
















Specification and structure of files

The model consists of 15 files:

-  Datar.sav – statistics of the household survey
-  Default.txt – system file with user-defined settings
-  Esprice.sav – appraised value of a home occupied by a household
-  House.sav – system file with all intermediate results
-  Input.sav – mortgage products description (based on mortgage product profiles)
-  Intention.sav – Estimates of households intention to move
-  Payments.sav – household incomes that may be fully used for loan repayment
-  Result.sav – results of estimations
-  Subsidies.sav – eligibility for subsidy and subsidy program description
-  Test.sps – system file, containing executable code
-  Tgprice.sav – “target house” prices
-  Ttpp.clo – template for graphs
-  Ttpp.sps – core syntax of the model
-  Ttppnew.exe – executable file with user interface
-  Ttppscript.sbs – system file with syntax for optimizing the output

Names and location of the files may be changed by the user.

File structure:

In all files, unless otherwise provided, specific household information is shown in lines, and variables - in columns.

Datar.sav

#	Variable	Description	Units
1	hhnumber	Identification number of a household	Counting numeral
2	hhsize	Size of a household	Numeric
3	age _i	Age of i th member of household	Numeric (positive)
4	relat _i	Relation of i th member to the head of household	1 – wife / husband 2 – son / daughter 3 – son-in-law / daughter-in-law 4 – father / mother 5 – father-in-law / mother-in-law 6 – brother / sister 7 – grandson / granddaughter 8 – grandfather / grandmother 9 – other
4	ownst	Owner of housing	1 – state, municipality 2 – private owner

			3 – corporate owner 4 – other 5 – rent
5	oblpaym	A sum of taxes and duties paid by a household	Numeric
6	ssav	Last year growth in household financial assets	Numeric
7	crhistor	Credit history of a household	0 – bad 1 – good
8	inc	Total monthly income of a household	Numeric
9	bigfamd ¹	Complex or nuclear household	1 – complex 0 – nuclear
10	weights	Sample weights	

Intention.sav

#	Variable	Description	Units
1	hhnumber	Identification number of a household	Counting numeral
2	Intmoved	Estimation of household intention to move	1 – ready to move 0 – not ready to move

Esprice.sav

#	Variable	Description	Units
1	hhnumber	Identification number of a household	Counting numeral
2	esprice	Estimated value of an apartment occupied by a household.	Numeric

Tgprice.sav

(it is a two-line file containing no household information)

#	Variable	Description	Units
1	hmarket	Identification code of the type of the housing market	0 – secondary market 1 – primary market
2	descr	Description	String
3	tgprice1	Price of a «median-priced home» (the highest)	Numeric
4	tgprice2	Price of a «modestly-priced home»	Numeric
5	tgprice3	Price of a «low-priced home» (the smallest)	Numeric

Payments.sav

#	Variable	Description	Units
1	hhnumber	Identification number of a household	Counting numeral
2	payments	An amount of a total household income that may be fully used for loan repayment	Numeric

Subsidies.sav

#	Variable	Description	Units
1	hhnumber	Identification number of a household	Counting numeral
2	Subs_dum	Is household eligible for a subsidy?	Dummy (1 – yes, 0 – no)

¹ For more details on definition of “bigfamd” see Annex 4

3	Subs	Downpayment subsidy (% of dwelling unit)	Numeric
4	Subsls	Downpayment subsidy (lump-sum)	Numeric
5	Subsir	Interest rate subsidy (% points)	Numeric

Input.sav

(the first column shows the name of a variable, the second – its description, the third and other – mortgage products)

