JPI MORE YEARS BETTER LIVES
a Joint Programming Initiative

Final Report

[WELTRANSIM]

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1 General Information

1.1 Acronym of the collaborative project

WELTRANSIM

1.2 Full title of the project

Demographic change and intra and intergenerational distribution: Modelling the impact of different welfare models.

1.3 Project duration

Planned start date	01/01/2017
Actual start date (of earliest starting national partner)	01/05/2016 (in Spain)
Planned end date	01/05/2019 (in Spain)
Actual end date (of latest ending national partner)	31/12/2020

1.4 Project coordinator

Name	Concepció Patxot
Institution	Universitat de Barcelona
Country	Spain
Email	cio.patxot@gmail.com
Funding Organisation	Ministerio de Economía, Industria y Competitividad
Duration project participation	01/01/2017 – 31/12/2020

1.5 Project Partners

Partner 2

Name of Principal Investigator	Risto Vaittinen
Institution	Finnish Centre for Pensions (FCP)
Country	Finland
Email	Risto.Vaittinen@etk.fi - risto.vaittinen@tela.fi
Funding Organisation	Academy of Finland
Duration project participation	01.01.2017 – 31.12.2018

Partner 3

Name of Principal Investigator	Marja Riihelä
Institution	VATT Institute for Economic Research
Country	Finland
Email	marja.riihela@vatt.fi
Funding Organisation	Academy of Finland
Duration project participation	01.01.2017 – 31.12.2019

Partner 4

Name of Principal Investigator	Martin Spielauer
Institution	Austrian Institute for Economic Research (WIFO)
Country	Austria
Email	christine.mayrhuber@wifo.ac.at
Funding Organisation	Bundesministerium für Bildung, Wissenschaft und Forschung - Federal Ministry of Education, Science and Research
Duration project participation	01/01/2017 – 31/12/2020

Please insert further tables to add more partners, as appropriate.

1.6 Project budget

Please add the budget of the overall project (total budget) and the budget per partner in Euros.

	Funds awarded	Actual spend
Total Budget	**535.273€**	**534,470.62€**

	Funds awarded	Actual spend
Budget Partner 1	144,000€	(*) 143,197.62€
Budget Partner 2	36,618€	36,618.00€
Budget Partner 3	73,211€	73,211.00€
Budget Partner 4	281,444€	281,444.00€

Please insert further rows of the table to add more partners, as appropriate.

* Slightly lower final expenditure due to an unexpected regularisation of wages.

2 Plain English Abstract

Please briefly summarise the project including its achievements and main conclusions in plain English (see http://www.plainenglish.co.uk/free-guides.html). This abstract will be made publicly available, including being published on the JPI MYBL website (max. 500 words).

The WELTRANSIM project aims to explain the distributional effects induced by the ageing process, and how welfare models contribute to mitigate such effects and secure wellbeing across the lifecycle (from childhood to old age). Undoubtedly, population ageing changes the distribution of income, public resources and time use. In this respect, different welfare models induce different costs for actors and influence life course risks differently. WELTRANSIM places special emphasis on:

1. The distributional effects of education, particularly on causing life-expectancy differentials.
2. The potential generational conflict and the possible political pressure of the elderly on shifting resources from the young to the old.
3. The effects of changes in family structures and fertility trends in time and money transfers over the lifecycle, and particularly from/to old people.
4. The relationship between fertility, public and private transfers, and ageing.

3 Achievements

Please describe the achievements of the overall project. There is space to elaborate on the achievements of individual work packages separately in the next section. The aim of the joint call was to support research which will improve the understanding of how different approaches to welfare secure the quality of life, especially on older people. The following research questions were asked:

I. Understanding wellbeing: how appropriate are current measures of wellbeing across the changing life course?
II. Intergenerational relationships: how can welfare models distribute resources, rights and responsibilities in fair and sustainable ways?
III. Welfare models: How can welfare models secure the health and wellbeing for older people confronted to caring needs, subject to frailty and nearing the end of life?

Please explain how the project results contribute in answering these research questions (if applicable).

Understanding wellbeing: how appropriate are current measures of wellbeing across the changing life course?
There are several attempts to complement monetary measures of welfare with more wide and even subjective measures. This project contributes to this issue by giving, first, a more complete quantified view of monetary flows occurring along the lifecycle using available data and simulation methods, when this is missing. As a result, important data gaps are identified. Second, it introduces the need to complement the previous picture with the measurement of non-monetary flows occurring as a result of home production, giving a wider perspective to the measurement of the gender gap.

Intergenerational relationships: how can welfare models distribute resources, rights and responsibilities in fair and sustainable ways?
The main recommendation of this project is attending to the lifecycle impact of policies. This way, it is possible measuring both the intra and intergenerational effects of the welfare state policies on income redistribution. This project measures intragenerational differences by considering heterogeneity in education level and parenthood status. Intergenerational differences are measured by projecting the expected changes in face of an ageing population.

Welfare models: How can welfare models secure the health and wellbeing for older people confronted to caring needs, subject to frailty and nearing the end of life?
This project identifies a key characteristic of welfare models often ignored: the way it redistributes resources along the lifecycle. By applying the model to four countries representative of the four welfare state models, it identifies how each model handles the fact that parents give more net private transfers to the subsequent generations. In Spain, representing the Mediterranean model, the extended role of the family achieves the most central consideration, but the welfare state is characterized by significant gaps in protection, which is mainly focused especially at old ages. Private transfers are the highest in this country, while the public sector does not compensate at all for this difference. Interestingly, Austria, representative of the conservative model, is the only country were higher net public transfers given to parents compensate them (except for the high-educated). In the liberal model, represented by the UK, this only occurs for low-educated. Finally, Finland does not either fully compensate parents, while it does have an active role on gender inequality.

4 Work Packages

Please complete the tables below which are intended to capture details of the achievements of the individual work packages. There is also space to highlight where you have had to deviate from your original work plans and why. This information will help us in anticipating problems that may be experienced by award holders in future joint calls. This section is for internal use and the information you provide will not be published.

4.1 Summary of Work Packages

WP	Title
WP 1	**Work package 1: Microsimulation (EUROMOD-dynamic) and NTA** This work package aimed to develop objectives 1-6 of the project. The work package deliver a comprehensive and comparative report on the results of the microsimulation and a version of the microsimulation model as a tool for facilitating informed choice among policy interventions available for the EC.
WP 2	**Work package 2: Policy aspects of ageing – leader UB** This work is related to objectives 7 -10 of the project. Spain has conducted the exercise and the deliverables of the work package are two reports/papers explaining: -The causal relationship between the ageing process and transfers to children and to the elderly. - Differences among countries in fertility trends and relating such differences to values, culture and social norms that characterize welfare regimes.
WP 3	**Work package 3: NTA by Family – leader FCP** This work package relates to objectives 11-14 and 16 of the project. The first step consists of simulating family transfers to the elderly (when children are not at home), using the information provided by SHARE and using dynamic micro econometric techniques. These data are used to construct NTA by family. In a further step, we extend the NTA analysis by family type in Finland, Austria and Spain. We also extend NTA data to the years of the crisis and conduct a comparative analysis of the role of family transfers prior to and after the crisis.
WP 4	**Work package 4: NTTA and elderly wellbeing – leader VATT** This work package is linked to objectives 11-16 of the project. We use and update National Time Transfer Accounts (NTTA) to create indicators of gender egalitarism in the time use within the family and analyse the role of time transfers to/from older people, stressing the role of older people as both care givers and needy. The existence of a "sandwich" generation (the generation of middle-aged individuals who are pressured to support both aging parents and growing children) will be also investigated. NTTA considers all household non-market activities that are productive, including house management, cleaning, cooking and household member caring.

