



Simulate your own reform

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www.rozpoctovarada.sk

Do you know how much money does it cost to lower the personal income tax rate to 18%?

Would you prefer to increase taxes or decrease benefits to lower income inequality?

What is SIMTASK ?

Simulation Model of Taxes and transfers in Slovakia

Microsimulation model of Slovak tax and transfer system

Tool to assess short-run effects of tax and transfer system reform strategies on

- disposable income of individuals/households
- income distribution, inequalities
- government budget ...

SIMTASK development

Tailored to country-specific conditions and involving a maximum degree of user control (written in Stata)

It can be easily incorporated into more complex CBR models

Inspired by EUROMOD

- microsimulation tool of taxes and transfers for 28 EU countries
- developed at the University of Essex (ISER)

Simulated variables

Payroll taxes

Personal Income Tax is fully simulated including tax allowances and child tax credit

Social & health insurance contributions

- paid by employers and employees are fully simulated
- paid by self-employed simulated under simplifying assumptions

Simulated variables Transfer system

Contributory system

- unemployment benefit under simplifying assumptions
- maternity benefit (only months of eligibility)

Social assistance: material need benefit

State social support:

- child birth grant
- child benefit including additional child benefit
- parental allowance

Input database – SK SILC

National version of EU-SILC (Statistics on Income and Living Conditions)

Information on roughly 16 000 individuals living in 5 000 households

Last available wave with income reference year 2015

Includes: structured individual income and detailed socio-demographic characteristics

Preparation of the data

Recalibration of weights

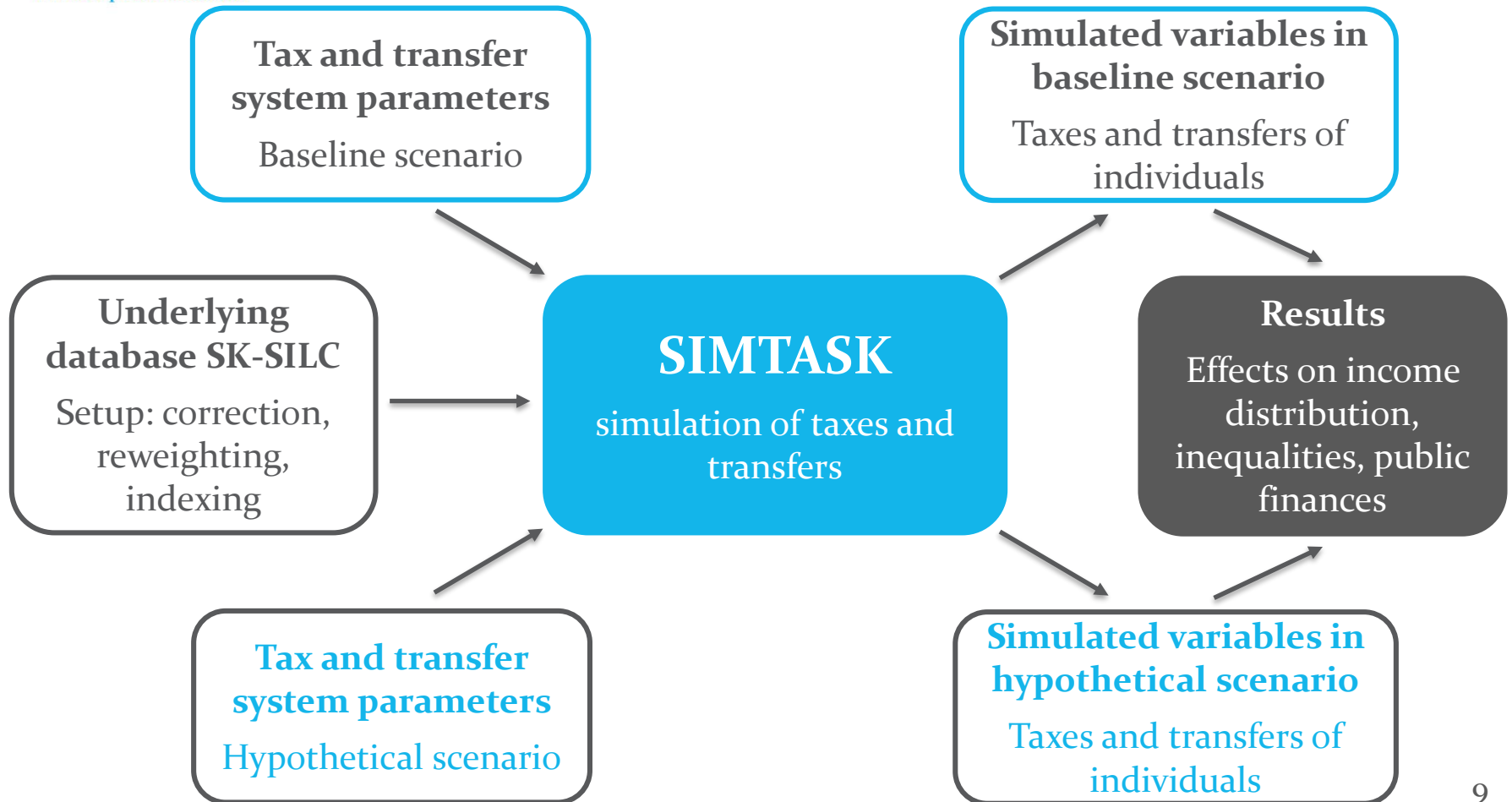
- to match the official statistics more closely
- calibration software “CALIF” developed by the Slovak Statistical Office used
- taking into account income distribution and different age cohorts

