimal penalty imposed by the party is analyzed in conjunction with candidates' decisions.

### *Preferences of candidates*

From the candidates' perspective, they are more likely to get a seat in parliament when running for office with party  $R$  than when doing so with party  $L$ .<sup>4</sup> Let  $\pi_h$  be the probability of becoming a legislator when running for office with party  $h$ ; then, party  $R$  has certain opportunistic advantages which translate into a higher probability  $\pi_L < \pi_R$ .

Each candidate has an ideal policy denoted by  $i \in [0, 1]$ . The preferences of each candidate are defined by the two decisions that they make, the party label under which they run for office  $h \in \{R, L\}$  and their subsequent voting decisions in parliament  $p \in \{r, l\}$ . The preferences of candidates regarding each possible alternative are represented by the following career utility function

$$u_i(h, p) = \underbrace{\pi_h}_{\text{ambition}} - \underbrace{\mu(i - p)^2}_{\text{ideological cost}} - \underbrace{\lambda(\sigma_h - p)^2}_{\text{reputation cost}} - \underbrace{F}_{\text{disciplinary cost}},$$

where  $\sigma_h$  is the policy platform of the political party with which the candidate decides to run for office,  $\sigma_L = l$  and  $\sigma_R = r$ , and where  $\mu, \lambda \geq 0$ .

The first term of the above expression reflects ambition. As already mentioned,  $\pi_h$  is the probability of becoming a legislator when selecting the party label  $h \in \{R, L\}$ . We take  $\pi_h$  as an indicator of candidates' ambition, which implies that, everything being equal, candidates prefer the party with which they are more likely to become a legislator.

The second term is the ideological cost, which measures the disutility derived from voting for a policy that is different from the ideal policy  $i$  of the candidate. We refer to

---

<sup>4</sup>There can be several reasons that explain why one party has an advantage over the other. Among other reasons, it can be due to some incumbency advantage or to some valence advantage which, in both cases, translates into better electoral prospects.



this as ideological cost because its magnitude depends on each candidate's ideal policy.

The third term is the reputation cost, which measures the disutility derived from switching in the legislative vote. Observe that this third term is either 0 when  $\sigma_h = p$ , or equal to  $\lambda(l - r)^2$  when the legislator does not toe the party line, and therefore,  $\sigma_h$  is different from  $p$ .<sup>5</sup> Besides, the greater the distance between the policy platforms of the two parties, the higher the reputation cost. This cost captures a legislator's loss of reputation when breaking party discipline, which may truncate the politician's career.<sup>6</sup>

The fourth term  $F$  is the disciplinary cost that only applies in a strong party discipline scenario and provided that the candidate engages in switching behavior.

The parameters  $\mu, \lambda \geq 0$  are the weights that candidates assign to their ideology and their reputation respectively. We say that a *candidate is responsible* when  $\mu > \lambda$ , that is, when each unit distance of ideological cost has more impact on candidates' utility than each unit distance of reputation cost. In short, responsibility means that the candidates care more about their ideology than about reputation. On the contrary, a *candidate is non-responsible* when  $\mu \leq \lambda$ .

Each candidate can select one of the following four strategies:

1. Running for office with party  $L$  and voting for the policy proposal of this party,  $l$ .

In this case, we denote the candidate's utility by  $U_L$  where

$$U_L = u_i(L, l) = \pi_L - \mu(i - l)^2.$$

2. Running for office with party  $R$  and voting for the policy proposal of this party,  $r$ .

In this case, we denote the candidate's utility by  $U_R$  where

$$U_R = u_i(R, r) = \pi_R - \mu(i - r)^2.$$

---

<sup>5</sup>This modelization resembles that in Huang (2010), where elected candidates incur a quadratic "internal" cost if the implemented policy differs from candidates' own true policy position, and a quadratic "reputation" cost if the implemented policy differs from their announced policy.

<sup>6</sup>When the electorate or party militants are very partisan, switchers will usually have little credibility, and therefore will have difficulty in attracting votes or campaign support (Desposato, 2006).

3. Running for office with party  $R$  and switching on the legislative vote to the policy proposal of party  $L$ . In this case, we denote the candidate's utility by  $U_R^S$  and this takes two different values depending on whether we account for a strong or weak party discipline scenario:

$$U_R^S = u_i(R, l) = \begin{cases} \pi_R - \mu(i - l)^2 - \lambda(r - l)^2 - F & \text{if strong discipline} \\ \pi_R - \mu(i - l)^2 - \lambda(r - l)^2 & \text{if weak discipline.} \end{cases}$$

4. Running for office with party  $L$  and switching on the legislative vote to the policy proposal of party  $R$ . In this case, we denote the candidate's utility by  $U_L^S$  and this takes two different values depending on whether we account for a strong or weak party discipline scenario:

$$U_L^S = u_i(L, r) = \begin{cases} \pi_L - \mu(i - r)^2 - \lambda(l - r)^2 - F & \text{if strong discipline} \\ \pi_L - \mu(i - r)^2 - \lambda(l - r)^2 & \text{if weak discipline.} \end{cases}$$

Candidates engage in switching behavior when they opt for either  $(h, p) = (R, l)$  or  $(h, p) = (L, r)$ . In these two cases, political parties, in a strong party discipline scenario, can inflict penalties on legislators who fail to toe the party line.

When comparing expressions  $U_R$  and  $U_L^S$ , and given that  $\pi_L < \pi_R$ , we deduce that  $U_R$  is always greater than  $U_L^S$ . Thus, once a legislator intends to vote for the policy proposal of party  $R$ , it is strictly better to select party  $R$ 's label. In other words, for every candidate, the strategy  $(R, r)$  strictly dominates the strategy  $(L, r)$ , both in the weak and in the strong party discipline scenarios. Thus, candidates whose party label is  $L$ , do never engage in switching behavior.

We assume that in those cases in which the candidate is indifferent to whether they choose to run for office with party  $R$  or party  $L$ , the candidate opts for party  $R$ . Likewise, if a legislator is indifferent about switching or not on the legislative vote, the legislator opts not to switch.

### *The preferences of parties*

Political parties have some flexibility regarding the policy platform that they can select. Each party has some well-defined upper and lower bounds within which it can locate its policy platform.<sup>7</sup> Party  $L$  can set its policy  $l$  in the interval  $[\bar{L} - \varepsilon, \bar{L} + \varepsilon] \in [0, 1]$  and party  $R$  can set its policy  $r$  in the interval  $[\bar{R} - \varepsilon, \bar{R} + \varepsilon] \in [0, 1]$  where policies  $\bar{L}$  and  $\bar{R}$  represent some well established or historical position of the political parties, and  $\varepsilon$  represents the margin of flexibility around this historical position that is accepted by the parties' current leaders. We consider that  $\bar{L} + \varepsilon < \bar{R} - \varepsilon$ , which implies that the policy platforms of the parties always satisfy the condition that  $l < r$ .

Political parties are uncertain about the ideal policies of those candidates that select their party label. From the parties' viewpoint, the ideal policies of candidates are distributed according to a uniform distribution function over the unit interval  $[0, 1]$ . This simplifying assumption implies that political parties consider that every ideology is equally likely to be a candidate's ideology.<sup>8</sup>

We analyze two scenarios, strong and weak party discipline.

In the *strong party discipline scenario* we already mentioned, political parties can apply certain disciplinary penalties  $F \geq 0$  to those legislators who do not vote with the party line.<sup>9</sup> We assume that parties set the minimal disciplinary penalty that prevents switching behavior. Parties also select policy proposals so as to maximize the number of loyal candidates, that is, those who select their party label and will eventually vote for their party platform.<sup>10</sup>

---

<sup>7</sup>See, for instance, Cadigan and Janeba (2002) or Martínez-Mora and Puy (2014).

<sup>8</sup>Our results do not depend on the uniform distribution of the candidates' ideologies, or on the unit interval over which the ideologies are distributed. These are simplifying assumptions.

<sup>9</sup>In the real world, the threat of punishment is not absent. Party leaders control several disciplinary tools, including ballot access (Cox and McCubbins, 1994), committee positions (Kiewiet and McCubbins, 1991), advancement within the party, increased influence over party policy positions, and access to legislative perks (Bowler et al., 1999).

<sup>10</sup>Hall (2015) presents a survey of the interplay of U.S. primary and general elections, in which he demonstrates that when an extremist candidate defeats a moderate candidate, the probability that the party wins the seat decreases. In our setting, parties' objective of maximizing loyal candidates is equivalent to parties trying to attract moderate candidates to their party list.

In the *weak party discipline scenario*, parties are exposed to switching behavior and legislators, independently of their party label, opt for one of the voting proposals,  $l$  or  $r$ . We assume that parties set their platforms so as to maximize the number of loyal candidates when possible and, when exposed to switching behavior, parties maximize the number of legislators that vote in parliament for their policy platform.

We say that there is policy convergence when parties select centrist platforms, that is,  $l = \bar{L} + \varepsilon$  and  $r = \bar{R} - \varepsilon$ . Otherwise, we say that there is policy divergence.

## 2.3 Candidates' party label and legislative votes

We analyze candidates' decisions regarding their party label and their subsequent legislative votes. Candidates' incentives are different in the strong as opposed to the weak party discipline scenarios. In a strong party discipline scenario, legislators face a disciplinary penalty  $F \geq 0$  when deviating from the party line, whereas in a weak party discipline scenario there is no such penalty.

### 2.3.1 The strong party discipline scenario

We analyze political parties' optimal disciplinary penalties. As already argued, candidates whose party label is  $L$  never engage in switching behavior; therefore, only party  $R$  will impose disciplinary penalties. Party  $R$  seeks to minimize the value of the penalty  $F$  while still seeking to ensure that their candidates avoid engaging in switching behavior.

Let  $(h_i^*, p_i^*)$  denote the optimal decision of legislator  $i$  regarding party affiliation and subsequent voting decisions when parties' platforms are considered to be fixed at  $r, l$  where  $l < r$ . Party  $R$  sets  $F$  so as to solve

$$\begin{aligned} \underset{F \geq 0}{\text{Min}} \quad & F \\ \text{s.t.} \quad & (h_i^*, p_i^*) \neq (R, l) \text{ for all } i \in [0, 1]. \end{aligned} \tag{2.1}$$

That is, party  $R$  sets  $F$  so as to eliminate switching behavior.

Candidates compare their utilities under three available strategies: running for office with party  $R$  or party  $L$  and not switching in these two cases, and running for office with party  $R$  and switching (we have already discarded the possibility of switching on legislative votes once the candidate's party label is  $L$ ). The associated utilities are  $U_L, U_R$  and  $U_R^S$  respectively. The disciplinary penalties aim at preventing the following two types of candidates' preferences:

$$U_R^S > U_L \geq U_R \text{ and } U_R^S > U_R > U_L. \quad (2.2)$$

These preferences reflect that some candidates may prefer switching their legislative votes over the two other strategies, running for office with party  $R$  or party  $L$  and not switching. Thus,  $F$  is set so as to prevent the preferences in (2.2).

First, requiring  $U_L \geq U_R^S$  implies

$$F \geq \pi_R - \pi_L - \lambda(r - l)^2, \quad (2.3)$$

that is, the penalty cost has to be greater than the difference between ambition benefits and the reputation cost. Note that the higher the ambition benefits with respect to the reputation cost, the greater the penalty has to be in order to prevent switching behavior.

Second, requiring  $U_R \geq U_R^S$  implies

$$F \geq \mu [(i - r)^2 - (i - l)^2] - \lambda(r - l)^2 \text{ for every } i, \quad (2.4)$$

that is, the penalty has to be greater than the difference between the ideological benefits derived from switching and the reputation cost.

In both cases, (2.3) and (2.4), we find that a high reputation cost is enough to prevent switching behavior.

We deduce that party  $L$  does not need to impose a penalty and party  $R$  has to impose a penalty in those cases in which ambition incentives are high, ideological incentives are

high, or the reputation cost is low. The following proposition describes the optimal decision of both party  $R$  and the candidates:

**Proposition 1** *In the strong party discipline scenario, party  $R$  sets an optimal penalty  $F^*$  that prevents switching behavior:*

$$F^* = \min \{ \pi_R - \pi_L - \lambda(r-l)^2, \mu(r^2 - l^2) - \lambda(r-l)^2 \}$$

when  $\pi_R - \pi_L > \lambda(r-l)^2$  and  $\mu(r^2 - l^2) > \lambda(r-l)^2$ , otherwise  $F^* = 0$ .

Regarding candidates, there is a threshold

$$\hat{i} = \frac{r+l}{2} - \frac{\pi_R - \pi_L}{2\mu(r-l)}$$

such that if the ideology of the candidate satisfies the condition that  $i \geq \hat{i}$ , then the candidate runs for office with party  $R$  whereas if  $i < \hat{i}$ , then the candidate runs for office with party  $L$ .

**Proof.** Simplifying Expression (2.4) yields

$$F \geq \mu [r^2 - l^2 - 2i(r-l)] - \lambda(r-l)^2 \text{ for every } i$$

Since the above expression is decreasing in  $i$ , then  $i = 0$  is the ideology of the candidate with more incentives to switch. Substituting  $i = 0$  in the above expression yields

$$F \geq \mu(r^2 - l^2) - \lambda(r-l)^2, \tag{2.5}$$

which guarantees that  $U_R \geq U_R^S$  for every candidate. By (2.3), when  $\pi_R - \pi_L \leq \lambda(r-l)^2$ , then for every agent it holds that  $U_L \geq U_R^S$  and by (2.4), when  $\mu(r^2 - l^2) \leq \lambda(r-l)^2$  then for every agent it holds that  $U_R \geq U_R^S$ . That is, there are no incentives to switch in any of these two cases and the optimal penalty is  $F^* = 0$ . We deduce that  $F^* \neq 0$  only when  $\pi_R - \pi_L > \lambda(r-l)^2$  and  $\mu(r^2 - l^2) > \lambda(r-l)^2$ , in which case, the minimal  $F^*$  in the

comparison between (2.3) and (2.4) guarantees that either  $U_L \geq U_R^S$  or  $U_R \geq U_L^S$  satisfies for every candidate. When  $F^* = \pi_R - \pi_L - \lambda(r-l)^2$ , then whatever the ideology of the candidate  $U_R^S = U_L$  and candidates do not switch. When  $F^* = \mu(r^2 - l^2) - \lambda(r-l)^2$ , then whatever the ideology of the candidate  $U_L^S = U_R$  and candidates do not switch. Since no candidate switches, they affiliate to party  $R$  and then vote  $r$ , or they affiliate to party  $L$  and then vote  $l$ .

We therefore compare the utilities  $U_L, U_R$

$$\begin{aligned}
U_L &\leq U_R \iff \pi_L - \mu(i-l)^2 \leq \pi_R - \mu(i-r)^2 \iff \\
\pi_R - \pi_L &\leq \mu(i-r)^2 - \mu(i-l)^2 \iff \\
2\mu i(r-l) &\geq \mu(r^2 - l^2) - (\pi_R - \pi_L) \iff \\
\iff i &\geq \frac{r+l}{2} - \frac{\pi_R - \pi_L}{2\mu(r-l)} \equiv \hat{i}.
\end{aligned}$$

and this completes the proof. ■

The threshold  $\hat{i}$  results from comparing  $U_L$  and  $U_R$ , and defines the party with which the candidate decides to run for office in the elections. That is, all the candidates with ideal policies in the interval  $[0, \hat{i})$  opt for  $(h_i^*, p_i^*) = (L, l)$ , and those candidates with ideal policies in the interval  $[\hat{i}, 1]$  opt for  $(h_i^*, p_i^*) = (R, r)$ . Given that  $\pi_R - \pi_L > 0$  and  $r - l > 0$ ,  $\hat{i}$  is always below the mid-point of the interval  $[l, r]$  (defined by  $\frac{r+l}{2}$ ). This implies that candidates' optimal decisions are not only ideological, but are also driven by their ambition. In fact, the larger the difference in  $\pi_R - \pi_L$ , or the smaller the weight that candidates assign to their ideology  $\mu$ , or the closer the parties' proposals to each other, then the broader the range of ideologies under which a candidate decides to run for office with party  $R$ .<sup>11</sup> Besides, it can be the case that  $\hat{i} \leq l$  when the ambition benefits  $\pi_R - \pi_L$  are sufficiently high. In particular, condition  $\hat{i} \leq l$  is equivalent to  $\pi_R - \pi_L \geq \mu(r-l)^2$ ,

---

<sup>11</sup>The threshold that we derive in Proposition 1 resembles the one obtained in the model of political competition with valence advantage proposed by Groseclose (2001). In Groseclose's model, however, the threshold is to the right or to the left of the mean policy because the two competing political parties are asymmetric with respect to their valence advantage.

that is, when ambition benefits are above  $\mu(r-l)^2$ , the threshold  $\hat{i}$  is below the policy proposal of party  $L$ . Likewise, condition  $\hat{i} > l$  is equivalent to  $\pi_R - \pi_L < \mu(r-l)^2$ , that is, when ambition benefits are below  $\mu(r-l)^2$ , the threshold  $\hat{i}$  is in between policy  $l$  and  $\frac{r+l}{2}$ .

### 2.3.2 The weak party discipline scenario

In a weak party discipline scenario, candidates know that when switching on legislative votes, parties cannot apply a disciplinary penalty.

Candidates decide on one out of three available strategies (we have already discarded the possibility of switching on legislative votes once the candidate's party label is  $L$ ). The first two possibilities are the ones in which the candidate runs for office with one party ( $R$  or  $L$ ) and follows the party line. The third alternative for the candidate is running for office with party  $R$  and switching on legislative votes.

When comparing  $U_L$  and  $U_R^S$  – that is, running for office with party  $L$  and voting for  $l$ , with respect to running for office with party  $R$  and switching – we deduce that  $U_L \geq U_R^S$  implies

$$\pi_R - \pi_L \leq \lambda(r-l)^2. \quad (2.6)$$

This condition requires that the gains from ambition  $\pi_R - \pi_L$  do not compensate for the loss in reputation when switching. That is, the reputation cost surpasses the benefits associated with ambition. Thus, when condition (2.6) is satisfied, we say that there is *strong social pressure*.

In the opposite case, that is, when  $U_L < U_R^S$ , we deduce that

$$\pi_R - \pi_L > \lambda(r-l)^2, \quad (2.7)$$

we then say that there is *weak social pressure*. In this latter case, the benefits associated with ambition  $\pi_R - \pi_L$  are greater than the reputation cost and candidates opt for either running for office with party  $R$  and switching on legislative votes, or running for office



with party  $R$  and voting  $r$ .

The following proposition describes the optimal decision of the candidates:

**Proposition 2** *In the weak party discipline scenario,*

*i) if there is strong social pressure, candidates behave as in the case of strong party discipline,*

*ii) if there is weak social pressure, there is a threshold*

$$\hat{i} = \frac{r+l}{2} - \frac{\lambda(r-l)}{2\mu},$$

*such that if the ideology of the candidate satisfies the condition that  $i \geq \hat{i}$ , then the candidate runs for office with party  $R$  and votes for this party's policy proposals, whereas if  $i < \hat{i}$ , then the candidate runs for office with party  $R$  and switches on legislative votes.*

**Proof.** When  $\pi_R - \pi_L \leq \lambda(r-l)^2$ , we have shown that there are no incentives for switching behavior. Therefore, our results in Proposition 1 apply and the threshold  $\hat{i}$  characterizes candidates' optimal decisions.

When  $\pi_R - \pi_L > \lambda(r-l)^2$ , we have already shown that the candidate opts for either affiliating to party  $R$  and switching afterwards, or affiliating to party  $R$  and not switching.

We therefore compare the utilities  $U_R^S$  and  $U_R$

$$\begin{aligned} U_R &\geq U_R^S \iff \pi_R - \mu(i-r)^2 \geq \pi_R - \mu(i-l)^2 - \lambda(r-l)^2 \\ &\iff -\mu(i-r)^2 \geq -\mu(i-l)^2 - \lambda(r-l)^2 \\ &\iff 2\mu i(r-l) \geq \mu(r^2 - l^2) - \lambda(r-l)^2 \\ &\iff i \geq \frac{r+l}{2} - \frac{\lambda(r-l)}{2\mu} \equiv \hat{i} \end{aligned}$$

and this completes the proof. ■

Proposition 2 shows that strong social pressure results in a scenario similar to the one with strong party discipline. This is due to the high reputation cost that mitigates

candidates' incentives to switch. However, when there is weak social pressure, we find that those candidates whose ideologies are close to that of party  $L$  run for office with party  $R$  to increase their chance of being elected and once elected, they break party discipline. That is, all the candidates with ideal policies in the interval  $[0, \bar{i}]$  opt for  $(h_i^*, p_i^*) = (R, l)$ , and those candidates with ideal policies in the interval  $[\bar{i}, 1]$  opt for  $(h_i^*, p_i^*) = (R, r)$ .