4.2 Achievements

Achievements WP 1
Please describe the achievements of work package 1 in relation to the initially planned objectives (max. 2 pages).
In the following we outline the objectives related to this WP and the corresponding achievements: Objectives: 1. Measuring the distributional effects of life expectancy differentials by education (and gender) in the UK, Austria, Finland and Spain, analysing how welfare models can reduce such inequalities and contribute to wellbeing for all education levels, particularly for the elderly. 2. Analysing the specific role of public education expenditure on determining lifecycle income inequalities, and particularly income inequalities in the elderly in Spain (analysis by cohort). 3. Analysing NTA data by education level and introduce these data as parameters in the microsimulation model. This will allow observing how intergenerational transfers influence inequalities

by education and how this may vary across welfare models. We will focus on transfers to older people by education level.

4. Assessing how demographic changes affect measures of inequality and poverty in the elderly

5. Assessing how ageing affects the redistributive effects of taxes and benefits.

6. Integrating different methodologies (NTA, EUROMOD and dynamic microsimulation) to create a simulation tool that will be available for the Commission. This tool will focus on demographic behaviour combined with a highly abstract implementation of the key features of the different welfare state regimes. This will serve as a study tool, which can be refined for individual countries, implementing behaviour as well as social insurance and tax systems in more detail.

Achievements

The dynamic microsimulation built in this WP1 (microWELT) constitutes the main final output of the model. There was a previous prospective work done for Spain using the dynamic microsimulation model DyPeS (see Deliverable D.1.1) aiming at objective 2, although considering only public education and pensions. In contrast, microWELT covers a wide range of public and private transfers.

Most of the analysis done in the WELTRANSIM project was conceived to converge in this WP and this plan has been successfully developed. More specifically, in what refers to the objectives settled in this WP, objective 6 has been reached by developing a dynamic microsimulation model that takes as a starting population the EUROMOD sample and:

- models education and family transitions
- incorporates NTA accounting and the age profile of public transfers corresponding to the welfare state model

As a result, microWELT is capable of modelling the lifecycle of individuals by education and gender, which implies that objectives 1-3 were accomplished. The model dynamics projects the impact of ageing and hence reaches objectives 3 and 4. The model has been applied to four EU countries, representative of the four welfare state models, showing significant differences. As detailed in Sections 6 and 7, the model is fully documented in an online open source platform, including a research report (deliverable D.1.2) and the code employed, ensuring its diffusion to stakeholders.

Achievements WP 2
Please describe the achievements of work package 2 in relation to the initially planned objectives (max. 2 pages).

In the following we outline the objectives related to this WP and the corresponding achievements:

Objectives:

7. Testing a possible generational conflict associated with ageing based on the “political power of elderly” hypothesis, focusing on possible differences among welfare models. The analysis will be conducted using a panel of OECD countries (including country partners).

8. Modelling how Old Dependency Ratios (ODR) and fertility rates interact with political variables and affect education expenditure.

9. Modelling the determinants of fertility considering that fertility is also affected by family policies (and particularly public education expenditure) and family norms.

10. Using time use indicators of “family egalitarism” (obtained in WP 4) to explain differences in fertility rates by country..

Achievements

The analysis performed in this WP (2) has served to meet objectives 7-11 in the following lines. On the one hand, an analysis of the interaction between the process of population ageing, fertility and transfers to children and the elderly was developed using a panel of macroeconomic data. Given that there are no longitudinal observations of the NTA cross-sectional estimations for many countries, we have chosen to explore how far could we go using macroeconomic panel data (objectives 8-9). In the same framework, the political power of the elderly hypothesis was tested (objective 7). The final output is detailed in deliverables D.2.1 and 2 (see Section 7), that were also published in two scientific papers. On the other hand, the analysis of fertility determinants at the micro level using household surveys contributed to model fertility transition in microWELT (Chapter 2 D1.2).

Achievements WP 3

Please describe the achievements of work package 3 in relation to the initially planned objectives (max. 2 pages).

In the following we outline the objectives related to this WP (11-14 and 16) shared with WP4 (including also objective 12) and the corresponding achievements:

Objectives:

11. Assess the role of changes in family structures in intergenerational transfers for Finland and Spain.

12. Assess the role of family transfers in the presence of income shocks, particularly those caused by the recent economic crisis (for Finland and Spain)

13. Compare the resulting NTA and NTTA profiles and relate such differences to relevant family and long-term care policies.

14. Compare the role of money and time transfers to dependent age-groups (children and older people) among the different welfare models represented (Finland, Austria, and Spain).

15. Construct indicators of time transfers for the elderly as a new dimension of wellbeing which is useful for comparing welfare models.

16. Measure the relative weight of family transfers (in time and money) in the elderly, compared to public transfers for health and long-term care.

Achievements

The general focus of this WP was the analysis of the interaction between family structures and intergenerational transfers, the latter measured using NTA method (Objective 11). On the one hand, the impact of the crisis in transfers to children and the elderly was investigated for Spain (Objective 12). This work led to deliverable D3.2, which was also published in a scientific journal. On the other hand, several steps were followed in order to produce disaggregated NTA by education level and family type, to be used as parameters in the microWELT model. First, profiles by gender and education level for Spain were produced in a case study. The results were published in a scientific journal (D.3.1). Second, an imputation of parenthood status using SHARE data was done in order to to identify parents once children leave home in household surveys (EU-SILC and HBS) for the countries present in SHARE (Spain, Austria and Finland). Results of this work are presented in a research note (D3.4). Finally, a complete set of NTA disaggregated profiles by gender, education and parenthood status was produced for the four countries (Spain, Austria, Finland and the UK), and presented in Deliverable D3.3. These profiles are used as inputs in the microWELT simulation model built in WP1. The rest of objectives are common to WP4 and, hence, are explained there.

Achievements WP 4

Please describe the achievements of work package 3 in relation to the initially planned objectives (max. 2 pages).
As mentioned above, these achievements correspond to the objectives detailed in WP3. The work done in this WP aimed at building NTTA and using the existing estimates for the analysis of time and monetary transfers (NTA) – objectives 13-16. In particular, new NTTA estimates have been built for Finland, and compared to those existing for Spain, Austria and the UK. The role of old people as both care givers and needy was investigated, deriving an indicator of the sufficiency of their contribution (home production/consumption). Differences by gender were also analysed. Results are discussed in a research note (deliverable D4.1). If the main output of WP3 were the NTA profiles to be used as inputs in microWELT, the purpose in this WP was more prospective, to investigate the possibility of extending the model adding time transfers.

Please insert further tables to add more work packages, as appropriate.

