Appendix A: Robustness tests

Table A1: Robustness test: share of social housing stock in the total housing stock

Control variable	Dependent variable: Tax on imputed rent	Mortgage deduction	Capital gain tax	VAT	Attractive-ness index	Neutrality index
LGDP_PC_lag1	0.355*	−0.261**	0.209	0.197	0.125	0.047
	(0.148)	(0.086)	(0.190)	(0.177)	(0.100)	(0.068)
Lpop_lag1	−0.930**	0.456*	−0.380	−0.790*	−0.411**	−0.237**
	(0.293)	(0.209)	(0.374)	(0.361)	(0.150)	(0.090)
Rent_laws_lag1	−0.339*	0.081	0.006	0.241*	−0.003	−0.129
	(0.153)	(0.089)	(0.110)	(0.106)	(0.063)	(0.071)
Soc_housing_interp_lag1	0.015	0.011	−0.015	0.002	0.003	0.013**
	(0.010)	(0.007)	(0.013)	(0.011)	(0.005)	(0.005)
Left_right_lag1	−0.031	0.188**	−0.008	−0.105	0.011	0.078**
	(0.057)	(0.072)	(0.074)	(0.090)	(0.038)	(0.026)
TID_lag1	−0.120	0.399	−0.778	−0.828	−0.332	0.140
	(0.549)	(0.447)	(0.525)	(0.556)	(0.224)	(0.109)
infcap_pca_lag1	0.533	−0.136	0.851	−0.001	0.312	0.198
	(0.503)	(0.300)	(0.691)	(0.579)	(0.328)	(0.193)
Country effect	✓	✓	✓	✓	✓	✓
Year effect						
Adj. R^2	0.430	0.170	0.159	0.192	0.147	0.332
Num. obs.	1210	1210	1210	1210	1210	1210

$^{***}p < 0.001$; $^{**}p < 0.01$; $^{*}p < 0.05$

Note: The estimation results are based on the data covering 19 advanced economies (Australia, Austria, Belgium, Canada, Denmark, Finland, France, Germany, Italy, Japan, Netherlands, New Zealand, Norway, Portugal, Spain, Sweden, Switzerland, Turkey, and United Kingdom) between 1901 and 2016.

Table A2: Robustness test: left government

Control variable	Dependent variable:					
	Tax on imputed rent	Mortgage deduction	Capital gain tax	VAT	Attractiveness index	Neutrality index
LGDP_PC_lag1	0.061	−0.013	−0.131	0.114	0.013	0.022
	(0.091)	(0.062)	(0.163)	(0.122)	(0.084)	(0.048)
Lpop_lag1	-0.411^{*}	−0.091	0.287	−0.273	−0.114	-0.235^{**}
	(0.187)	(0.147)	(0.226)	(0.186)	(0.108)	(0.090)
Rent_laws_lag1	-0.222^{**}	0.071	−0.091	0.250^{***}	0.009	−0.072
	(0.081)	(0.062)	(0.080)	(0.073)	(0.036)	(0.038)
Social2GDP_interp_lag1	0.018^{*}	−0.001	0.007	−0.012	0.003	0.008^{*}
	(0.007)	(0.003)	(0.014)	(0.010)	(0.006)	(0.004)
leftgov_lag1	−0.029	−0.012	0.019	0.000	−0.003	−0.017
	(0.029)	(0.024)	(0.020)	(0.038)	(0.015)	(0.018)
TID_lag1	0.083	0.278	-0.921^{*}	-0.831^{**}	−0.364	0.222
	(0.293)	(0.266)	(0.369)	(0.299)	(0.224)	(0.184)
infcap_pca_lag1	0.706	−0.120	0.968	0.400	0.476	0.283
	(0.419)	(0.305)	(0.888)	(0.544)	(0.375)	(0.265)
Country effect	✓	✓	✓	✓	✓	✓
Year effect						
R^2	0.342	0.028	0.146	0.363	0.126	0.270
Adj. R^2	0.333	0.014	0.134	0.354	0.114	0.259
Num. obs.	1930	1902	1940	1929	1902	1902

$^{***}p < 0.001$; $^{**}p < 0.01$; $^{*}p < 0.05$

Note: The estimation results are based on the data covering 20 advanced economies (Australia, Austria, Belgium, Canada, Denmark, Finland, France, Germany, Italy, Japan, Netherlands, New Zealand, Norway, Portugal, Spain, Sweden, Switzerland, Turkey, United Kingdom, and USA) between 1909 and 2016.