Since  $\frac{\partial \bar{i}}{\partial \lambda} < 0$  and  $\frac{\partial \bar{i}}{\partial \mu} > 0$ , we deduce that the larger the weight that candidates assign to the reputation cost  $\lambda$ , or the smaller the weight that candidates assign to the ideological cost  $\mu$ , the narrower the range of candidates' ideologies for which candidates switch their legislative votes.

Notice that since  $r - l > 0$ , then  $\bar{i}$  is always below the mid-point of the interval  $[l, r]$  (defined by  $\frac{r+l}{2}$ ). Besides, it can be the case that  $\bar{i} \leq l$  when  $\lambda$  is high or when  $\mu$  is low. In particular, condition  $\bar{i} \leq l$  is equivalent to  $\mu \leq \lambda$  and, therefore,  $\bar{i} > l$  is equivalent to  $\mu > \lambda$ . That is, when candidates are non-responsible ( $\mu < \lambda$ ), there is less switching behavior. On the contrary, when candidates are responsible ( $\mu > \lambda$ ), the phenomenon of switching behavior expands. In particular, the lower the ratio  $\frac{\lambda}{\mu}$  the larger the fraction of centrist candidates affiliated to party  $R$  that vote for party  $L$ 's policy proposals.

### 2.3.3 Comparing weak and strong party discipline

The next result compares the two analyzed scenarios. These two scenarios differ from each other when there is weak social pressure (that is, when  $\pi_R - \pi_L > \lambda(r - l)^2$ ). In this case, legislators are tempted to engage in switching behavior if there is weak party discipline, and such an option is prevented in the strong party discipline scenario with the disciplinary penalties.

**Proposition 3** *If there is strong social pressure, then the strong and the weak party discipline scenarios induce the same strategies from candidates. If there is weak social pressure, then  $\hat{i} < \bar{i}$ , which implies that in the weak party discipline scenario (with respect to the strong party discipline scenario) there is a higher fraction of legislators who vote in accordance with their ideology.*

**Proof.** By Propositions 1 and 2, the two scenarios, weak and strong party discipline, yield the same result when there is strong social pressure. If there is weak social pressure, then  $\pi_R - \pi_L > \lambda(r - l)^2$ . Dividing both terms by  $2\mu(r - l)$  yields

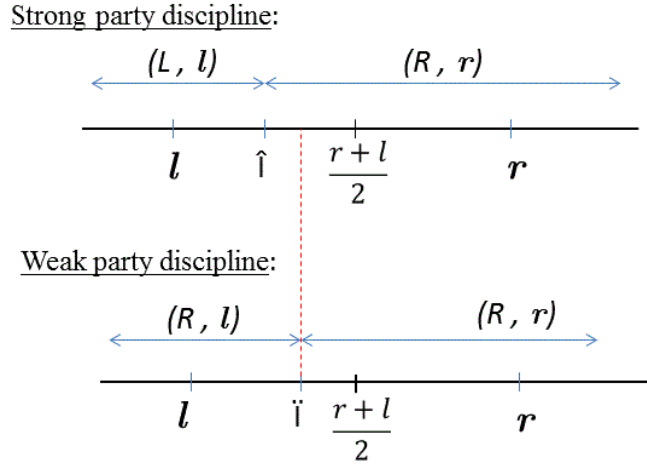
$$\begin{aligned} \pi_R - \pi_L > \lambda(r - l)^2 &\iff \frac{\pi_R - \pi_L}{2\mu(r - l)} > \frac{\lambda(r - l)}{2\mu} \\ &\iff -\frac{\pi_R - \pi_L}{2\mu(r - l)} < -\frac{\lambda(r - l)}{2\mu}. \end{aligned}$$

Adding  $\frac{r+l}{2}$  to both terms

$$\underbrace{\frac{r + l}{2} - \frac{\pi_R - \pi_L}{2\mu(r - l)}}_{\hat{i}} < \underbrace{\frac{r + l}{2} - \frac{\lambda(r - l)}{2\mu}}_{\check{i}}$$

and this completes the proof. ■

Figure 1 illustrates the above result in the case of weak social pressure. The black straight lines represent the unidimensional policy space where the ideologies of the candidates and the political parties are located. Note that a candidate with an ideology  $i \in (\hat{i}, \check{i})$  does not engage in switching behavior when there is strong party discipline, but does in the weak party discipline scenario when there is weak social pressure. We can interpret that  $\hat{i} < \check{i}$  implies that among moderate legislators (those with an ideal policy between  $l$  and  $r$ ), the fraction of those who vote  $l$  over  $r$  is higher under weak party discipline. Besides, since  $\check{i}$  is closer than  $\hat{i}$  to the midpoint  $\frac{l+r}{2}$ , we say that there is more ideological voting under weak party discipline than under strong party discipline.



**Figure 1:** Candidates' optimal choices

## 2.4 The policy location of political parties

As stated above, political parties foresee candidates' decision with respect to their chosen party label and their subsequent voting decision in parliament. In this section, we analyze the first stage of the electoral game in which political parties simultaneously select their policy proposals,  $l$  and  $r$ , respectively.

### 2.4.1 The strong party discipline scenario

In the strong party discipline scenario, the disciplinary cost prevents switching on legislative votes. The only strategies for candidates in this scenario are joining party  $L$  and voting  $l$  in parliament, versus joining party  $R$  and voting  $r$  in parliament.

According to Proposition 1, if a candidate  $i$  is such that  $i < \hat{i}$ , then this candidate affiliates to party  $L$  and votes  $l$ , and if  $i \geq \hat{i}$ , then this candidate affiliates to party  $R$  and votes  $r$ . Given some fixed value of the policy proposal of party  $R$ , that we denote by  $\bar{r}$ , we calculate the probability with which a candidate joins party  $L$  and votes with this

political party:

$$\Pr(i < \hat{i}) = \frac{\bar{r} + l}{2} - \frac{\pi_R - \pi_L}{2\mu(\bar{r} - l)}.$$

And given some fixed value of the policy proposal of party  $L$ , that we denote by  $\bar{l}$ , we calculate the probability with which a candidate joins party  $L$  and votes for policy  $l$ :

$$1 - \Pr(i < \hat{i}) = 1 - \frac{r + \bar{l}}{2} + \frac{\pi_R - \pi_L}{2\mu(r - \bar{l})}.$$

Political parties maximize the number of loyal candidates, which implies that they try to draw as many candidates as possible to their party label provided that these candidates will not engage in switching behavior. As already mentioned, parties select a policy in the intervals  $[\bar{L} - \varepsilon, \bar{L} + \varepsilon]$  and  $[\bar{R} - \varepsilon, \bar{R} + \varepsilon]$  respectively. The optimal decisions of party  $L$  and party  $R$  when setting their policy platforms solve the following optimization problems:

$$\begin{aligned} \underset{l \in [\bar{L} - \varepsilon, \bar{L} + \varepsilon]}{Max} \quad & \Pr(i < \hat{i}) & \underset{r \in [\bar{R} - \varepsilon, \bar{R} + \varepsilon]}{Max} \quad & 1 - \Pr(i < \hat{i}). \end{aligned} \quad (2.8)$$

The following proposition describes the optimal policy proposals of the parties.

**Proposition 4** *In the strong party discipline scenario, it is always the case that party  $R$  sets its platform at  $r^* = \bar{R} - \varepsilon$ . Regarding party  $L$ ,*

*if  $\pi_R - \pi_L \geq \mu(\bar{R} - \bar{L})^2$ , then  $l^* = \bar{L} - \varepsilon$ ,*

*If  $\mu(\bar{R} - \bar{L} - 2\varepsilon)^2 < \pi_R - \pi_L < ((\bar{R} - \bar{L} - 2\varepsilon)^2, \mu(\bar{R} - \bar{L})^2)$ , then  $l^* \in (\bar{L} - \varepsilon, \bar{L} + \varepsilon)$ ,*

*and if  $\pi_R - \pi_L \leq \mu(\bar{R} - \bar{L} - 2\varepsilon)^2$ , then,  $l^* = \bar{L} + \varepsilon$ .*

*Therefore, there is policy convergence only when  $\pi_R - \pi_L \leq \mu(\bar{R} - \bar{L} - 2\varepsilon)^2$ .*

**Proof.** Solving for the first derivative of the optimization problems in (2.8):

$$\frac{\partial \Pr(i < \hat{i})}{\partial l} = \frac{1}{2} - \frac{\pi_R - \pi_L}{2\mu(\bar{r} - l)^2} \quad \frac{\partial(1 - \Pr(i < \hat{i}))}{\partial r} = -\frac{1}{2} - \frac{\pi_R - \pi_L}{2\mu(r - \bar{l})^2},$$

where  $\frac{\partial(1 - \Pr(i < \hat{i}))}{\partial r} < 0$  for every  $r \in [\bar{R} - \varepsilon, \bar{R} + \varepsilon]$  implies that  $r^* = \bar{R} - \varepsilon$  is the optimal policy for party  $R$ . Since  $\frac{\partial^2 \Pr(i < \hat{i})}{\partial l^2} < 0$ , the optimal policy  $l^*$  is an interior solution unless

one of the two following conditions (1) and (2) hold:

(1)  $\frac{\partial \Pr(i < \hat{i})}{\partial l} < 0$  for every  $l \in [\bar{L} - \varepsilon, \bar{L} + \varepsilon]$  (or equivalently, for  $l = \bar{L} - \varepsilon$ ) when  $r = \bar{R} - \varepsilon$  (the equilibrium value for party  $R$ ) which implies that  $\pi_R - \pi_L > \mu(\bar{R} - \bar{L})^2$ .

(2)  $\frac{\partial \Pr(i < \hat{i})}{\partial l} > 0$  for every  $l \in [\bar{L} - \varepsilon, \bar{L} + \varepsilon]$  (or equivalently, for  $l = \bar{L} + \varepsilon$ ) when  $r = \bar{R} - \varepsilon$  (the equilibrium value for party  $R$ ) which implies that  $\pi_R - \pi_L < \mu(\bar{R} - \bar{L} - 2\varepsilon)^2$ .

Therefore, we deduce that if  $\pi_R - \pi_L \geq \mu(\bar{R} - \bar{L})^2$ , then  $l^* = \bar{L} - \varepsilon$ , and if  $\pi_R - \pi_L \leq \mu(\bar{R} - \bar{L} - 2\varepsilon)^2$  then  $l^* = \bar{L} + \varepsilon$ . Finally,  $l^* \in (\bar{L} - \varepsilon, \bar{L} + \varepsilon)$  only when  $\pi_R - \pi_L \in (\mu(\bar{R} - \bar{L} - 2\varepsilon)^2, \mu(\bar{R} - \bar{L})^2)$ . ■

The proposition shows three different cases depending on the value of the gains from ambition  $\pi_R - \pi_L$ . To facilitate the interpretation of the results, we define three cases depending on the degree of ambition opportunities:

$$\begin{aligned} \text{high ambition opportunities:} & \quad \pi_R - \pi_L \geq \mu(\bar{R} - \bar{L})^2 \\ \text{moderate ambition opportunities:} & \quad \pi_R - \pi_L \in (\mu(\bar{R} - \bar{L} - 2\varepsilon)^2, \mu(\bar{R} - \bar{L})^2) \\ \text{low ambition opportunities:} & \quad \pi_R - \pi_L \leq \mu(\bar{R} - \bar{L} - 2\varepsilon)^2 \end{aligned}$$

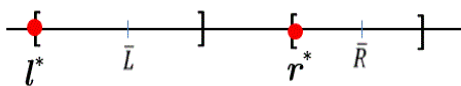
There is an interesting interpretation for the obtained result. When there is strong party discipline, voters always toe the party line. The utility of candidates over the two remaining options, running for office with party  $R$  and running for office with party  $L$ , contains two terms: ambition opportunities and ideological cost.

We find that candidates that join party  $R$  derive some extra ambition opportunities  $\pi_R - \pi_L$  in exchange for a certain ideological cost. The closer party  $R$  is to the policy platform of party  $L$ , the smaller the size of the ideological cost to left-wing legislators and thus, party  $R$  draws more candidates. Therefore, party  $R$  always benefits from platform convergence.

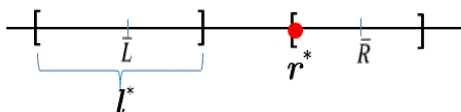
Regarding party  $L$ , its optimal policy depends on the size of ambition opportunities  $\pi_R - \pi_L$ . If party  $L$  faces candidates with high ambition opportunities, this means that the threshold  $\hat{i}$  is below the policy proposals of party  $L$ . In the discussion after Proposition 1, we showed that  $\pi_R - \pi_L \geq \mu(r - l)^2$  implies that  $\hat{i} \leq l$ . Substituting  $r^* = \bar{R} - \varepsilon$ ,

then  $\mu(r^* - l^*)^2 = \mu(\bar{R} - \varepsilon - l)^2 \leq \mu(\bar{R} - \bar{L})^2$  for every  $l \in [\bar{L} - \varepsilon, \bar{L} + \varepsilon]$ . Therefore, high ambition opportunities ( $\pi_R - \pi_L \geq \mu(\bar{R} - \bar{L})^2$ ) directly implies that  $\hat{i} \leq l$ . Thus, party  $L$  tries to convince extreme left-wing candidates by moving its policy away from its rival and closer to the ideal policy of these candidates. This yields platform divergence. When party  $L$  faces candidates with low ambition opportunities, the threshold  $\hat{i}$  is above the policy proposals of party  $L$ . We already showed that  $\pi_R - \pi_L \leq \mu(r - l)^2$  implies that  $\hat{i} \geq l$ . Substituting  $r^* = \bar{R} - \varepsilon$ , then  $\mu(r^* - l^*)^2 = \mu(\bar{R} - \varepsilon - l)^2 \geq \mu(\bar{R} - \bar{L} - 2\varepsilon)^2$  for every  $l \in [\bar{L} - \varepsilon, \bar{L} + \varepsilon]$ . Hence, low ambition opportunities ( $\pi_R - \pi_L \leq \mu(\bar{R} - \bar{L} - 2\varepsilon)^2$ ) always imply that  $\hat{i} \geq l$ . In this case, ambition is not the main driving force for candidates; ideological proximity is also relevant for them and party  $L$  tries to attract additional centrist candidates by moving its policy closer to the center. Broadly speaking, centrist candidates may affiliate to the political party which is closer to their ideal policy. Note that when there are low ambition opportunities, party competition resembles the Downsian political competition (for candidates) that leads both parties to offer a centrist platform (the one reflecting the median voter's bliss point). Finally, when ambition opportunities are moderate ( $\pi_R - \pi_L \in (\mu(\bar{R} - \bar{L} - 2\varepsilon)^2, \mu(\bar{R} - \bar{L})^2)$ ), party  $L$  selects intermediate policy positions so as to satisfy both extreme left-wing and centrist candidates.

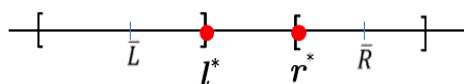
High ambition opportunities:



Moderate ambition opportunities:



Low ambition opportunities:



**Figure 2:** Optimal party platforms under strong party discipline

Figure 2 represents the three cases in Proposition 4. The figure shows that whereas the optimal policy of party  $L$  can be more or less leftist, party  $R$  always proposes a moderate policy and seeks platform convergence. Thus, as we have explained above, we only observe policy convergence to the center when there are low ambition opportunities.

### 2.4.2 The weak party discipline scenario

In the weak party discipline scenario, with strong social pressure, the only optimal strategies for candidates are joining party  $L$  and voting  $l$ , versus joining party  $R$  and voting  $r$ , i.e., there is no switching on legislative votes. Therefore, the optimal policy for the political parties is equivalent to the one under strong party discipline (Proposition 4).

When there is weak social pressure, switching behavior can arise in the legislative voting within the party with an opportunistic advantage, that is, party  $R$  (as we showed in Proposition 2). In this case, we showed that those legislators whose ideology  $i$  is such that  $i < \bar{i}$  vote  $l$  and engage in switching behavior, whereas those legislators with ideology  $i$  such that  $i \geq \bar{i}$  vote for policy  $r$ . Given some fixed value of the policy proposal of party



$R, \bar{r}$ , we calculate the probability with which a legislator votes  $l$ :

$$\Pr(i < \bar{i}) = \frac{\bar{r} + l}{2} - \frac{\lambda(\bar{r} - l)}{2\mu}.$$

Similarly, for some fixed value for the policy proposal of party  $L, \bar{l}$ , we calculate the probability with which a legislator votes  $r$ :

$$1 - \Pr(i < \bar{i}) = 1 - \frac{r + \bar{l}}{2} + \frac{\lambda(r - \bar{l})}{2\mu}.$$

Political parties need to maximize the number of legislators who vote for their policy platform. The political parties' optimal decision when there is weak social pressure is deduced from the following optimization problems:

$$\begin{aligned} \underset{l \in [\bar{L} - \varepsilon, \bar{L} + \varepsilon]}{Max} \quad & \Pr(i < \bar{i}) & \underset{r \in [\bar{R} - \varepsilon, \bar{R} + \varepsilon]}{Max} \quad & 1 - \Pr(i < \bar{i}). \end{aligned} \quad (2.9)$$

We assume that parties perfectly anticipate candidates' incentives, that is, parties foresee when candidates face strong or weak social pressure. This simplifying assumption excludes the possibility of parties strategically affecting the level of social pressure.

The following proposition describes the optimal policy proposals for the parties. We find that parties' optimal policies depend on whether candidates are responsible (which implies that they assign more weight to ideology than to reputation  $\mu > \lambda$ ) or not.

**Proposition 5** *In the weak party discipline scenario,*

*if candidates are responsible ( $\mu > \lambda$ ), then there is platform convergence between the political parties, that is  $l^* = \bar{L} + \varepsilon$  and  $r^* = \bar{R} - \varepsilon$ .*

*If candidates are not responsible ( $\mu < \lambda$ ), then parties set their platform as in the case of strong party discipline, except when there is weak social pressure, in which case  $l^* = \bar{L} + \varepsilon$  and  $r^* = \bar{R} + \varepsilon$ .<sup>12</sup>*

---

<sup>12</sup> Only when  $\mu = \lambda$  is every  $r \in [\bar{R} - \varepsilon, \bar{R} + \varepsilon]$  an optimal solution for party  $R$ . We skip this case to avoid the multiplicity of predictions.

**Proof.** When there is weak social pressure, parties solve the optimization problems in (2.9), the first derivatives of which are

$$\frac{\partial \Pr(i < \bar{i})}{\partial l} = \frac{1}{2} + \frac{\lambda}{2\mu}; \quad \frac{\partial(1 - \Pr(i < \bar{i}))}{\partial r} = -\frac{1}{2} + \frac{\lambda}{2\mu}. \quad (2.10)$$

Suppose first that  $\mu > \lambda$ . If there is weak social pressure, candidates' top option regarding party affiliation  $h$  and legislative vote  $p$  is either  $(h, p) = (R, r)$  or  $(h, p) = (R, l)$ , i.e., running for office with party  $R$  and possibly breaking party discipline. Then, by (2.10),  $\frac{\partial \Pr(i < \bar{i})}{\partial l} > 0$  which implies that party  $L$ 's optimal policy is  $l^* = \bar{L} + \varepsilon$  and  $\frac{\partial(1 - \Pr(i < \bar{i}))}{\partial r} < 0$  which implies that party  $R$ 's optimal policy is  $r^* = \bar{R} - \varepsilon$ . According to Proposition 2, for these policies to be optimal in a weak party discipline scenario, there must be weak social pressure which implies that condition  $\pi_R - \pi_L > \lambda(r^* - l^*)^2$  holds. Substituting  $r^*$  and  $l^*$ ,  $\pi_R - \pi_L > \lambda(\bar{R} - \bar{L} - 2\varepsilon)^2$ . If there is strong social pressure, however, parties behave as in the case of strong party discipline. Strong social pressure implies that condition  $\pi_R - \pi_L > \lambda(\bar{R} - \bar{L} - 2\varepsilon)^2$  does not hold, or equivalently,  $\pi_R - \pi_L \leq \lambda(\bar{R} - \bar{L} - 2\varepsilon)^2$ . Substituting  $\mu > \lambda$ , we deduce that  $\lambda(\bar{R} - \bar{L} - 2\varepsilon)^2 < \mu(\bar{R} - \bar{L} - 2\varepsilon)^2$  and so, when  $\pi_R - \pi_L \leq \lambda(\bar{R} - \bar{L} - 2\varepsilon)^2$ , then  $\pi_R - \pi_L < \mu(\bar{R} - \bar{L} - 2\varepsilon)^2$ , which implies that there are low ambition opportunities. Then, according to Proposition 4, parties' optimal policies are  $l^* = \bar{L} + \varepsilon$  and  $r^* = \bar{R} - \varepsilon$  as well.