4.3 Deviations from the original work plan

Please describe any significant deviations from the original work plan at the level of the overall project and each individual work package. Describe how any deviations differ from the original plan and give clear reason(s) for the deviation(s) or anything not achieved to date.
There were no significant deviations from the plan. As explained above, the ambitious set of objectives was achieved. Nevertheless, there were some minor deviations arising from unexpected difficulties. One of the main challenges was dealing with the UK data sources, which sometimes differ from the comparable UE data sources. In some cases, this led us to slightly reorient the research efforts, also in order to be able to keep one country representative of each of the four welfare models. In particular, the deviations from the plan are: - Objective 12 was finally applied only to Spain as a prospective exercise, and not to Finland. - Instead, in Objective 14 it was possible adding the UK to the analysis (not foreseen). - Objective 10 was not fully reached. The indicators were elaborated, but a thorough analysis of the impact on fertility would require increasing the number of countries considered and, hence, we left it for future research as the number of countries using microWELT increases. Of course, the degree of accomplishment is varied and the analysis done raised new issues to analyse. For example, though the model permits to analyse both inter and intragenerational income redistribution (in terms of education, gender and family type), there seems to be room to introduce variability within groups. This will be one of the lines taken in future research.

5 Key Findings and Recommendations

Please describe the key high-level findings of the research for each work package (max. four key findings per work package) and highlight recommendations associated with each key finding (e.g., recommendations for policy or practice).

WP 1	
Key findings	**Recommendations**
The education level implies different patterns in young adults' economic emancipation, fertility, partnership formation, and mortality patterns, potentially related to the different welfare state regimes: (1) the intergenerational transmission of education; (2) childlessness and fertility by education level; (3) partnership behaviour and single parenthood; (4) age at leaving home; and (5) the mortality differentials by sex and education. These processes are incorporated into microWELT projections of the impact of ageing.	Need to incorporate changes in education, family status composition, etc. in demographic projections.
The incorporation of NTA age profiles to the estimation of the demographic Support Ratio (SR) introduces an economic meaning on it. This project extends this analysis at the micro level by estimating disaggregated NTA profiles by education and family type (WP3). For the four countries analysed, the economic Support Ratio shows more severe effects of ageing than the pure demographic indicators. However, SRs obtained from disaggregated NTA data give a distinct - more optimistic - picture of the economic effects of population ageing. The Support Ratio accounting for composition effects (mainly due to education) stays above the purely demographic measure in the four countries. The difference is particularly high in Spain, which has the strongest demographic ageing process, but also considerable educational improvements. At the other extreme is the UK, affected by a lower ageing process. In this country, there is less room for education improvements, but the higher labour income differentials by education – together with the liberal regime's focus on poverty prevention – alleviate the economic effects of ageing.	Need to continue improving the projection models measuring the impact of ageing, in order to account for composition effects like those that were identified here.
The profiles obtained in WP3 and implemented in microWELT, allow projecting to the future the observed patterns by age, gender, education and family status, and obtaining the present value of net transfers (both private and public) received by each generation discounted at birth. As a result: 1) Results by parenthood status and education indicates that all groups are net receivers of private transfers over their whole lifecycle in the four countries in the analysis. However, this result is partly attributable to the discount effect in computing the present value: individuals are net receivers of private transfers in young ages and net givers during older ages, being the later transfers discounted at a greater extent. 2) Net lifetime private transfers are higher for non-parents in the four the countries, independently of their education level. This is mainly explained by the higher amount of private transfers that parents give when raising their kids	Attention to the lifecycle impact of policies. In particular, it is necessary to design policies to protect the sandwich generation, who will need to keep contributing to provide transfers to an increasing number of elders and, at the same time, spend resources in their children, including their human capital.

3) We investigate if the lower net private transfers for parents (compared to childless people) are, at least, partially compensated by higher public transfers received. In Spain, Finland and the UK, high-educated parents are net payers of public transfers at a greater extent than non-parents. The difference between high-educated parents and non-parents is particularly high in Spain, emphasising the lack of redistributive family policies for the high-educated. In most cases, parents' higher public net transfers are not enough to compensate for the lower net private transfers. The exceptions are the low-educated in the UK (they receive much higher total transfers) and the low and medium-educated in Austria (where parents and non-parents receive practically the same, public policy compensating fully for differences in private transfers).	

WP 2	
Key findings	**Recommendations**
We find interesting effects of population ageing on public education spending. 1) A negative effect can be expected, as an increasing number of retirees results in an 'intergenerational conflict' and, hence, the condemnation of education expenditure. 2) A positive effect might arise as ageing, in combination with pay-as-you-go pension systems, offers incentives for the working-age generation –even in the absence of altruism- to invest in the public education of the young in order to 'reap' the benefits (that is, higher income tax/contributions) of their larger future productivity. Empirical evidence derived from the application of a fixed effects approach to panel data for OECD countries, shows that the increasing share of elderly people has a non-linear effect on education spending. This indicates a certain degree of intergenerational conflict (1 above). Nevertheless, we find that future population ageing, which reinforces the mechanism linking public education and pensions, has a positive impact on education expenditure. Furthermore, by disaggregating total education expenditure by educational levels, we observe that this effect is led by non-compulsory education, probably as a reflection of the direct connection to labour productivity.	There is room for a positive link between public pensions and education and forward and backward intergenerational transfers in general. A positive link between pensions and education might reinforce the incentives to vote for education and improve the return of the pay-as-you-go pensions system. Education policy is crucial to pre-fund future pensions in a pay-as-you-go-financed pensions system.
We examine the political sustainability of the system of public intergenerational transfers (IGTs) by measuring the willingness to vote for a policy as the net present value of net IGTs received (starting from National Transfer Accounts data). Our results indicate that: 1) Ageing makes the median voter older and, hence, more inclined to support greater expenditure on pensions 2) Most developed countries would vote in favour of a joint public education and pension system.	Pension policy needs to be part of a long-term agreement. The necessary reforms of the pension system needs to be done before the ageing process makes it politically unfeasible as the age

3) A system of total public IGTs to the young and elderly would attract substantial political support and, hence, would be politically viable for most countries in the sample.	of the median voter increases. The financial and political feasibility go in opposite directions.

WP 3	
Key findings	**Recommendations**
Disaggregated NTA by family type show interesting insights. Because of their higher labour income and lower consumption, parents have lower lifecycle deficits (or higher surpluses), which are transformed in private transfers given to their children. Finnish fathers earn more than childless men do, but the gap by parenthood status for women is much lower than in the rest of the countries is due to full employment policies. These policies also explain that women at old ages receive higher pension benefits, closer to men's, as compared to the other three countries.	Need to improve data bases to report better parenthood status, even when children are not co-residing with divorced fathers or when they emancipate
Our analysis contributes to the literature on welfare models by directly measuring the degree of familiarization of the welfare models. Private transfers are the highest in Spain, which results from the extended role of the family emphasised in the Mediterranean welfare regime. High-educated childless individuals in the UK receive the highest private transfers, which is explained by the lower coverage of public higher education and the high cost of private of education. In Austria, fathers have more labour income than childless men do, while mothers have much lower labour income with respect to childless women, due to a high presence of part-time employment for mothers. For this reason, mothers who live in a couple are net receivers of private transfers.	Need to integrate market and non-market production, together with the age perspective in order to evaluate the role fo welfare state on reducing inequality
Looking also at differences by education level, results indicate that public transfers are highly redistributive among different educational groups – low and medium-educated being net receivers of public transfers, whereas high-educated are net payers. The differences between low and high-educated individuals are more pronounced in Austria and the UK. In the UK, net public transfers for low-educated are substantially higher, especially for parents, confirming the literature on welfare models (in the countries with a liberal model, the state mainly takes care of low-income individuals).	
In Spain, representing the Mediterranean model, the extended role of the family achieves the most central consideration, but the welfare state is specially focused at old ages, and presents significant gaps in protection. Private transfers are the highest in this country, and they are mostly addressed to children. Family related allowances from the public sector are less important, leading to a higher participation of mothers in the labour market. On the contrary, Austria represents the Continental or conservative model, where the role of the family is also important. Nevertheless, in this case, public transfers are generous, especially family and children related allowances, although public education after age 16 is low as compared to Finland or Spain.	Considering a lifecycle perspective and integrating home production allows for a deeper view of inequality

