The effectiveness of minimum income benefits in poverty reduction in Spain

Ayala L., Arranz J., García-Serrano C., Martínez-Virto L. The effectiveness of minimum income benefits in poverty reduction in Spain

One of the greatest peculiarities of the Spanish system of minimum income benefits is its complex organisation. There is a wide variety of specific means-tested benefits whose management and financing depend on the central government. They are designed to protect different contingencies, providing very different levels of protection. On the other hand, the general risk of poverty is covered by regional governments without any coordination and financing from the central government. In this article, we provide a picture of the possibilities and limits of the current set of welfare benefits, focusing especially on its effectiveness in terms of reducing poverty. Our findings show that most benefits are clearly insufficient to cover the risk of poverty in terms of both incidence and intensity. The results show the need for the redesign of the system to better articulate existing benefits in order to prevent new forms of poverty and to respond to emergency situations.

Key Practitioner Message: • *The Spanish system of minimum income benefits consists of a varied mosaic of benefits that provide very different levels of protection for individuals or households with similar needs*; • *The contribution of these benefits to the reduction in poverty in Spain is very modest and significantly lower than that of contributory pensions*; • *The protection provided by MIBS is also unequal by population categories*.

Luis Ayala[1] (iD) , **José María Arranz**[2] (iD)
Carlos García-Serrano[2] (iD) ,
Lucía Martínez-Virto[3] (iD)

[1] Universidad Nacional de Educación a Distancia, Madrid, Spain
[2] Universidad de Alcalá, Alcalá de Henares, Spain
[3] Universidad Pública de Navarra, Pamplona, Spain

Minimum income benefit schemes (MIBS) have undergone major changes in most European countries. Most countries have put restrictive reforms into effect, establishing stricter time limits and imposing more onerous obligations on those receiving benefits. These schemes have also undergone major changes to foster transitions from welfare to work. At the same time, there has been a shift from highly centralised to more mixed and decentralised MIBS. The most important challenge has been the difficult balance between the emergence of new social needs and the limits to increasing budgetary resources.

The global economic crisis that started in late 2007 increased these constraints. The challenges of both improving labour incentives and pursuing greater efficiency in the allocation of benefits have been further intensified, occurring simultaneously with the need to provide only have to cope with the increased economic needs that the crisis brought about but also to implement adequate activation strategies enough coverage to vulnerable households in the face of rising unemployment and poverty. The rise in the number of recipients challenged the capacity of the programmes and the social services, not only to cope with the increased economic needs that the crisis brought about, but also to implement adequate activation (Immervoll, 2010). On the other hand, because of the large variation in coverage offered by MIBS in European countries, the economic crisis has had very different impacts on poverty rates (Figari, Matsaganis, & Sutherland, 2013, Marchal, Marx, & Van Mechelen, 2011). In several countries, the growth of social needs was accompanied by a growing constraint on available resources.

The Spanish experience of minimum income benefits is somewhat singular in this comparative framework. Despite the remarkable transformation of the Spanish welfare state since the mid-1970s, access to social assistance remains underdeveloped for the needs of the population (Guillén & León, 2011). Unlike most countries in the European Union, there is not a MIBS that ultimately forms a homogenous

social safety net. The current system is a varied mosaic of benefits, with high levels of horizontal inequity and different levels of protection for individuals or households with similar needs. Some of these features, which are characteristic of the Mediterranean welfare states, pose a major challenge to policy trajectories aiming at providing basic floors of welfare entitlements and rights to all citizens within state territory (Moreno, 2006).

Another peculiarity of the Spanish system is its complex territorial organisation. On the one hand, there is a wide variety of specific means-tested benefits whose management and financing depend on the central government. Their access, coverage and duration of benefits are managed by different institutions and are designed to protect different contingencies, providing very different levels of protection and different requirements. On the other hand, the general risk of poverty is covered by regional governments without any coordination and financing from the central government. The result is a very complex system, with serious problems of coordination and inequality between benefits and territories.

In addition to the abovementioned problems, the levels of most benefits comprising the last safety net are low, clearly far from European standards (Marchal, Marx, & Van Mechelen, 2014). It is not surprising, therefore, that Spain was one of the countries where poverty increased most during the crisis, especially when it is measured with more severe thresholds or using material deprivation indicators (Ayala, 2014). Minimum income benefits and the temporary solutions for offering protection to households that had exhausted the right to unemployment benefits (UB) were not enough to meet the increase in demand.

The aim of this article was to provide a robust picture of the possibilities and limits of the current MIBS in Spain, focusing especially on its effectiveness in reducing poverty. Our results can be illustrative for the assessment of potential inequalities in the protection of different demographic groups in systems that are highly fragmented, both in institutional and territorial terms. Until now, the organisational problems directly associated with the system, with significant territorial and functional differences, have made this task extremely complex.

Using a mix of survey and administrative data, we provide the most exhaustive picture to date of its volume and the way it has evolved over time and, as an important contribution, of its limited ability to reduce poverty. Our research findings suggest that the contribution of MIBS to the reduction in poverty in Spain is very modest and significantly lower than that of contributory pensions. As a novelty, compared with previous studies, we also found that the protection received by the different demographic categories

of the population varies considerably, as each group has access to specific benefits providing different protection.

The remainder of the article is organised as follows. The second section provides a summary of the main trends of the system in terms of recipients and spending. The third section analyses the adequacy of the different benefits. The fourth section examines the effect of benefits on poverty in terms of both incidence and intensity. The fifth section concludes.

Evolution of the system

As in most Western welfare states, the Spanish system of cash benefits consists of two major types of benefits: those of a contributory nature, the most important of which are retirement pensions and unemployment insurance, and minimum income benefit schemes. The structure of the latter is based on two differentiated components: social assistance protection derived from a previous contribution, and non-contributory or welfare protection. Both levels are of a different protective nature that translates into certain types of inequality in the recipiency and intensity of the protection received (different benefit levels and different time limits) and in the performance of actions aimed at returning to the job market. The philosophy supporting each one of the levels conditions the access, protection and coverage of each type of benefit.[1] In this article, we consider as MIBS all the non-contributory benefits that are means-tested. This definition does not include any of the benefits that are provided to the population through the fiscal system.

The participation of distinct levels of public administration makes MIBS more complex than in other countries in terms of management, design, regulatory capacity and funding of these benefits. On the one hand, the benefits from the central government are provided by different public administrative bodies, such as the Public Employment Service, the National Social Security Institute and the Institute of Elderly Persons and Social Services (Table 1). On the other hand, in accordance with the current distribution of competencies, the last level of protection is provided by the Autonomous Regions (CCAA) via the so-called regional minimum income (RMI) programmes. The aim of these regional benefits is to serve as the last safety net against the general risk of poverty. Given the lack of coordination and financing

---

[1] In this context, the age and household type are decisive factors for accessing minimum income benefits. Therefore, emancipated young people or people under 45 years of age with no family responsibilities have a lesser length of time for economic protection. Employees with precarious or low-paying jobs are in many cases also at risk of poverty.

Table 1. MIBS benefits provided by the central government.

Public Employment Service	National Social Security Institute	Institute of Elderly Persons and Social Services
Subsidy for insufficient contributions	Non-contributory maternity subsidy	Non-contributory retirement pension
Subsidy for having exhausted the contributory benefit Subsidy for people over 45 whose contributory benefit has exhausted	Minimum pensions	Non-contributory disability pension
Subsidy for review of disability	Supplements	Social benefits for disabled people (replaced)
Agricultural subsidy for residents in Extremadura and Andalusia	Child benefit	Old social welfare fund (replaced)
Agricultural income		
Subsidy for emigrants who have returned to Spain		
Subsidy for released prisoners		
Active placement income		
Subsidy for people over 55		
Temporary programmes, such as the Professional Requalification Program and the Employment Activation Program		

from the central government, Spain has a diverse mosaic of regional welfare benefits with intense differences in terms of assessing and measuring economic needs and eligibility and defining economic protection or family responsibilities.

Out of all the benefits that make up MIBS, the oldest are those that aim to cover the risk of old age and disability.[2] Their greatest increase took place with the Non-contributory Pensions Act of 1990, which attempted to ensure an economic benefit for all retired or disabled citizens who needed it.[3] The new law modernised the system of non-contributory protection for older aged persons – the former system of benefits of the National Fund for Social Assistance (FONAS) – and for persons with disabilities – Social Benefits for Disabled People (1984). The former instruments remained in force for people who could not move into the new system. This Act also implied an important change in family benefits, with the introduction of a new benefit within the social security system for each dependent child. The number of people receiving these benefits has undergone a marked anti-cyclical evolution. Child benefit is still limited to families with very low incomes who receive very low annual amounts. Also included within the MIBS is a maternity allowance for employed or self-employed women who, in the event of childbirth, meet all the requirements for accessing the maternity benefit except for the required contribution period.

A debated issue in the definition of MIBS in Spain is whether minimum pension supplements must be considered as benefits within these schemes. When the level of the contributory pension does not reach the amount defined as minimum, there is a right to receive this supplement. Given that they are benefits whose origin is contributory, it is not clear that they should be considered within the MIBS. Furthermore, the high number of people receiving these supplements could bias the analysis of the figures of MIBS beneficiaries. However, some authors and the official institutions themselves usually include them. In our analysis of the system as a whole, we provide information on the number of and expenditure on these supplements in order to assess their weight over the total. This is not possible in the case of the effects on poverty, since this information is not available in household surveys.