Suppose, secondly, that  $\mu < \lambda$ . If there is weak social pressure, candidates' top option regarding party affiliation  $h$  and legislative vote  $p$  is either  $(h, p) = (R, r)$  or  $(h, p) = (R, l)$ , i.e., running for office with party  $R$  and possibly breaking party discipline. Then, by (2.10),  $\frac{\partial \Pr(i < \bar{i})}{\partial l} > 0$  which implies that party  $L$ 's optimal policy is  $l^* = \bar{L} + \varepsilon$  and  $\frac{\partial(1 - \Pr(i < \bar{i}))}{\partial r} > 0$  which implies that party  $R$ 's optimal policy is  $r^* = \bar{R} + \varepsilon$ . According to Proposition 2, for this pair of policies to be optimal in a weak party discipline scenario, there must be weak social pressure, that is, condition  $\pi_R - \pi_L > \lambda(r^* - l^*)^2$  holds. Substituting the optimal policies,  $\pi_R - \pi_L > \lambda(\bar{R} - \bar{L})^2$ . If there is strong social pressure, however, parties behave as in the case of strong party discipline. Strong social pressure implies that condition  $\pi_R - \pi_L > \lambda(\bar{R} - \bar{L})^2$  does not hold, or equivalently  $\pi_R - \pi_L \leq$

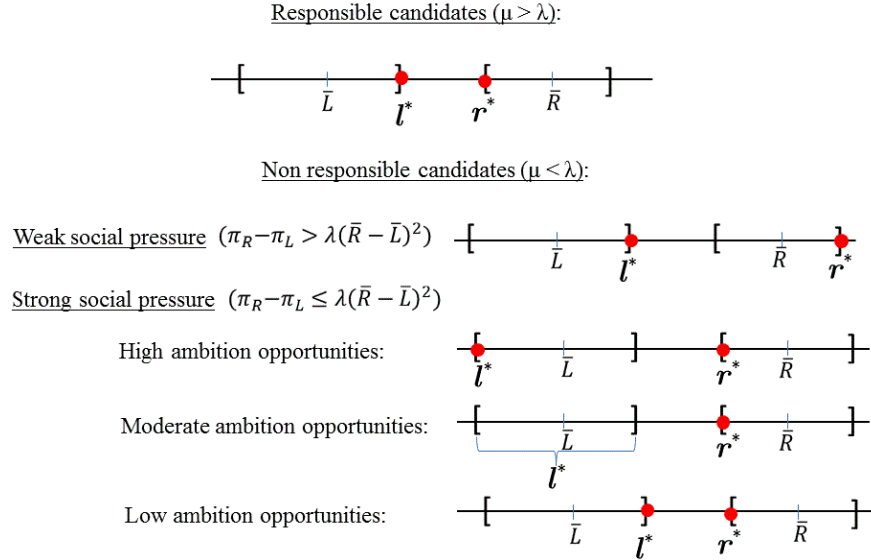
$\lambda(\bar{R}-\bar{L})^2$ . Since  $\mu < \lambda$ , then  $\mu(\bar{R}-\bar{L})^2 < \lambda(\bar{R}-\bar{L})^2$  and thus, when  $\pi_R - \pi_L \leq \lambda(\bar{R}-\bar{L})^2$ , either  $\pi_R - \pi_L > \mu(\bar{R}-\bar{L})^2$  or  $\pi_R - \pi_L \leq \mu(\bar{R}-\bar{L})^2$  which implies that the three cases described in Proposition 4 can occur. ■

The the reasoning behind Proposition 5 is the following: when party  $L$  is aware of candidates' weak social pressure, it sets its policy at the most moderate position,  $l^* = \bar{L} + \varepsilon$ . This way, party  $L$  provides additional ideological incentives to switch and, at the same time, the party minimizes the distance between the parties' proposals, which reduces the reputation cost of switching on legislative votes. When party  $R$  is aware of candidates' weak social pressure, it sets its platform either at its most moderate position,  $r^* = \bar{R} - \varepsilon$ , or at its most extreme position,  $r^* = \bar{R} + \varepsilon$  depending on whether the candidates are responsible or not. If candidates are responsible ( $\mu > \lambda$ ), they care more about their ideology than about their reputation. In this case, given that eventual switching on legislative votes arises on the left-wing side of the policy space, party  $R$  discourages switching by setting a moderate platform. Thus, the optimal policy proposal for party  $R$  is in this case the most moderate  $r^* = \bar{R} - \varepsilon$ , which results in policy convergence between the parties' platforms. When candidates are non-responsible ( $\mu < \lambda$ ), they are more concerned about their reputation than about their ideology. Then, party  $R$  can discourage switching by increasing the distance between the two parties' proposals  $r - l$ . In doing so, potential switchers running in the election with party  $R$  would suffer from a larger reputation cost. Therefore, the optimal policy platform for party  $R$  is the most extreme one  $r^* = \bar{R} + \varepsilon$ , which results in policy divergence between the parties' platforms.

When there is strong social pressure and candidates are responsible, candidates' decisions are driven by their ideology and this results in policy convergence. However, when there is strong social pressure and candidates are non-responsible, parties behave as in the case of strong party discipline with party  $R$  locating at  $r^* = \bar{R} - \varepsilon$  to reduce the ideological cost, and party  $L$  locating either at  $l^* = \bar{L} - \varepsilon$  or at  $l^* = \bar{L} + \varepsilon$  (depending on whether  $\pi_R - \pi_L$  is large or not, respectively, as explained in Proposition 4).

Figure 3 illustrates the optimal locations of both policy platforms. We show that

policy convergence is mainly due to responsible candidates who assign more weight to their ideology than to their reputation.



**Figure 3:** Optimal party platforms under weak party discipline

### 2.4.3 Party discipline and policy convergence

We compare the two scenarios analyzed above and provide some discussion on the conditions under which it is easier to sustain policy convergence.

Note that in the weak party discipline scenario we find a sufficient condition for policy convergence, namely the condition of responsible candidates, which means that candidates care more about ideology than about their reputation. Thus, if candidates are responsible, there is always platform convergence in the weak party discipline scenario. In the strong party discipline scenario, however, policy convergence is only induced by relatively low ambition opportunities.

We compare the two scenarios, weak party discipline and strong party discipline, in terms of the degrees of convergence versus divergence as follows:

**Proposition 6** *Policy convergence in the weak and strong party-discipline scenarios*

*compares as follows:*

*Suppose that candidates are responsible ( $\mu > \lambda$ ), then the weak party-discipline scenario always pushes convergence of parties' platforms, whereas the strong party-discipline scenario can generate divergence.*

*Suppose that candidates are not responsible ( $\mu < \lambda$ ), then when the weak party-discipline scenario generates divergence, the strong party-discipline scenario generates divergence as well, and when the weak party-discipline scenario generates convergence, the strong party-discipline scenario generates convergence as well.*

**Proof.** When  $\mu > \lambda$ , Proposition 5 shows that there is policy convergence in the weak party-discipline scenario. However, by Proposition 4, in the strong party-discipline scenario with moderate and high ambition opportunities, that is, when  $\pi_R - \pi_L > \mu(\bar{R} - \bar{L} - 2\varepsilon)^2$ , parties' optimal decisions imply policy divergence.

When  $\mu < \lambda$ , Proposition 5 shows that if  $\pi_R - \pi_L > \lambda(\bar{R} - \bar{L})^2$ , the weak party-discipline scenario generates policy divergence. In this case,  $\mu < \lambda$  and  $\pi_R - \pi_L > \lambda(\bar{R} - \bar{L})^2$  imply that  $\pi_R - \pi_L > \mu(\bar{R} - \bar{L})^2$ , i.e., there are high ambition opportunities and Proposition 4 shows that there is also policy divergence in the strong party discipline scenario. Finally, when  $\mu < \lambda$  but  $\pi_R - \pi_L \leq \lambda(\bar{R} - \bar{L})^2$ , Proposition 5 shows that the strong and the weak party-discipline scenarios display equal predictions. ■

This result suggests that the weak party-discipline scenario is more efficacious in generating policy-convergence than the strong party-discipline scenario.

## 2.5 Conclusion

We have constructed a model of electoral competition involving two parties, where candidates differ in their ideal policies and maximize their utility, which is a function of the payoffs they get from satisfying their ambition, less some ideological cost, measured by the disutility they derive from voting for a policy that differs from their ideal one, and a reputation cost associated with switching in their legislative votes.

The purpose of the paper was two-fold. First, we analyzed candidates' incentives regarding their party affiliation, as well as elected candidates' incentives to deviate from party-line voting, in two different political scenarios: one in which there is strong party discipline and those legislators who deviate from party-line voting face a disciplinary penalty, and another one where party discipline is weak. Second, we investigated whether politicians' incentives to potentially deviate from party-line voting once elected may impact parties' announced policy platforms. This allowed us to study the conditions under which policy convergence is achieved in the two political scenarios.

Our analysis yielded interesting results for discussion. While it is true that switchers only arise in the weak party discipline scenario, and provided that one of the parties holds a sufficiently high opportunistic advantage, we have shown that weak party discipline is more favorable to achieving policy convergence to the center. This result calls for a deeper reflection on party switching by legislators and the conception of it as an undesirable phenomenon for the electorate, as elected candidates not only misrepresents voters' intentions but also generate unexpected legislative outcomes. Our results show that weak party discipline and the absence of disciplinary tools does not always exert such a negative impact. In particular, when candidates' ideological incentives are strong as compared to their reputation cost for not toeing the party line, weak party discipline exerts a positive effect since it induces convergence of policy platforms toward the ideology that better represents the electorate.

In the proposed setting, we find two reasons why a political party opts for policy divergence that have not been recognized in the literature so far. The reasons are as follows:

i) On the one hand, the party with an electoral disadvantage tries to draw additional candidates to its party label by offering a differentiated policy platform. Parties foresee that candidates' *ambition* leads them to opt for the party with better electoral prospects, especially when parties' platforms are close to each other. Then, the party with an electoral disadvantage may opt for offering a differentiated policy that encourages candidates

to forego their ambition opportunities in exchange for ideological closeness.

ii) On the other hand, the party with an electoral advantage tries to avoid switching behavior by offering a differentiated policy platform. The greater candidates' deviation from party-line voting, the higher the *reputation* cost associated with switching in legislative votes. Then, the party with an electoral advantage may opt for offering a differentiated policy to discourage switching behavior.

In sum, we have shown that there are two features of candidates that motivate policy divergence: candidates' desire to fulfill their ambition both in strong and weak party discipline scenarios, and candidates' concerns about their reputation in a weak party discipline scenario. Against the theory of pure ideological candidates and the robustness of the policy convergence result (of the Downsian prediction), we find that human psychological needs, such as strong ambition and strong concern about one's own reputation, lead to alternative theories that can explain why political parties do not always converge to the policy representing the social optimum.

The findings of this study also raise interesting questions for future research. An important one would be to analyze the effects of different electoral and legislative rules on politicians' incentives to switch parties, as one might think that different political systems—like candidate-centered systems (such as single-member district systems or open-list proportional representation systems), or party-centered systems (such as closed-list proportional representation systems)—may offer different incentives for the frequency and patterns of party switching. This is an issue that has already been highlighted in the literature (Desposato, 1997; Heller and Mershon, 2005; McLaughlin, 2011), but we are not aware of any theoretical contribution analyzing it, and existing empirical research has yet to agree fully on the extent to which electoral rules increase or decrease incentives for switching.

Another interesting extension of the model would be to encompass the possibility that potential switchers are not limited to supporting one of the existing platforms, but may create an independent platform when legislating. This is, for instance, a widespread

phenomenon at the local level. One might expect that in this scenario, the number of party switchers would be larger. Moreover, the fact that politicians may become independent implies that ideological reasons will play a major role when deciding to deviate or not from party-line voting and, therefore, switching on legislative votes may emerge only among moderate candidates. This is an issue worth studying.

One potential criticism of our work is that the responsibility level of the legislator may be difficult for authorities to discern. Responsibility indicates that candidates are more concerned about ideology than about their reputation. However, one would expect that cultural and sociodemographic characteristics, such as education or population size, may have an impact on how politicians evaluate their ideology versus their reputation. From this perspective, we learn that when candidates highly care about a party's ideology, the weak party discipline scenario leads to policy convergence whereas the strong party discipline can encourage divergence, as we have already explained.

Finally, although it is common in many democracies that elected legislators do not follow party-line voting or abandon one party and join another, even during the legislative term, to date economists and political scientists have done little theoretical research into party switching. We hope that this study of switching by legislators and party policy positions can enrich our understanding of political parties, party discipline, and policy making, and will open the door to further research into that area.



# Bibliography

- [1] Aldrich, J.H. and Bianco, W.T. (1992). “A Game-theoretic Model of Party Affiliation of Candidates and Office Holders.” *Mathematical and Compute Modelling*, 16: 103-116.
- [2] Ansolabehere, S., Leblanc, W. and Snyder, J.M. (2012). “When parties are not teams: party positions in single-member district and proportional representation systems.” *Economic Theory*, 49: 521-547.
- [3] Ansolabehere, S., Snyder, J.M., and Stewart, C. (2001). “Candidate Positioning in U.S. House Elections.” *American Journal of Political Science*, 45: 136-59
- [4] Ansolabehere, S. and Snyder, J.M. (2000). “Valence Politics and Equilibrium in Spatial Election Models.” *Public Choice*, 103: 327- 336.
- [5] Aragonés, E. and Palfrey T.R. (2002). “Mixed Equilibrium in a Downsian Model with a Favored Candidate.” *Journal of Economic Theory*, 103: 131-161.
- [6] Besley, T. and Coate S. (1997). “An Economic Model of Representative Democracy.” *Quarterly Journal of Economics*, 112: 85–114.
- [7] Bernhardt, D., Duggan, J. and Squintani, F. (2009). “The case for responsible parties.” *American Political Science Review*, 103: 570–587.
- [8] Bowler, S., Farrell, D.M. and Katz, R.S. (1999). “Party Cohesion, Party Discipline and Parliaments.” In: *Party Discipline and Parliamentary Government*. Editors: Bowler, S., Farrell, D.M. and Katz, R.S. Columbus: The Ohio State University Press.

- [9] Callander, S. (2005). "Electoral Competition in Heterogeneous Districts." *Journal of Political Economy*, 113: 1116–1145.
- [10] Calvert, Randall L. (1985). "Robustness of the Multidimensional Voting Model: Candidate Motivations, Uncertainty, and Convergence." *American Journal of Political Science*, 29: 69–95.
- [11] Cox, G.W., McCubbins, M.D. (1994). "Bonding, Structure, and the Stability of Political Parties: Party Government in the House." *Legislative Studies Quarterly*, 19: 215-231.
- [12] Cox, G.W. and Rosenbluth, F. (1995). "Anatomy of a split: the Liberal Democrats of Japan." *Electoral Studies* 14: 355-376.
- [13] Desposato, S.W. (2006). "Parties for Rent? Ambition, Ideology, and Party Switching in Brazil's Chamber of Deputies." *American Journal of Political Science*, 50: 62-80.
- [14] Downs, A. (1957). *An Economic Theory of Democracy*. 1<sup>a</sup> ed. New York: Harper & Row Publishers.
- [15] Groseclose, T. (2001). "A Model of Candidate Location When One Candidate Has a Valence Advantage." *American Journal of Political Science*, 45: 862-886.
- [16] Hall, A.B. (2015). "What Happens When Extremists Win Primaries?" *American Political Science Review*, 109: 18-42.
- [17] Heller, W.B. and Mershon, C. (2005). "Party switching in the Italian Chamber of Deputies, 1996-2001." *Journal of Politics*, 67: 536-559.
- [18] Heller, W.B. and Mershon, C. (2008). "Dealing in Discipline: Party Switching and Legislative Voting in the Italian Chamber of Deputies, 1988–2000." *American Journal of Political Science*, 52: 910-925.

- [19] Heller, W.B. and Mershon, C. (2009). "Taking Stock of Party Switching." In: Political Parties and Legislative Party Switching. Palgrave Macmillan.
- [20] Hotelling, H. (1929). "Stability in Competition." *The Economic Journal*, 39: 41-57.
- [21] Huang H. (2010). "Electoral Competition When Some Candidates Lie and Others Pander." *Journal of Theoretical Politics*, 22: 333-358.
- [22] Kiewiet, D.R. and McCubbins, M.D. (1991). *The Logic of Delegation: Congressional Parties and the Appropriations Process*. Chicago: University of Chicago Press.
- [23] Klingemann, H-D., Volkens A., Bara J., Budge I. and D. McDonald M. (2006). *Mapping Policy Preferences II: Estimates for Parties, Electors and Governments in Central and Eastern Europe, European Union and OECD 1990-2003*. New York: Oxford University Press.
- [24] Laver, M. , Benoit, K. (2003). "The evolution of party systems between elections." *American Journal of Political Science*, 47: 215-233.
- [25] Mainwaring, S. and Pérez Liñan, A. (1997). "Party Discipline in the Brazilian Constitutional Congress." *Legislative Studies Quarterly*, 22: 453-483.
- [26] Martínez-Mora, F., and Puy, M.S. (2014). "The determinants and electoral consequences of asymmetric preferences." *European Journal of Political Economy*, 33: 85-97.
- [27] McLaughlin, E. (2011). "Electoral regimes and party-switching: Floor-crossing in South Africa's local legislatures." *Party Politics*, 18: 563-579.
- [28] Mejía-Acosta, A. (2004). *Ghost Coalitions: Economic Reforms, Fragmented Legislatures and Informal Institutions in Ecuador (1979-2002)*. PhD. Dissertation. Notre Dame: Department of Political Science, University of Notre Dame.

- [29] Mershon, C. (2014). Legislative Party Switching. The Oxford Handbook of Legislative Studies. Edited by Shane Martin, Thomas Saalfeld, and Kaare W. Strøm. Oxford University Press.
- [30] Mershon, C., and Heller, W.B. (2009). Integrating theoretical and empirical models of party switching. Political Parties and Legislative Party Switching. Palgrave Macmillan, US.
- [31] Mershon, C., and Shvetsova, O. (2008). “Parliamentary Cycles and Party Switching in Legislatures.” *Comparative Political Studies*, 41: 99-127.
- [32] Mershon, C., and Shvetsova, O. (2014). “Change in parliamentary party systems and policy outcomes: Hunting the core.” *Journal of Theoretical Politics*, 26: 331-351.
- [33] Osborne, M. J. and Slivinski A. (1996). “A Model of Political Competition with Citizen Candidates.” *Quarterly Journal of Economics*, 111: 65-96.
- [34] Palfrey, T.R. (1984). “Spatial equilibrium with entry.” *Review of Economic Studies*, 51: 139-5.
- [35] Reed, S. R. and Scheiner, E. (2003). “Electoral Incentives and Policy Preferences: Mixed Motives Behind Party Defections in Japan.” *British Journal of Political Science*, 33: 469-490.
- [36] Snyder, J. and Ting, M. (2001). “Party Labels, Roll-Call Votes, and Elections.” *Political Analysis*, 11: 419-444.
- [37] Tomás Mallén, B. (2002). *Transfugismo parlamentario y democracia de partidos*. Madrid: Centro de Estudios Políticos y Constitucionales.
- [38] Turan, I. (1985). “Changing Horses in Midstream: Party Changers in the Turkish National Assembly.” *Legislative Studies Quarterly*, 10: 21-34.

- [39] Wittman, D.A. (1983). "Candidate Motivation: A Synthesis of Alternative Theories." *American Political Science Review*, 77: 142-157.