#	Variable	Description	Units
1	Pcode	Mortgage product code	String
2	Pname	Mortgage product description	String
3	lrate	Yearly interest rate (%)	numeric
4	t	Time to maturity	numeric
5	Loanmin	Minimum available loan size	numeric
6	Loanmax	Maximum available loan size	numeric
7	ltv	Loan to value ratio (%)	numeric
8	Pi_use	Use the payments-to-income ratio or separate file with income?	Dummy (0 – use PI ratio, 1 – separate file)
9	c1	Payments to net income ratio (%)	numeric
10	Applcost	Loan execution costs	Numeric
11	Apprcost	Costs of property appraisal services	Numeric
12	Brk_cost	Costs of real broker services and notary certification (% of dwelling value)	Numeric
13	Insrates	Annual property and life insurance payments (% of loan amount)	Numeric
14	Ntr_cost	Other one-time expenditures on mortgages (% of loan amount)	Numeric
15	Regcost	Costs of state registration	Numeric
16	Tran_cst	Transaction tax (% dwelling value)	Numeric
17	Agemax	Maximum allowed borrower's age at the date of application	Numeric (natural number)
18	Agemin	Minimum allowed borrower's age at the date of application	Numeric (natural number)
19	Usehist	Account credit history of the borrower?	Dummy (1 – yes, 0 – no)
20	Hmarket	Which type of housing market it is allowed to buy a dwelling unit on?	Dummy (0 – used housing, 1 – new housing)
21	Intmove	Account the household's intention to move?	Dummy (1 – yes, 0 – no)
22	Valgap	The minimum gap in dwelling values required for purchase	Numeric
23	Savtot	Estimation of total savings of households	Numeric
24	Totinc	Estimation of total income of all households	Numeric
25	Tothous	Total number of households in the region, thou.	Numeric
26	Subs_use	Is this a subsidy program?	Dummy (1 – yes, 0 – no)
27	Discont	Discount rate (%)	Numeric

Result.sav

#	Block	Variable	Description	Units
1	2	Pcode	Mortgage product code	String
2	2	Pname	Mortgage product description	String
3	2	Totloan	Maximum loan capacity	\$
4	2	Totmoney	Maximum capacity of demand for housing	\$

5	2	Shloanaf	Share of households that can afford a loan	%
6	2	Slnaf_li	Share of low-income households that can afford a loan among all households that can do it.	% of afford. households
7	2	Loanaver	Average loan size	\$ per household
8	2	Ltvaver	Average LTV ratio	% per household
9	2	Loani1v	Total volume of loans among first (lowest) 20% income group of household	\$
10	2	Loani2v	Total volume of loans among second 20% income group of household	\$
11	2	Loani3v	Total volume of loans among third 20% income group of household	\$
12	2	Loani4v	Total volume of loans among fourth 20% income group of household	\$
13	2	Loani5v	Total volume of loans among fifth (highest) 20% income group of household	\$
14	2	Giniinv	Gini index of volume of loans distribution by income	
15	2	Loani1n	Total number of loans among first (lowest) 20% income group of household	#
16	2	Loani2n	Total number of loans among second 20% income group of household	#
17	2	Loani3n	Total number of loans among third 20% income group of household	#
18	2	Loani4n	Total number of loans among fourth 20% income group of household	#
19	2	Loani5n	Total number of loans among fifth (highest) 20% income group of household	#
20	2	Giniinn	Gini index of number of loans distribution by income	
21	2	Hkids_sh	Share of households with kids that can afford a loan	% of all households with kids
22	2	Hind_sh	Share of individuals that can afford a loan	% of all individuals
23	2	Hoth_sh	Share of other households that can afford a loan	% of all other households
24	4	Aff_sh1	Share of households that can afford purchasing median-priced house	%
25	4	Aff_sh1l	Share of households that can afford purchasing median-priced house with loan	% of affordable households
26	4	Af_sh1li	Share of low-income households that can afford purchasing median-priced house	% of affordable households
27	4	Loanv1	Total volume of loans raised to purchase median-priced house	\$
28	4	Demandv1	Total volume of demand demonstrated by households that can afford purchasing median-priced house	\$
29	4	Loanav1	Average loan size by such households	\$
30	4	Ltvaver1	Average LTV ratio by such households	%
31	4	S4inmin1	Minimum income among households that can afford median-priced house	\$ per month
32	4	S4inmed1	Average income among households that can afford median-priced house	\$ per month
33	4	Aff_sh2	Share of households that can afford purchasing modestly-priced house	%
34	4	Aff_sh2l	Share of households that can afford purchasing modestly-priced house with loan	% of affordable households
35	4	Af_sh2li	Share of low-income households that can afford purchasing modestly-priced house	% of affordable households
36	4	Loanv2	Total volume of loans raised to purchase modestly-priced house	\$