Table A3: Estimation results of fixed-effects panel data model: fewer variables and more countries, individual components

Control variable	Dependent variable:							
	Tax on imputed rent	Mortgage deduction	Capital gain tax	VAT	Tax on imputed rent	Mortgage deduction	Capital gain tax	VAT
LGDP_PC_lag1	0.220**	−0.068	−0.127	−0.139	−0.168	−0.132	−0.231	−0.069
	(0.077)	(0.076)	(0.084)	(0.089)	(0.119)	(0.137)	(0.164)	(0.119)
Lpop_lag1	−0.108	0.205	−0.129	−0.364*	−0.377**	0.163	−0.211	−0.317
	(0.145)	(0.191)	(0.178)	(0.145)	(0.123)	(0.243)	(0.162)	(0.177)
Rent_laws_lag1	−0.315***	0.107	−0.190*	0.235***	−0.214*	0.122	−0.077	0.204**
	(0.081)	(0.094)	(0.086)	(0.061)	(0.094)	(0.105)	(0.094)	(0.075)
Country effect	✓	✓	✓	✓	✓	✓	✓	✓
Year effect					✓	✓	✓	✓
Adj. R^2	0.252	0.034	0.166	0.392	0.056	−0.010	−0.009	0.009
Num. obs.	3042	3012	3062	3101	3042	3012	3062	3101

$^{***}p < 0.001$; $^{**}p < 0.01$; $^{*}p < 0.05$

Note: The estimation results are based on the data covering 30 advanced economies (Argentina, Australia, Austria, Belgium, Brazil, Canada, Chile, Colombia, Denmark, Finland, France, Germany, India, Ireland, Israel, Italy, Japan, Luxembourg, Netherlands, New Zealand, Norway, Peru, Portugal, South Africa, Spain, Sweden, Switzerland, Turkey, United Kingdom, and the USA) between 1901 and 2016.

Table A4: Estimation results of random-effects panel data model: fewer variables and more countries, individual components

Control variable	Dependent variable:							
	Tax on imputed rent	Mortgage deduction	Capital gain tax	VAT	Tax on imputed rent	Mortgage deduction	Capital gain tax	VAT
Intercept	1.084	−1.157	2.432*	3.181***	1.145*	−1.155*	2.466***	3.127***
	(0.964)	(1.418)	(1.138)	(0.767)	(0.449)	(0.578)	(0.329)	(0.623)
LGDP_PC_lag1	0.202**	−0.051	−0.125	−0.211**	0.195***	−0.051	−0.129***	−0.199**
	(0.064)	(0.063)	(0.065)	(0.068)	(0.058)	(0.051)	(0.039)	(0.061)
Lpop_lag1	−0.069	0.169	−0.132	−0.202*	−0.074	0.169***	−0.136***	−0.199**
	(0.107)	(0.154)	(0.123)	(0.087)	(0.047)	(0.051)	(0.029)	(0.066)
Rent_laws_lag1	−0.321***	0.113	−0.190*	0.206**	−0.310**	0.113	−0.153	0.193*
	(0.080)	(0.092)	(0.084)	(0.066)	(0.100)	(0.129)	(0.103)	(0.094)
Legal_originFrench	−0.282*	0.259	−0.170	−0.316	−0.285*	0.259	−0.174	−0.312
	(0.142)	(0.169)	(0.152)	(0.181)	(0.137)	(0.169)	(0.135)	(0.169)
Legal_originGerman	−0.265	0.130	−0.385**	0.187	−0.264	0.130	−0.387**	0.186
	(0.213)	(0.294)	(0.143)	(0.184)	(0.227)	(0.308)	(0.133)	(0.183)
Legal_originScandinavian	−0.625**	0.731*	−0.842***	−0.192	−0.633***	0.731***	−0.854***	−0.188
	(0.193)	(0.286)	(0.242)	(0.224)	(0.126)	(0.177)	(0.131)	(0.202)
Country effect	✓	✓	✓	✓	✓	✓	✓	✓
Year effect					✓	✓	✓	✓
Adj. R^2	0.256	0.040	0.178	0.373	0.180	0.079	0.357	0.158
Num. obs.	3042	3012	3062	3101	3042	3012	3062	3101

$^{***}p < 0.001$; $^{**}p < 0.01$; $^{*}p < 0.05$

Note: The estimation results are based on the data covering 30 advanced economies (Argentina, Australia, Austria, Belgium, Brazil, Canada, Chile, Colombia, Denmark, Finland, France, Germany, India, Ireland, Israel, Italy, Japan, Luxembourg, Netherlands, New Zealand, Norway, Peru, Portugal, South Africa, Spain, Sweden, Switzerland, Turkey, United Kingdom, and the USA) between 1901 and 2016.