A second block is made up of regional minimum income benefits. These benefits are the only instrument that offers general protection against the risk of poverty and is completely decentralised. This issue has been a permanent feature in its evolution, with regard to both the design of the benefits and its funding, which has corresponded exclusively to territorial governments, which has given rise to significant differences in both the nature of the benefits and the coverage offered beyond the differences in the cost of living in each territory. Currently, there are 19 different RMI benefits, with important differences in access requirements, economic protection and activation. The basic question is not only whether the differences among territories imply significant inequalities in the coverage received by households with lower income, but also if some autonomous regions are paying amounts that are below a basic minimum. As Figure 1 shows, the level of benefit in some regions is more than double that in others.

A third block of benefits includes unemployment assistance. An aspect that separates Spain from the EU average is that although social expenditure is lower, the money spent on unemployment benefits with respect to other categories of social expenditure is overrepresented. It even occurs in periods when economic growth is more intense and unemployment rates are relatively low.[4] This feature indicates how unemploy-

---

[2] Old Social Welfare fund benefits are managed by the regional governments.

[3] Non-contributory retirement and disability pensions are managed by regional governments, but regulated and financed by the central government.

[4] Social protection benefits as a percentage of GDP amounted to 21% in Spain and 24.8% in the EU-28 in 2008, while it was 24.9% and 27.5%, respectively, in 2014. At the same time, expenditure on unemployment protection amounted to 10.8% of total social protection benefits in Spain and 4.8% in the EU-28 in 2008, while it was 10.8% and 5.1%, respectively, in 2014.
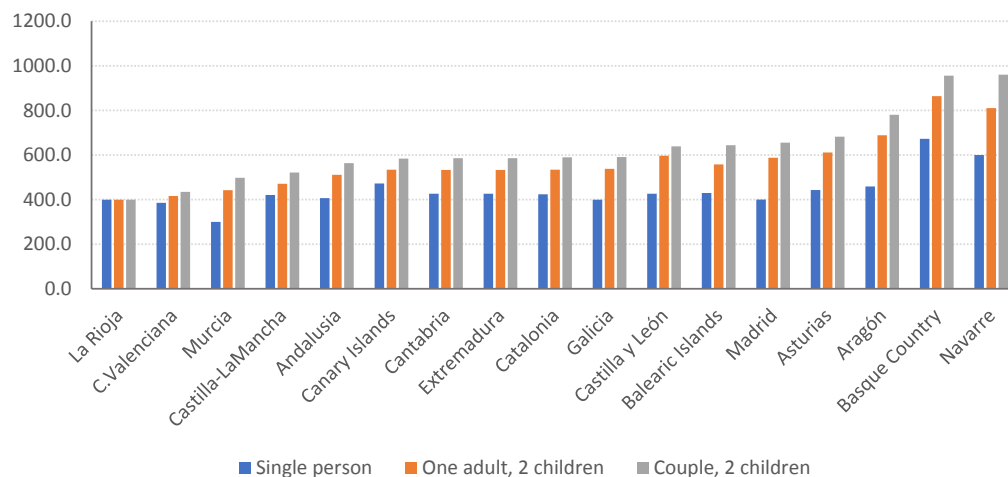
Figure 1. Differences in benefit levels of regional minimum income programmes (euros), 2016.
Source: Authors, based on the records of the Ministry of Employment and Social Security.

ment protection contributes to the functioning of the economic system and the labour market in Spain, characterised by a high level of temporary employment and turnover between working and being unemployed. It is necessary to distinguish between unemployment insurance (UI) and unemployment assistance (UA) benefits. Only the latter are part of the MIBS.[5] The rotation that structurally characterises the Spanish labour market, together with the prolonged unemployment spells during the 2008 recession, has caused a considerable number of beneficiaries to shift to the assistance side of this protection.

There are other benefits included within the MIBS for certain groups of unemployed workers. Subsidies for temporary agricultural workers are among them. Agricultural income is an unemployment benefit directed to temporary workers residing in Andalusia and Extremadura. The Agricultural Subsidy is an unemployment benefit for temporary workers of the Special System for Agrarian Employees of Social Security. Another specific subsidy is the Active Placement Income (RAI), created in the late 1990s. This benefit is

intended for unemployed people over 45 years of age who have been in this situation for at least one year and with family burdens, and who have exhausted the right to unemployment benefits

As can be seen in Table 1, there are several types of unemployment benefits. The different schemes managed by the Public Employment Service – with the exception of the RAI and the temporary benefits that were created in the 2008 crisis – are included in what is called unemployment assistance.

As a first step, it is essential to have a diagnosis that adjusts to the possibilities and limits of the current system and, especially, to have an accurate picture of how it has evolved. Until now, the organisational problems directly associated with the MIBS system, with significant territorial and functional differences, have made this task very complex. The administrative information, which is particularly valuable for knowing the scope of the system, was very disperse because it came from different sources and it was not possible to simultaneously use all the information necessary for laying out the general picture. Although the advances in the use of the administrative records of these benefits have been important, new steps are still necessary to have databases that allow for a more robust evaluation of the entry and exit dynamics in the different programmes. Although there is one source that could collect all these transitions, i.e., the Social Security Benefits Register, it offers only static information on the combinations of benefits that households receive at any given time. To systematise the number of recipients and the expenditure in these programmes, we jointly exploited the administrative records of the Social Security, the Institute of Elderly Persons and Social Services (IMSERSO), the Public Employment Service (SEPE) and the administrative records of the regional minimum incomes.

---

[5] UI benefits are paid to workers who have lost their job or whose temporary contract has come to an end, who can work and want to work, and who have paid UI contributions while working for at least 12 months during the past 72 months (excluding civil servants and workers hired by private households). The length of UI entitlement varies between 4 and 24 months, depending on the number of the months that contributions were made during the past 72 months. The gross replacement rate is 70% for the first six months of UI receipt and 50% thereafter (60% before July 2012), although the benefit level is subject to a certain upper limit. Moreover, workers who are not eligible for UI due to the lack of a sufficient contribution history or who have exhausted their benefits may qualify for flat-rate UA benefits. The UA benefit is means-tested, and its level and duration depend on the number of family dependents and the age of the recipient.
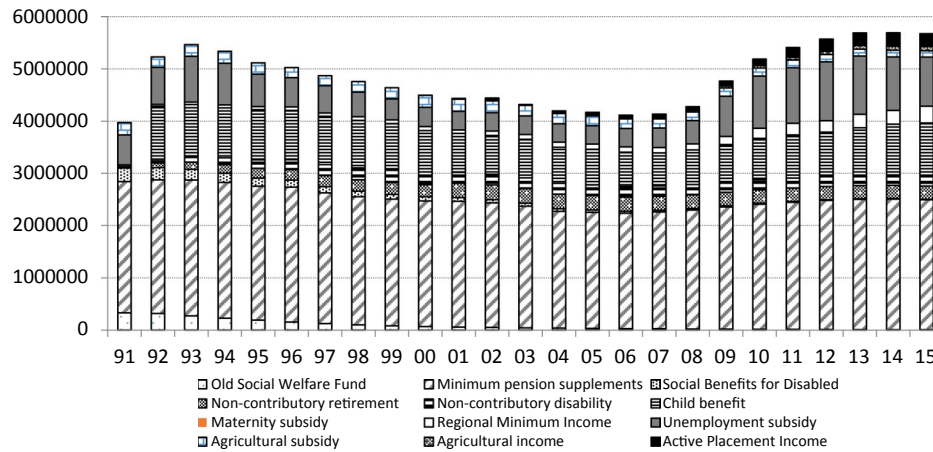
Figure 2. Number of recipients of MIBS, 1991–2015.
Source: Authors, based on the records of the Ministry of Employment and Social Security and the Ministry of Health, Social Services and Equality.
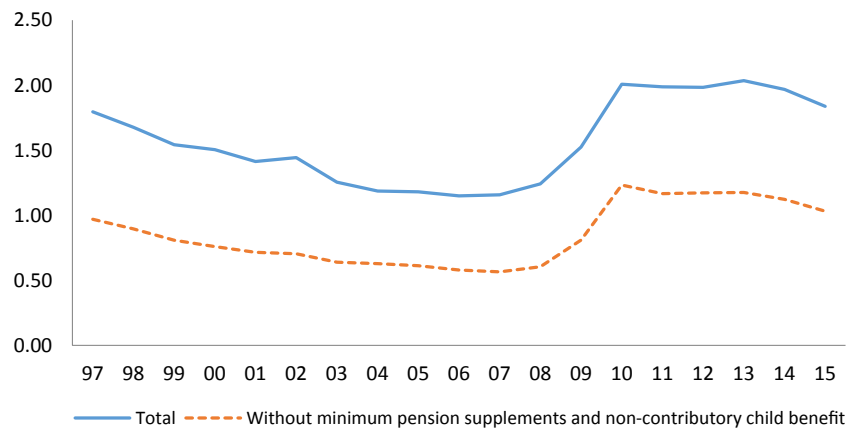

Figure 3. Expenditure on MIBS over the GDP (%), 1997–2015.
Source: Authors, based on data from the Spanish National Accounts and the records of the Ministry of Employment and Social Security, and the Ministry of Health, Social Services and Equality.

The main feature observed in long-term trends is the way the system has expanded (Figure 2).[6] However, the growth has not been continuous. It first started expanding at the beginning of the crisis in the 1980s, when the number of benefits doubled. A second expansion period occurred during the first half of the 1990s, when new benefits were introduced at the same time that a brief but intense recession affected the Spanish economy. The system's last period of growth was caused by the change in the economic cycle in 2008, which meant that the number of benefits rose from just over 4 million before the crisis (9.0% of the total population) to nearly 6 million in 2015 (12.3% of the total population). This impact is even more defined when the analysis focuses on the set of benefits without taking into account minimum pension supplements and child benefits − with very high numbers of beneficiaries but very low benefit levels − thus reaching a historical maximum in the volume of the system, nearly doubling the figure of 1.2 million benefits claimants in 2007 (2.8% of total population) to 2.2 million in 2015 (4.8% of total population).