# Chapter 3

## Party Switching and Independent Politicians

### 3.1 Introduction

Democratic systems go hand in hand with political party systems. Politicians run in democratic elections as members of parties and, if they result elected, they hold office inasmuch as members of the same parties. However, legislative candidates and elected legislators can and sometimes do change official party affiliation, that is, switch.<sup>1</sup> Whereas legislative party switching is rare in some contexts (e.g. Australia or Norway), it is very common in others. Empirical literature has reported evidence of party switching by legislators or parliamentarians in several countries including Brazil (Desposato, 2006), Canada (Mershon and Shvetsova, 2014), Ecuador (Mejia Acosta, 2004), Italy (Heller and Mershon, 2005, 2008, 2009 and Mershon and Shvetsova, 2009, 2014), Japan (Cox and Rosenbluth, 1995 and Reed and Scheiner, 2003), Nepal (Desposato, 2006), the Philippines (Desposato, 2006), Russia (Mershon and Shvetsova, 2008), Turkey (Turan, 1985), the US (Mershon and Shvetsova, 2014), and Ukraine (Desposato, 2006; Mershon and Shvetsova,

---

<sup>1</sup>Switcher is not only a legislator who voluntarily changes his political party label during the legislative term, but also a legislator who deviates from party-line voting.

2008).

Apart from the political magnitude of the phenomenon, parliamentary groups directly suffer the loss or gain of their members as a consequence of the switching practice. That said, it is not rare to claim that parliamentary mobility during the legislature is specially problematic and can suppose a serious problem for the governance of a country (Herron, 2002; Hicken, 2006; Reilly 2007). In Spain, for instance, party switchers have brought down local governments (Tomás Mallén 2002).

According to Heller and Mershon (2009), two types of switches can arise among politicians: inswitches and outswitches. In the former case a politician adopts a new party label and leaves his previous party affiliation, while in the later the politician abandons a party label without being affiliated with a new one. Evidence highlights that the number of outswitches during the legislative term should not be ignored in many countries. Thus, examples of independent or nonpartisan politicians who arise during the legislative term can be found in Italy (Heller and Mershon, 2005, 2008, 2009 and Pinto, 2015), Japan (Kato and Yamamoto, 2012), Spain (Tomás-Mallén, 2002), Taiwan (Fell, 2014) and United States (Nicholson, 2005), among others.<sup>2</sup>

In this paper we focus on the second type of switching behaviour, i.e., on those legislators that once they have been elected under a certain political label they decide to switch and become independent or nonpartisan legislators. Our aim is to explore the incentives that are behind politicians who deviate from their party-line voting in order to become independent when legislating. For this purpose, we construct a bipartisan behavioral spacial model of electoral competition in which candidates are ambitious (i.e., they care for their career opportunities) and differ in their ideal policies. Besides, switching is associated to certain costs. In particular legislators suffer from: i) an ideological cost when voting in parliament for a policy that is different from their ideal policy, ii) a reputation cost associated to the loss of credibility in front of voters and other partisan members,

---

<sup>2</sup>In the US, for instance, Senator Jim Jeffords defected from the Republican Party in 2001 and became an independent politician. This changed the balance of power in the US Senate, giving the Democrats a majority control of the Senate.

which may truncate candidates' political career and iii) a disciplinary fine imposed by the parties to those legislators that switch in their legislative vote. Candidates make decisions regarding their party label and their subsequent legislative vote in parliament.

Our results show that there are two different scenarios which illustrate switching behavior. If political parties impose sufficiently high penalties to those legislators who switch at their legislative vote (and/or politicians' reputation cost is high), then switching behavior only occurs at the extremes of the ideological spectrum. On the contrary, if the penalty imposed is low, switching behavior arises at both the extremes and the political center.

In the previous chapter we showed that switching behavior from a political party to another only arises on one of the policy sides. That is, only those legislators that run for office with the party that provides additional opportunistic advantage have incentives to switch party and vote with the party with which they find closer ideological identity. In contrast, in this chapter, legislators can become independent and they do not need to follow one or the other party line but choosing their optimal policy. In this new context we find that switching behavior can appear on both sides of the ideological dimension and also at the political center. Moreover, interestingly, we find that switching behaviour can emerge for purely ideological reasons. The fact that politicians are able to become independents and choose their optimal policies makes switching to arise even when ambition benefits are absent.

There are few contributions in the literature analyzing party switching from a theoretical perspective. As far as we know, the first important theoretical contribution is the work by Aldrich and Bianco (1992), followed by Laver and Benoit (2003), Deposato (2006), Heller and Mershon (2008), Mershon and Heller (2009) and Mershon and Shvetsova (2014).<sup>3</sup> All these works highlight both political ambition and the degree of ideological compatibility between politicians' ideal policy and parties' ideology as being

---

<sup>3</sup>See Mershon (2014) for an excellent survey on party switching.



the driving forces behind switching by politicians.<sup>4</sup> However, none of these works have made the distinction between legislators that decide to abandon one party to enter another one or those who decide to switch party and become nonpartisan politicians. Thus, our paper contributes to the literature by offering some new lens with which to analyze switching incentives by politicians. The fact that we account for a unidimensional ideological space over which legislators have well-defined preferences is a novel feature of the model which provides additional insights in switching behavior.

The rest of the paper is organized as follows. Section 2 presents the model. Section 3 characterizes candidates' switching incentives on their legislative vote and presents the main results of the paper. Finally, Section 4 concludes.

## 3.2 The Model

An election should be held to elect a legislative body under proportional representation rule (e.g., congress, parliament, local governments, etc.). There are two political parties,  $L$  and  $R$ . Each political party is associated to a policy proposal that is denoted by  $l$  and  $r$  respectively, where  $l, r \in [0, 1]$  and  $l < r$ . Party  $L$  is the “leftist” and party  $R$  is the “rightist”. There is a set of candidates who decide whether to run for office with one or the other political party, namely, they decide their party label.

Once a number of candidates become legislators in parliament, each one submits a legislative vote. Each legislator selects one of the following two options: i) voting for their own party proposal; ii) voting for a different policy proposal. In this second case, the legislator does not toe the party line and we say that the legislator opts for switching at the legislative vote (or, equivalently, that opts for becoming independent).

We analyze candidates' decisions regarding their party label and their subsequent

---

<sup>4</sup>Empirical literature also identifies vote-seeking and office-seeking as a motivation for legislative switching (see Mershon, 2014 for a survey). It also highlights that political dynamics (Heller and Mershon, 2005; Mershon and Shvetsova, 2009, Pinto, 2015) and political competition during the legislative term (Laver and Benoit, 2003; Laver, 2005) also matter for understanding the phenomenon.

legislative vote. We do not account for a sequential decision since candidates possess perfect information about the parties' policy proposals when choosing their party label. Thus, we solve for the one shot decision in which candidates optimally decide their party label accounting for their subsequent legislative vote.

Each candidate decision is represented by the pair  $(h_i, p_i)$  where  $h_i$  describes the party with which the candidate runs for office  $h_i \in \{L, R\}$ , and  $p_i$  is the subsequent vote in parliament where  $p_i \in \{l, n_i\}$  if  $h_i = L$  with  $n_i \in [0, 1] \setminus \{l\}$  and  $p_i \in \{r, n_i\}$  if  $h_i = R$  with  $n_i \in [0, 1] \setminus \{r\}$ .

From the candidates' perspective we assume, without loss of generality, that it is more likely to get a seat in parliament when running for office with party  $R$  than when doing so with party  $L$ .<sup>5</sup> Let  $\pi_h$  be the probability of becoming a legislator when running for office with party  $h$ . Then, party  $R$  has a certain opportunistic advantage which translates into a higher probability of being elected  $\pi_L < \pi_R$ .

Each candidate has an ideal policy denoted by  $i \in [0, 1]$ . The preferences of each candidate are defined over the two individual decisions  $(h_i, p_i)$  and the associated payoff is the following

$$u_i(h_i, p_i) = \underbrace{\pi_{h_i}}_{\text{ambition}} - \underbrace{\mu(i - p_i)^2}_{\text{ideological cost}} - \underbrace{\lambda(\sigma_{h_i} - p_i)^2}_{\text{reputation cost}} - \underbrace{\mathbf{1}_A F}_{\text{party penalty}},$$

where  $\sigma_{h_i}$  is the policy platform of the political party with which the candidate decides to run for office,  $\sigma_{h_i} = l$  when  $h_i = L$  and  $\sigma_{h_i} = r$  when  $h_i = R$ ,  $\mu, \lambda > 0$  are the weights assigned to the ideological and the reputation cost respectively, and  $\mathbf{1}_A$  is an indicator function:

$$\mathbf{1}_A = \begin{cases} 1 & \text{if } \sigma_{h_i} \neq p_i \\ 0 & \text{if } \sigma_{h_i} = p_i \end{cases},$$

that assigns a penalty  $F > 0$  to those legislators that switch in their legislative vote and

---

<sup>5</sup>There can be several reasons that explain why one party has an advantage over the other. Among other reasons, it can be due to some incumbency advantage or to some valence advantage which, in both cases, translate into a better electoral prospect.

assigns no cost when the legislator toes the party line.

The first term of the above expression reflects ambition. We take  $\pi_{h_i}$  as an indicator of candidates' ambition, which implies that, everything being equal, candidates prefer the party with which it is more likely to become a legislator.

The second term is the ideological cost which measures the disutility derived from voting for a policy that is different from the ideal policy  $i$  of the candidate. We refer to this as ideological cost because its magnitude depends on each candidate's ideal policy. When a legislator becomes independent, the legislator selects the policy  $n_i$  that maximizes his own utility.

The third term is the reputation cost which measures the disutility derived from switching on the legislative vote. Observe that this third term can be 0 when  $\sigma_{h_i} = p_i$ , or equal to either  $\lambda(l - n_i)^2$  or  $\lambda(r - n_i)^2$  when the legislator becomes an independent politician. This cost captures the loss in reputation of a legislator when breaking party discipline, which may truncate the politician's career.

The fourth term is the penalty or disciplinary fine imposed by the parties to those legislators that switch in their legislative vote.<sup>6</sup>

Each candidate can select one out of the following four strategies:

1. Running for office with party  $L$  and not switching afterwards  $(h_i, p_i) = (L, l)$ . In this case, we denote the candidate's utility by  $u_i(L, l)$  where

$$u_i(L, l) = \pi_L - \mu(i - l)^2.$$

2. Running for office with party  $R$  and not switching afterwards  $(h_i, p_i) = (R, r)$ . In

---

<sup>6</sup>In the real world, the threat of punishment is not absent. Party leaders control several disciplinary tools, including ballot access (Cox and McCubbins, 1994), committee positions (Kiewiet and McCubbins, 1991), advancement within the party and increased influence over party policy positions and access to legislative perks (Bowler et al., 1999).

this case, we denote the candidate's utility by  $u_i(R, r)$  where

$$u_i(R, r) = \pi_R - \mu(i - r)^2.$$

3. Running for office with party  $L$  and switching  $(h_i, p_i) = (L, n_i)$ . In this case, we denote the candidate's utility by  $u_i(L, n_i)$  where

$$u_i(L, n_i) = \pi_L - \mu(i - n_i)^2 - \lambda(l - n_i)^2 - F.$$

4. Running for office with party  $R$  and switching  $(h_i, p_i) = (R, n_i)$ . In this case, we denote the candidate's utility by  $u_i(R, p_i)$  where

$$u_i(R, n_i) = \pi_R - \mu(i - n_i)^2 - \lambda(r - n_i)^2 - F.$$

Note that  $n_i$  is the optimal policy for those legislators who become independent, and will be computed in Section 3.3. Thus, we will refer to  $n_i = p_i^*(L)$  the optimal policy when the legislator has been elected under the label of party L and  $n_i = p_i^*(R)$  the optimal policy when elected under the label of party R.

### 3.3 Results

When switching in the legislative vote, the legislator selects the policy proposal that maximizes his utility. The following lemma describes the legislators' optimal policies when they become switchers,  $p_i^*(L)$  and  $p_i^*(R)$ .

**Lemma 7** *A politician of ideology  $i$  who decides to switch party, selects the following policies*

$$p_i^*(L) = \frac{\mu i + \lambda l}{\mu + \lambda} \text{ if he ran for office with party } L$$

$$p_i^*(R) = \frac{\mu i + \lambda r}{\mu + \lambda} \text{ if he ran for office with party } R.$$

**Proof.** From the first order conditions of the candidates' maximization program it is deduced that

$$-2\mu p_i^* + 2\lambda p_i^* - 2\lambda p_i^* + 2\lambda \sigma_{h_i} = 0.$$

And, thus:

$$p_i^* = \frac{\mu i + \lambda \sigma_{h_i}}{\mu + \lambda},$$

from where:

- if  $\sigma_{h_i} = l$  (due to  $h_i = L$ ), then  $p_i^* = p_i^*(L) = \frac{\mu i + \lambda l}{\mu + \lambda}$
- if  $\sigma_{h_i} = r$  (due to  $h_i = R$ ), then  $p_i^* = p_i^*(R) = \frac{\mu i + \lambda r}{\mu + \lambda}$ .

■

From Lemma 1 it follows that when switching at the legislative vote, legislators optimally select a policy which is a convex combination of their own ideological position and that of the party with which they stood for the election. Note that the higher the weight assigned to the reputation cost  $\lambda$  with respect to the ideological cost  $\mu$ , the closer this policy is to the party's policy proposal.

According to this result above, we analyze the candidate decision on the party he would select to run for office conditional on switching afterwards. That is, we compare the following two terms  $u_i(L, p_i^*(L))$  and  $u_i(R, p_i^*(R))$ .

**Lemma 8** *There is a threshold*

$$\tilde{i} = \frac{r + l}{2} - \frac{(\pi_R - \pi_L)(\mu + \lambda)}{2(r - l)\mu\lambda}$$

such that for every candidate with ideology  $i \leq \tilde{i}$ , it holds  $u_i(L, p_i^*(L)) \geq u_i(R, p_i^*(R))$  and for every candidate with ideology  $i > \tilde{i}$ , it holds  $u_i(L, p_i^*(L)) < u_i(R, p_i^*(R))$ .

**Proof.** Comparing the utilities  $u_i(L, p_i^*(L))$  and  $u_i(R, p_i^*(R))$ :

$$\begin{aligned}
u_i(L, p_i^*(L)) \geq u_i(R, p_i^*(R)) &\Leftrightarrow \pi_L - \mu \left( i - \frac{\mu i + \lambda l}{\mu + \lambda} \right)^2 - \lambda \left( l - \frac{\mu i + \lambda l}{\mu + \lambda} \right)^2 - F \geq \\
&\geq \pi_R - \mu \left( i - \frac{\mu i + \lambda r}{\mu + \lambda} \right)^2 - \lambda \left( r - \frac{\mu i + \lambda r}{\mu + \lambda} \right)^2 - F \Leftrightarrow \\
&\Leftrightarrow \pi_R - \pi_L \leq \frac{\mu \lambda (r + l)(r - l) - 2\mu \lambda i(r - l)}{\mu + \lambda} \Leftrightarrow \\
&\Leftrightarrow \frac{(\pi_R - \pi_L)(\mu + \lambda)}{\mu} \leq \lambda(r + l)(r - l) - 2\lambda i(r - l) \Leftrightarrow \\
&\Leftrightarrow i \leq \frac{r + l}{2} - \frac{(\pi_R - \pi_L)(\mu + \lambda)}{2(r - l)\mu} \equiv \tilde{i}
\end{aligned} \tag{3.1}$$

■

We observe that all candidates with ideology below  $\tilde{i}$  prefer running for office with party L and switching to  $p_i^*(L)$  in their legislative vote than running for office with party R and switching in the legislative vote to  $p_i^*(R)$ . Those candidates with ideology above  $\tilde{i}$  prefer just the opposite.

Next, we compare candidates preferences between parties when they do not opt for switching behavior. That is we compare  $u_i(L, l)$  and  $u_i(R, r)$ .

**Lemma 9** *There is a threshold*

$$\hat{i} = \frac{r + l}{2} - \frac{\pi_R - \pi_L}{2(r - l)\mu},$$

*such that for every candidate with ideology  $i \leq \hat{i}$ , it holds  $u_i(L, l) \geq u_i(R, r)$  and for every candidate with ideology  $i > \hat{i}$ , it holds  $u_i(L, l) < u_i(R, r)$ .*

**Proof.** Comparing the two utilities  $u_i(L, l)$  and  $u_i(R, r)$ , it is direct to check that

$$\begin{aligned}
u_i(L, l) &\geq u_i(R, r) \iff \pi_L - \mu(i - l)^2 \leq \pi_R - \mu(i - r)^2 \iff \\
\pi_R - \pi_L &\leq \mu[(i - r)^2 - (i - l)^2] \iff \\
2\mu i(r - l) &\leq \mu(r^2 - l^2) - (\pi_R - \pi_L) \iff \\
&\iff i \leq \frac{r + l}{2} - \frac{\pi_R - \pi_L}{2\mu(r - l)} \equiv \hat{i}.
\end{aligned}$$

■

The threshold  $\hat{i}$  in Lemma 9 results from comparing  $u_i(L, l)$  and  $u_i(R, r)$ , and defines the party with which the candidate decides to run for office in the elections provided he is not going to switch in their legislative vote afterwards. All candidates with an ideology below  $\hat{i}$  prefer running for office with party  $L$  and voting  $l$  in their legislative vote, while those candidates with  $i \geq \hat{i}$  prefer running for office with party  $R$  and voting  $r$  in the legislative vote.

Note that the two thresholds,  $\tilde{i}$  and  $\hat{i}$ , defined in lemmas 8 and 9 are located below the mean point of the parties policy proposals  $\frac{r+l}{2}$ . This implies that candidates' optimal decisions are not only ideological, but are also driven by their ambition. In particular, this means that there are more candidates who prefer running for office with party  $R$ , even if they opt for switching afterwards, due to their ambition incentives and the fact that party  $R$  provides an additional opportunistic advantage.

When comparing the two thresholds, it is immediate to show that  $\tilde{i} < \hat{i}$  given that for every  $\mu, \lambda > 0$ , it holds that  $\frac{\mu+\lambda}{\lambda} > 1$ . Therefore, when candidates opt for switching (over not switching) in the legislative vote stage, there is an additional fraction of them that prefer to run for office with party  $R$  over party  $L$ , those with ideology  $i \in (\tilde{i}, \hat{i})$ . We interpret that for these individuals the ideological cost diminishes substantially when switching (over not switching), and it compensates the additional reputation cost associated to switching.

Next we analyze the two most preferred options for those candidates with ideology below  $\tilde{i}$ . The following lemma describes their incentives to switch in the legislative vote.

**Lemma 10** *Consider the set of candidates with ideology  $i < \tilde{i}$ . Those of them with ideology  $i \in \left[ l - \frac{\sqrt{F(\mu+\lambda)}}{\mu}, l + \frac{\sqrt{F(\mu+\lambda)}}{\mu} \right]$  run for office with party  $L$  and vote for  $l$  in their legislative vote. All the remaining candidates run for office with party  $L$  and opt for switching afterwards.*

**Proof.** Comparing the utilities  $u_i(L, l)$  and  $u_i(L, p_i^*(L))$  we obtain:

$$\begin{aligned}
u_i(L, l) &\geq u_i(L, p_i^*(L)) \Leftrightarrow \pi_L - \mu(i-l)^2 \geq \\
&\geq \pi_L - \mu \left( i - \frac{\mu i + \lambda l}{\mu + \lambda} \right)^2 - \lambda \left( l - \frac{\mu i + \lambda l}{\mu + \lambda} \right)^2 - F \Leftrightarrow \\
&\Leftrightarrow -\mu(i-l)^2 \geq -\mu \frac{(\lambda i - \lambda l)^2}{(\mu + \lambda)^2} - \lambda \frac{(\mu l - \mu i)^2}{(\mu + \lambda)^2} - F \Leftrightarrow \\
&\Leftrightarrow -\mu(i-l)^2 \geq \frac{(i-l)^2 [-\mu\lambda(\mu + \lambda)]}{(\mu + \lambda)^2} - F \Leftrightarrow \\
&\Leftrightarrow \frac{\mu^2 (i-l)^2 - F(\mu + \lambda)}{(\mu + \lambda)} \leq 0 \Leftrightarrow (i-l)^2 \leq \frac{F(\mu + \lambda)}{\mu^2}.
\end{aligned}$$

This condition implies that those candidates for whom  $|i-l| \leq \frac{\sqrt{F(\mu+\lambda)}}{\mu}$  prefer  $(L, l)$  over  $(L, p_i^*(L))$ . Since either  $i < l$  or  $i > l$ , the above condition translates into  $l - \frac{\sqrt{F(\mu+\lambda)}}{\mu} \leq i \leq l + \frac{\sqrt{F(\mu+\lambda)}}{\mu}$ . ■

That is, we find that there is an interval around the policy of party  $l$  where candidates do not benefit from switching. Note that the size of this interval is increasing in the penalty that the party imposes over those legislators who do not toe the party line when voting in parliament.