WP 4	
Key findings	**Recommendations**
When considering both market and non-market activities to obtain the LCD, interesting differences are appreciated between Finland and Spain. 1) Spain shows a larger gender gap: the surplus for middle ages is much higher in Finland, basically due to the higher female participation in the labor market. 2) The old age group in Finland shows a higher LCD than the young, while the situation in Spain is just the opposite. In particular, the average LCD for the young results 30% higher than for the elderly (24% for male and 36% for female) in Spain. This is explained by two different factors. First, the higher consumption profile for the elderly in Finland. Second, due to the late emancipation patterns of the Spanish youth, together with their lower employment rates.	Need to improve the available datasets in order to capture the whole lifecycle. Need to integrate data basis that have both monetary and time use data in order to be able to analyse the interaction among them at the micro level. Household satellite accounts need to be complemented with the age perspective in order to better understand the role of the welfare state models.
An indicator of the net contribution to household production (production/consumption) is designed showing interesting differences by country (and welfare state model). In the four countries, women show a stronger sufficiency indicator at all ages. Spanish women show the higher ratio, except for ages 16-24, probably due to the high young unemployment rate and late emancipation in this country. Austria, the representative of the conservative model, follows Spain in women's sufficiency. For adult women, Finland shows the lowest sufficiency, confirming the gender-oriented welfare state policies in this country. Patterns for men are the opposite, as expected. As a result, the gender gap is the highest for Spain, followed by Austria, the UK and Finland (for working age population).	Take into account the time transfers to evaluate the impact of welfare state policies on different gender and family status and have a thorough perspective on inequality.
Cconsidering the lifecycle deficit (LCD) for both market and non-market activities, interesting differences are appreciated between Finland and Spain: 1) Spain shows a larger gender gap: the surplus for middle ages is much higher in Finland, basically due to the higher female participation in the labour market.	It is necessary to keep implementing gender-oriented social policies in order to fully eliminate inequality.

2) The old age group in Finland shows a higher LCD than the young, while the situation in Spain is just the opposite. In particular, the average LCD for the young results 30% higher than for the elderly (24% for male and 36% for female) in Spain. This is explained by two different factors. First, the higher consumption profile for the elderly in Finland (Figures 6 and 7). Second, due to the late emancipation patterns of the Spanish youth, together with their lower employment rates.	

Please insert further tables to add more work packages, as appropriate.

6 Milestones

Please describe the milestone(s) for each work package and indicate when you achieved each milestone, leaving the final column blank if the milestone was not achieved.

WP	Milestone	Date achieved
WP 1	M1: (chapter 1 in deliverable D1.2: 1ST version of the code of the model prototype (Chapter 1 in microWELT report - deliverable D1.2.).	06/2018
WP2	M2: (deliverable D2.2.) Paper on the on causal relationship between the ageing process and transfers to children and to the elderly	12/2018
WP3	M3: (deliverable D3.2) Working paper on NTA by family type and education level	01/2019 (initial version)
WP4	M4: (deliverable D4-1): Working paper estimating NTTA and indicators of time transfers in the four countries (welfare state models)	04/2021

Please insert further rows to add more deliverables, as appropriate.

In this section and the following, we detail the deliverables that were specified in the kick–off meeting and during the coordination process of the project -they were only implicit in the initial proposal. The milestones were chosen among those deliverables because they are key to approach the research question, or because they include the key intermediate results of the simulation model. The latter applies for Milestones 1 and 3, which constitute respectively:

- M1: The code developing the basic structure of the simulation model in WP1.
- M3: Results from WP3 that were, in turn, part of the parametric structure of the simulation model developed in WP1.

The former applies to Milestone 2, which was important to go deeper into the state of art of the theory, and to provide a background on the interaction between the ageing process and transfers to children and the elderly (M2) at the macroeconomic level.

Finally, Milestone 4 was chosen to better understand the interplay between monetary and time transfers, and to explore the future possibilities of extending microWELT to include time transfers.

7 Deliverables

Please describe the deliverable(s) for each work package and indicate when you achieved each deliverable, leaving the column blank if the deliverable was not achieved. In addition, please report the dissemination level (i.e., public, confidential) and the format of the deliverable (e.g., report, video). Please collate copies of all the deliverables in a ZIP-file and submit the file along with this report. Please name the individual items in the ZIP-file identically to the deliverable names in the table below to enable easy identification.

WP	Deliverable name	Date achieved	Dissemination level	Format	Attached (1)
WP			Public/ confidential	report	Yes/No
WP1	D1.1: Research report analysing the role of public education expenditure on determining lifecycle income inequalities, and particularly income inequalities in the elderly in Spain (analysis by cohort).	12/2018	Published online	report	Link
	D1.2: MicroWELT report and online documentation REPORT: Chapter 1. The Model: microWELT: A Dynamic Microsimulation Model for the Study of Welfare Transfer Flows in Ageing Societies from a Comparative Welfare State Perspective Chapter 2. Parameters: microWELT: Socio-Demographic Parameters and Projections for Austria, Spain, Finland, and the UK Chapter 3. NTAs (see Deliverable D3-2) Chapter 4. Indicators: microWELT: Microsimulation Projection of Indicators of the Economic Effects of Population Ageing Based on Disaggregated National Transfer Accounts Chapter 5. Indicators & Regimes: microWELT Sustainability Indicators: The role of welfare state regimes Chapter 6. Euromod Integration Chapter 7. Generational Accounts: microWELT: Microsimulation Projection of Full Generational Accounts for Austria and Spain. Chapter 8. Accounts & Regimes: microWELT - Microsimulation Projection of Full Generational Accounts from a comparative welfare state perspective: Results for Spain, Austria, Finland, and the UK Conclusions ONLINE DOCUMENTATION: Applications, Analysis Scripts, Implementation, Model code, User Guide, Downloads	06/2018 1st chapter available	Public: Online open source documentation gradually updated. Final publication of chapters as WIFO and NTA Working papers (see publications)	report	Link

WP2	D2.1: Paper on causal relationship between the ageing process and transfers to children and to the elderly	12/2018	Public	report	Yes
	D2.2: Working Paper on the Political Economy of intergenerational transfers	03/2018	Shared internally until publication of WP in 2018	report	Yes
WP3	D3.1: Paper on NTA by education level	05/2017	Public	Report	Yes
	D3.2: Paper on the impact of the crisis on intergenerational transfers	10/2019	Shared internally (confidential) until publication in 2019	report	Yes
	D3.3: Working paper on NTA by family type and education level	01/2021	Shared internally since 01/2019 until publication in 2021	report	Link
	D3.4: Report on imputation of parenthood status from SHARE to EU-SILC and HBS	01/2021	Shared internally until publication in 2021		Link
WP4	D4-1: Working paper estimating NTTA and indicators of time transfers in the four countries (welfare state models)	05/2021	Shared internally until publication in 2021	report	Link

Please insert further rows to add more deliverables, as appropriate.