Indexation of monetary variables

- to set income reference period to simulation year
- officially forecasted growth factors are used

Simulation process

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More information

„SIMTASK: A Microsimulation model of the Slovak Tax-Benefit System“

Discussion paper of CBR 3/2015

„Improving the Validity of Microsimulation Results: Lessons from Slovakia“

2016, International Journal of Microsimulation, 9(2), 77-105

Incorporated in CBR's models, used on daily basis

SIMTASK (files in STATA) has been provided without charge for research purposes

- Institute of Economic Research SAS
- Statistical Office of the Slovak Republic

Next step – make it available for general public

Simplified version of SIMTASK available online to general public

English and Slovak version available

Targeted to analysts, journalists, students and policy makers

SIMTASK online

www.rozpctovarada.sk

simtask.rozpctovarada.sk

The following parameters can be changed:

Personal income tax (8 parameters)

Social insurance (28 parameters)

Health care insurance (7 parameters)

Value added tax (2 parameters)

Family support (6 parameters)

Assistance in material need (12 parameters)

Tables and graphs:

- Fiscal impacts

- Distributional effects for individuals - labour taxes

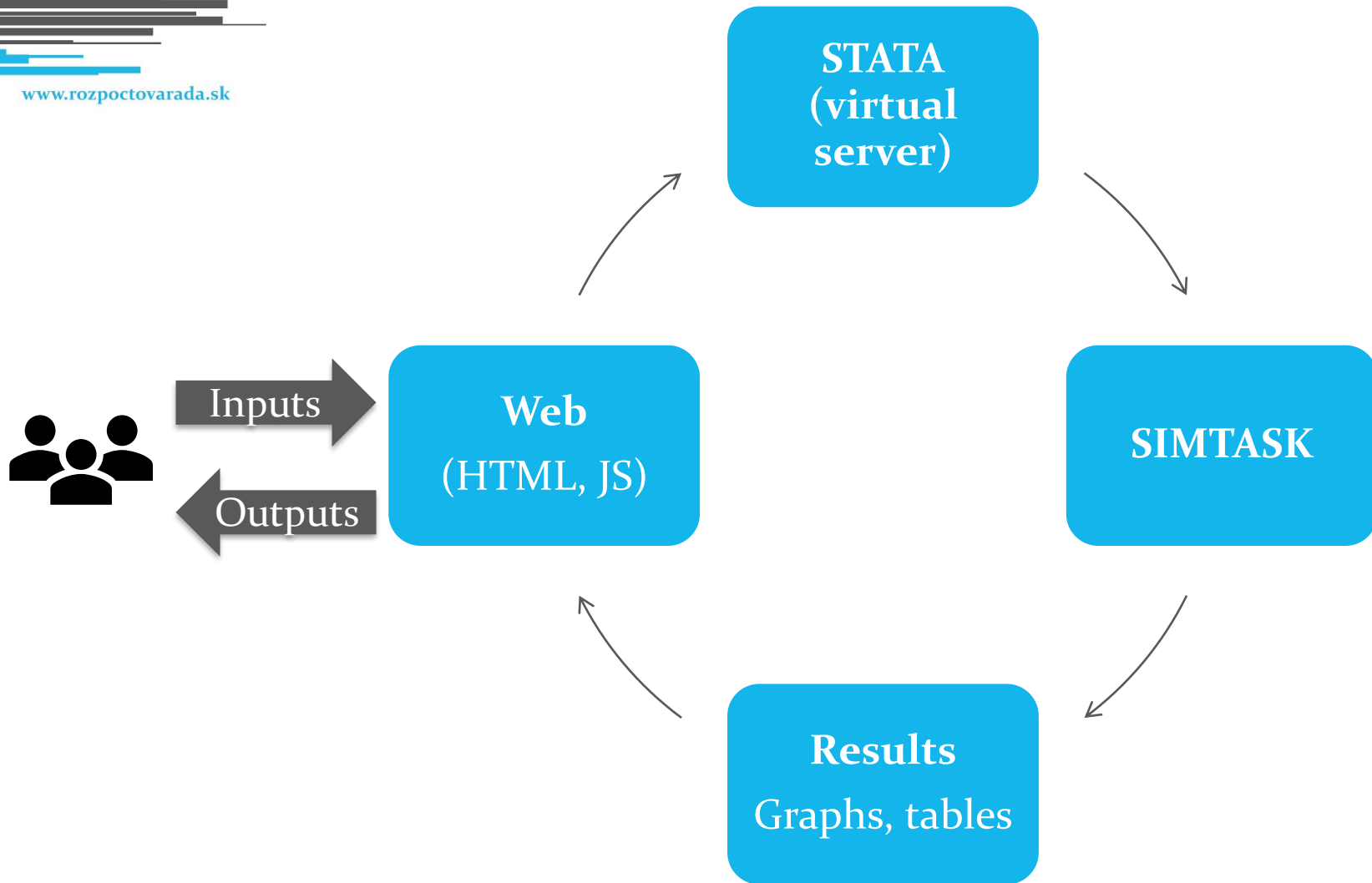
- Distributional effects for households - disposable income less VAT paid

- Effects by family type - disposable income

- Income inequality

XML file can be downloaded

How does it work?



What do you need?

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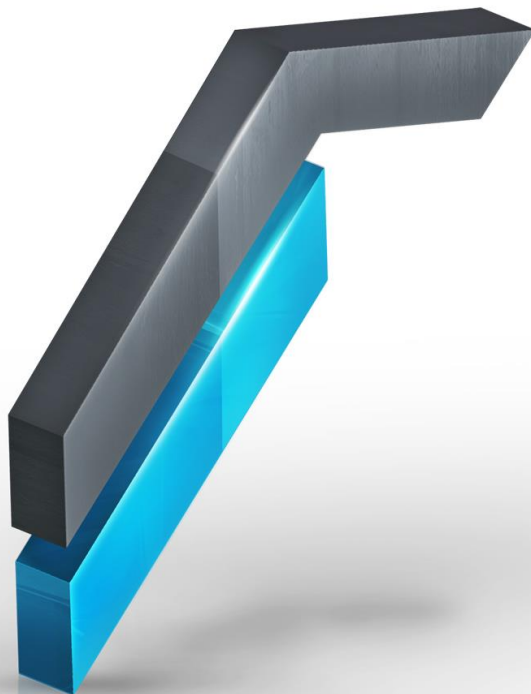
15 seconds