We deduce a similar result for those candidates with ideology above  $\hat{i}$ . The following lemma describes their incentives to switch in their legislative vote.

**Lemma 11** *Consider the set of candidates with ideology  $i > \hat{i}$ . Those of them with ideology  $i \in \left[ r - \frac{\sqrt{F(\mu+\lambda)}}{\mu}, r + \frac{\sqrt{F(\mu+\lambda)}}{\mu} \right]$  run for office with party  $R$  and vote for  $r$  in*



their legislative vote. All the remaining candidates run for office with party  $R$  and opt for switching afterwards.

**Proof.** Comparing the utilities  $u_i(R, r)$  and  $u_i(R, p_i^*(R))$  we obtain:

$$\begin{aligned}
u_i(R, r) &\geq u_i(R, p_i^*(R)) \Leftrightarrow \pi_R - \mu(i - r)^2 \geq \\
&\geq \pi_R - \mu \left( i - \frac{\mu i + \lambda r}{\mu + \lambda} \right)^2 - \lambda \left( r - \frac{\mu i + \lambda r}{\mu + \lambda} \right)^2 - F \Leftrightarrow \\
&\Leftrightarrow -\mu(i - r)^2 \geq -\mu \frac{(\lambda i - \lambda r)^2}{(\mu + \lambda)^2} - \lambda \frac{(\mu r - \mu i)^2}{(\mu + \lambda)^2} - F \Leftrightarrow \\
&\Leftrightarrow -\mu(i - r)^2 \geq \frac{(i - r)^2 [-\mu\lambda(\mu + \lambda)]}{(\mu + \lambda)^2} - F \Leftrightarrow \\
&\Leftrightarrow \frac{\mu^2(i - r)^2 - F(\mu + \lambda)}{(\mu + \lambda)} \leq 0 \Leftrightarrow (i - r)^2 \leq \frac{F(\mu + \lambda)}{\mu^2}.
\end{aligned}$$

This condition implies that those candidates for whom  $|i - l| \leq \frac{\sqrt{F(\mu + \lambda)}}{\mu}$  prefer  $(R, r)$  over  $(R, p_i^*(R))$ . Since either  $i < r$  or  $i > r$ , the above condition translates into  $r - \frac{\sqrt{F(\mu + \lambda)}}{\mu} \leq i \leq r + \frac{\sqrt{F(\mu + \lambda)}}{\mu}$ . ■

According to the above results we observe that the higher the penalty  $F$ , the higher the weight assigned to the reputation cost  $\lambda$ , and/or the lower the ideological cost  $\mu$ , the less switching behavior arise.<sup>7</sup> That is, the penalty imposed by the party and the fear for their own reputation keep legislators loyal to their party line. However, when legislators are strongly ideological, they will opt for switching in their legislative vote.

According to the lemmas above, we also find that if the platforms of the political parties,  $l$  and  $r$ , are too close to the upper and lower bounds of the policy space, there

---

<sup>7</sup>The last effect is deduced from the fact that

$$\frac{\partial \frac{(\mu + \lambda)^{\frac{1}{2}}}{\mu}}{\partial \mu} = \frac{\frac{1}{2}(\mu + \lambda)^{-\frac{1}{2}}\mu - (\mu + \lambda)^{\frac{1}{2}}}{\mu^2},$$

from where

$$\frac{1}{2}(\mu + \lambda)^{-\frac{1}{2}}\mu - (\mu + \lambda)^{\frac{1}{2}} = \frac{\mu - 2(\mu + \lambda)}{2(\mu + \lambda)^{\frac{1}{2}}} < 0.$$

would be no switching behavior at the extremes of the ideological dimension. This occurs when  $l - \frac{\sqrt{F(\mu+\lambda)}}{\mu} < 0$  and  $r + \frac{\sqrt{F(\mu+\lambda)}}{\mu} > 1$ . We say that the platforms of the parties are moderate when  $l > \frac{\sqrt{F(\mu+\lambda)}}{\mu}$  and  $1 - r > \frac{\sqrt{F(\mu+\lambda)}}{\mu}$ . Note that in case of moderate platforms, switching behavior may arise at the extremes of the policy space. Besides, we believe that this is an equilibrium prediction in line to some well-known models of party endogenous location.<sup>8</sup>

It remains to be analyzed whether switching can arise at the center of the political spectrum, i.e., among those candidates with ideology  $i \in (\tilde{i}, \hat{i})$ . Notice that among all the candidates, the one with ideology  $\hat{i}$  supports the largest ideological cost when toeing the party line. Therefore  $\hat{i}$  is the centrist candidate with more incentives to switch in the legislative vote. If this candidate does not switch, then we can ensure that no other centrist candidate will switch. In the following lemma, we provide a sufficient condition on the party penalty that guarantees that there is no switching behavior at the electoral center.

**Lemma 12** *Consider the set of candidates with ideology  $i \in (\tilde{i}, \hat{i})$ . If  $F > \frac{\mu^2}{\mu+\lambda}(\hat{i} - r)^2$  no candidate switches party.*

**Proof.** A sufficient condition to avoid switching behavior at the electoral center is that the utility of candidate in  $\hat{i}$  be greater at  $u_i(L, l)$ , that is equal to  $u_i(R, r)$ , than at  $u_i(R, p_i^*(R))$ . From the comparisons of these expressions, we obtain that

$$u_i(R, r) \geq u_i(R, p_i^*(R)) \iff -\mu(\hat{i} - r)^2 \geq -\frac{\mu\lambda}{\mu + \lambda}(\hat{i} - r)^2 - F,$$

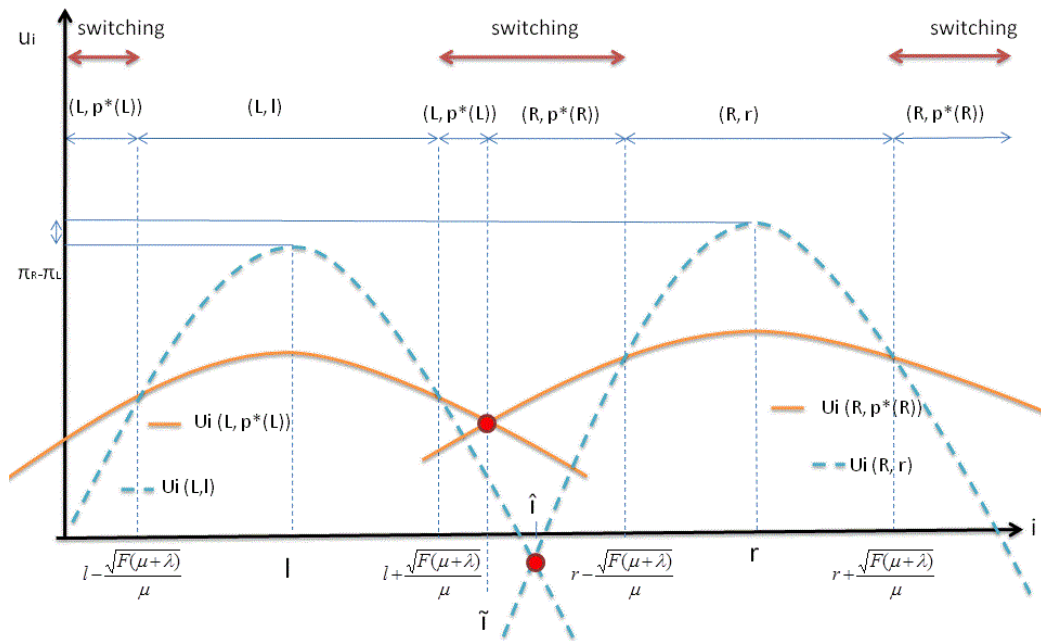
and solving for  $F$  we deduce  $F \geq \frac{\mu^2}{\mu+\lambda}(\hat{i} - r)^2 \equiv \tilde{F}$ . ■

This lemma indicates that when the party imposes high penalties to those legislators switching in their legislative vote and/or when their reputation cost is high, we may not

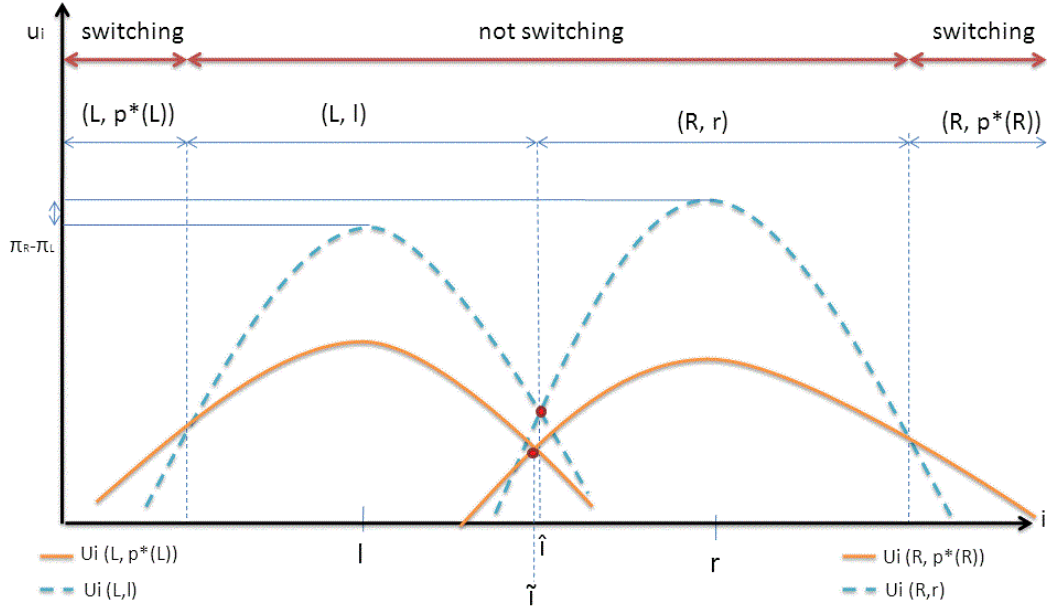
---

<sup>8</sup>This result is in coherence with the citizen-candidate approach which indicates that two too extreme parties cannot avoid the entry of a third party at the electoral center (Palfrey 1984; Osborne and Slivinsky, 1996; Besley and Coate, 1997).

observe switching behavior at the electoral center. Regarding the effect of the ideological cost  $\mu$  on the incentives to switch, this is ambiguous. On the one hand, the greater is  $\mu$ , the smaller is the distance between  $\hat{i}$  and  $r$  (and the smaller the term  $(\hat{i} - r)^2$ ). On the other hand, however, the larger is  $\mu$ , the more incentives arise to incur in switching behavior and the larger the term  $\frac{\mu^2}{\mu+\lambda}(\hat{i} - r)^2$ . Finally, the more centrist policy  $r$  is, the smaller the distance between  $\hat{i}$  and  $r$ , and the less switching behavior will arise at the electoral center.



**Figure 1:** Legislator's optimal decision when  $F < \frac{\mu^2}{\mu+\lambda}(\hat{i} - r)^2$ .



**Figure 2:** Legislator's optimal decision when  $F \geq \frac{\mu^2}{\mu+\lambda}(\hat{i} - r)^2$ .

Proposition 1 summarizes all the results regarding candidates incentives to switch party at their legislative vote.

**Proposition 1:** *If the platforms of the parties  $l$  and  $r$  are moderate, then there are two different configurations of legislative votes:*

*i) if  $F < \frac{\mu^2}{\mu+\lambda}(\hat{i} - r)^2$ , there is switching behavior among individuals both at the political center and at the extremes of the ideological spectrum.*

*ii) if  $F \geq \frac{\mu^2}{\mu+\lambda}(\hat{i} - r)^2$ , switching behavior can only arise at the extremes of the ideological spectrum.*

**Proof.** It is direct from Lemmas 11, 12 and 10. ■

Figure 1 and Figure 2 illustrate the two scenarios i) and ii) described in Proposition 1. These figures represent the utility achieved by the legislators in each of their four possible decisions for different values of  $F$ . The optimal decision for each legislator is the one providing the greatest utility. In both figures we observe that around the party

ideology there is an interval in which no legislator opts for switching. In Figure 2 these intervals overlap at the center, that is,  $r - \frac{\sqrt{F(\mu+\lambda)}}{\mu} < l + \frac{\sqrt{F(\mu+\lambda)}}{\mu}$ , so switching behavior arises only at the extremes of the ideological dimension. In Figure 1, however, switching behavior arises both at the extremes of the ideological spectrum and at the electoral center. Figure 1 also shows that switching behavior at the electoral center can occur among legislators of both political parties, party L and party R.

Finally, it is important to highlight that switching in our model can arise for purely ideological reasons. The fact that politicians are able to become independents and choose their optimal policies makes switching to occur even when the difference in the probabilities of success under both political platforms is very small. Consider for instance the limit case where there are no ambitious benefits, i.e.,  $\pi_R = \pi_L$ . This implies  $(i - r)^2 = \left(\frac{r-l}{4}\right)^2$  and  $\tilde{F}(\pi_R = \pi_L) = \frac{\mu^2}{\mu+\lambda} \left(\frac{r-l}{4}\right)^2$ . Thus, even in the absence of ambition benefits, switching behaviour arise at the political center and at the extremes (if  $F < \frac{\mu^2}{\mu+\lambda} \left(\frac{r-l}{4}\right)^2$ ) and only at the extremes of the ideological spectrum (if  $F \geq \frac{\mu^2}{\mu+\lambda} \left(\frac{r-l}{4}\right)^2$ ). Notice that the larger the distance between the two platforms the more likely that switching behaviour emerge both at the political center and at the extremes.

### 3.4 Conclusion

This paper analyzed politicians incentives to deviate from party-line voting in order to become independents.

We have presented a model of bipartisan electoral competition in which politicians make decisions regarding their party label and their subsequent legislative vote in parliament. In our model candidates face different incentives, mainly ambition, ideology and reputation. We also consider that both parties impose a penalty to those legislators who switch in their legislative vote.

Our results show that there are two different scenarios which illustrate switching behavior. Both scenarios show that the phenomenon always emerges among those politi-

cians located in the extremes of the ideological spectrum. Moreover, one of the scenarios also provides switching behavior at the political center. More precisely, we find that when political parties impose sufficiently high penalties to those legislators who switch at their legislative vote (and/or politicians' reputation cost is high), switching behavior never arises at the electoral center. That is, the penalty imposed by the party and the fear for their own reputation keep legislators of the electoral center loyal to their party line.

Interestingly, we also observe that switching behavior arises among politicians from both political parties. The fact that parties offer different career opportunities for politicians, does not exclude that even those politicians who run for office with the party with lower electoral advantage may incur in switching behavior. The difference in the career opportunities offered by parties only affect candidates' decision with respect to their party label: there is a higher fraction of candidates who prefer to run for office with the party that has an electoral advantage.

Our findings allow us to highlight that ideological factors may play an important role in explaining switching behaviour when potential switchers are allowed to become nonpartisan legislators. If the weight the legislator assigns to their ideology is sufficiently high so as to compensate the penalty and the reputation cost associated to switching, independent legislators will arise both at the electoral extremes and at the political center. The fact that party switching is here contemplated as a deviation from party-line voting makes switching behavior more attractive to strong ideological candidates. Moreover, even if ambition benefits are very small, party switching may occur, highlighting that switching can be explained in this model by purely ideological reasons.

# Bibliography

- [1] Aldrich, J.H. and Bianco, W.T. (1992). “A Game-theoretic Model of Party Affiliation of Candidates and Office Holders.” *Mathematical and Compute Modelling*, 16: 103-116.
- [2] Besley, T. and Coate, S. (1997). “An Economic Model of Representative Democracy.” *Quarterly Journal of Economics*, 112: 85–114.
- [3] Bowler, S., Farrell, D.M. and Katz, R.S. (1999). “Party Cohesion, Party Discipline and Parliaments”. In: *Party Discipline and Parliamentary Government*. Editors: Bowler, S., Farrell, D.M. and Katz, R.S. Columbus: The Ohio State University Press.
- [4] Cox, G.W. and McCubbins, M.D. (1994). “Bonding, Structure, and the Stability of Political Parties: Party Government in the House”. *Legislative Studies Quarterly*, 19: 215-231.
- [5] Cox, G.W. and Rosenbluth, F. (1995). “Anatomy of a split: the Liberal Democrats of Japan.” *Electoral Studies* 14: 355-376.
- [6] Desposato, S.W. (2006). “Parties for Rent? Ambition, Ideology, and Party Switching in Brazil’s Chamber of Deputies”. *American Journal of Political Science*, 50 (1): 62-80.
- [7] Fell, D. (2014). “Should I Stay or Should I Go? Patterns of Party Switching in Multiparty Taiwan”. *Journal of East Asian Studies*, 14: 31-52.

- [8] Heller, W. and Mershon, C. (2005). “Party Switching in the Italian Chamber of Deputies, 1996–2001”. *Journal of Politics*, 67(2): 536- 559.
- [9] Heller, W. and Mershon, C. (2008). “Dealing in Discipline: Party Switching and Legislative Voting in the Italian Chamber of Deputies, 1988–2000”. *American Journal of Political Science*, 52 (4): 910-925.
- [10] Heller, W. and Mershon, C. (2009). “Introduction: Legislative Party Switching, Parties, and Party Systems.” In: W. B. Heller & C. Mershon (Eds.), *Political Parties and Legislative Party Switching*. New York, NY: Palgrave Macmillan.
- [11] Heller, W. and Mershon, C. (2009). “Legislator Preferences, Party Desires: the impact of party switching on legislative party positions”. In: W. B. Heller & C. Mershon (Eds.), *Political parties and Legislative party switching*. New York, NY: Palgrave Macmillan.
- [12] Herron, E. S. (2002). “Causes and Consequences of Fluid Faction Membership in Ukraine”. *Europe-Asia Studies*, 54: 625–39.
- [13] Hicken, A. (2006). “Stuck in the Mud: Parties and Party Systems in Democratic Southeast Asia”. *Taiwan Journal of Democracy*, 2: 23–46.
- [14] Kato, J., Yamamoto K. (2012). “Party Switching, Partisan Dynamics, and Government Formation: Stability and Flux in a Dynamic Legislative Party System in Japan”. Paper prepared for presentation at the 2012 Annual Meetings of the American Political Science Association, New Orleans, LA, August 29 to September 2, 2012.
- [15] Kiewiet, D.R. and McCubbins, M.D. (1991). *The Logic of Delegation: Congressional Parties and the Appropriations Process*. Chicago: University of Chicago Press.
- [16] Laver, M. (2005). “Policy and the Dynamics of Political Competition”. *American Political Science Review*, 99(2): 263- 281.



- [17] Laver, M. , Benoit, K. (2003). “The evolution of party systems between elections.” *American Journal of Political Science*, 47(2): 215-233.
- [18] Mejía-Acosta, A. (2004). “Ghost Coalitions: Economic Reforms, Fragmented Legislatures and Informal Institutions in Ecuador (1979-2002)”. PhD. Dissertation. Notre Dame: Department of Political Science, University of Notre Dame.
- [19] Mershon, C. (2014). Legislative Party Switching. *The Oxford Handbook of Legislative Studies*. Edited by Shane Martin, Thomas Saalfeld, and Kaare W. Strøm. Oxford University Press.
- [20] Mershon, C., Heller, W. and (2009). “Integrating theoretical and empirical models of party switching”. In: W. B. Heller & C. Mershon (Eds.), *Political Parties and Legislative Party Switching*. New York, NY: Palgrave Macmillan.
- [21] Mershon, C. and Shvetsova, O. (2008). “Parliamentary Cycles and Party Switching in Legislatures”. *Comparative Political Studies*, 41 (1): 99-127.
- [22] Mershon, C. and Shvetsova, O. (2009). “Incentives for Party Switching and Stages of Parliamentary Cycles”. In: *Political Parties and Legislative Party Switching*, ed. W. B. Heller and C. Mershon. New York: Palgrave Macmillan.
- [23] Mershon, C. and Shvetsova, O. (2014). “Change in parliamentary party systems and policy outcomes: Hunting the core”. *Journal of Theoretical Politics*, 26(2): 331- 351.
- [24] Nicholson, S. P. (2005). “The Jeffords Switch and Public Support for Divided Government”. *British Journal of Political Science*, 35(2): 343- 356.
- [25] Osborne, M. J. and Slivinski, A. (1996). “A Model of Political Competition with Citizen Candidates”. *Quarterly Journal of Economics*, 111: 65–96.
- [26] Palfrey, T.R. (1984). “Spatial equilibrium with entry”. *Review of Economic Studies*, 51: 139-5.