Note: (1) In in case the document is uploaded in the WELTRANSIM and microWELT websites, instead of attaching we include the link.

8 Outputs

8.1 Publication list

Please list the publications that resulted from the funded project and indicate which type of publication (e.g., peer reviewed article, book/book chapter, review, communication in scientific congress, dissertation, other).

Title	Type
Solé, M., Renteria, E., Papadomichelakis, G., Patxot, C. and G. Souto (2020). "Protecting the elderly and children in times of crisis: An analysis based on National Transfer Accounts", *The Journal of the Economics of Ageing*, vol. 15.Link.	Peer reviewed article
Michailidis, G., Patxot, C. & M.Solé (2019a). "Do pensions foster education? An empirical perspective". *Applied Economics*, 51:38, 4127-4150. Link.	Peer reviewed article
Patxot, C. and G. Michailidis (2019b). "Political viability of public pensions and education. An empirical application". *Applied Economics Letters*, vol. 26 – Issue 3. Link.	Peer reviewed article
Patxot, C., Solé, M. and G. Souto (2019). "Sustainability and adequacy of the Spanish pension system after the 2013 reform: a microsimulation analysis". *Hacienda Pública Española / Review of Public Economics*, 228-(1/2019): 109-150. Link.	Peer reviewed article
Patxot, C., M. Solé, G. Souto and M. Spielauer (2018)."The Impact of the Retirement Decision and Demographics on Pension Sustainability: A Dynamic Microsimulation Analysis", *International Journal of Microsimulation*, 11(2), 109-121. Link.	Peer reviewed article
Abio, G., C. Patxot, E. Rentería and G. Souto (2017)."Intergenerational transfers in Spain: The role of education", *Hacienda Pública Española*, vol. 223(4) pag. 101-130. Link.	Peer reviewed article
Abio, G., C. Patxot, G. Souto and T. Istenič (2020). "Disaggregated National Transfer Accounts by Education and Family Types for Spain, UK, Austria, and Finland". University of Barcelona. Link.	Report
Spielauer, M., Horvath, T., Fink, M., Abio, G., Souto, G., Patxot, C. and Istenič, T. (2020d). "microWELT - Microsimulation Projection of Full Generational Accounts from a comparative welfare state perspective: Results for Spain, Austria, Finland, and the UK", Report of Working Package 1 of the WELTRANSIM, Chapter 8. Link.	Report
Spielauer, M., Horvath, T., Fink, M., Abio, G., Souto, G., Patxot, C. and Istenič, T. (2020c): "microWELT: Microsimulation Projection of Full Generational Accounts for Austria and Spain", Report of Working Package 1 of the WELTRANSIM Project, Chapter 7. WIFO Working Paper 618/2020. Link.	Report
Spielauer, M., Horvath, T., Fink, M., Abio, G., Souto, G., Patxot, C. and Istenič, T. (2020c): "microWELT - Sustainability Indicators: The role of welfare state regimes", Report of Working Package 1 of the WELTRANSIM Project, Chapter 5. Link.	Report
Spielauer, M., Horvath, T., Fink, M., Abio, G., Souto, G., Patxot, C. and Istenič, T. (2020c): "microWELT: Microsimulation Projection of Indicators of the Economic Effects of Population Ageing Based on Disaggregated National Transfer Account ", Report of Working Package 1 of the WELTRANSIM Project, Chapter 4. WIFO Working Paper 612/2020. Link.	Report
Spielauer, Martin, Thomas Horvath, Marian Fink (2020): "microWELT - A Dynamic Microsimulation Model for the Study of Welfare Transfer Flows in Ageing Societies	Report

from a Comparative Welfare State Perspective". WIFO Working Paper 609/2020, Report of Working Package 1 of the WELTRANSIM Project, Chapter 1.. Link	
Spielauer, Martin, Thomas Horvath, Walter Hyll, Marian Fink (2020): "microWELT: Socio-Demographic Parameters and Projections for Austria, Spain, Finland, and the UK", WIFO Working Paper 6011/2020, Report of Working Package 1 of the WELTRANSIM Project, Chapter 2. Link	Report
Euromod integration (forthcoming). Link	Report
C. Patxot, M. Riihelä, G. Souto and R. Vaittinen (2021): "Money and time transfers and the role of the welfare state models", University of Barcelona.	Research note
G. Abio, M. Fink, T. Saroglou and A. Stoyanova: "Imputing parenthood status in EU-SILC using SHARE for Spain, Austria, and Finland", University of Barcelona.	Research note

8.2 Presentations at (scientific) conferences and symposia, including JPI MYBL activities

Please list the presentations at (scientific) conferences and symposia that resulted from the funded project.

Presentation	Date
[Title presentation] at [name scientific conference] by [presenter name]	
Spielauer, M., Fink, M. "Comparing Welfare Transfers in the Context of Demographic Change in Four Welfare State Regimes: The microWELT Model", IMA Microsimulation World Conference 2017 – Turin.	2017
"Political economy of the intergenerational exchange: An empirical application", AGENTA final conference: Economic Consequences of Population Ageing and Intergenerational Equity, Viena, Austria by Michailidis, G. and Patxot, C.	2017
"The unequal impact of the crisis by age: An analysis based on National Transfer Accounts", AGENTA final conference: Economic Consequences of Population Ageing and Intergenerational Equity, Viena, Austria, 20-22 noviembre 2017, by Papadomichelakis, G.; Patxot, C.; Rentería, E.; Solé, M.; Souto, G.,	2017
"Do pensions foster education? An empirical perspective", 42 Simposio de la Asociación Española de Economía (SAEe), University Pompeu Fabra (BGSE), Barcelona by Michailidis, G.; Patxot, C. and Solé, M.	2017
"Comparing Welfare Transfers in the Context of Demographic Change in Four Welfare State Regimes: The microWELT Model", Microsimulation World Conference, Turin, Italy, by Spielauer, M. and Fink, M.	2017
Michailidis, G.; Patxot, C., "Political viability of public pensions and education. An empirical application", 5th International PhD Meeting in Economics, University of Macedonia (UoM), Thessaloniki, Grecia, julio 2017.	2017
The unequal impact of the crisis by age: An analysis based on National Transfer Accounts, Jornadas de Economía Laboral, Valladolid, 6-7 julio 2017, by Patxot, C.; Papadomichelakis, G.; Rentería, E.; Solé, N.; Souto, G. Link.	2017
"Should the pension system be redistributive? The sustainability and adequacy effects of the 2013 reform in Spain", XXIV Encuentro de Economía Pública, Universidad de Castilla-La Mancha, Toledo, by Sole, M.; Patxot, C.; Souto, G.	2017
"Do pensions foster education? An empirical perspective", 6th PhD-Student Workshop on Industrial and Public Economics (WIPE), Universitat Rovira i Virgili (URV) and CREIP, Reus, Spain, by Michailidis, G.; Patxot, C. and Solé, M.	2018
"Political viability of public pensions and education. An empirical application", 4th International Conference on Applied Theory, Macro and Empirical Finance (AMEF),	2018

