

# Overview on simulations carried out by the Austrian Parliamentary Budget Office

**EUROMOD Workshop in Vienna** 

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### **AGENDA**

- The Austrian Parliamentary Budget Office an its tasks
- The use of EUROMOD in our analytical work
- Examples of microsimulation analysis carried out in the past
  - Tax reform 2015/2016
  - Budgetary effect of bracket creep
  - Introduction of a family tax credit
- Ongoing projects with EUROMOD
  - Redistributive impact of alternative reform scenarios to support families (on request by a MEP)
  - Size of automatic stabilizers in the tax transfer system (on request by a MEP)



## THE AUSTRIAN PARLIAMENTARY BUDGET OFFICE AND ITS TASKS



### **MANDATE**

Established in 2012 to support Parliament in the budgetary process, in consulting and enacting budget laws and exercising its oversight role:

- ⇒ provide government-independent and objective analysis
- ⇒ support Parliament and the Budget Committee in budgetary matters

#### Key tasks:

- (1) To support the Budget Committee in form of written expertise, analysis and short studies on budgetary matters presented by the government according to Federal Organic Budget Act (e.g. draft fiscal framework and budget, reports)
- (2) To prepare brief information upon request of members of the Budget Committee
- (3) To support other parliamentary committees regarding impact assessment of new legislation
- (4) To consult the Parliament on performance budgeting and the effective equality of women and men (gender budgeting)

### **BASIC DOCUMENTS**

- Political agreement between all the political parties represented in the Austrian national assembly
- Statement of the Budget Committee of the Austrian Parliament, 10<sup>th</sup> November 2011

Establishment without specific legal basis, based on the following principles:

#### PBO shall

- Work independently and ensure high-quality expertise
- Agree a catalogue of Products & Services with the Budget Committee
- Submit analysis to all political parties
- Ensure transparency and publish all results on parliament's homepage

Staffing: in total 8 employees (6 academic experts, 2 assistants)



# THE USE OF EUROMOD IN OUR ANALYTICAL WORK



### **ANALYSIS OF NEW LEGISLATION**

- Public administration has to provide an impact assessment (IA) for every new draft law
- Impact assessments are prepared by ministries before new legislation is brought to Parliament, they are part of consultation materials and legal materials provided to Parliament
- The PBO conducts an analysis of an impact assessment in the following cases
  - New legislation assigned to Budget or Finance Committee
  - New legislation assigned to other Committee only if financial impact is substantial (out of own initiative)
- Analysis of PBO typically contains
  - Critical assessment of cost estimates (plausibility, consistency etc.)
  - In some cases distributional and incentive effects of new legislation
- Use of EUROMOD for new laws regarding the tax/transfer system
- Preparation of written report published before parliamentary debate starts



### ANALYSIS ON REQUEST FROM MPS

- Members of the Budget Committee can request an analysis from the Parliamentary Budget Office (PBO)
- PBO prepares written report which is delivered to all members of the Budget Committee and also made publicly available on our homepage
- EUROMOD is used if of use
- Examples
  - Budgetary effect of bracket creep
  - Distributional effect of alternative reform scenarios to support families
  - Size of automatic stabilizers



## EXAMPLES FOR MICROSIMULATION ANALYSIS CARRIED OUT IN THE PAST



### TAX REFORM 2016: OVERVIEW ON MEASURES

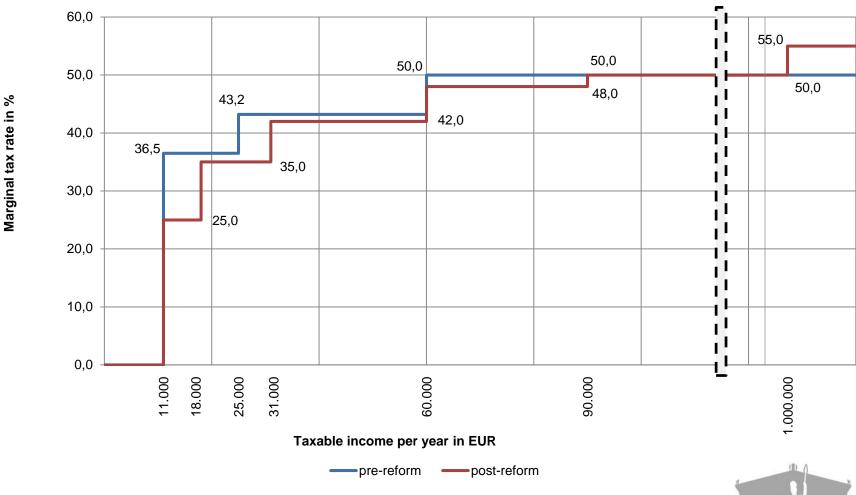
#### Tax cuts

Budgetary cost 5.4 bn EUR per year (total tax revenues 2014: 78.5 bn EUR)