- [27] Pinto, L. (2015). “The Time Path of Legislative Party Switching and the Dynamics of Political Competition: The Italian Case (1996- 2011)”. *The Journal of Legislative Studies*, 21(3): 323-341.
- [28] Reed, S. R. and Scheiner, E. (2003). “Electoral Incentives and Policy Preferences: Mixed Motives Behind Party Defections in Japan”. *British Journal of Political Science*, 33(3): 469- 490.
- [29] Reed, S. R., and Thies M. F. (2000). “The Consequences of Electoral Reform in Japan”. In: *Mixed-Member Electoral Systems: The Best of Both Worlds?*, edited by M. S. Shugart and M. P. Wattenberg. New York: Oxford University Press.
- [30] Reilly, B. (2007). “Political Engineering in the Asia-Pacific”. *Journal of Democracy*, 18: 58–72.
- [31] Sánchez de Dios, M. (1999). “Parliamentary Party Discipline in Spain”. In: *Party Discipline and Parliamentary Government*, edited by S. Bowler, D. M. Farrell and R. S. Katz. Columbus: Ohio State University Press.
- [32] Tomás Mallén, B. (2002). *Transfuguismo parlamentario y democracia de partidos*. Madrid: Centro de Estudios Políticos y Constitucionales.
- [33] Turan, I. (1985). “Changing Horses in Midstream: Party Changers in the Turkish National Assembly”. *Legislative Studies Quarterly*, 10: 21-34.

# Chapter 4

## Party Switching in Spain: Evidence from Municipal Elections

### 4.1 Introduction

In modern representative democracies, there are periodic elections where candidates for congress and parliament run for office. Candidates are usually grouped around different political parties. The political party defines the ideology which is the party label for its candidates (Snyder and Ting, 2001). However it is not rare that candidates abandon one party and enter another. Sometimes, politicians leave one political party when the parliamentary term has just ended and join another party in the new election. On other occasions this happens for elected legislators during the legislative term. When a politician abandons one party and adopts a different party label, the literature refers to such legislator as “switcher”.<sup>1</sup>

Switchers try to justify their change of party label arguing some reason. Generally they argue ideological reasons, such as the change of the ideological orientation of the

---

<sup>1</sup>Broadly speaking, switchers include politicians that change their party label between one election and the subsequent one, legislators who voluntarily change political party label during the legislature and legislators who do not change party label but deviate from party line voting.

party they belong to. However, party labels do not only differ from each other on their ideological principles, but also on their electoral prospect when facing new elections. This implies that on many occasions it is the opportunism, or the search for better career opportunities (for instance, to gain advantage in positioning for reelection), what motivates the candidates to negotiate with another political organization and opt for another party even when its party label does not represent the candidates' own ideology (see political discussion on this issue in Mejía Acosta, 1999; Sánchez de Dios, 1999; Tomás Mallén, 2002; Reed and Thies, 2000).

This paper examines politicians' changes of party labels in Spain. The paper is not concerned with those politicians who move to another party during the legislature, but to those who are elected (or run for office) under one party's label and are re-elected (or stood for election) at some later date under another party's label.

There are many examples of politicians who have changed their party affiliation worldwide. If we look back to the middle of the 40s, Winston Churchill, famous leader of the Conservative Party in the UK, was during some time member of the Liberal Party. In Australia, Peter Slipper was with the National Party for a term from 1984–87, but returned to parliament in 1993 under the Liberal Party's banner (Miskin, 2003). In Spain examples of politicians who changed their political affiliation abound. Jorge Verstrynge, for instance, moved from the conservative party People's Alliance to the Spanish Socialist Workers' Party and, recently, to the left wing populist party Podemos. Other examples include Diego López-Garrido and Rosa Aguilar (from United Left to the Spanish Socialist Workers' Party), Toni Cantó (from Union, Progress and Democracy to Citizens), or Irene Lozano (from Union, Progress and Democracy to the Spanish Socialist Workers' Party).<sup>2</sup>

It is widely acknowledged in the literature that parliamentary mobility during the legislature is specially problematic since the practice often determines a new balance in government majority which can induce difficulties to governance (Herron, 2002; Hicken, 2006; Reilly 2007). However, the fact that a politician legislates (or run for office) under

---

<sup>2</sup>For more information see <http://www.elmundo.es/espana/2015/10/16/5620cefeca47410e198b4662>

one party's label and at some later date he is elected (or stand for election) under another party's label is not overlooked for public opinion. Voters often do not understand how politicians can stand for election with a different party, and several voices warn that the phenomenon is deteriorating democratic political culture.

There is a still small but growing body of research devoted to investigate changes in party affiliation among elected legislators and candidates for legislative office (Heller & Mershon, 2004; Laver & Benoit, 2003). Thus, several papers have documented and sought to explain party switching among legislators in both new and established democracies, including Australia (Miskin, 2003), Brazil (Desposato 2006, 2009; Mainwaring and Linán 1997), Canada (Mershon and Shvetsova, 2014), Ecuador (Mejia Acosta, 2004), Italy (Giannetti and Laver 2001; Heller and Mershon, 2005, 2008 and Mershon and Shvetsova, 2009, 2014), Hungary (Àgh, 1999), India (Miskin, 2003), Japan (Cox and Rosenbluth 1995; Kato and Kantaro 2009; Reed and Scheiner 2003), Russia (Mershon and Shvetsova, 2008), Turkey (Turan, 1985) and the United States (Castle and Fett 2000; Nokken 2009; Mershon and Shvetsova, 2014).<sup>3</sup>

In Spain, despite the considerable number of occurrences of party switching around the country, and the media coverage that such defections often attract, there is little in-depth analysis of the phenomenon. The book by Tomás-Mallén (2002) analyzes party switching from different perspectives, including political, historical, social and legal. It also provides an exhaustive and highly documented parliamentary information (Congress and Senate) on the interparty movements emerged at the parliamentary level since the beginning of the Spanish Democracy (1977) until the end of the VI legislature (1996-2000). The results show that, on average, during the legislatures analyzed 5.89% of the members of the Senate and 4.69% of the members of the Congress have changed of political party during

---

<sup>3</sup>In Italy, for instance, almost one-fourth of the members of the Chamber of Deputies switched parties at least once between 1996 and 2001 (Heller and Mershon, 2005, 2008, 2009). Similarly, in Brasil, more than one third of the Brazilian members of the parliament elected in 1986 transferred from one party to another by late 1990 (Mainwaring and Pérez-Liñán, 1997).

the legislature.<sup>4</sup> Tomás-Mallén is also interested in analyzing switching as an ideological phenomenon and concludes that switching has been especially significant in the center and right political formations which, in fact, present a similar political culture coming from a great extent of the authoritarian era. In fact, 91% of switchers in the Congress during the period 1977-1989 have their origin in the political formations framed on those ideological blocks. There are also switchers in the left side of the political spectrum, but the figures have been much smaller. However, the work emphasizes that once the political party system in Spain is well-consolidated, parliamentary mobility has been largely reduced. In fact, during the last legislature analyzed the cases of switchers have been scarce.

Apart from the above-mentioned work, which is rather descriptive, we are not aware of further empirical research on party switching in Spain. Thus, the prevalence of party switching in Spain is unknown, and the factors influencing this behaviour remain unclear. The purpose of the paper is to empirically investigate party switching in Spain. Using the most comprehensive dataset on party switching in Spain ever constructed, we investigate the prevalence of interparty movements and its prevalence across parties in Spain for the period 2003-2011. We examine the relationship between gender of candidates, candidates' ideology, candidates' motivation, as well as some geographic and socioeconomic factors of Spanish municipalities, and switching.

The data comes from the Spanish Interior Ministry and contains information of all the candidates to Spanish local elections in the above-mentioned period. The Spanish Constitution guarantees certain degree of autonomy to the municipalities (subdivisions of the provinces). Thus, every four years, municipal elections are held in Spain, on the same date for all municipalities. In this paper we focus on local elections because media coverage seems to suggest that the phenomenon of switching in Spain is specially problematic at the local level, where the absence of absolute majorities in many municipalities

---

<sup>4</sup>The number of switchers is higher in the Congress but the Senate has a proportional advantage due to its smaller number of members.

has yield minority governments or the triumph of motions of censure.

Our results highlight that becoming a switcher is more likely for males than for females. Candidates' ambition or opportunism seems also to play a role since those candidates that were already legislators are less prone to switch, while being elected in the election year in which the candidate changed his party affiliation is positively correlated with switching. If we focus on switching as an ideological phenomenon our findings show that candidates affiliated to centrist and far-right parties are more prone to switch, while candidates in left parties are the least likely to switch. Geographic factors also matter. More precisely, being capital of a province is negatively (and significantly) correlated with switching. At the same time, candidates that stand for election in a municipality included in the group of smallest municipalities are the most prone to switch. Moreover results suggest that it seems to be a negative relationship between the population of the municipality and the probability of switching. Finally, regarding socioeconomic factors, we find that candidates that run for office in those municipalities with higher income per capita are the most prone to switch.

The paper is organized as follows. Section 2 offers background information on Spanish municipal elections and political parties. Section 3 describes the data and present the details about the construction of the variables involved in our study. Section 4 presents some descriptive statistics and turns out to the empirical analysis. Finally, Section 5 contains the conclusions.

## **4.2 Institutional background**

Spain is a parliamentary representative democratic constitutional monarchy, as established by the Constitution passed in 1978. The Monarch is the Head of State and the President of the Government is the Head of government in a multiparty system. Executive power is exercised by the government, which is integrated by President and the Council of Ministers. Central legislative power is vested in the Cortes Generales (General

Courts), a bicameral parliament constituted by the Congress of Deputies and the Senate.

Regional government in Spain works under a system known as the State of Autonomies. This is a highly decentralized system of administration based on asymmetrical devolution to the “nationalities and regions” that constitute the nation, and in which the nation, via the central government, retains full sovereignty. Exercising the right to self-government granted by the constitution, the “nationalities and regions” have been constituted as 17 autonomous communities (regions) and two autonomous cities (Ceuta and Melilla). The form of government of each autonomous community and autonomous city is also based on a parliamentary system, in which executive power is vested in a “president” and a council of government elected by and responsible to a unicameral legislative assembly.<sup>5</sup>

The Constitution also guarantees certain degree of autonomy to two other political entities: the provinces of Spain (subdivisions of the autonomous communities) and the municipalities (subdivisions of the provinces). If the communities are integrated by a single province, then the institutions of government of the community replace those of the province. For the rest of the communities, provincial government is held by Provincial Deputations and local government is held by Councils. Spanish municipal administration is highly homogenous and most of the municipalities have the same faculties, such as managing the municipal police, traffic enforcement, urban planning and development, social services, collecting municipal taxes, and ensuring civil defense.

### **4.2.1 Spanish Municipal Elections**

Municipal elections in Spain are held every four years on the same date for all municipalities. The Spanish electoral system for municipal elections is regulated by the Organic Law of the General Electoral System (LOREG, Law 5/1985, June 19th). In most munic-

---

<sup>5</sup>The two autonomous cities have more limited competences. The executive is exercised by a president, which is also the mayor of the city. In the same way, limited legislative power is vested in a local Assembly in which the deputies are also the city councilors.



ipalities, citizens elect the municipal council, which is responsible for electing the mayor, who then appoints a board of governors or councilors from his party or coalition.<sup>6</sup> The only exceptions are municipalities with under 100 inhabitants, which act as an open council, with a directly elected major and an assembly of neighbors.<sup>7</sup> Councilors are allotted using the D'Hondt method for proportional representation with the exception of some municipalities with less than 100 inhabitants where block voting is used instead. According to article 179 of the LOREG, the number of councilors is determined by the population of the municipality; the smallest municipalities (those with population under 100 inhabitants registered) having 3, and the largest —Madrid— having 57.

### 4.2.2 Political Parties in Spain

Spain's political system is a multi-party system at the national, regional and local level. For the years of our study (between 2003 and 2011) two parties have been predominant in politics: the Spanish Socialist Workers' Party (PSOE), located in the center-left of the ideological spectrum, and the People's Party (PP), located at the center-right of the political spectrum and defined in its statutes as a reformist center party.

Together with the two mainstream parties there are other parties or coalitions that run for election. The left area of the political spectrum is occupied by United Left (Izquierda Unida, IU), a political coalition that was organized in 1986 bringing together several left-wing political organizations and green groups. IU has often run together in Spanish elections (especially local ones) with The Greens (Los Verdes, LV), the main green political party in Spain.

The center area of the ideological spectrum is occupied by two relatively new parties: Citizens (Ciudadanos), founded in 2006, and Union, Progress and Democracy (Union Progreso y Democracia – UPyD), founded in 2007 as a social liberal party which disputes

---

<sup>6</sup>In municipalities of up to 250 inhabitants there are open lists, while a closed list system is used in larger municipalities.

<sup>7</sup>Since 2011 these small municipalities are also allowed to use *a closed list system*.

all forms of nationalism as well as separatist movements.

At the far-right side of the political spectrum there are several minority parties. Far-right political parties include Falange Española de las Jons (FE-JONS), which takes its name from the historical fascist party founded in Spain in 1933, Democracia Nacional (DN), a party with patriotic identity created in 1995, and Falange Española (FE), created in 1999 as a result of legal problems with FE-JONS.

Finally, there is a large number of regional and local parties with ideologic positions that goes from the far-left to the far-right of the political spectrum. These parties are specially strong in autonomous communities like Catalonia and the Basque Country, where they have always obtained significant electoral support in the constituencies where they presented candidacies.

## **4.3 Data and Variable Definitions**

### **4.3.1 Data**

In this paper we use data from local elections held in Spain between 2003 and 2011, i.e., for the years 2003, 2007 and 2011. Data comes from the Spanish Interior Ministry and contains information of all the candidates to Spanish local elections in the above-mentioned years. More precisely, the database includes the complete names of the candidates in all the elections, the municipality (and province) where those candidates run for election, as well as candidates' gender and political affiliation. It also provides information on those elected candidates in all the elections. We also gathered information from the Spanish Statistics National Institute (INE) on some demographic and socioeconomic factors of Spanish municipalities and regions, including the population of the municipalities, the per capita gross domestic product (GDP) by province and the unemployment rate by province.

We have restricted our sample in three ways. First, since we aim at quantifying switching behavior by candidates, we exclude all the candidates that run for elections

only once in the period under study. Second, for simplicity, we exclude all the candidates in municipalities belonging to the Basque Country and Navarra Region. The decisions imposed by Spanish tribunals on Basque and Navarra's nationalist parties ideologically close to ETA left for over a decade a distorted representation of politics in local councils and regional parliaments of these regions, as well as a quickly changing array of disbanded party names, new alliances, and re-accommodations. Thus, it becomes rather hard to distinguish between politicians who defected from their party and politicians who did not move but their party changes its acronym between two sequential elections. Thirdly, we also exclude all candidates that run for elections in the autonomous cities of Ceuta and Melilla since INE warns of the low accuracy of the data on unemployment rate for those municipalities.

The database includes a total of 104,929 candidates that run for election at least twice in the period under study in 5,113 Spanish municipalities.

### **4.3.2 Variable Definitions**

In order to analyze the determinants of switching in Spain we have considered the following variables, that are summarized in Table 1.

The dependent variable we consider (Switcher) refers to whether the candidate has changed his party affiliation between one election and the subsequent election, and takes value 0 if the candidate is loyal and runs for office under the same political label in the two consecutive elections and 1 otherwise. Notice that, according to our definition of switcher, any candidate in our sample can be computed as switcher at most two times. A necessary condition for that (although not sufficient) is that the candidate must run for office in the three elections.

We have also considered the following explanatory variables. First, in order to control for time specific trends of switcher behavior we include the variable Year. Year is a categorical variable that indicates the election year in which the candidate runs for office. It can take 3 values: Year.2003, Year.2007 and Year.2011, if candidate stands for election

in 2003, 2007 and/or 2011 respectively. Notice that the same candidate could run for office in the three election years.

Secondly, we consider some individual predisposing factors like the gender (Gender) of the candidate, or his ideology or party affiliation (Affiliation). Gender is a dummy variable that takes value 1 if the candidate is a male and 0 if the candidate is a female. Affiliation is represented by six dummy variables that captures the ideology of the candidates based on their party affiliation, following the classification of political parties in Spain discussed in Subsection 4.2.2. Thus, dummy variables Left, Center-left, Center, Center-right, Far-Right and Regional indicate whether candidates run for election with a left-party (IU or LV), a center-left party (PSOE), a center party (Ciudadanos or UPyD), a center-right party (PP), and a far-right party (FE-JONS, DN or FE), or any other regional or local party (nor matter their political orientation), respectively.<sup>8</sup>

Thirdly, we consider that ambitious candidates may opt for a new party even when the party label does not represent their own ideology but improve their electoral prospect when facing new elections. Thus, we also include two variables that might be related with candidates' ambitious: Past Legislator and Current Legislator. Past Legislator is a dummy variable that takes value 1 if the candidate running for office in a given year  $t$  was already in office in the last election in which he stood for election (either in  $t - 1$  or  $t - 2$ ), and 0 otherwise. Current Legislator is a dummy variable that takes value 1 if the candidate is elected in the current election, and 0 otherwise. Note that the same candidate could be Past Legislator and Current Legislator at the same time. In fact, in our sample both dummies, Past Legislator and Current Legislator, take value 1 at the same time for 38,196 candidates (36.40% of total sample of candidates).

Finally, we also include some enabling factors of switching like geographic and socio-economic factors of Spanish municipalities and regions. In order to control for province

---

<sup>8</sup>This ideological classification of party positions is coherent with voters' perception about party locations. According to the surveys on post electoral municipal elections carried out by the Centro of Investigaciones Sociológicas (a public entity that depends on Spanish Government), for the analyzed years and in a scale 1-10 where 1 indicates extreme left and 10 indicates extreme right, respondents locate IU around 3; PSOE around 4 and PP around 8.

specific trends of switcher behavior we include the variable Province, which is represented by a categorical variable indicating the province code where the candidate runs for office. It can take 46 different values, each of them corresponding to the code assigned by INE to the 46 Spanish provinces that are included in our sample. Moreover, in order to analyze whether the size of the population of the municipality affects switcher behavior by candidates we also take into account the population size of all the municipalities in Spain (Population), represented by 6 dummy variables that accounts for the population size of Spanish municipalities. More precisely, we consider whether the candidate concurs to election in a municipality with a population lower than 1,000 inhabitants (Population 1), population between 1,000 and 5,000 inhabitants (Population 2), population between 5,000 and 10,000 inhabitants (Population 3), population between 10,000 and 50,000 inhabitants (Population 4), population between 50,000 and 500,000 inhabitants (Population 5) and municipalities with population over 500,000 inhabitants (Population 6). We also consider the variable Capital, that indicates whether the candidate runs for office in a municipality that is capital of province, or not. Regarding socioeconomic factors, we include the per capita GDP of the provinces (GDP) in all the election years. More precisely, we have taken into account whether the candidate runs for election in a province where the per capita income is below 16,546 euros a year (Low GDP), between 16,546 and 22,259 euros a year (Medium GDP), or above 22,259 euros a year (High GDP).<sup>9</sup><sup>10</sup> Finally, we include for all the election years the log of the unemployment rate (Unemployment) of the provinces in our sample.<sup>11</sup>

---

<sup>9</sup>The thresholds for the GDP were defined considering per capita income percentiles (25th and 75th) based on all Spanish individual earners during the years of our study.

<sup>10</sup>Low per capita income provinces in 2007 are Badajoz, Caceres, Córdoba and Jaén. In 2011 Granada is also included. Medium per capita income provinces in 2007 include A Coruña, Albacete, Alicante, Almeria, Asturias, Avila, Cadiz, Ciudad Real, Cuenca, Granada, Guadalajara, Huelva, Las Palmas, Leon, Lugo, Malaga, Murcia, Ourense, Pontevedra, Salamanca, Santa Cruz de Tenerife, Sevilla, Toledo, Valencia and Zamora. In 2011 Cantabria and Segovia are also included, while Granada is excluded. Finally, high per capita income provinces in 2007 are Barcelona, Burgos, Cantabria, Castellon, Girona, Huesca, Islas Baleares, La Rioja, Lleida, Madrid, Palencia, Segovia, Soria, Tarragona, Teruel, Valladolid and Zaragoza. In 2011 Cantabria and Segovia are excluded from this group.