University of Macedonia (UoM), Thessaloniki, Greece, by Michailidis, G. and Patxot, C.	
"The unequal impact of the crisis by age: An analisis based on National Tranfer Accounts", XIX ISA World Congress of Sociology, Toronto, Canada by Souto, G.; Papadomichelakis, G.; Patxot, C.; Renteria, E.and Solé, M.	2018
"Demographic Change and Intergenerational Distribution: Modeling the Impact of Different Welfare Models", Open WELTRANSIM Session, Helsinki, Finland, by Patxot, C., Spielauer, M.	2018
"Cap a un nou estat del benestar: sostenible, adequat i equitatiu", 3r Congrés d'Economia i Empresa de Catalunya, Barcelona, Spain, by Patxot, C.; Solé, M. and Souto, G.	2018
"The Unequal Impact of the Crisis by Age: An Analysis based on National Transfer Accounts", XIX ISA World Congress of Sociology, Toronto, Canada, by Souto, G.; Papadomichelakis, G.; Patxot, C.; Rentería, E.and Solé, M.	2018
"The unequal impact on different age groups of the financial crisis in Spain and other countries. An analysis based on National Transfer Accounts", 12th Global Meeting of the NTA Network, Mexico City, México, by Solé, M.; Papadomichelakis, G.; Souto, G.; Rentería, E and Patxot, C.	2018
"MicroWELT - Microsimulation of Disaggregated National Transfer Accounts (NTAs) for the Comparative Study of Welfare State Regimes", Microsimulation World Conference, Galway, Ireland, by Solé, M., Souto, G., Patxot, C., Horvath, M. Spielauer, M. and Fink, M.	2019
"Enabling evidence-based policy - WIFO Annual Report 2019 Feature: Development of the dynamic simulation platform microWELT", Austrian Institute of Economic Research (WIFO), Vienna, Austria, by Spielauer, M. and Fink, M.	2019
MicroWELT: Distributional effects along the lifecycle", 13th Global Meeting on Population and the Generational Economy", by Spielauer, N.; Abio. G.; Horvath, T.; Fink, M.; Istenic, T.; Souto, G.; Solé, M. and Patxot C. (Online)	2020
WELTRANSIM, Welfare Transfer Simulation, WIFO Stakeholder Meeting 2020, Vienna, Austria, by Spielauer, M.	2020
"MicroWELT: Distributional effects along the lifecycle", Thirteenth Global Meeting on Population and the Generational Economy, Honolulu, Hawaii, USA, 3-7 agosto 2020. (Online), by Spielauer, M.; Abio. G.; Horvath, T.; Fink, M.; Istenic, T.; Souto, G.; Solé, M.; Patxot C. **Link**.	2020
"MicroWELT – Microsimulation of disaggregated National Transfer Accounts for the comparative study of welfare state regimes", by Spielauer, M. Austrian Institute of Economic Research, WIC Colloquium. May 18,2021.**Link**.**Video**.	2021

8.3 Communications, public engagement activities and knowledge exchange events

Please list the communications, public engagement activities and knowledge exchange events where results from the funded project were shared with specific audiences, including the general public.

Activity or event	Date
Patxot, C. "Catalan Economic Challenges, Panel B" Congrés: 1st Catalan Economic Society Conference 26-27/05/2017 (http://cesc.espais.iec.cat/en/programme/), Barcelona, 26/05/2017.	2017

Patxot, C. “Challenges to Human Wellbeing and the Welfare State”, BEAT Launch Event (http://www.ub.edu/beat/wp-content/uploads/2017/06/2017_10_21_programa-final.pdf), Barcelona, 25/10/2017.	2017
Patxot, C. “Democràcia i sistema de pensions”, Per un contracte social federal. II Escola d'estiu de Federalistes d'Esquerres i Economistes Davant la Crisi, Barcelona, 01/07/2017.	2017
Patxot, C., Solé, M., Souto, G. Spielauer, M., Fink, M. “Demographic Change and Intergenerational Distribution: Modeling the Impact of Different Welfare Models”, Open Weltransim Session, Helsinki.	2018
Patxot, C. “Cinefórum: Renta básica: qué trabajo?¿Qué sociedad?¿Qué vida?” Acte celebrat en el marc del Pla estrategic Metropolità de Barcelona al cine cooperativa Zum Zeig http://zumzeigcine.coop/es/portfolio/cine-forum-renda-basica-quin-treball-quina-societat-quina-vida/ , Barcelona , 25/01/2018.	2018
Patxot, C. “Cap a un nou estat del benestar;: sostenible, adequat i equitatiu", 3r Congrés d'Economia i Empresa de Catalunya, Barcelona, May 2018.	2018
Patxot, C. “Les pensions, a debat”. Cicle de diàlegs a Vilassar de Mar sobre Economia i Territori. Fundació Ernest Lluch Col·labora: Ajuntament de Vilassar de Mar - Biblioteca Ernest Lluch de Vilassar de Mar- Diputació de Barcelona http://www.fundacioernestlluch.org/ca/activitat/les-pensions-a-debat	2018
Patxot, C. “The pensions system in the context of a sustainable and balanced welfare state”, IV Workshop on Pensions and Insurance. 12/07/2018.	2018
Patxot, C. “La maternidad y las políticas públicasJornada de expertos sobre natalidad: Porque las mujeres y las familias tienen pocos hijos?” Plataforma per la familia, Catalunya-ONU, 10/10/2018. https://plataformaperlafamilia.blogspot.com/2018/09/jornada-de-expertos-sobre-natalidad.html	2018
Patxot, C. “Lecciones para afrontar el envejecimiento. Interacción entre el estado del bienestar y la familia a lo largo de la historia”, Encuentro de investigadores. Investigación y envejecimiento: Respuestas para dar calidad a la vida. El Centro Internacional sobre el Envejecimiento (CENIE), Salamanca, 04/06/2019	2019
C. Patxot, M. Solé and G. Souto, ”Sustainability and adequacy of the Spanish pension system after the 2013 reform: a microsimulation analysis”, presentation and discussion, 04/07/2019, Economic research seminars, Banco de España. https://www.bde.es/investigador/en/menu/seminars/index2019.html	2019
Spielauer, M. “Enabling evidence-based policy” - WIFO Annual Report 2019 Feature: Development of the dynamic simulation platform microWELT. Austrian Institute for Economic Research.	2019
Horvath, T., Spielauer, M., Solé , M., Patxot, C., Fink, M., Souto, G. “Microsimulation of Disaggregated National Transfer Accounts (NTAs) for the Comparative Study of Welfare State Regimes”, 2019 World Conference of the International Microsimulation Association, Galway, Ireland.	2019
Patxot, C. “¿Qué Estado de bienestar queremos y cómo financiarlo?”, Seminario anual EAPN: El modelo de Bienestar Social: Un nuevo contrato social en el marco del Pilar Europeo de Derechos Sociales. Toledo (https://eapn.es/seminario2019/programa.php) 13-15/11/2019	2019
Patxot, C. “Political Sustainability of Public Intergenerational Transfers”, Challenges and Policy Responses to Population Aging, Organized by the Korea Institute for Health and Social Affairs and the East-West Center, Seoul, 03/12/2019.	2019
Patxot, C. Participación como ponente en el coloquio "Las pensiones del futuro", Encuentros En La Vanguardia, Barcelona,17/12/2019	2019
G. Michailidis and C. Patxot (2019): “Political Sustainability of Public Intergenerational Transfers”, Policy Brief, Weltransim webpage.	2019