The long-term changes in the volume of MIBS are also noticeable when the expenditure figures are analysed, although there are some subtle differences (Figure 3). The expenditure had been relatively stable until the start of the crisis, rising sharply from 2008 and peaking in 2010 (nearly 22 billion euros). From this date, it began to drop progressively, while the number of beneficiaries remained more or less stable, causing the system to lose part of its protection capacity.

The evidence for the long-term determinants of changes in expenditure growth and the number of recipients of minimum income benefits is very limited. Ayala and Pérez (2005) found that institutional factors

---

[6] For the sake of simplicity, we grouped several of the benefits included in Table 1 into the general category of unemployment subsidy.

were more important in the changes in the caseloads than were macroeconomic conditions. In a more recent contribution, Ayala and Triguero (2017) found that the economic cycle has a great influence on the number of recipients.

In practice, the fact that the MIBS comprises benefits of a very different nature makes it difficult to correctly identify which are the main drivers of the long-term changes of recipients and in expenditure. Apart from the different legislative changes that may affect eligibility and benefit levels, non-contributory retirement and disability pensions have as their main driver the ageing process of the Spanish society, and are much more independent of the economic cycle. In contrast, the trends of unemployment-related benefits are highly dependent on the changes in macroeconomic conditions. In the hardest moments of the crisis that began in 2008, the unemployment benefit accumulated more than half of the total beneficiaries of the MIBS – if minimum pension supplements and child benefit are not taken into account. The drastic growth in unemployment until 2013 increased the size of the whole system. In the expansionary phases, however, the demographic factors and the reforms introduced in the different schemes had a greater weight, as happened in the mid-1980s and at the beginning of the following decade.

The limited adequacy of minimum income benefits

The primary goal of MIBS is to act as the final economic safety net in the fight against poverty. However, in practice, the fear that the benefits would lead to less workforce participation or the option in some schemes for more categorical and selective benefits has meant that the benefit levels were established by taking into account other criteria besides poverty reduction. These criteria respond to different constraints, such as limited budgetary allocation. In the Spanish case, in addition to the possible inadequacy of benefits, we must also add the possible problem that adequacy rates might differ considerably given the mosaic of benefits mentioned above. If this were so, the MIBS system would be affected by severe equity problems, offering different protection depending on the population category even if the needs were the same.

In the analysis of the effects of the system on poverty, one of the most relevant issues is how to measure the adequacy of the different benefits. The concept of the adequacy of benefits refers to the use of very diverse approaches. In a restrictive interpretation, the adequacy could be approximated through the capacity of the benefits to satisfy the basic needs of the beneficiaries, regardless of how they are defined. In most countries of the European Union, however, poverty is measured as a relative phenomenon.

The most common procedure is to consider as poor those households whose income is below a threshold defined as a proportion of the median income. From this perspective, the adequacy could be measured by comparing the benefit levels with the poverty thresholds. Recently, there has also been a tendency to relate benefit levels to earnings indicators, mainly because here the comparison between countries is simpler (Immervoll, 2010; Vandenbroucke, Cantillon, Van Mechelen, Goedemé, & Van Lancker, 2012). From a more general perspective, the adequacy of benefits could also be considered as the capacity of the programmes to ensure that the growth in benefits does not deviate from the country's economic growth (Iacono, 2017).

Following these criteria, there are three variables that were used for this study to compare benefit levels (b): minimum wage, which we used to identify the relationship with low wages and, indirectly, with the level of prices; GDP per capita, which we used to relate benefit levels to average incomes as a broad measure of adequacy; and relative thresholds of poverty, calculated as percentages of the median income.

A first comparison takes the minimum wage (SMI) as the reference, making it possible to relate minimum income benefits to low wages (b/SMI). An indirect advantage of this option is that it also provides information about the loss or gain of purchasing power of the benefits, as the SMI has traditionally been updated according to the evolution of prices, except for the period between 2011 and 2015 when there were no changes. The changes in the corresponding ratio can be interpreted as gains (if the variation is positive) or losses (if negative) in the purchasing power of the different benefits.

Figure 4 shows the evolution of benefit levels in the most relevant minimum income schemes, with respect to the SMI and since the beginning of the 1980s.[7] It also includes some of the most important contributory benefits: contributory pension, contributory retirement pension, and minimum retirement pension. We include these contributory benefits in order to assess the differences in adequacy, not only between the benefits that make up the MIBS, but also between these benefits and the most important contributory benefits. While the nature of these contributory benefits makes the comparison with the poverty thresholds less relevant, since reducing poverty thresholds is not the aim of these benefits, the analysis of their proximity or distance from the minimum wage or GDP per capita – as fundamental economic variables – can provide important social policy insights.

---

[7] The unemployment subsidy is not included in the comparisons, given its fixed dependence during almost the entire period of the SMI's evolution.
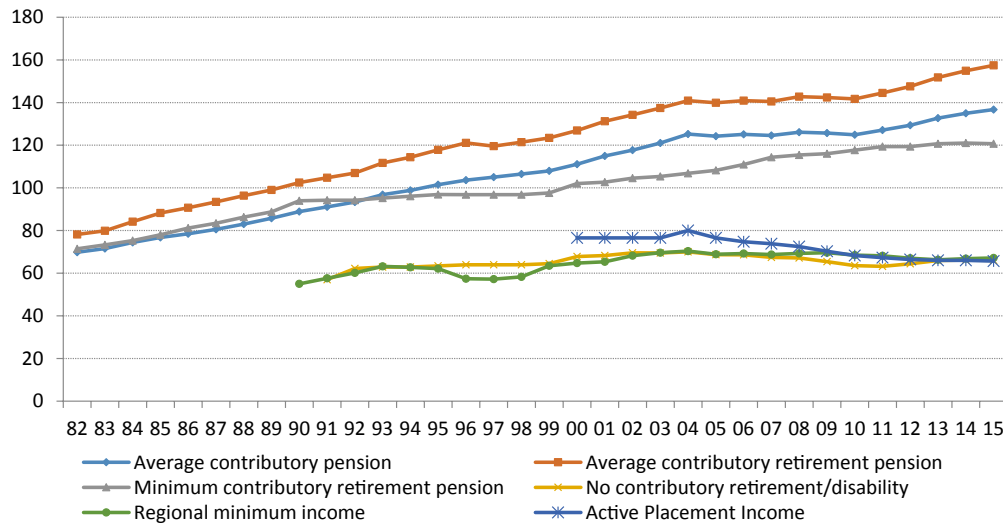
Figure 4. Evolution of the benefit levels as a proportion of the minimum wage.
Source: Authors, based on data from the Ministry of Employment and Social Security.

The main features that stand out in this evolution are the presence of different periods of change in this relationship and the different trends of contributory and assistance benefits. While the former showed a clear upward trend with respect to the SMI, the minimum income benefits had a less favourable evolution. Also noteworthy is the continuous fall of this ratio before the crisis in both the non-contributory pensions and the active placement income (RAI), while in the case of the regional minimum incomes, which is the average of the regional programmes, the relationship had not changed substantially, moving at levels of approximately 60%.

In most regional programmes, due to the lack of co-financing from the central administration, the limited budgetary capacity severely affects the possibility of setting higher benefit levels. In addition, benefits were frozen in the crisis in several regions in Spain. Given that a similar process occurred in the SMI case, the ratio did not change substantially, hiding both a decrease in the protection provided by the regional schemes and the lower protection of low-wage workers through the SMI. It should also be stressed that the divergence observed in the evolution of the protection provided by contributory and assistance benefits is a factor of inequality within the social protection system itself. The result is a greater differentiation among the beneficiaries of the Spanish system of social benefits, which limits its redistributive impact.

A second comparison can be made by relating the benefit levels to the average income of the Spanish population. A very general approach is to take the GDP per capita as a reference, since it provides a homogeneous series of the average living standard for a very long time period (b/GDP_{pc}). Given the a priori independence of the benefit with respect to the changes of

the economic cycle, it is easy to anticipate that changes in the proposed relationship should depend fundamentally on the type of cycle. While the gap should increase during expansions, the opposite effect could be expected during recessions. These possible movements are linked, however, to the questionable assumption that the benefit levels are independent of the economic cycle. One might think that in recessions − as happened in the last crisis (Ayala & Triguero, 2017) − decision-makers introduce cuts to avoid spending levels on the programmes that are difficult to sustain in contexts of government budget deficits.

As Figure 5 shows, this countercyclical behaviour was present during a substantial part of the period under consideration, although there were some differences between contributory and minimum income benefits. In the case of contributory benefits, after an important revaluation process at the beginning of the 1980s and from the mid-1990s until the last crisis, the benefit levels, with the exception of the minimum retirement pension since 2004, grew more slowly than the economy did. This process was reversed with the crisis, with an improvement of almost 15 points between 2007 and 2013 due to the severe fall of the average income and the increase in benefit levels as a result of the growing number of new recipients entering into the system with higher pensions.