	Current le	gislation	Reform scen	Reform scenario		
	taxable income per	tax rate	taxable income per	tax rate		
	year		year			
	in EUR	in %	in EUR	in %		
	0 - 11,000	0.0	0 - 11,000	0.0		
	11,001 - 25,000	36.5	11,001 - 18,000	25.0		
	25,001 - 60,000	43.2	18,001 - 31,000	35.0		
Income tax rates	> 60,001	50.0	31,001 - 60,000	42.0		
			60,001 - 90,000	48.0		
			90,001 - 1,000,000	50.0		
			> 1,000,001	55.0		
Merge and increase of commuters- and wage earners tax credit	345		400			
Child tax allowance						
claimed by one parent	220		440			
claimed by both parents, per head	132	132		300		
Social security maximum contribution base (per month)	4,740		4,830			
Negative income tax (refunding of social security contributions)						
employee	10 %, max 110 EUR p. a. 50 %, max 400		50 %, max 400 EU	EUR p. a.		
pensioner	no entitlement		50 %, max 110 EUR p. a.			
self-employed and farmer	no entitlement		50 %, max 110 EUR p. a.			
Low-income commuters						
increase of commuters tax credit	345		690			
increase of negative income tax	400		500			



## TAX REFORM 2016: CHANGE IN MARGINAL TAX RATES



# TAX REFORM 2016: IMPACT ON INCOME DISTRIBUTION (I)

#### All households

	Disposable household income (equivalised)		Financia	Share in total financial relief	
in EUR p.a.	pre-reform	post-reform	in EUR	in %	in %
Mean	25,145	25,973	829	3.3%	-
Median	22,769	23,532	763	3.4%	-
1. Decile	8,966	9,088	123	1.4%	1.4%
2. Decile	14,347	14,648	301	2.1%	3.4%
3. Decile	17,142	17,638	496	2.9%	5.7%
4. Decile	19,503	20,141	639	3.3%	7.3%
5. Decile	21,646	22,376	730	3.4%	8.3%
6. Decile	23,991	24,817	826	3.4%	9.6%
7. Decile	26,780	27,762	982	3.7%	11.7%
8. Decile	30,247	31,404	1,156	3.8%	14.0%
9. Decile	35,504	36,841	1,337	3.8%	16.6%
10. Decile	53,379	55,077	1,698	3.2%	22.0%

	pre-reform	post-reform	change	in %
Gini coefficient	0.259	0.261	0.001871	0.72%
90/10 relation	3.134	3.198	0.063818	2.04%
share of top 10%	0.353	0.354	0.000409	0.12%



# TAX REFORM 2016: IMPACT ON INCOME DISTRIBUTION (II)

#### Households with / with no children

	in EUR p.a.	•	usehold income ralised)	Financia	al relief				
		pre-reform	post-reform	in EUR	in %				
Couple with children									
	Mean	24,062	24,847	785	3.3%				
	1. Decile	10,189	10,364	174	1.7%				
	5. Decile	20,945	21,661	716	3.4%				
	10. Decile	49,366	50,843	1,477	3.0%				
Couple with no children									
	Mean	30,035	31,086	1,051	3.5%				
	1. Decile	12,154	12,444	291	2.4%				
	5. Decile	26,359	27,290	931	3.5%				
	10. Decile	60,189	62,136	1,946	3.2%				
Lone parent									
	Mean	18,350	18,781	431	2.3%				
	1. Decile	7,584	7,609	25	0.3%				
	5. Decile	17,062	17,328	266	1.6%				
	10. Decile	31,937	32,940	1,003	3.1%				
Single household									
	Mean	24,464	25,282	818	3.3%				
	1. Decile	8,475	8,561	86	1.0%				
	5. Decile	20,893	21,624	731	3.5%				
	10. Decile	53,612	55,316	1,704	3.2%				