G. Michailidis, Solé, M. and C. Patxot (2018): "Do pensions foster education? An empirical perspective", Policy Brief , Weltransim webpage.	2019
Patxot, C., Souto, G. "Comparing Welfare Transfers in the Context of Demographic Change in Four Welfare State Regimes: The microWELT Model", 2020 National Transfer Accounts (NTA) Workshop on Microdistributional NTA. May 11, 2020 (Online). **Link.**	2020
Spielauer, M., "Weltransim Welfare Transfer Simulation", Stakeholder Meeting at Austrian Institute for Economic Research (WIFO), November 2020.**Link**.	2020
Patxot, C. "Results presentation at the progress dialog meeting", JTC 2016 Events, JPI More Years Better Lives, The Hague, 11/12/2020.	2020
Patxot, C. "Presentació del Monogràfic: Els equilibris intergeneracionals del benestar", XXV Jornada dels Economistes - Present i futur dels joves economistes, Barcelona, https://www.youtube.com/watch?v=KblWz-7i3-4&feature=youtu.be	2020
Stakeholder meeting organized by WIFO. See slides at: https://www.microwelt.eu/Dissemination/Stakeholder2020/Stakeholder2020-Index.html	2020
APLICATIONS RESULTING FROM THE microWELT MODEL	
Marian Fink, Thomas Horvath, Martin Spielauer (2020): "microDEMS – A Dynamic Microsimulation Model for Austria. Illustration Using the Example of the Development of Labour Force Participation Until 2040", Austrian Institute of Economic Research (WIFO).	2020
Martin Spielauer, Thomas Horvath, Marian Fink, (2020): "The Dynamic Microsimulation Model microDEMS to Analyse the Economic Integration of Immigrants in Austria", Austrian Institute of Economic Research (WIFO). Contribution supported by funds from the Jubilee Fund of the Austrian National Bank.	2020
Marian Fink, Thomas Horvath, Martin Spielauer (2020): "Microsimulation Projection of the Educational Integration and Labour Force Participation of First- and Second-Generation Immigrants", Austrian Institute of Economic Research (WIFO). Contribution supported by funds from the Jubilee Fund of the Austrian National Bank.	2020
Peter Hube, Martin Spielauer (2020): "Return and Onward Migration and Labour Market Entry: Empirical Analysis and Microsimulation Projection for Austria", Austrian Institute of Economic Research (WIFO). Contribution supported by funds from the Jubilee Fund of the Austrian National Bank.	
Thomas Leoni, Martin Spielauer, Peter Reschenhofer (2020), "Social Differences, Life Expectancy And Health Expenditures Over The Life Course", Austrian Institute of Economic Research (WIFO). Contribution funded by the Main Association of Austrian Social Insurance Institutions.	2020
"Older people on the labor market: a forecast up to 2040 as a basis for economic policy measures", Austrian Institute of Economic Research (WIFO). This 2020-2021 project is part of a project "Effects of demographic aging on older workers and the workforce structure of companies" funded by the Austrian Chamber of Labour, the Austrian Economic Chamber, the Austrian Chamber of Agriculture, and the Austrian Federation of Trade Unions.	2020-21
"Education and Health as Determinants of Labour Force Participation and the Consequences of Ageing", Austrian Institute of Economic Research (WIFO). 2020-2021 project commissioned by the German Bertelsmann Foundation.	2020-21
"Projections of Age-Specific US Labor Force Participation Based on a Dynamic Microsimulation Model Accounting for Education and Health", Austrian Institute of Economic Research (WIFO) and Johannes Kepler University, Linz, Austria. 2020-2021 project is funded by the US Social Security Administration.	2020-21

9 Impact

9.1 Scientific impact

Describe the nature of the major scientific impacts of your results, i.e. the addition to the current state of knowledge (new data, new methods, new perspective, confirmation of theses, first transnational approach). Describe to what extent the scientific impact has been promoted through the international and comparative perspective of the various members of the consortium (max. 2 page).
WELTRANSIM has produced several achievements in what refers to its scientific impact. We summarize the main ones bellow: First, an estimation of the interaction among population ageing and the aggregate trends in public transfers to the elderly and to children has been performed in order to have a better understanding of our research question from the macro perspective. Second, an analysis and combination of different internationally comparable household budget surveys has been performed aiming at reconstructing the lifecycle of agents and see how their dependent periods are covered with resources coming from their own work, their savings, their families or the government. Third, an internationally comparable dynamic microsimulation tool has been developed (microWELT) starting from the data mentioned before and using simulation to project the lifecycle of individuals and the impact of ageing and other transitions occurred, together with the demographic transition (the education and family structure transition). The model agents are heterogeneous by age, gender, education level and family type. This allows investigating the impact of the welfare state on income redistribution, both at intra and intergenerational levels. Finally, by applying the model to four EU countries, representative of the four welfare models, a first comparative analysis of the lifecycle impact of the welfare models is obtained. Along the process, new NTA data have been built, disaggregated by gender, education and family type. In this respect, it constitutes an extension of the NTA methodology exploring the potential of estimations at the micro level. As shown in Section 8.1 there are already some papers refereeing to the first steps of the project published. The project has been disseminated in several scientific forums (8.2). The outputs of the analysis, together with the procedures and inputs used, are available in the website of the project (www.weltransim.edu) and the model platform (www.microwelt.edu).

9.2 Societal impact

Describe the impact of the results on different target groups (e.g., health professionals, policy makers, patients), including the pathway to reaching this impact. Describe how the results have been or will be used, disseminated and implemented by each target group, including beyond the lifetime of the project (max. 2 page).
The analysis performed in this project offers a quantified view of the impact of the welfare state transfers along the lifecycle, which can help to derive informed policies and its impact on inter and intragenerational income redistribution. Regarding the latter, results are especially helpful to widen the perspective of gender inequality, by visualizing the different contribution of men and women to private transfers. Regarding the former, by quantifying the size of private and public transfers and its direction towards the dependent children and the elders, our results offer new insights to design the policies needed to overcome the challenge of ageing.

Section 8.3 details the abundant presentations done to active and potential stakeholders, and to the general audience.

The societal impact of the project pivots on the open source model platform, which ensures that results availability for researchers and stakeholders, and make the model easily portable to other EU countries.

The work developed in this project is continuing in the following lines. First, a transfer knowledge project has already been carried out in order to find potential stakeholders and to adapt the model to their needs (2019 LLAV 00071 project financed by the Catalan Agency for Management of University and Research Grants (AGAUR) and FEDER funds.

As detailed at the end of Section 8.3 WIFO has adapted, refined, and extended the microWELT model for applications in various subject matter domains as documented in the following papers and projects:

- The Dynamic Microsimulation Model microDEMS to Analyse the Economic Integration of Immigrants in Austria
- Microsimulation Projection of the Educational Integration and Labour Force Participation of First- and Second-Generation Immigrants
- Return and Onward Migration and Labour Market Entry: Empirical Analysis and Microsimulation Projection for Austria
- Social Differences, Life Expectancy And Health Expenditures Over The Life Course
- Older people on the labor market: a forecast up to 2040 as a basis for economic policy measures
- Education and Health as Determinants of Labour Force Participation and the Consequences of Ageing
- Projections of Age-Specific US Labor Force Participation Based on a Dynamic Microsimulation Model Accounting for Education and Health

Geographically, the use of the model was extended to Germany, France, Italy, and the US. Project funding for those projects making use of microWELT was received by the Austrian National Bank, The US Social Security Administration, the German Bertelsmann Foundation, The Main Association of Austrian Social Insurance Institutions, and the Austrian Social Partners.