Convergence with respect to average income has been much slower in the case of minimum income benefits, with less marked effects during recessions. While a clear distancing of the benefit levels with respect to the average income was observed during the period of economic boom before the crisis, the prolongation and intensity of the last crisis did not raise the indicator to the previous levels. At present, the benefit levels remain far from the average income of the Spanish population,
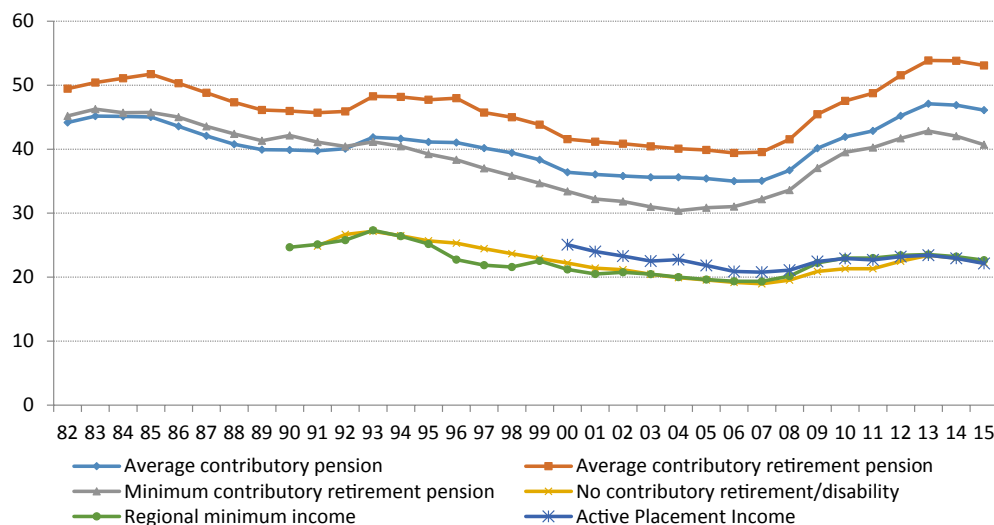
Figure 5. Evolution of the benefit levels as a proportion of the GDP per capita.
Source: Authors, based on data from the Ministry of Employment and National Institute of Statistics.

which explains that although its contribution to the reduction in the most severe forms of poverty has been maintained, its effects on the distribution of income and relative poverty are very limited. The relationship is currently at levels below those registered at the beginning of the 1990s.

Among the three options indicated, the most direct and usual one for measuring the adequacy of minimum income benefits is comparing the benefit levels with poverty thresholds (z) for each type of household (b/z) (Figari et al., 2013; Marchal, Marx, & Van Mechelen, 2016). In the EU countries, these are determined as a percentage of the mean or median income. The resulting income level is interpreted as the line that defines a situation of relative poverty. The main advantages of this approach are the ease of calculating thresholds and indicators and the wide dissemination of its use in contemporary studies. As a relative approach, this type of procedure has been subject to important criticisms, such as the arbitrariness of the percentage of income taken as a threshold, the sensitivity observed in poverty results when modifying certain methodological decisions, and the problems to adjust the thresholds to different territorial areas with variations in the cost of living. The mentioned advantages and the possibility of making comparisons between countries and territories, however, make these thresholds the main reference in the analysis of poverty in the EU countries.

In Spain, the benefit levels analysed can be related to poverty thresholds calculated using the income data of the Living Conditions Survey (ECV). These levels can be differentiated by accounting for the size and characteristics of the household, given the different coverage of each type of household provided by the

programmes.[8] Figure 6 shows the relationship between the benefit levels and the corresponding poverty thresholds, so that the percentages can be interpreted as the proportion with which the benefits cover the gap between the beneficiaries' income and the poverty line.[9] As mentioned above, we focus only on the MIBS because the main aim of contributory benefits is not to reduce poverty.

This last indicator of adequacy shows important differences, both in the coverage of the poverty risk by each benefit and in the protection of different types of households. Given the similarity of the benefit levels in the three schemes analysed and the considerable drop in the poverty line since the beginning of the crisis − due to the relative nature of the threshold − the gap between the level of benefits and the poverty line has narrowed. This relative improvement is greater in the regional minimum income programmes than in the non-contributory pensions and the RAI. However, benefits are clearly insufficient to cover the risk of poverty when the size of the household increases, with benefit levels below 50% of the poverty threshold.

The possibility of comparing benefit levels with poverty thresholds also allows the adequacy of benefits to be compared with the results from other European countries. The availability of a common database, such

---

[8] The equivalence scale used is the one considered by Eurostat, which assigns a value of 1 to the first adult in the household, 0.5 to other adults and 0.3 to each child.

[9] In 2013, the National Institute of Statistics introduced an important methodological change in the survey. Until that year, the information on income was that declared by the households when they were interviewed. From that year, the INE has used income data provided by the Tax Agency and Social Security. The series with income data with the traditional methodology can be reconstructed only up to 2014.
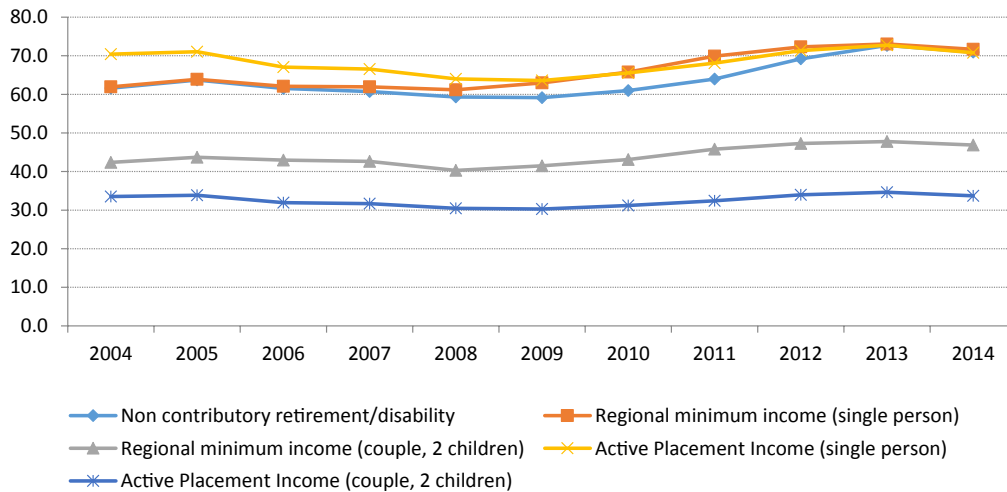
Figure 6. Evolution of the benefit levels as a proportion of the poverty threshold.
Source: Authors, based on data from the Ministry of Employment and Encuesta de Condiciones de Vida (National Institute of Statistics).

as the Survey on Living Conditions of the European Union (EU-SILC), allows for the calculation of poverty thresholds for different types of households in all EU countries. Furthermore, there is relatively homogeneous information available on the benefit levels in each EU member state. For several years, the European Commission has regularly provided information on the characteristics of these programmes in its reports on social protection in the European Union. Through the Mutual Information System on Social Protection (MISSOC), the Commission regularly publishes information on the 12 main areas of social protection. However, the comparison may not be entirely perfect, since several countries have supplementary benefits that take into account a wide variety of personal and family characteristics (age, illness, housing expenses, educational needs, medical expenses and many other conditions) that are not easily identifiable in the available files.

To make the comparison as homogeneous as possible with schemes that cover the general risk of poverty, we take as reference the regional minimum income programmes.[10] When considering this indicator for European Union countries, both the variety of results and the limited economic sufficiency of the Spanish minimum income schemes become obvious (Figure 7).[11] Whereas the benefits in countries such as Denmark practically cover the total risk of poverty and the indicators of Anglo-Saxon countries are not far from 75%, most countries offer levels between 50% and 70% of the poverty line. These levels are higher than the average levels of the Spanish regions. However, the average value hides a great diversity of results, with marked differences among the regional programmes (Figure 8).

We also performed the same comparison using regional poverty lines in the case of the Spanish programmes, thereby taking into account the average standard of living in each region. We found an evident improvement in some of the regions that have a lower average income, with results that better adjust to their budgetary possibilities. The opposite has occurred in some of the other regions, which have dropped to medium-to-low protection levels, while with the previous criterion they occupied some of the top positions in the ranking.

The overall balance that can be made is that the adequacy levels of MIBS in Spain are rather low. The different adequacy measures considered suggest a serious problem with the system: (i) benefits are systematically insufficient to raise household incomes to the poverty line; (ii) they have distanced from other benefits that provide greater protection; and (iii) they have not registered significant improvements with respect to the average level of income.

Effects of minimum income benefits on poverty

Adequacy rate indicators provide an indirect measure of the potential effect of benefits to reduce poverty. Its overall effect, however, depends not only on whether benefits are close to the poverty line, but also on the number of people who receive them. To measure the effect of MIBS on poverty, it is necessary to compare the poverty rate in the current system with that which would exist if the different benefits reviewed in the previous sections had not existed. While the first type of data appears directly in household surveys, the second requires some type of simulation.

---

[10]   We focus only on regional minimum income schemes because the information used to compare the other benefits within the EU countries is much more limited.