<sup>11</sup>The unemployment rate for each province has been computed as the average of the four quarters

Table 2 provides some summary statistics for each of the variables included in the model.

## 4.4 Empirical Methodology

Our research question deals with the prevalence and conditioning factors of party switching in Spain. In this section we first provide a brief descriptive analysis of the data in our sample. Then, we estimate the probability of switching in Spain using a logit model.

### 4.4.1 Descriptive Statistics

The proportion of switchers among all the candidates that run for election is presented in Table 3. We observe that for our period of study, 8.60% of those candidates that run for election switch party between one election and the subsequent election. This accounts for 9,469 switches, i.e., 9,469 observations where our dependent variable Switcher takes value 1.<sup>12</sup> Besides, this behavior is more frequent among men candidates, with a difference of 1.90% with respect to women candidates.

Trivially, the year 2011 presents a higher occurrence of party switching (7.33% versus 4.30%), since it includes both switchers that change their party label from the 2003 election to the 2011 one, and those who change between the election held in 2007 and the one in 2011.

Regarding party affiliation, data shows that the rightist area is the one where switching arises more often, recording a 40.47% of switchers among its candidates. As mentioned before, this corresponds with minority parties with few candidates who stand for election. This number is followed by 14.39% of switchers among those candidates at local and regional parties. The percentage of switchers in the other political parties is much lower, being slightly higher at the center of the political spectrum (6.56%) where parties

---

unemployment rates provided by INE.

<sup>12</sup>Notice that some of these switches may correspond to the same candidate in different years.

are new and still have few candidates who stand for election, than on the left, center-left and center-right side with well-established parties (4.26%, 3.93% and 4.96% respectively).

Table 3 also shows that from all candidates that became legislators in the last election they ran for office 5.28% become switchers in the current election. Among candidates that were not previously elected the percentage of switchers raises to 8.66%. Moreover, among candidates elected in the current election, 6.11% are switchers, while there is a proportion of switchers of 8.86% among those who are not elected.

Regarding geographical factors, we do not find any clear geographical pattern among switchers across Spanish provinces (see Figure 1 for a classification of Spanish provinces in terms of their proportion of switchers). In addition to this, data shows that 9.11% of all candidates that run for election at a municipality that is province capital decide to switch party between one election and the subsequent one. At the municipal level, the percentage of switchers among total number of candidates is quite homogeneous across different population (it ranges from 7.80% to 9.29%). The exception are those municipalities with more than 500,000 inhabitants where the percentage of switchers is larger (14.20%). This result is intuitive since total number of municipalities belonging to this category is significantly lower than in the others, implying that the total number of candidates who stand for election is also lower.

Finally, data shows that the proportion of switchers is 4.48% in the poorest provinces, 9.35% in the medium income provinces and 7.94% in the richest ones.

Table 4 presents a descriptive analysis of the sample of switchers. For our period of study, 71.22% of all switchers are male while only 28.78% of the switcher are female, against the total 65% of males in the sample.

Regarding party affiliation, we observe how more than half of the switchers arise at local and regional parties (68.38%). This is reasonable since there is a huge number of local parties in Spain.<sup>13</sup> In 2011 for instance 1,629 local parties participate at municipal

---

<sup>13</sup>Notice that the number observations in our sample where candidate party affiliation corresponds to a local party accounts for 65,205 of a total of 169,005 observations.

elections (Martínez Fernández, 2015). When we focus on the main national parties we see how those parties that alternate themselves in governance (Center left and Center Right) are the ones that show more switchers (12,39% and 14.67% respectively). The rest of the parties display lower numbers as far as percentage of switchers is concerned, specially those parties located in the center (since neither Ciudadanos and UPyD were present in the 2003 municipal elections) and on the far-right side of the political spectrum (where parties are minority).

Table 4 also shows that from all switchers, 31.82% legislated in the last election they run for office and 68.18% did not. At the same time, 31.69% of switchers are elected in the current election, while 68.31% do not.

From a geographical point of view we see how switchers emerge in all Spanish provinces but numbers differ, being Soria the province with a lower percentage of switchers (0.42% of total switchers arise in Soria) and Madrid the province with the largest one (9.99%). Table 4 also shows that those municipalities with population between 1,000 and 5,000 inhabitants (Population 2) are the ones that show the larger percentage of switchers (29.98%), closely followed by those municipalities with less than 1,000 inhabitants (21.54%) and those with population between 10,000 and 50,000 inhabitants. The percentage of total switchers that arise at large municipalities is, however, low. For instance, only 1.69% of switchers belong to municipalities with population larger than 500,000 inhabitants. Moreover, only 4.20% of switchers arise at municipalities that are province capital.

Finally, we observe how the highest percentage of candidates that decide to switch party arises at provinces with intermediate per capita income (59.33%), followed by the richest provinces (34.85%) and, finally, the poorest ones (5.82%).

#### **4.4.2 Logit Model**

We focus on candidates' likelihood of switching their party label. The observed variable that we are seeking to explain ( $y$ ) is the choice that candidates make regarding switching



party affiliation between one election and the subsequent one ( $y = 1$ ), or being loyal and run for office under the same political label in the two consecutive elections ( $y = 0$ ). Although there are several models that can be used to study this type of binary choices, the logistic model is very simple and is widely used. Thus, logistic regression will be the methodological approach that we will follow in this paper.

To explain the decision observed in each candidate, the logit model assumes that such decision depends on an unobserved variable,  $y^*$ , of which the  $y$  variable would act as a mere indicator. This variable,  $y^*$ , would be interpreted as net utility that the candidate perceives when switching party. The value of this variable for a candidate  $i$  ( $y_i^*$ ), is considered to be linearly related to a variables vector,  $x$ , that can be observed for the candidate  $i$  ( $x_i$ ), using expression (4.1):

$$y_i^* = \alpha + x_i' \beta + \epsilon_i, \quad (4.1)$$

where  $\alpha$  represents a constant coefficient,  $\beta$  a vector of coefficients associated with the vector of explicative variables  $x$ , and  $\epsilon_i$  is the error term which follows a logistic distribution with a mean of 0 and a variance of  $\frac{\pi^2}{3}$ . The vector of explicative variables  $x$  contains all the variables defined in subsection 4.3.2. We also include in the estimation an interaction term, *Province x Population*, in order to test the hypothesis of whether the relationship between the probability of switching and the province was different among different sizes of the population of the municipalities.

This latent variable,  $y_i^*$ , is linked to the observable variable,  $y_i$  in expression (4.2):

$$y_i^* = \begin{cases} 1 & \text{if } y_i^* > \zeta \\ 0 & \text{if } y_i^* \leq \zeta \end{cases} \quad (4.2)$$

where  $\zeta$  represents a limit or threshold. The candidate would thus switch party only if the net utility that he perceives (compared to be loyal and run for office under the same political label in the two consecutive elections) is greater than a certain value. For the sake of simplification, this is considered as  $\zeta = 0$ . This simplification does not affect

the results due to the inclusion in equation (4.1) of the coefficient  $\alpha$  (Greene, 2012).

The likelihood that a candidate  $i$ , might change his political affiliation can therefore be expressed as in formula (4.3):

$$\Pr(y_i = 1/x_i) = \Pr(y_i^* > 0/x_i) = \Pr(\epsilon_i > -\alpha - x_i'\beta). \quad (4.3)$$

Given that the logistic distribution,  $\epsilon$ , is a symmetric distribution with a value of around 0, the above expression (4.3) can be written as:

$$\Pr(\epsilon_i > -\alpha - x_i'\beta) = \Lambda(\alpha + x_i'\beta) \quad (4.4)$$

where  $\Lambda$  represents the logistic cumulative distribution function. This enables equation (4.4) to be written as:

$$\Pr(y_i = 1) = \frac{e^{x_i'\beta}}{1 + e^{x_i'\beta}}. \quad (4.5)$$

Using this expression (4.5) it is possible to calculate the effect on  $\Pr(y = 1)$  of unitary changes of the variable  $x_k$  in the variables vector,  $x$ , while the other  $x$  variables remain fixed at a given value. To do this, expression (4.5) is applied for the values of  $x$  before and after the unitary change in  $x_k$  and the difference in likelihood is calculated. The unknown  $\alpha$  and  $\beta$  parameters are calculated using the maximum likelihood method.

Regarding the interpretation of the parameters of the logit model, the sign indicates the direction in which the probability moves when the corresponding explanatory variable increases. However, the value of the parameter does not coincide with the magnitude of the variation in the probability (as it happens in linear models). In the case of logit models, since it is assumed a nonlinear relation between the explanatory variables and the probability of occurrence of the event,  $y_i = 1$ , when the explanatory variable increases by one unit the increase in probability is not always the same since it depends on the original value of the explanatory variable.

Thus, in the results we will present not only the coefficients estimates but also the

odds ratio. The odds ratio is an statistical tool that compares the occurrence of the outcome,  $y = 1$ , in the presence of a particular exposure, with the occurrence of the outcome in the absence of such particular exposure. Odds ratios in logistic regression can be interpreted as the effect of a one unit of change in an explicative variable in the predicted odds ratio with the other variables in the model held constant. Moreover, in the logit model the odds ratio can be easily computed by raising  $e$  to the power of the logistic coefficients.

### 4.4.3 Results

Table 5 presents the coefficients estimates and the odd-ratios from our binomial logit regression model.

As expected, it is more likely to become a switcher in 2011 than in 2007 since the year 2011 includes not only those switchers that change their party label between the election held in 2007 and the one in 2011, but also those candidates who do not run for office in 2007 but do change their party label between the 2003 election and the 2011 one.

Individual predisposing factors are all significant. The sign of the coefficients indicate that there is a positive relationship between the probability of becoming a switcher and the gender of the candidate (male). In particular, the probability of switching is 30% larger for males than for females.

Results also show that having been in office in the past election is negatively (and significantly) correlated with switching. The probability of switching is 27% lower for those candidates that became legislators in the last election they run for office. At the same time, being elected in the election year in which the candidate changed his party affiliation is positively (and significantly) correlated with switching. The probability of switching is 8% larger for those candidates that are elected. This latter result might suggest that ambitious candidates who are eager to be elected may switch party to improve their electoral prospect when facing new elections.

Regarding candidates' ideology, all the (non-omitted) coefficients are negative, except

the one associated to centrist parties. Thus, candidates affiliated to centrist and far-right parties are more prone to switch. In particular, being affiliated to a centrist-party increases by 2.3 times the probability of switching with respect to being affiliated to the far-right party. The result that those candidates in far-right parties are more prone to switch has to do with the fact that these are minority parties with scarce political representation at councils, and where candidates often switch to other parties of the same ideology. On the other hand, switching appears to be specially relevant in centrist parties, probably because centrist candidates have more and closer political alternatives to which they can switch (center-left and center-right political parties). Results also show that candidates in left parties are the least likely to switch. The probability of switching is 97% lower for those individuals affiliated to a leftist party with respect to being affiliated to the far-right party. Finally, candidates belonging to center-left and center-right parties show similar patterns of switching; we observe that the differences between the coefficients associated to center-left and center-right are very similar. The probability of switching is 94% (92%) lower for candidates affiliated to a party in the center-left (center-right) of the political spectrum than for those affiliated to a far-right party.

Of the geographic factors in our regression, being capital of a province is negatively (and significantly) correlated with switching. More precisely, the probability of switching is 30% lower in those municipalities that are capital of a province. Regarding the size of the municipality, all the coefficients are negative and have a significant impact at 1% level for all municipalities (with the only exception of those with population between 5,000 and 10,000 inhabitants, Population 3). Our findings show that candidates that run for office in municipalities with a population lower than 1,000 inhabitants are the most prone to switch. In fact, the results suggest that there might exist an inverse relationship between the population of the municipality and the probability of switching. Taking Population 1 as a reference, the likelihood of the base individual to switch in a municipality with population between 1,000 and 5,000 inhabitants is 52% lower than for a municipality

with a population lower than 1,000. In municipalities with population between 10,000 and 50,000 inhabitants (Population 4), between 50,000 and 500,000 inhabitants (Population 5), and in those with population over 500,000 inhabitants (Population 6), the likelihood of a base candidate to switch is 78%, 84% and 82%, respectively, lower than for a municipality with population lower than 1,000. Thus, we observe that population size has a negative effect on switching, that is, the probability of switching reduces when the size of the population increases. Besides, we observe that the odds ratio decreases with the population size, which means that the reduction in switching behavior due to population size increases as we move to more populated municipalities: it reduces by 52% percent when moving from Population 1 to Population 2 and it reduces by 84% and 82% when moving from Population 1 to Population 5 and 6. That is, broadly speaking the lower the population size in a municipality, the greater the probability of switching.

Notice that the variable Province is included in the regression but not reported in Table 5.<sup>14</sup> Interaction effects between Province and Population are also included in the regression but not reported. Using a likelihood-ratio test we have shown the convenience of including these variables in the model. The log-likelihood ratio is  $-30,644.529$  when province and interaction effects are considered and  $-32,849.32$  when they are not.

Finally, of the socioeconomic factors in our regressions, the only one that significantly predicts switching is the per capita income at the province level (GDP). In particular, we find that candidates that run for office in those municipalities with higher income per capita are the most prone to switch. Taking the provinces with high income per capita as a reference, becoming a switcher in a province with medium income per capita is 31% less likely, and in provinces with low per capita income becoming a switcher is 50% less likely. The level of unemployment of the province is also negatively (but insignificantly) correlated with switching. Despite the non-significance of unemployment, we performed

---

<sup>14</sup>Only 7 provinces, out of the 46, are statistically significant.

a likelihood-ratio test that showed us the convenience of including it in the model.<sup>1516</sup>

Our proposed logit model only explains 16% of the variability in switching behavior. However, our regression analysis serves to identify several factors that has a significant effect on the probability of switching. Among others, being male over female, being elected for the first time (over reelected), being ideologically centrist and stand as a candidate in a small and/or rich municipality are factors that are found to significantly contribute to switching behavior.

## 4.5 Conclusions

In Spain, despite the considerable number of occurrences of party switching described by media coverage, we are not aware of empirical research on this phenomenon. Thus, the prevalence of party switching in Spain is unknown, and the factors influencing this behaviour remain unclear.

This paper aims to bridge this gap in the literature and has examined politicians' changes of party labels in Spain. Using the most comprehensive dataset on party switching in Spain ever constructed, we investigated the prevalence of interparty movements and its prevalence across parties in Spain for the period 2003-2011. Unfortunately, there is no available data on switchers during the legislature. Thus, the paper does not focus on those politicians who move to another party during the legislature, but to those who run for office (becoming legislators or not) under one party's label and stood for election at some later date under another party's label. We focus on the three local elections held in the above-mentioned period in Spain and examine the relationship between gender of candidates, ideologic factors, candidates' motivation, as well as some geographic and

---

<sup>15</sup>The log-likelihood ratio is  $-30,644.529$  when unemployment is included and  $-30,681.467$  when it is not.

<sup>16</sup>In Appendix A we present the results of an alternative binomial logistic model where we include unemployment at the municipal level. We collected information from Caixa Bank Research on the unemployment rate of all the Spanish municipalities, except most of the municipalities with a population of less than 1,000 inhabitants. The sample accounts for 96.8% of the total population in Spain. All the results are robust to this alternative specification.

socioeconomics factors of Spanish municipalities, and switching.

Our results show that the prevalence of switching is larger than the one reported for the first years of the Spanish Democracy for legislators at the parliamentary level (5.89% at the Senate and 4.60 at the Congress). We observe a 8.60% of candidates that switch party between one election and the subsequent election, which accounts for 9,469 switches. However, we should highlight that those results concerned the first years of the Spanish Democracy correspond to elected legislators who switch during the legislative term, while in this paper we focus on switching between two consecutive elections. Regarding the determinants of party switching our results show that: i) males are more prone to switch party than females; ii) those candidates that were already legislators are less prone to switch, while being elected in the election year in which the candidate changed his party affiliation is positively correlated with switching; iii) candidates affiliated to centrist and far-right parties are more prone to switch, while candidates in left parties are the least likely to switch; iv) switchers are less likely in capital of provinces; v) candidates that stand for election in municipalities with a population lower than 1,000 inhabitants are the most prone to switch. Moreover, it seems that there exist a negative relationship between the population of the municipality and the probability of switching; and, finally, vi) candidates that run for office in those municipalities with higher income per capita are the most prone to switch.

There are other issues that are left for further research. First, it would be very interesting to include in the analysis data on local elections held in Spain in 2015. This last election year is characterized by the entry of a new party, Podemos, located to the left hand side of the ideological spectrum. Clearly, the entry of this new party has exacerbated the party switching phenomenon generating additional observations from where to check the robustness of our results. Second, as previous papers in the literature we are interested in ambitious incentives as modeled by candidates' expectations on their reelection prospects. From this perspective, municipal electoral results for the years under study could provide a good test of whether candidates who switch political party

in a legislature do improve their electoral results against non-switchers counterfactual candidates.

Certainly, more empirical work in this line of research is needed. We hope, however, that our quantitative analysis on the switching behavior of Spanish politicians can be useful to quantify the prevalence of party switching in Spain and contribute to a better understanding of the phenomenon.



# Bibliography

- [1] Àgh, A. (1999). “The parliamentarization of the East Central European parties”. In: S. Bowler, D. M. Farrell, & R. S. Katz (Eds.), *Party discipline and parliamentary government* (pp. 167-188). Columbus: Ohio State University Press.
- [2] Caixa Bank Research, (2013). Anuario Económico de España. Selección de Indicadores. La Caixa, Estudios y Análisis Económico.
- [3] Castle, D. and Fett, P. J. (2000) “Member Goals and Party Switching in the US Congress”. In: *Congress on Display, Congress at Work*, ed. W. Bianco. Ann Arbor: University of Michigan Press, 231- 242.
- [4] Cox, G.W. and Rosenbluth, F. (1995). “Anatomy of a split: the Liberal Democrats of Japan.” *Electoral Studies* 14: 355-376.
- [5] Desposato, S. W. (2006). “Parties for rent? Careerism, ideology, and party switching in Brazil’s Chamber of Deputies”. *American Journal of Political Science*, 50(1), 62-80.
- [6] Desposato, S. W. (2009). “Party switching in Brazil: causes, effects, and representation”. In: W. B. Heller & C. Mershon (Eds.), *Political Parties and Legislative Party Switching* (pp. 109-144). New York, NY: Palgrave Macmillan.
- [7] Giannetti, D. and Laver, M. (2001). “Party System Dynamics and the Making and Breaking of Italian Governments”. *Electoral Studies* 20: 529- 553.
- [8] Green, W.H. (2012). *Econometric Analysis*, 7th Edition. Prentice Hall. New Jersey.