37	4	Demandv2	Total volume of demand demonstrated by households that can afford purchasing modestly-priced house	\$
38	4	Loanav2	Average loan size by such households	\$
39	4	Ltvaver2	Average LTV ratio by such households	%
40	4	S4inmin2	Minimum income among households that can afford modestly-priced house	\$ per month
41	4	S4inmed2	Average income among households that can afford modestly-priced house	\$ per month
42	4	Aff_sh3	Share of households that can afford purchasing low-priced house	%
43	4	Af_sh3l	Share of households that can afford purchasing low-priced house with loan	% of affordable households
44	4	Af_sh3li	Share of low-income households that can afford purchasing low-priced house	% of affordable households
45	4	Loanv3	Total volume of loans raised to purchase low-priced house	\$
46	4	Demandv3	Total volume of demand demonstrated by households that can afford purchasing low-priced house	\$
47	4	Loanav3	Average loan size by such households	\$
48	4	Ltvaver3	Average LTV ratio by such households	%
49	4	S4inmin3	Minimum income among households that can afford low-priced house	\$ per month
50	4	S4inmed3	Average income among households that can afford low-priced house	\$ per month
51	4	Loan41v	Total volume of loans among first 20% lowest income households	millions \$
52	4	Loan42v	Total volume of loans among second 20% lowest income households	millions \$
53	4	Loan43v	Total volume of loans among third 20% lowest income households	millions \$
54	4	Loan44v	Total volume of loans among fourth 20% lowest income households	millions \$
55	4	Loan45v	Total volume of loans among 20% highest income households	millions \$
56	4	Gini4v	Index Gini of volume of loans distribution by hh income	
57	4	Loan41n	Total number of loans among first 20% lowest income households	#
58	4	Loan42n	Total number of loans among second 20% lowest income households	#
59	4	Loan43n	Total number of loans among third 20% lowest income households	#
60	4	Loan44n	Total number of loans among fourth 20% lowest income households	#
61	4	Loan45n	Total number of loans among 20% highest income households	#
62	4	Gini4n	Index Gini of volume of loans distribution by hh income	
63	4	Hkid_sh4	Share of households with kids that can purchase a dwelling	% of all households with kids
64	4	Hin_sh4	Share of individuals that can purchase a dwelling	% of all individuals
65	4	Hoth_sh4	Share of other households that can purchase a dwelling	% of all other households
66	5	TBudexp	Total potential budget expenditures on loans in initial period	\$
67	5	PVsubsr	Present value of interest rate subsidy	\$
68	5	TBudexp1	Total budget expenditures under median-priced house	\$
69	5	TBudexp2	Total budget expenditures under modestly-priced house	\$
70	5	TBudexp3	Total budget expenditures under low-priced house	\$

71	5	D_num	An increase in access to housing	% of total households
72	5	D_numli	An increase in access for low-income households to housing	% of total households
73	5	D_shli	An increase in access for low-income households to housing as a share of all households that gain an access to housing	% of total households that gain an access to housing
74	5	Daf_num	An increase in affordability to housing	% of total households
75	5	Daf_nuli	An increase in affordability for low-income households	% of total households
76	5	Daf_shli	An increase in affordability for low-income households as a share of total increase in affordability	% of total increase in affordability
77	5	Subs1i	Total volume of subsidies among first 20% lowest income households	millions \$
78	5	Subs2i	Total volume of subsidies among second 20% lowest income households	millions \$
79	5	Subs3i	Total volume of subsidies among third 20% lowest income households	millions \$
80	5	Subs4i	Total volume of subsidies among fourth 20% lowest income households	millions \$
81	5	Subs5i	Total volume of subsidies among 20% highest income households	millions \$
82	5	Hall_sh5	Share of households who receives a subsidy	%
83	5	Hkid_sh5	Share of households with kids who receives a subsidy	% of all households with kids
84	5	Hind_sh5	Share of individuals who receives a subsidy	% of all individuals
85	5	Hoth_sh5	Share of other households who receives a subsidy	% of all other households