[11]   The benefits included in the comparison are the RMI schemes in the case of Spain.
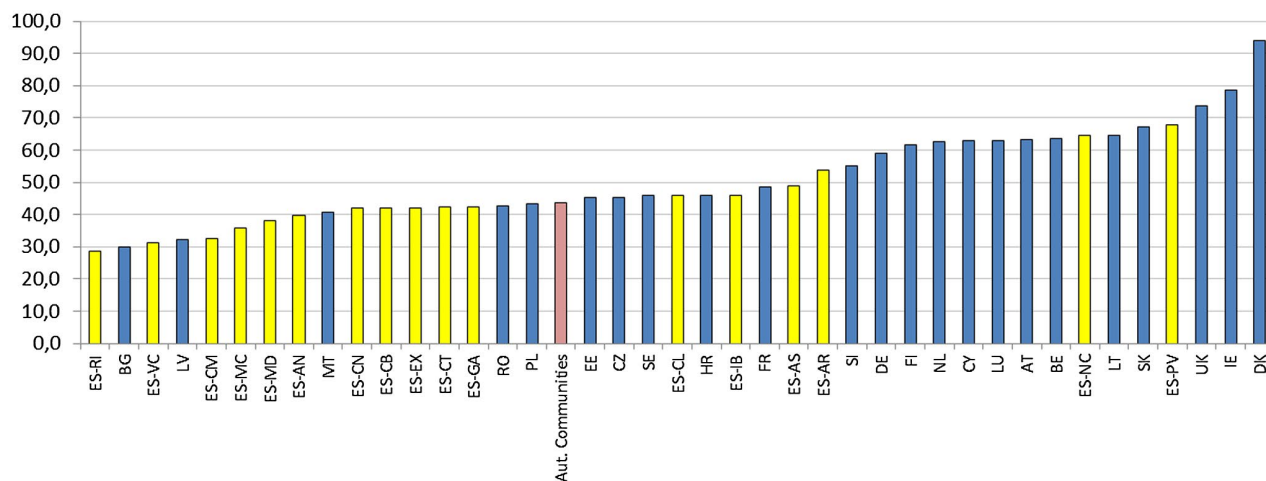
Figure 7. Regional and European minimum income benefit levels as a proportion of the poverty threshold (%), 2014 (couple with two children, national thresholds).
Source: Authors, based on the MISSOC Comparative Tables Database, the data for which come from the Autonomous Regions and EU-SILC (Eurostat). AN,
Andalucía; AR, Aragón; AS, Asturias; CB, Cantabria; CL, Castilla y León; CM, Castilla-La Mancha; CN, Canarias; CT, Cataluña; EX, Extremadura; GA, Galicia; IB, Baleares; MC, Murcia; MD, Madrid; NC, Navarra; PV, País Vasco; RI, La Rioja; VC, Comunidad Valenciana.

Figure 8. Regional and European minimum income benefit levels as a proportion of the poverty threshold (%), 2014 (couple with two children, regional thresholds).
Source: Authors, based on the MISSOC Comparative Tables Database, the data for which come from the Autonomous Regions and EU-SILC (Eurostat). AN,
Andalucía; AR, Aragón; AS, Asturias; CB, Cantabria; CL, Castilla y León; CM, Castilla-La Mancha; CN, Canarias; CT, Cataluña; EX, Extremadura; GA, Galicia; IB, Baleares; MC, Murcia; MD, Madrid; NC, Navarra; PV, País Vasco; RI, La Rioja; VC, Comunidad Valenciana.
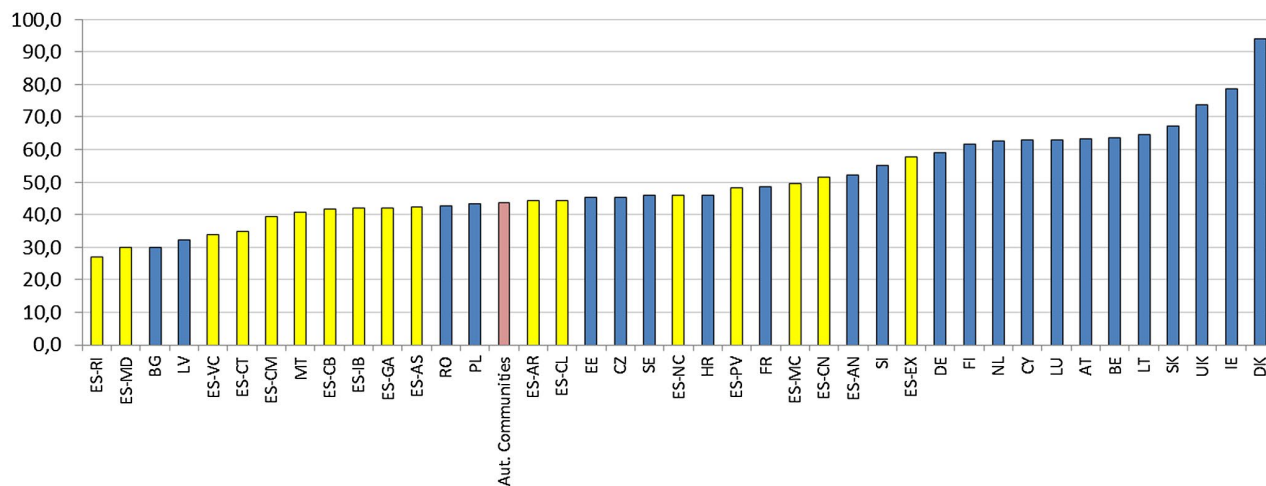
The standard procedure for creating it is to estimate the hypothetical poverty rate by subtracting the corresponding benefits from the disposable income and comparing this rate with the one resulting from disposable income. In the absence of benefits, households can only receive income from their participation in capital and labour markets. Let us call x_i this hypothetical income. When there are benefits and taxes, the disposable income of the household y_i will be the sum of the market incomes (x_i) minus the taxes paid (t_i) plus the benefits received (b_i): $y_i = x_i - t_i + b_i$.

As mentioned above, to identify the effect (E) that benefits have on poverty, we have to compare the poverty rate of households when they only receive market incomes with the one that actually exists, in which households pay taxes and receive benefits: $E = P(x_i, z) - P(y_i, z)$.

The usual criticism of this approach is the acceptance of the unrealistic assumption that taxes and benefits do not affect the poverty rate and that if households

Table 2. Effect of benefits on poverty rates by benefits and types of households, 2015 (threshold: 60% of median income).

	Contributory benefits					MIBS							Other	
	Contributory retirement pension	Unemployment insurance	Contributory Disability pension	Contributory family benefit	Contributory sickness	Non-contributory old age pension	Unemployment Subsidy	Non-contributory disability pension	Non-contributory child benefit	Regional Minimum Income	Non-contributory sickness	Universal family benefits	Education grants	Housing subsidies
Gender														
Men	−27.0	−6.0	−4.7	−0.2	−0.8	−0.1	−2.8	−0.1	−1.2	−3.3	0.0	−0.1	−0.3	−0.1
Women	−23.1	−5.8	−3.6	−0.3	−0.5	−0.2	−2.5	−0.1	−1.2	−3.6	0.0	−0.3	−0.3	−0.1
Age														
<16 years old	−3.2	−9.8	−2.7	−0.7	−0.6	−0.2	−3.5	−0.2	−3.1	−5.8	0.0	−0.9	−0.2	−0.2
16–25	−5.0	−6.3	−3.4	0.0	−0.6	0.0	−3.0	−0.1	−1.5	−5.8	−0.1	0.0	−1.8	−0.2
26–35	−11.6	−8.0	−5.6	−1.0	−0.5	0.0	−3.3	−0.3	−1.6	−3.8	0.0	−0.3	0.0	0.0
36–45	−9.1	−11.0	−2.6	−0.4	−0.8	−0.2	−3.7	−0.2	−1.9	−3.5	0.0	−0.6	−0.2	−0.1
46–55	−6.6	−7.4	−5.3	0.0	−1.1	−0.1	−3.4	−0.3	−0.9	−5.4	−0.1	0.0	−0.5	−0.2
56–65	−23.9	−6.3	−14.4	0.0	−1.9	0.0	−5.1	0.0	−0.7	−4.0	0.0	0.0	−0.3	0.0
66–75	−67.0	−1.0	−0.7	0.0	−0.1	−0.1	−0.3	0.0	−0.4	−0.4	0.0	0.0	0.0	0.0
>75	−48.0	−0.9	−1.1	0.0	0.0	−0.3	−0.2	0.0	−0.4	−1.2	0.0	0.0	0.0	0.0
Type of household														
One person: male, <30 years old	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	−21.4	0.0
One person: male, 30–64 years old	−5.4	−6.8	−6.0	0.0	−2.6	0.0	−1.4	0.0	0.0	−1.5	0.0	0.0	0.0	0.0
One person: male, >65 years old	−73.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
One person: female, <30 years old	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
One person: female, 30–64 years old	−4.3	−5.6	−5.4	0.0	−1.5	0.0	−3.3	0.0	−0.2	−3.0	0.0	0.0	0.0	0.0
One person: female, >65 years old	−23.4	0.0	0.0	0.0	0.0	−0.2	0.0	0.0	0.0	−0.4	0.0	0.0	0.0	0.0
2 adults without children, at least one person >65 years old	−63.9	−0.7	−1.0	0.0	0.0	−0.1	−0.3	0.0	−0.1	−0.2	0.0	0.0	0.0	0.0
2 adults without children, both <65 years old	−11.0	−7.6	−10.9	0.0	−1.8	0.0	−5.6	−0.3	−0.2	−4.8	−0.2	0.0	0.0	0.0
Other households with no dependent children	−34.1	−6.5	−8.9	0.0	−1.0	−0.2	−3.4	−0.2	−1.1	−2.6	0.0	0.0	−0.1	−0.1
One adult with at least one dependent child	−0.9	−13.5	−1.7	0.0	0.0	0.0	−1.0	0.0	−1.1	−4.4	0.0	−0.8	−2.1	−0.4
Two adults with one dependent child	−4.2	−12.9	−5.0	−2.2	−0.1	0.0	−3.3	−0.5	−1.0	−3.3	0.0	−0.2	−0.7	0.0
Two adults with two dependent children	−1.9	−10.4	−1.9	−0.4	−1.1	0.0	−5.4	0.0	−1.7	−4.8	0.0	−1.2	−0.2	−0.2

(Continues)

Table 2. (Continued)