## BUDGETARY EFFECT OF BRACKET CREEP IN AUSTRIA

- Progressive income tax schedule in Austria is not indexed regularly with inflation rate 

   bracket creep leads to additional income tax revenues
- Instead there are larger tax reforms every couple of years (like the one presented this morning)
- Intensive political debate (also in recent election campaign) on this issue
- Member of the Budget Committee (from the liberal party) asked the PBO to calculate the fiscal effect of the following models for the period 2017-2019
  - Swiss model: annual indexation of the income tax schedule with (past) inflation
  - Swedish model: annual indexation of the income tax schedule with (past) inflation plus 2 % (2017: only plus 1 %) to proxy wage growth
  - Automatic indexation if cumulated inflation reaches a predefined value (4 % or 5 %)
- We conducted this study by using the EUROMOD microsimulation model

### BUDGETARY EFFECT OF BRACKET CREEP: RESULTS

Reduction of tax revenues in Mio. EUR	2017	2018	2019	2017 to 2019
Swiss Model	149	651	1.188	1.988
Swedish Model	380	1.349	2.372	4.101
Indexation if cumulated inflation > 5%	0	0	0	0
Indexation if cumulated inflation > 4%	0	0	1.188	1.188

- Total income tax revenues in 2017 were 29,3 bn EUR (cash data)
- When indexing the income tax each year with (past) inflation (Swiss model) income tax revenue in the period 2017 to 2019 would in total be lower by roughly 2 bn EUR
- The fiscal effect of the Swedish model (inflation plus 1 % (2017) or 2 % (2018/2019)) is much higher (4,1 bn EUR)
- When applying the threshold of 5 % for cumulated inflation no indexation would have been necessary in the observation period
- With a threshold of 4 % the income tax would have to be adapted in 2019.

# Introduction of a family tax credit for Children ("family bonus")

#### **Main results**

Disposable h income (equ pre-ref	uivalised)	Change in cincome (ec	•	Share in total tax relief volume	Share of households affected by reform	Average number of children		Number of children affected by reform
						< 18	> 18 and family	total
	in EUR	absolut	in %	in %	in %		assistance	
average	27.538	180	0,7%	-	25,8%	0,4	0,1	1.660.285
1. Decile	9.029	29	0,3%	1,5%	9,8%	0,3	0,0	62.538
2. Decile	14.888	163	1,1%	9,5%	28,0%	0,5	0,1	214.634
3. Decile	18.120	247	1,4%	14,3%	31,8%	0,6	0,1	234.444
4. Decile	20.908	267	1,3%	15,2%	33,5%	0,5	0,1	232.863
5. Decile	23.521	235	1,0%	13,0%	27,7%	0,4	0,1	184.545
6. Decile	26.244	244	0,9%	13,4%	31,7%	0,4	0,1	193.578
7. Decile	29.483	210	0,7%	11,7%	29,4%	0,4	0,1	177.571
8. Decile	33.423	166	0,5%	9,1%	24,5%	0,3	0,1	143.528
9. Decile	38.933	132	0,3%	6,9%	22,5%	0,2	0,1	119.593
10. Decile	60.871	102	0,2%	5,3%	18,9%	0,2	0,1	96.989



### **O**NGOING PROJECTS WITH **EUROMOD**



## REDISTRIBUTIVE IMPACT OF ALTERNATIVE REFORM SCENARIO TO SUPPORT FAMILIES

- Introduction of family bonus is accompanied by a lively political debate
- Main point of criticism: some families are excluded from the family bonus, either because their income is too low and/or because they receive social assistance more than 330 days per year
- This is also visible in our analysis on the redistributional effect of the reform, as the disposable income in the first decile hardly increases
- In the context of this discussion a member of the Budget Committee from the "Liste Pilz" asked the PBO to conduct a redistributional analysis of two alternative reform scenarios:
  - Scenario 1: Family assistance for all children is increased such that the budgetary cost is identical to the introduction of family bonus
  - Scenario 2: Family assistance for all children below 10 is increased with the same budgetary cost as scenario 1



## SIZE OF AUTOMATIC STABILIZERS IN THE TAX/TRANSFER SYSTEM

- Automatic stabilizers are public revenues (e.g. income tax) and expenditure (e.g. unemployment assistance) which smooth the business cycle without an active political decision process
- In the aftermath of the economic and financial crisis 2008/2009 the debate on the size and effectiveness of automatic stabilizers has regained interest in the academic and political debate
- A member of the Budget Committee from the "NEOS" asked the PBO to conduct an analysis on the size of automatic stabilizers
- Hypothetical GDP shock of 2 % or 5 % respectively
  - Impact on income and unemployment
  - Size of automatic stabilizer in the tax/transfer system (conducted with EUROMOD)
  - Impact on public deficit and debt



### THANK YOU FOR YOUR ATTENTION

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