Second, together with two additional partners, microWELT will be extended to include the non-market production and consumption (including care) in the WELLCARE project.

10 Data Management and Data Sharing

Describe how this project contributes to sustainable data and research infrastructures; including a description of the sustainability of the research results within the wider research community. Please take into account the FAIR data Principles and indicate if your project (partly) contributes to these principles (max. 1 page).
New data produced –mainly NTA profiles by gender, education and family type- are already available and documented as all the other parameters at the model website, according to the FAIR data management principles (the data is findable, accessible, interoperable and reusable). After the publication in scientific journals (and eventual validation), it will also be further diffused using either the existing data browsers of the international project (NTA), or the EU project AGENTA. Given that the structure is different from the data stored previously –not disaggregated by education and family type- we are still in the process to find the better way to visualize it in the most suitable way. As a result of the project, we are now producing similar estimates for non-market variables using other datasets. As this data complements previous data created, before producing the final dataset it seems advisable to have a complete version of both estimations, to ensure that definitions of family types employed in the different datasets are coherent so that the documentation is clear and complete.

Publicly funded research data are valuable, long-term resources that, where practical, should be made available for secondary scientific research. Some funders expect that all data created or repurposed during the lifetime of a grant will be made available for re-use or archiving, recognising that some research data are more sensitive than others. If you have created or repurposed data as part of your project and it has been made available for re-use or archiving, please use the table below to indicate where it can be accessed and who it can be accessed by.

Dataset	Available for	Available at
MicroWELT model	All (Researches, stakeholders, community)	https://www.microwelt.eu/Downloads/Downloads-Index.html
Disaggregated NTA by gender, education and family type	All (Researches, stakeholders, community)	https://www.microwelt.eu/Downloads/Downloads-Index.html
Disaggregated NTTA by gender, education and family type	Unexpected product of the project still under construction	Extension of NTA and AGENTA data browser or new data set on disaggregated NTA-NTTA with script documentation under construction to be link at www.weltransim.eu

11 Collaboration

11.1 Collaboration within the project

Are the academic collaborations within this project new or were these existing collaborations? How did you involve the different academic partners in the project?
Regarding the consortium, there was a previous collaboration of the coordinating team with Martin Spielauer. There was also an indirect connection between the coordinator and Risto Vaittinen as members of the international project NTA. During the project, new collaborations have been established with Tanja Istenič (School of Economics and Business, University of Ljubljana, also member of the NTA network). This connection has been very valuable to link the results of the AGENTA EU project with those derived in this project. As it was agreed at the beginning of the project, each partner developed the tasks in their respective WP on their own, or in collaboration with other partners. Along the project, there were some minor redistribution of tasks according to the expertise of the partners and their workload.

11.2 Collaboration with Stakeholders

Are the collaborations with stakeholders within this project new or were these existing collaborations? How did you involve the different stakeholders in the project?
Several actions have been taken in Spain. A preliminary version of the model was presented at the seminar of the Bank of Spain (Banco de España, see section 8.3). More recently, as mentioned in section 9.2., a transfer knowledge project has been carried out in order to strengthen the links with potential stakeholders and to adapt the model to their needs (2019 LLAV 00071 project financed by the Catalan Agency for Management of University and Research Grants (AGAUR) and FEDER funds. Presentations and communications targeting WIFO Stakeholders include: - https://www.microwelt.eu/Applications/01_Wifo/Wifo-Index.html - https://www.microwelt.eu/Dissemination/WifoJahresbericht2019/WifoJahresbericht2019-Index.html - https://www.microwelt.eu/Dissemination/Stakeholder2020/Stakeholder2020-Index.html Austrian projects triggered by these communications include: • Social Differences, Life Expectancy And Health Expenditures Over The Life Course • Older people on the labor market: a forecast up to 2040 as a basis for economic policy measures • Education and Health as Determinants of Labour Force Participation and the Consequences of Ageing

11.3 Collaboration with Patients and the Public

How did you involve patients and/or the public in the project? Were patients and the public actively involved in research design and delivery? Did decisions about the research include the patient and public perspective Note, when we refer to patient and public involvement in research we mean research being carried out with and by patients and the public, not to, for or about them (see, www.invo.org.uk). We do not mean patient and public engagement, where research information is presented or disseminated to patients and the public.
Not applicable due to the nature of this project.

11.4 Collaboration with other JPI MYBL projects

Please describe any connections, bilateral meetings, knowledge exchange etc. between your project and other JTC projects funded by the JPI MYBL.
Two of the projects funded were presented by members of the NTA network, and hence we have interactions during the network meetings. In particular: 1) There was a specific network meeting about the micro aspects of NTA, were our work was discussed informally: 2020 National Transfer Accounts (NTA) Workshop on Micro-Distributional NTA: Investigating Inequality, Human Capital, and Changing Population Composition in a Longitudinal Context. https://www.ntaccounts.org/doc/repository/microdistributional%20nta%20agenda%20II.docx 2) the 12th and 13th Global NTA meetings were held in 2018 and 2020 respectively (the later online due to the Pandemic); Results of our project were discussed there with the NTA network members (see Section 8.2).

11.5 Collaboration with other European/national projects

Please describe actual and intended collaborations with other European/national projects (e.g. collaboration with related projects not funded by JPI MYBL).
As mentioned above, this project is related to the AGENTA project (http://www.agenta-project.eu/en/index.htm)

11.6 Added value of the International Consortium

Please describe the added value of working as an international consortium, compared to project partners each working separately at the national level. In what way and to what extent did the international cooperation in the project help to broaden your perspective on demographic change in Europe and beyond?
There are general advantages of collaboration among partners from different countries, universities and research structures. This collaboration was especially rich in our case as there was one university (UB), one research centre strongly policy oriented (WIFO), and two partners (FPC and VATT). FPC is the co-ordinating body of Finnish mandatory earnings related pension system. VATT operates in the administrative domain of the Ministry of Finance and produce policy-oriented research and economic policy advice. In addition, from the point of view of methodology, our consortium created value added in the integration of different methodologies and in the analysis of the different welfare state models.

12 What can we do for you?

12.1 What can we do for you?

What can we do to help you to amplify your message? How can we help you to connect to the right people/stakeholders (e.g. to share your research results)? How can we help you to add value to your results?
We are in the process to communicate to the EU Ageing Working Group (AWG) the potential of the simulation tools derived in this project to contribute to their calculations. Any helpt in this direction would be appreciated.

12.2 Feedback for JPI MYBL

Please provide any feedback arising from this project so we can improve our procedure for any future joint calls.
We are sure you are aware of this difficulty and are trying to solve it. There is a misalignment between the partners in the general project calendar and in the reporting calendar. Coordination in that matter would smooth the administrative work and hence improve the scientific results of the project and its impact. An additional problem in this particular project is the limited budget of the coordinator. Perhaps the consortium could add a budget for that whenever the coordinating partner has low budget, due to financial constraints in the eligible country.