	Contributory benefits					MIBS						Other		
	Contributory retirement pension	Unemployment insurance	Contributory Disability pension	Contributory family benefit	Contributory sickness	Non-contributory old age pension	Unemployment Subsidy	Non-contributory disability pension	Non-contributory child benefit	Regional Minimum Income	Non-contributory sickness	Universal family benefits	Education grants	Housing subsidies
Two adults with three or more dependent children	−0.2	−4.1	−2.8	0.0	0.0	0.0	−1.4	0.0	−3.3	−5.9	0.0	−0.3	0.0	−0.2
Other households with dependent children	−11.1	−6.3	−3.9	0.0	−0.8	−0.5	−3.2	−0.2	−4.3	−9.0	0.0	0.0	−0.9	−0.1
No. persons in household														
1 person	−25.9	−2.2	−2.0	0.0	−0.8	−0.1	−0.7	0.0	0.0	−0.9	0.0	0.0	−0.3	0.0
2 people	−46.3	−3.4	−3.7	0.0	−0.5	0.0	−1.7	−0.1	−0.1	−1.8	−0.1	−0.1	−0.1	0.0
3 people	−22.8	−8.5	−6.8	−0.8	−0.5	−0.2	−3.3	−0.4	−0.8	−2.6	0.0	−0.1	−0.6	−0.1
4 people	−8.2	−9.8	−4.1	−0.3	−1.4	0.0	−4.7	−0.1	−1.8	−5.3	0.0	−0.7	−0.2	−0.2
5 people	−9.5	−5.4	−3.7	0.0	0.0	−0.2	−2.3	0.0	−2.8	−7.0	0.0	−0.1	−1.0	−0.1
6 people	−11.9	−0.5	−4.8	0.0	0.0	−1.4	−3.0	0.0	−5.9	−8.2	0.0	0.0	0.0	0.0
7 people	−5.0	−17.7	0.0	−0.5	−0.2	0.0	−0.2	0.0	−9.5	−1.3	0.0	0.0	0.0	0.0
Citizenship														
Spain	−31.3	−5.2	−4.9	−0.2	−0.7	−0.1	−2.6	−0.1	−0.9	−2.8	0.0	−0.1	−0.4	−0.1
Foreigner (rest of EU-28)	−17.6	−9.0	−0.7	−0.2	−0.5	−0.1	−1.4	0.0	−1.2	−3.1	−0.2	0.0	0.0	0.0
Foreigner (rest of world)	−4.0	−4.7	−1.3	−0.3	−0.7	0.0	−1.7	0.0	−1.7	−5.7	0.0	−0.3	−0.5	−0.3
Labour market status														
Working	−11.1	−10.6	−3.6	−0.4	−1.1	−0.1	−4.5	−0.2	−1.1	−3.0	0.0	−0.5	−0.4	−0.1
Unemployed	−7.3	−7.6	−3.2	−0.3	−0.6	−0.1	−4.0	−0.2	−1.1	−5.7	0.0	0.0	−0.4	−0.1
Retired	−63.6	−1.5	−3.0	0.0	−0.1	−0.1	−0.5	0.0	−0.4	−0.6	0.0	0.0	0.0	0.0
Other inactivity	−15.1	−5.5	−5.7	−0.2	−0.8	−0.2	−2.3	−0.1	−2.0	−4.5	0.0	−0.3	−0.4	−0.1
Total	−24.9	−5.9	−4.1	−0.2	−0.7	−0.1	−2.6	−0.1	−1.2	−3.5	0.0	−0.2	−0.3	−0.1

had only primary incomes, they would not change their behaviour (Ravallion, 2016). However, the simplicity of such calculations has made their use generalised.

To test how poverty changes with MIBS in terms of both incidence and intensity, we used the index proposed by Foster, Greer and Thorbecke (FGT) (1984) as a poverty measure:

$$\text{FGT}(\alpha) = \frac{1}{n} \sum_{i=1}^{q} \left(\frac{z - y_i}{z}\right)^{\alpha}$$

where q is the number of households whose incomes are below the poverty threshold and α is a parameter measuring inequality aversion. We used the most standard values of the index: ($\alpha = 0$) makes the FGT equal to the headcount ratio, and ($\alpha = 1$) provides a measure of the intensity of poverty.

We used this procedure with data from the Living Conditions Survey-2015. The poverty line was fixed at the baseline level. As in the previous analyses, we included both contributory and non-contributory benefits to compare not only the effect that MIBS have on poverty, but also their potential to reduce poverty in comparison with that of contributory benefits. An important restriction is that the survey data do not differentiate between contributory and non-contributory benefits. To differentiate them, we asked the National Institute of Statistics to produce a specific exploitation of the survey providing this disaggregation. Although it is possible to identify some of the benefits listed in the previous sections, because of problems of sample representativeness, the level of disaggregation is not as detailed. The survey also uses some categories of benefits that are not perfectly equivalent to those used so far.

In general terms, the set of both contributory and welfare social benefits reduces the incidence of poverty to less than half (Table 2). This overall effect is not evenly distributed by population groups. Benefits reduce poverty more among women than among men, with a distinctly lower effect on young people and children, although they were the groups most affected by the economic crisis (Coppola & O'Higgins, 2016). The opposite occurs with older individuals. The effect clearly decreases as the number of children in the household grows. The impact is greatly reduced in the case of immigrants from outside the EU, with a strong differentiation depending on labour status. The contribution to poverty reduction is also much lower in the case of employed and unemployed people.

It is possible to disaggregate the effects on poverty according to types of benefits and types of households. Contributory pensions comprise nearly half the total of said reduction.[12] The second type of benefit that con-

tributes the most to reducing poverty is UB (nearly 9%), with the contributory benefit having a greater effect (practically two-thirds of the impact). At the opposite end are child benefits, which, despite affecting a large number of households, hardly change the poverty rate.

This set of results is repeated in most of the socioeconomic categories, although with subtle differences. Especially coverage problems in the case of children stand out. In general, for these groups and households with children, the main instrument to avoid poverty is UB and, to a lesser degree, RMI schemes. The increasingly high child poverty rates in Spain are closely related to the insufficiency of the protection for low-income workers, the increased probability of unemployment, and family responsibilities. In these households, child benefits hardly affect the risk of poverty, having only a moderate effect in larger households. In the case of immigrants from outside the EU, their main form of protection against poverty is RMI schemes.

Therefore, the effect of MIBS on poverty is small in general terms and much less than that of contributory benefits. In addition, the fact that there are so many differences by socioeconomic categories shows that the heterogeneous mosaic of MIBS in Spain leads to very different levels of protection between households and individuals although they may be equally poor.

Another important dimension for assessing the effect of MIBS on poverty is its intensity, which is measured as the distance between the income of poor households and the poverty line. Although the benefits do not substantially reduce the percentage of households below the poverty line, they do have a significant effect of narrowing this gap. When the effect of benefits is measured in this way, a first relevant result is a greater reduction in poverty than in the case of incidence (Table 3). The benefits reduce more than 70% of this gap with respect to the hypothetical case in which households do not receive transfers. It is, therefore, a system that is relatively effective in reducing poverty among people and households receiving benefits, but has significant problems with coverage of the most vulnerable population, which limits its effectiveness to reduce the extension of these situations.

Second, this capacity is very concentrated to certain benefits only, with the most important contribution − more than half of the effect − corresponding to contributory retirement pensions. There is also a more relevant quantitative impact of unemployment benefits − contributory insurance and subsidies jointly reduce 15% of the gap − than in the previous case, disability contributory pensions − causing a decrease of 7% of the intensity − and, to a lesser

---

[12] In the survey, the minimum pension supplements are not collected as a different benefit from the total pension.

Table 3. Effect of benefits on the intensity of poverty by benefits and types of households, 2015 (threshold: 60% of median income).

	Contributory benefits					MIBS						Other		
	Contributory retirement pension	Unemployment insurance	Contributory Disability pension	Contributory family benefit	Contributory sickness	Non-contributory old age pension	Unemployment. Subsidy	Non-contributory disability pension	Non-contributory child benefit	Regional Minimum Income	Non-contributory sickness	Universal family benefits	Education grants	Housing subsidies
Gender														
Men	−39.4	−7.6	−7.4	−0.2	−0.9	−1.0	−8.5	−1.0	−1.5	−5.3	−0.3	−0.1	−0.8	−0.3
Women	−34.7	−6.5	−5.8	−0.2	−0.8	−1.5	−7.4	−1.0	−1.6	−5.2	−0.3	−0.2	−0.7	−0.3
Age														
<16 years old	−4.4	−11.6	−4.3	−0.8	−1.0	−0.3	−11.5	−0.7	−4.9	−9.2	−0.3	−0.6	−0.6	−0.7
16–25	−8.5	−8.9	−7.1	−0.1	−1.1	−0.6	−11.0	−1.2	−2.3	−8.7	−0.2	0.0	−3.6	−0.4
26–35	−13.9	−12.2	−8.3	−0.9	−1.0	−0.6	−10.6	−1.2	−2.6	−7.1	−0.3	−0.3	−0.6	−0.9
36–45	−12.1	−13.3	−4.1	−0.4	−1.0	−1.0	−9.7	−1.4	−2.5	−6.1	−0.2	−0.4	−0.7	−0.4
46–55	−10.3	−10.4	−9.9	0.0	−1.1	−0.7	−15.2	−2.2	−1.3	−8.2	−0.3	0.0	−1.7	−0.5
56–65	−31.3	−8.4	−22.7	0.0	−2.0	−0.5	−13.1	−1.4	−0.7	−5.9	−0.7	0.0	−0.4	−0.1
66–75	−80.0	−1.8	−1.3	0.0	−0.2	−2.2	−1.5	−0.3	−0.4	−1.6	−0.2	0.0	−0.1	0.0
>75	−65.2	−1.1	−1.6	0.0	−0.1	−2.3	−1.4	−0.4	−0.6	−2.0	−0.1	0.0	−0.1	0.0
Type of household														
One person: male, <30 years old	0.0	0.0	0.0	0.0	0.0	0.0	−1.2	0.0	0.0	0.0	0.0	0.0	−33.6	0.0
One person: male, 30–64 years old	−6.5	−12.0	−13.1	0.0	−2.5	0.0	−13.1	−0.7	0.0	−5.7	−0.1	0.0	0.0	−0.2
One person: male, >65 years old	−90.4	0.0	0.0	0.0	0.0	−0.4	0.0	0.0	0.0	−0.3	0.0	0.0	0.0	0.0
One person: female, <30 years old	0.0	−0.2	0.0	0.0	0.0	0.0	−4.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0
One person: female, 30–64 years old	−5.3	−9.8	−7.8	0.0	−2.8	0.0	−9.7	−3.5	−0.3	−4.3	−0.6	0.0	0.0	−0.3
One person: female, >65 years old	−38.5	0.0	0.0	0.0	−0.2	−2.8	−0.1	0.0	−0.1	−1.3	0.0	0.0	0.0	0.0
2 adults without children, at least one person >65	−78.9	−1.6	−2.0	0.0	0.0	−1.4	−2.2	−0.4	−0.4	−1.3	−0.2	0.0	0.0	0.0
2 adults without children, both <65 years old	−13.6	−10.4	−18.6	0.0	−1.5	−0.1	−15.0	−1.5	−0.1	−7.4	−0.7	0.0	−0.3	−0.6
Other households with no dependent children	−44.5	−8.2	−14.0	0.0	−0.8	−2.9	−9.2	−2.0	−0.7	−4.7	−0.2	0.0	−0.6	−0.3