- [9] Heller, W.B. and Mershon, C. (2004). Theoretical and empirical models of party switching. Paper presented at the First Workshop of the Party Switching Research Group, Dublin, Ireland.
- [10] Heller, W.B. and Mershon, C. (2005). “Party switching in the Italian Chamber of Deputies, 1996-2001.” *Journal of Politics*, 67: 536-559.
- [11] Heller, W.B. and Mershon, C. (2008). “Dealing in Discipline: Party Switching and Legislative Voting in the Italian Chamber of Deputies, 1988–2000.” *American Journal of Political Science*, 52: 910-925.
- [12] Heller, W.B. and Mershon, C. (2009). “Taking Stock of Party Switching”. In: W. B. Heller & C. Mershon (Eds.), *Political Parties and Legislative Party Switching*. New York, NY: Palgrave Macmillan
- [13] Herron, E. S. (2002). “Causes and Consequences of Fluid Faction Membership in Ukraine”. *Europe-Asia Studies*, 54: 625–39.
- [14] Hicken, A. (2006). “Stuck in the Mud: Parties and Party Systems in Democratic Southeast Asia”. *Taiwan Journal of Democracy*, 2: 23–46.
- [15] Kato, J. and Kantaro, Y. (2009). “Competition for Power: Party Switching and Party System Change in Japan”. In: *Political Parties and Legislative Party Switching*, ed. W. B. Heller and C. Mershon. Palgrave Macmillan, 233-264.
- [16] Laver, M. , Benoit, K. (2003). “The evolution of party systems between elections”. *American Journal of Political Science* 47(2): 215-233.
- [17] Mainwaring, S. and Pérez Liñan, A. (1997). “Party Discipline in the Brazilian Constitutional Congress.” *Legislative Studies Quarterly*, 22: 453-483.
- [18] Martínez Fernández, J.B. (2015). Los partidos políticos de ámbito local en España. Estudio Cuantitativo de la legislatura 2011-2015. Mimeo, Uni-

- versidad de Murcia. Ponencia presentada al XII Congreso Español de Ciencia Política. San Sebastián, julio 2015. Retrieved May 14, 2017, from <http://www.aecpa.es/uploads/files/modules/congress/12/papers/1053.pdf>
- [19] Mejía-Acosta, A. (1999). “Indisciplina y deslealdad en el congreso ecuatoriano”. *Iconos* (6): 13- 21.
- [20] Mejía-Acosta, A. (2004). “Ghost Coalitions: Economic Reforms, Fragmented Legislatures and Informal Institutions in Ecuador (1979-2002)”. PhD. Dissertation. Notre Dame: Department of Political Science, University of Notre Dame.
- [21] Mershon, C. and Shvetsova, O. (2008). “Parliamentary Cycles and Party Switching in Legislatures”. *Comparative Political Studies*, 41 (1): 99-127.
- [22] Mershon, C. and Shvetsova, O. (2009). “Incentives for Party Switching and Stages of Parliamentary Cycles”. In: *Political Parties and Legislative Party Switching*, ed. W. B. Heller and C. Mershon. New York: Palgrave Macmillan.
- [23] Mershon, C. and Shvetsova, O. (2014). “Change in parliamentary party systems and policy outcomes: Hunting the core”. *Journal of Theoretical Politics*, 26(2): 331- 351.
- [24] Miskin, S. (2003). Politician overboard: Jumping the party ship. Research paper No. 4 2002–03. Parliament of Australia. Retrieved May 14, 2017, from <https://www.aph.gov.au/binaries/library/pubs/rp/2002-03/03rp04.pdf>
- [25] Nokken, T. P. (2009). “Party Switching and the Procedural Party Agenda in the U.S. House of Representatives”. In: *Political Parties and Legislative Party Switching*, ed. W. B. Heller and C. Mershon. New York: Palgrave Macmillan, 81- 108.
- [26] Reed, S. and Scheiner, E. (2003). “Electoral Incentives and Policy Preferences: Mixed Motives Behind Party Defections in Japan”. *British Journal of Political Science*, 33: 469—90.

- [27] Reed, Steven R., and Michael F. Thies. (2000). "The Consequences of Electoral Reform in Japan." In: *Mixed-Member Electoral Systems: The Best of Both Worlds?*, edited by M. S. Shugart and M. P. Wattenberg. New York: Oxford University Press.
- [28] Reilly, B. (2007). "Political Engineering in the Asia- Pacific". *Journal of Democracy*, 18: 58- 72
- [29] Sánchez de Dios, M. (1999). "Parliamentary Party Discipline in Spain". In: *Party Discipline and Parliamentary Government*, edited by S. Bowler, D. M. Farrell and R. S. Katz. Columbus: Ohio state University Press.
- [30] Snyder, J. and Ting, M. (2001). "Party Labels, Roll-Call Votes, and Elections". *Political Analysis*, 11: 419-444.
- [31] Spanish Interior Ministry: <http://www.infoelectoral.mir.es/min/areaDescarga.html>
- [32] Spanish Statistics National Institute (INE): <http://www.ine.es/inebmenu/indice.htm>
- [33] Tomás-Mallén, B. (2002). *Transfuguismo parlamentario y democracia de partidos*. Madrid: Centro de Estudios Políticos y Constitucionales.
- [34] Turan, I. (1985). "Changing Horses in Midstream: Party Changers in the Turkish National Assembly". *Legislative Studies Quarterly*, 10: 21-34.

## Appendix of Tables

**Table 1. Definition of Variables**

<b>Variables</b>	<b>Description</b>
<b><i>Dependent Variable</i></b>	
Switcher	Dummy variable: =1 if candidate switches party, =0 otherwise.
<b><i>Explanatory Variables</i></b>	
Year	Categorical variable indicating the election year in which the candidate runs for office. It can take 3 values: Year.2003, Year.2007, and Year.2011 if candidate stands for election in 2003, 2007 and/or 2011 respectively.
<b>Individual predisposing factors</b>	
Gender	Dummy variable (=1 if male, =0 if female).
Affiliation	Generation of dummy variables indicating the party label of the candidate. Dummy variables: <i>Left</i> (=1 if candidate belongs to the leftist parties IU or LV, = 0 otherwise). <i>Center- left</i> (=1 if candidate belongs to the center- leftist party PSOE, = 0 otherwise). <i>Center</i> (=1 if candidate belongs to the centrist parties C'S or UPyD, =0 otherwise). <i>Center- right</i> (=1 if candidate belongs to the center- rightist party PP, =0 otherwise). <i>Far- right</i> (=1 if candidate belongs to the rightist parties DN, JONS or FE, =0 otherwise). <i>Regional</i> (=1 if candidate belongs to a regional or local party, =0 otherwise).
Past legislator	Dummy variable (=1 if candidate was elected in the last election in which he ran for office, =0 otherwise).
Current legislator	Dummy variable (=1 if candidate is elected in the current election, =0 otherwise).
<b>Geographic factors</b>	
Province	Categorical variable indicating the province code where the candidate runs for office. It can take 46 different values, each of them corresponding to the code assigned by INE to the 46 Spanish provinces included in our sample.
<i>Population</i>	Generation of dummy variables indicating the size of municipalities for the survey. Dummy variables: <i>Population 1</i> (=1 if $0 < \text{population} \leq 1,000$ , =0 otherwise). <i>Population 2</i> (=1 if $1,000 < \text{population} \leq 5,000$ , =0 otherwise). <i>Population 3</i> (=1 if $5,000 < \text{population} \leq 10,000$ , =0 otherwise). <i>Population 4</i> (=1 if $10,000 < \text{population} \leq 50,000$ , =0 otherwise). <i>Population 5</i> (=1 if $50,000 < \text{population} \leq 500,000$ , =0, otherwise). <i>Population 6</i> (=1 if $\text{population} > 500,000$ , =0 otherwise).
Capital	Dummy Variable (=1 if the municipality is a capital of its province, =0 otherwise).

<b>Socioeconomic factors</b>	
GDP	<p>Continuous variable. Generation of three dummy variables indicating three groups of per capita income degree:</p> <p><i>Low gdp</i> (=1 if the per capita income &lt; 16,546 € for year, =0 otherwise).</p> <p><i>Medium gdp</i> (=1 if 16,546 &lt; per capita income ≤ 22,259 € for year, =0 otherwise).</p> <p><i>High gdp</i> (=1 if per capita income &gt; 22,259 € for year, =0 otherwise).</p>
Unemployment	<p>Continuous variable, measured as the logarithm of the unemployment rate at the province level.</p>

**Table 2. Summary Statistics**

(N=236,704)

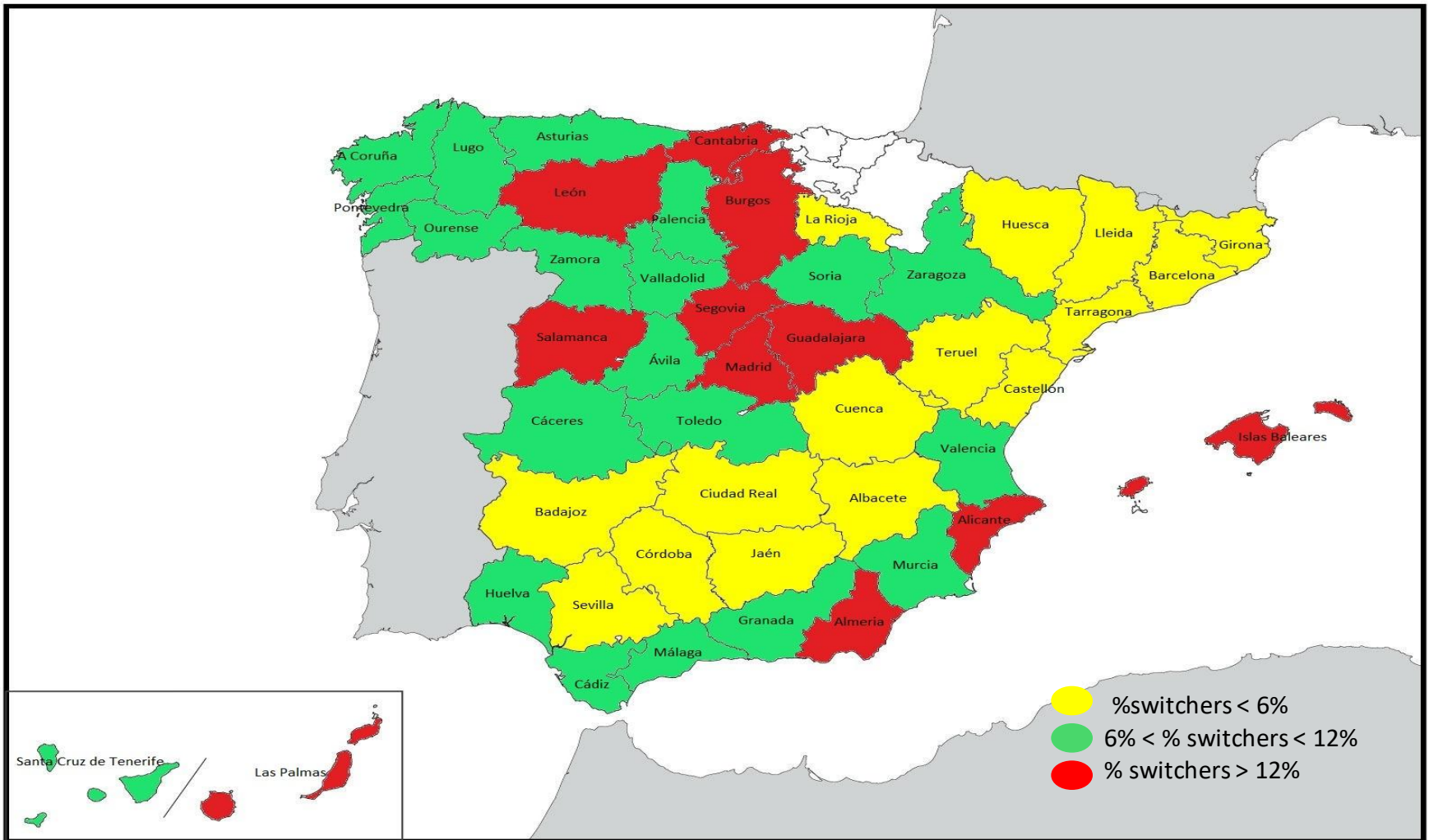
VARIABLES	Mean	Standard Deviation	Minimum	Maximum
Switcher	0.0400	0.196	0	1
Gender	0.653	0.476	0	1
Past legislator	0.414	0.493	0	1
Current legislator	0.414	0.493	0	1
Left	0.0776	0.268	0	1
Center- left	0.279	0.449	0	1
Center	0.00205	0.0452	0	1
Center- right	0.265	0.442	0	1
Far- right	0.00101	0.0317	0	1
Regional	0.375	0.484	0	1
Capital	0.0397	0.195	0	1
Population 1	0.203	0.402	0	1
Population 2	0.319	0.466	0	1
Population 3	0.135	0.342	0	1
Population 4	0.243	0.429	0	1
Population 5	0.0908	0.287	0	1
Population 6	0.00985	0.0988	0	1
Low gdp	0.219	0.414	0	1
Medium gdp	0.487	0.500	0	1
High gdp	0.294	0.455	0	1
Unemployment	2.849	0.951	0.693	5.637

**Table 3. Proportion of switchers from all candidates.**

VARIABLE	DESCRIPTION	PROPORTION OF SWITCHERS
<b><i>Dependent Variable</i></b>		
Switcher	Candidate switches party	8.60%
	Candidate does not switch party	91.40%
<b><i>Explanatory variables</i></b>		
Year	2003	0%
	2007	4.30%
	2011	7.33%
<b>Individual predisposing factors</b>		
Gender	Male	9.25%
	Female	7.35%
Affiliation	Left	4.26%
	Center- left	3.93%
	Center	6.56%
	Center- right	4.96%
	Far- right	40.47%
	Regional	14.39%
Past legislator	Candidate elected in the last election he run for office	5.28%
	Candidate not elected in the last election he run for office	8.66%
Current legislator	Candidate elected in the current election	6.11%
	Candidate not elected in the current election	8.86%
<b>Geographic factors</b>		
Province	A Coruña	11.50%
	Albacete	4.44%
	Alicante	12.63%
	Almeria	12.65%
	Asturias	10.23%
	Avila	10.55%
	Badajoz	4.42%
	Barcelona	4.21%
	Burgos	14.00%
	Caceres	6.27%
	Cadiz	6.65%
	Cantabria	15.82%
	Castellon	5.81%
	Ciudad Real	5.66%
	Cordoba	2.76%
	Cuenca	5.95%
	Girona	5.45%
	Granada	8.13%
	Guadalajara	12.79%
	Huelva	6.95%
Huesca	5.74%	



Islas Baleares		13.95%
Jaen		2.55%
La Rioja		3.64%
Las Palmas		17.58%
Leon		15.64%
Lleida		4.75%
Lugo		6.70%
Madrid		18.08%
Malaga		9.21%
Murcia		6.20%
Ourense		6.68%
Palencia		10.71%
Pontevedra		11.07%
Salamanca		16.50%
Santa Cruz de Tenerife		11.37%
Segovia		14.04%
Sevilla		5.47%
Soria		10.98%
Tarragona		4.46%
Teruel		4.92%
Toledo		6.38%
Valencia		6.97%
Valladolid		7.10%
Zamora		9.47%
Zaragoza		6.74%
<hr/>		
Capital		9.11%
<hr/>		
Population	Population 1	9.10%
	Population 2	7.97%
	Population 3	7.80%
	Population 4	8.18%
	Population 5	9.29%
	Population 6	14.20%
<hr/>		
<b>Socioeconomic factors</b>		
<hr/>		
GDP	Low gdp	4.48%
	Medium gdp	9.35%
	High gdp	7.94%
<hr/>		



**Figure 1:** Proportion of switchers in Spanish provinces.

**Table 4. Percentage of switchers by characteristics**

VARIABLE	DESCRIPTION	PERCENTAGE
<b><i>Dependent Variable</i></b>		
Switcher	Candidate switches party	8.60%
	Candidate does not switch party	91.40%
<b><i>Explanatory variables</i></b>		
Year	2003	0%
	2007	43.50%
	2011	56.50%
<b>Individual predisposing factors</b>		
Gender	Male	71.22%
	Female	28.78%
Affiliation	Left	3.79%
	Center- left	12.39%
	Center	0.23%
	Center- right	14.67%
	Far- right	0.54%
	Regional	68.38%
Past legislator	Candidate elected in the last election he run for office	31.78%
	Candidate not elected in the last election he run for office	68.22%
Current legislator	Candidate elected in the current election	31.67%
	Candidate not elected in the current election	68.33%
<b>Geographic factors</b>		
Province	A Coruña	3.82%
	Albacete	0.61%
	Alicante	4.72%
	Almeria	2.48%
	Asturias	2.72%
	Avila	1.45%
	Badajoz	1.38%
	Barcelona	3.95%
	Burgos	2.10%
	Caceres	1.75%
	Cadiz	1.38%
	Cantabria	4.51%
	Castellon	1.12%
	Ciudad Real	0.99%
	Cordoba	0.63%
	Cuenca	0.83%
	Girona	1.68%
	Granada	2.93%
	Guadalajara	1.09%
	Huelva	1.17%
Huesca	1.15%	
Islas Baleares	3.52%	

Jaen		0.63%
La Rioja		0.50%
Las Palmas		3.00%
Leon		5.64%
Lleida		0.97%
Lugo		0.95%
Madrid		9.99%
Málaga		2.63%
Murcia		1.09%
Ourense		1.53%
Palencia		1.13%
Pontevedra		2.13%
Salamanca		3.96%
Santa Cruz de Tenerife		2.12%
Segovia		1.39%
Sevilla		1.91%
Soria		0.42%
Tarragona		1.31%
Teruel		0.76%
Toledo		2.02%
Valencia		4.71%
Valladolid		1.18%
Zamora		1.87%
Zaragoza		2.14%
<hr/>		
Capital		4.20%
<hr/>		
Population	Population 1	21.54%
	Population 2	29.98%
	Population 3	12.96%
	Population 4	23.79%
	Population 5	10.04%
	Population 6	1.69%
<hr/>		
<b>Socioeconomic factors</b>		
<hr/>		
GDP	Low gdp	5.82%
	Medium gdp	59.33%
	High gdp	34.85%
<hr/>		

**Table 5. Binomial Logit Model of Party Switching**

VARIABLES	Logit coeff	Odds ratio
Switcher		
2011.Year	0.815*** (0.121)	2.260*** (0.274)
2007.Year (omitted variable)	-	-
Gender	0.264*** (0.0248)	1.302*** (0.0322)
Past legislator	-0.318*** (0.0277)	0.728*** (0.0202)
Current legislator	0.0772*** (0.0285)	1.080*** (0.0308)
Regional	-0.797*** (0.190)	0.451*** (0.0858)
Left	-3.548*** (0.207)	0.0288*** (0.00597)
Center- left	-2.857*** (0.193)	0.0575*** (0.0111)
Center	0.866*** (0.227)	2.378*** (0.539)
Center- right	-2.602*** (0.193)	0.0741*** (0.0143)
Far- right (omitted variable)	-	-
Population 2	-0.720*** (0.165)	0.487*** (0.0805)
Population 3	-0.404 (0.246)	0.667 (0.164)
Population 4	-1.511*** (0.427)	0.221*** (0.0943)
Population 5	-1.840*** (0.700)	0.159*** (0.111)
Population 6	-1.723*** (0.603)	0.179*** (0.108)
Population 1 (omitted variable)	-	-
Capital	-0.352*** (0.112)	0.703*** (0.0788)

Low gdp	-0.690*** (0.167)	0.501*** (0.0837)
Medium gdp	-0.370*** (0.0965)	0.691*** (0.0666)
High gdp (omitted variable)	-	-
Unemployment	-0.0969 (0.124)	0.908 (0.113)
Constant	0.805 (0.633)	2.237 (1.417)
Observations	167,801	167,801
Log Likelihood	-30,644.529	-30,644.529
Pseudo R2	0.1585	0.1585

1. Dependent Variable= candidate's decision to switch party (1=switch, 0=not switch).
2. Province and Interaction effects between Province and Population are also included in the regression but not reported.
3. Standard errors in parentheses.
4. \*\*\*p<0.01, \*\*p<0.05, \*p<0.1.

**Appendix A. Binomial Logit Model Switching with unemployment rate at municipal level**

VARIABLES	Logit coeff	Odds ratio
Switcher		
2011.year	0.807*** (0.0425)	2.241*** (0.0952)
Gender	0.279*** (0.0273)	1.322*** (0.0361)
Past legislator	-0.268*** (0.0325)	0.765*** (0.0249)
Current legislator	0.0363 (0.0339)	1.037 (0.0351)
Regional	-0.824*** (0.200)	0.439*** (0.0876)
Left	-3.811*** (0.222)	0.0221*** (0.00490)
Center- left	-2.960*** (0.205)	0.0518*** (0.0106)
Center	0.813*** (0.235)	2.256*** (0.530)
Center- right	-2.663*** (0.204)	0.0697*** (0.0142)
Far-Right (omitted variable)	-	-
Population 2	-1.894** (0.817)	0.151** (0.123)
Population 3	-1.590* (0.837)	0.204* (0.171)
Population 4	-2.675*** (0.907)	0.0689*** (0.0625)
Population 5	-3.002*** (1.063)	0.0497*** (0.0528)
Population 6	-2.894*** (1.002)	0.0554*** (0.0555)
Population 1 (omitted variable)	-	-
Capital	-0.358*** (0.112)	0.699*** (0.0786)
Low gdp	-0.615***	0.541***

	(0.192)	(0.104)
Medium gdp	-0.357***	0.700***
	(0.110)	(0.0769)
High gdp (omitted variable)	-	-
Unemployment	-0.00605	0.994
	(0.00523)	(0.00519)
Constant	1.828*	6.220*
	(0.986)	(6.133)
Observations	133,681	133,681
Log likelihood	-23,729.138	-23,729.138
Pseudo R2	0.1716	0.1716

- 
1. Dependent Variable= candidate's decision to switch party (1=switch, 0=not switch).
  2. Province and Interaction effects between Province and Population are also included in the regression but not reported.
  3. Standard errors in parentheses.
  4. \*\*\*p<0.01, \*\*p<0.05, \*p<0.1.