Concluding remarks

SIMTASK – relevant microsimulation tool

SIMTASK – simplified version available online

simtask.rozpoctovarada.sk



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Practical application

baseline:

Personal income tax

Tax rates

<i>i</i> First tax bracket	19,00 %
<i>i</i> Second tax bracket	25,00 %
<i>i</i> Lower limit for the second tax bracket	35 268 €

scenario:

Personal income tax

Tax rates

<i>i</i> First tax bracket	18,00 %
<i>i</i> Second tax bracket	25,00 %
<i>i</i> Lower limit for the second tax bracket	35 268 €

Practical application

i Fiscal impacts

	amounts in mil. of €		changes	
	forecast for 2018	simulation	in mil. of €	in %
Income total	20 296	20 149	-147	-0,72
- Personal income tax	2 808	2 648	-160	-5,70
- Social contributions	7 831	7 831	0	0,00
- Health insurance contributions	3 553	3 553	0	0,00
- VAT	6 104	6 117	13	0,21
Selected expenditures	9 021	9 021	0	0,00
Effect on balance	.	.	-147	-0,16

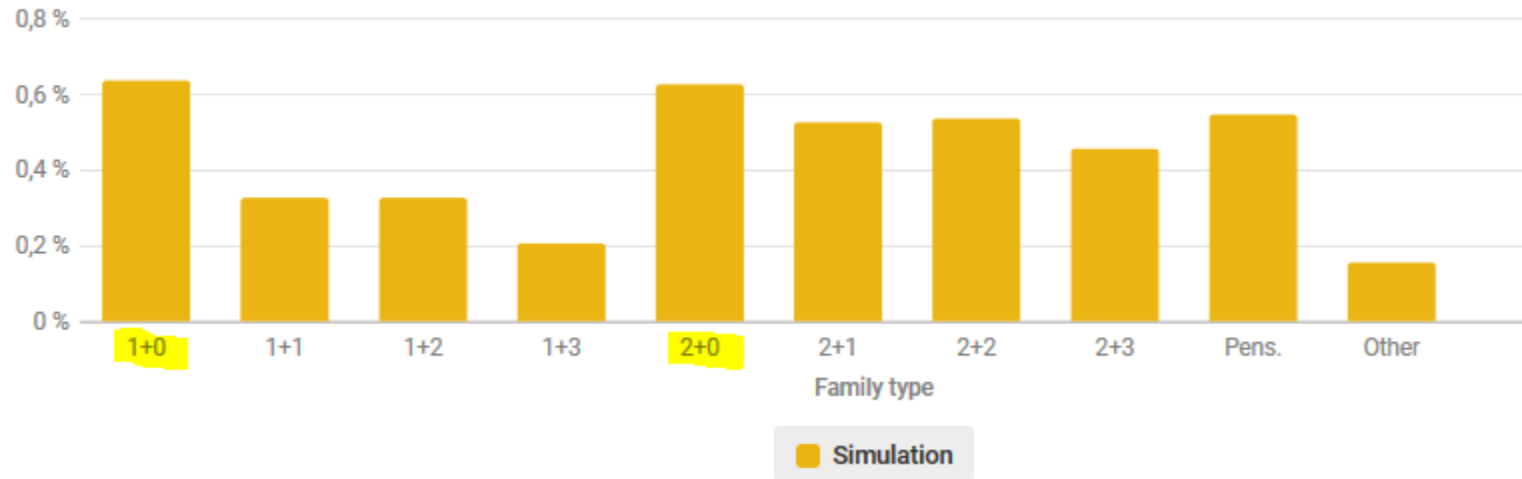
Distributional effects for households: disposable income less paid VAT

Distribution of impacts



Effects by family type: disposable income

Average change



Practical application

Income inequality would be higher due to tax allowances

Income inequality			
	forecast for 2018	simulation	change
GINI index	27,37	27,49	0,12
Kakwani index	6,40	6,15	-0,25