(Continues)

Table 3.   (Continued)

	Contributory benefits					MIBS							Other	
	Contributory retirement pension	Unemployment insurance	Contributory Disability pension	Contributory family benefit	Contributory sickness	Non-contributory old age pension	Unemployment Subsidy	Non-contributory disability pension	Non-contributory child benefit	Regional Minimum Income	Non-contributory sickness	Universal family benefits	Education grants	Housing subsidies
One adult with at least one dependent child	−2.2	−7.6	−6.2	0.0	−0.1	0.0	−7.8	−1.4	−2.5	−5.5	−0.1	−0.3	−2.1	−0.8
Two adults with one dependent child	−6.7	−16.4	−7.1	−1.8	−0.6	−0.5	−13.6	−0.9	−3.0	−6.0	−0.6	−0.2	−2.0	−0.9
Two adults with two dependent children	−2.8	−14.1	−2.4	−0.6	−1.5	−0.2	−13.2	−0.5	−2.5	−7.1	0.0	−0.7	−1.9	−0.8
Two adults with three or more dependent children	−0.7	−6.6	−4.0	−0.2	−0.9	0.0	−10.2	−0.8	−3.4	−12.6	0.0	−0.6	−1.1	−0.5
Other households with dependent children	−16.7	−9.9	−8.0	−0.2	−1.8	−1.6	−11.7	−1.6	−6.4	−13.1	−0.8	−0.2	−1.5	−0.1
No. persons in household														
1 person	−38.5	−3.5	−3.5	0.0	−0.9	−1.3	−3.8	−0.6	−0.1	−2.3	−0.1	0.0	−0.4	−0.1
2 people	−60.5	−3.9	−6.0	0.0	−0.4	−1.1	−5.5	−0.7	−0.3	−3.0	−0.3	0.0	−0.2	−0.2
3 people	−31.5	−10.7	−11.2	−0.6	−0.6	−1.8	−10.4	−1.7	−1.3	−4.7	−0.4	−0.1	−1.3	−0.6
4 people	−11.2	−12.6	−6.6	−0.5	−1.4	−1.0	−13.3	−1.1	−2.8	−8.3	−0.2	−0.4	−1.8	−0.5
5 people	−13.2	−8.2	−7.7	0.0	−1.2	−1.0	−10.6	−1.1	−3.3	−10.8	−0.7	−0.3	−0.9	−0.1
6 people	−11.5	−8.0	−3.2	−0.3	−1.6	−2.2	−6.7	−0.1	−9.3	−13.7	0.0	−1.1	−1.4	−0.4
7 people	−10.9	−13.1	−2.2	−0.5	−0.9	−3.1	−10.1	−3.6	−11.1	−1.9	0.0	0.0	0.0	0.0
Citizenship														
Spain	−44.5	−6.2	−7.6	−0.1	−0.9	−1.5	−7.4	−1.1	−1.0	−4.3	−0.3	−0.1	−0.7	−0.1
Foreigner (rest of EU-28)	−30.8	−8.8	−1.9	0.0	−0.1	0.0	−6.1	0.0	−1.6	−3.7	−0.1	−0.1	−0.2	−0.2
Foreigner (rest of the world)	−6.6	−8.8	−1.3	−0.2	−0.3	−0.8	−8.3	−0.2	−2.7	−9.5	0.0	−0.4	−1.5	−1.3
Labour market status														
Working	−11.8	−13.5	−5.1	−0.4	−1.9	−0.8	−10.1	−0.6	−1.4	−3.8	−0.3	−0.4	−1.5	−0.6
Unemployed	−12.0	−11.4	−5.9	−0.4	−0.8	−0.7	−17.8	−1.3	−1.8	−9.7	−0.3	−0.1	−0.9	−0.3
Retired	−79.7	−1.8	−4.3	0.0	−0.3	−1.9	−2.0	−0.3	−0.4	−1.3	−0.2	0.0	−0.1	0.0
Other inactivity	−23.7	−6.7	−9.6	−0.2	−0.8	−1.2	−6.8	−1.5	−2.5	−6.7	−0.3	−0.2	−1.0	−0.4
Total	−37.0	−7.1	−6.6	−0.2	−0.8	−1.3	−7.9	−1.0	−1.6	−5.2	−0.3	−0.1	−0.8	−0.3

Source: Authors, based on the Living Conditions Survey 2015 (INE).

extent, regional minimum income programmes. Although the contribution of the latter is relatively small, it is considerably greater than that observed in the case of the incidence of poverty. It is therefore confirmed that these benefits are important in raising the incomes of recipients closer to the poverty line, but have a severe lack of coverage in a high proportion of vulnerable households. The limited effect of non-contributory child benefits must also be noted, with a very residual contribution to reducing the gap.

The impact in terms of the intensity of poverty also differs substantially by population category, as indicated in the previous review of the characteristics of MIBS. There is a serious problem of fragmentation of the whole set of non-contributory benefits. The effects of this issue are more relevant in the case of men, while the groups that receive less protection are young people and children. In the case of these two groups, the bulk of the reduction in the intensity of poverty must be attributed to unemployment benefits and regional minimum income programmes, with a very limited contribution of child benefits. As noted before, even though child benefits affect many households, their low levels make it difficult to narrow the gap.

In contrast, the protection of older aged persons is very high, reducing 90% of the problems of poverty intensity, due mainly to contributory retirement benefits. This protection is much less effective in the case of single-parent households, where the effect of benefits on the intensity of poverty is almost half that of the total population, and of large families, further confirming the weakness of family benefits. Other groups in which protection is less intense are non-EU immigrants, as well as the employed population, in the absence of instruments that supplement salaries when remunerations are low and there are family burdens.

Given the limited contribution of the MIBs to poverty reduction in Spain, different reforms have been proposed to improve their capacity. Some authors have used microdata and microsimulation models to assess the possible impact of different reforms in terms of cost and poverty reduction. A common result is that alternative developments of the current system would improve its capacity to reduce poverty.

It is possible to group the simulations of the possible reforms into three different lines. A first one is focused on alternative designs for regional minimum income programmes. One of the most important problems of these programmes is the low take-up rates in some regions of Spain. Due to the limited territorial representativeness of household surveys, it is not easy to estimate the extent of this problem. Some authors propose using the number of no-income households collected in the Labor Force Survey to calculate the number of households that could apply for the regional minimum income benefits. There are

some regions where the ratio between the number of households receiving the regional minimum income and no-income households is less than 10% (Ayala, 2016).

Some authors have estimated what effect coverage would have if it were total. Fuenmayor and Granell (2015), for example, found that although the effects on moderate poverty would be small, its intensity would be reduced and, furthermore, the severe poverty rate would drop by half. Hernández, Picos, and Riscado (2020) also estimated what the results of these systems would be if the take-up were 100%. Their results suggest that moving towards a subjective right approach would significantly increase the coverage of many regional schemes, although with potentially substantial budgetary implications. Nevertheless, even under these conditions, these programmes' potential would be still far from full anti-poverty efficiency. This goal can be attained only by increasing the adequacy of most schemes.

A second line of MIBS reform that has been simulated is the development of the system through non-contributory family benefits. Making use of the tax-benefit model for the European Union – EUROMOD, Cantó, Adiego, Ayala, Levy, and Paniagua (2014) simulated what would have been the impact of each regional child-related policy if each had been implemented in the whole country. Their results show that central government policies play a considerably larger role in reducing poverty risk. However, some regions' policies perform better than others in reducing child poverty at a national level, and regional benefits and tax credits reinforce and complement the central government policies' focus on younger children. Focusing more specifically on the non-contributory child benefit, Cantó and Sobas (2020) – also using EUROMOD– simulated the effects on poverty of alternative increases in the level of the child benefit. A new scheme that increased the threshold for accessing the benefit to 20,000 euros, and also increased its level to about 100 euros per month would be highly effective in reducing poverty.

The third line of simulation proposes a radical transformation of the system by replacing the current MIBS with a basic income. Raventós, Arcarons, and Torrens (2016) proposed a scheme in which a basic income would replace all cash benefits, paying an amount equivalent to the poverty line. The minimum threshold in the personal income tax would be eliminated, basic income would not be taxed, and there would be a single tax rate (49%). Other authors have found the cost of these proposals unaffordable. BBVA Research (2017) replicated these calculations, finding that the proposed changes would increase the tax burden by more than 15 points. Badenes-Plá, Gambau-Suelves, and Navas (2019) simulated two

reforms in a somewhat similar line. The first one implies the replacement of all cash benefits – including the contributory ones – with a universal basic income. The second proposal – much less radical – maintains retirement pensions and eliminates the other cash benefits. Their results show that the current design of benefits has a greater effect on reducing poverty than the simulated reforms.

Conclusion

The Spanish system of minimum income benefits is somewhat singular in a comparative framework. It consists of a varied mosaic of benefits that provide very different levels of protection for individuals or households with similar needs. Part of this variety of specific means-tested benefits depends on the central government, but the different kinds of benefits are managed by different institutions. However, the general risk of poverty is covered by the regional governments, without any coordination or financing from the central government. The result is a very complex system, with serious problems of coordination and inequality among benefits and regions. This problem widened with the crisis and the resulting emergence of new forms of poverty.

The economic crisis in Spain has left a strong mark on the labour market. The traditional profiles of poverty, driven mainly by unemployment, have given way to new forms of social exclusion in which employment does not overcome poverty. The lack of a sufficient income level has opened up new spaces of exclusion in relation to consumption, mental health problems and family conflicts. This context imposes two important challenges to the MIBS system. First, only some regional benefits are compatible with, and complementary to, low wages, requiring a regulatory review of many public resources that were designed in a context in which employment was sufficient to overcome poverty. Second, the traditional debate on the role of these benefits needs to be revised. While these resources can contribute to consolidating a precarious labour market, they still play a preventive role against the economic deterioration of many households.

Until now, the response of MIBS in Spain to new social needs has been to increase the number of benefits, to extend regulations with certain access-related exceptions or to design special programmes. Nevertheless, extending the map to respond to very specific needs has generated several loopholes and obstacles, largely in relation to uncovered situations of need and complex administrative procedures. In this regard, it is necessary to simplify and standardise the administrative procedures and access requirements.

Moreover, the system also needs higher budgetary resources. Without improvements in adequacy ratios, it is difficult to think of long-lasting reductions in poverty and a shorter gap with respect to the EU average. The comparison of the evolution of benefit levels with those of contributory benefits also shows that this other gap between the two types of benefits has widened, thereby increasing inequality in social rights.

One of the fundamental contributions of this article has been the analysis of the effects of this system on poverty in terms of both incidence and intensity. Our research findings suggest that the contribution of MIBS to the reduction in poverty in Spain is very modest and significantly lower than that of contributory pensions. The very limited effect of some of the most widespread non-contributory benefits, such as child benefits, should be noted. Although they affect a large number of families, they have little effect on the incidence and intensity of poverty. The impact of regional minimum income − the main tool to cover the general risk of poverty − is also very limited.

The protection provided by MIBS is also unequal by population categories. The most visible deficiency is the low coverage for minors and young people. For these groups, the main instrument for avoiding poverty is unemployment benefits and, to a lesser extent, regional minimum income programmes. The high rates of child poverty in Spain, which have also been increasing over time, are closely related to the inadequacy of protection mechanisms for workers with low wages, the higher probability of unemployment and family burdens. In these households, child benefits have little effect on the risk of poverty.

Another relevant result is that the greatest contribution to poverty reduction occurs when poverty's intensity is examined rather than its incidence. It is, therefore, a system that is relatively effective in reducing poverty among those individuals and households that receive benefits, but leaves an important part of the most vulnerable population without coverage. This reality limits its effectiveness in reducing the extent of poverty in Spain.

These findings may assist in the formulation of policies and an increase in outreach efforts. It is essential to increase the levels of spending on MIBS for an effective reduction in poverty. The system has a very limited incidence in terms of population size, especially given that some of the benefits that contribute most to increasing the total − such as non-contributory benefits for dependent children − provide very low benefit levels, despite affecting many households. The reduced weight of spending over the GDP after the exclusion of benefits that complement contributory pensions and non-contributory child benefits confirms the very little impact of the system. Without greater resources and a better allocation of these resources, it is difficult for the system to substantially reduce the incidence of poverty and to provide adequate answers to possible emergency situations.

Moreover, the strategy to build the last safety net through a very broad set of specific benefits produces great inequalities among population groups. A greater articulation of the set of benefits seems necessary to prevent these inequalities from becoming too large, as is the revision of the access requirements in order to adequately face the new forms of poverty, with a recognition of the outstanding preventive nature of these benefits. A greater structuring of the contributory and assistance subsystems and the improvement of the internal coherence of each subsystem are inevitable. Likewise, the differences in the benefit levels in the regional minimum income programmes are very broad − even greater than those of the countries with a federal structure. The participation of the central government in reducing the dysfunctions generated by a fully decentralised minimum income system seems essential.

Acknowledgements

References

Ayala, L. (2014). Distribución de la renta, condiciones de vida y políticas redistributivas. In F. Lorenzo (Ed.), *VII Informe sobre exclusión y desarrollo social en España [Income distribution, living conditions, and redistributive policies]* (pp. 65–149). Madrid, Spain: Fundación FOESSA.

Ayala, L. (2016). El gasto público en programas de lucha contra la pobreza: tendencias, determinantes y necesidades de reforma [Public spending in antipoverty programs: Trends, determinants, and needs for reform]. *Papeles de Economía Española*, *147*, 145–166.

Ayala, L. & Pérez, C. (2005). Macroeconomic conditions, institutional factors and demographic structure: What causes welfare caseloads? *Journal of Population Economics*, *18*, 563–581.

Ayala, L. & Triguero, A. (2017). Economic downturns, endogenous government policy and welfare caseloads. *Hacienda Pública Española*, *220*, 107–136.

Badenes-Plá, N., Gambau-Suelves, B., & Navas, M. (2019). *Distributional and welfare effects of replacing monetary benefits with universal basic income in Spain*. EUROMOD Working Paper No. EM8/19.

BBVA Research. (2017). *Algunas Reflexiones sobre la Renta Básica Universal [Some reflections on universal basic income]*. Bilbao, Spain: Author.

Cantó, O., Adiego, M., Ayala, L., Levy, H., & Paniagua, M. (2014). Going regional: The effectiveness of different tax-benefit policies in combating child poverty in Spain. In G. Dekkers, M. Keegan, & C. O'Donoghue (Eds.), *New pathways in microsimulation* (pp. 183–203). Surrey, UK: Ashgate.

Cantó, O. & Sobas, A. (2020). Redistribución y políticas familiares en españa. Barcelona: Observatorio Social La Caixa.

Coppola, G. & O'Higgins, N. [Income distribution, living conditions, and redistributive policies] (Eds.). (2016). *Youth and the crisis: Unemployment, education and health in Europe*. Abingdon, UK: Routledge.

Figari, F., Matsaganis, M., & Sutherland, H. (2013). Are European social safety nets tight enough? Coverage and adequacy of minimum income schemes in 14 EU countries. *International Journal of Social Welfare*, *22*, 3–14.

Foster, J., Greer, J., & Thorbecke, E. (1984). A class of decomposable poverty measures. *Econometrica*, *52*, 761–766.

Fuenmayor, A. & Granell, R. (2015). *Minimum income protection in Spain: Characteristics and poverty effects*. Conference Minimum income protection in Europe and how to study it. Herman Deleeck Centre for Social Policy, University of Antwerp, 25–27 November 2015.

Guillén, A. M. & León, M. (2011). *The Spanish welfare state in European context*. Surrey, UK: Ashgate.

Hernández, A., Picos, F., & Riscado, S. (2020). Moving towards fairer regional minimum income schemes in Spain. JRC Working Papers on Taxation and Structural Reforms No 04/2020, JRC, Seville.

Iacono, R. (2017). Minimum income schemes in Europe: Is there a trade-off with activation policies? *IZA Journal of European Labor Studies*, *6*(1), 1.

Immervoll, H. (2010). *Minimum-income benefits in oecd countries: Policy design, effectiveness and challenges*. OECD Social, Employment and Migration Working Papers 100. París: OECD.

Marchal, S., Marx, I., & Van Mechelen, N. (2011). *Do Europe's minimum income schemes provide adequate shelter against the economic crisis and how, if at all, have governments responded?* IZA DP No. 6264.

Marchal, S., Marx, I., & Van Mechelen, N. (2014). The great wake-up call? Social citizenship and minimum income provisions in Europe in times of crisis. *Journal of Social Policy*, *43*, 247–267.

Marchal, S., Marx, I., & Van Mechelen, N. (2016). Minimum income protection in the austerity tide. *IZA Journal of European Labor Studies*, *5*, 1–20.

Moreno, L. (2006). The model of social protection in Southern Europe. *Revue française des Affaires sociales*, *1*, 73–95.

Ravallion, M. (2016). *The economics of poverty*. Oxford, UK: Oxford University Press.

Raventós, J., Arcarons, D., & Torrens, L. (2016). *Renta básica incondicional. Una propuesta de financiación racional y justa [Unconditional basic income. A rational and fair financing proposal]*. Barcelona, Spain: Ediciones del Serbal.

Vandenbroucke, F., Cantillon, B., Van Mechelen, N., Goedemé, T., & Van Lancker, A. (2012). *The EU and minimum income protection: Clarifying the policy conundrum*. CSB Working Paper No. 5/2012. Antwerp, Belgium: Herman Deleeck Centre for Social Policy, University of Antwerp.