Table A5: Exemptions from capital gains tax

Country	Exemptions
ARG	Since 1974, capital gains within 2 years are fully taxable.
AUS	Exemption for owner-occupied residences.
AUT	Since 1939, a 2-year holding period exemption; since 2012, exemption for residence.
BEL	Since 1992, a 5-year holding period for immovable property; an exemption for private residence after 12 months.
BRA	No explicit duration, but the longer the duration the less the imposable capital gains. The maximum reduction of 15% is provided for holding exceeding 10 years.
CAN	Principal resident exemption but not to the full extent, if the property was not principal residence for the complete time of ownership.
CHE	Capital gains tax introduced in different years in each Kanton; since 1990, for every Kanton.
CHL	Since 2017, capital gains within 4 years are fully taxable.
COL	No explicit duration, but each year the value of imposable capital gains reduces by 10%, so that from 11th year on no tax is imposed.
CZE	Since 1992, exemption when property has been private residence for at least 2 years or holding period over 5 years.
DEU	Between 1920 and 1939, a 10-year holding period; since 1940, a 2-year holding period. Since 1999, a 10-year holding period again but with residence exemption.
DNK	Since 1964, certain kind of homes exempted (one- and two family houses). Since 1982, capital gains within 3 years fully taxable after that degressive and for more then 7 years tax free. After 1993, a 5% reduction per year to a maximum of 30% reduction.
ESP	Between 1919 and 1931, municipalities were allowed to set variable tax rates depending on the holding duration.

. . . continuation

Country	Exemptions
EST	Since 1993, a 2-year holding period exemption; after 1999, exemption of private residence.
FIN	Since 1974, the house must be the primary residence for at least 1 year, since 1992, for at least 2 years.
FRA	Between 1964 and 1976, capital gains within 10 years are fully taxable. Since 1977, variable taxation as a function of holding time: full tax within 2 years, reduced tax between 2 and 10 years, and 5% tax decreases for each year after 10 years, such that after 20 years, no taxes are to be paid.
GBR	Exemption for owner-occupied dwellings.
IND	Capital gains is taxed since 1961.
IRL	Private residence exemption.
ISR	Capital gain tax for real estate was introduced in 1949 and its rate was dependent on the capital gain size and the holding period: regardless of the capital gains size, after 7 years, real estate was exempted from tax. Since 1969, a 4-year holding period.
ITA	Between 1974 and 2001, capital gains within 5 years were fully taxable.
JPN	Capital gains tax was introduced in 1947. Since 1965, a 5-year holding period and exemption for capital gains below or equal to 500,000 yen.
KOR	Since 2000, a 2-year holding period exemption; since 2018, a 1-year holding period.
LTU	Since 2002, a 3-year holding period, since 2009, a 2-year holding period.
LUX	No capital gain tax regulations were found.
LVA	Between 1919 and 1940, holding period was 5 years. Since 1993, for more than 60 months and for at least 12 consecutive months during the said 60-month period.
NLD	No capital gain tax regulations were found.
NOR	Since 1987 gains are not subject to tax, if holding period exceeds 1 year and owner lived in the house for at least 1 year in the last 2 years.

. . . continuation

Country	Exemptions
NZL	Since 2015, a bright-line test: 2-year holding period exemption; since 2018, a 5-year holding period; since 2021, a 10-year holding period.
PER	Owner occupiers are not subject to tax.
POL	Since 1992, a 5-year holding period.
PRT	From 1989, no tax, if within 2 years the revenue is invested in purchase of other real estate.
RUS	Between 1995 and 2000, single-family houses, flats, country houses, and land plots are not subject to tax, if they were held 1 years and more. Since 2001, single-family houses, flats, country houses, and land plots are not subject to tax, if they were held 5 years and more or their value does not exceed 1 million rubles.
SWE	After 1965, stepwise system depending on holding period; since 1991, all gains taxable regardless of holding period.
TUR	Since 1949, a 2-year holding period, real estate with value below 1000 lira is exempted. Between 1961 and 2007, a 4-year holding period. Since 2008, a 5-year holding period.
USA	Since 1997, 250,000 dollar exemption for private residence, when occupied for at least 2 years in the past 5 years.
ZAF	Since 2001, primary residence exemptions for property whose value does not exceed 1 million rand; since 2021, 2 million rand.

Appendix B: Correlations

Table B1: Correlation between tax treatment index and other policy indicators

Policy indicator	Corr	p-value	Countries	Years	Period
Lele and Siems (2007) CBR labor 5 countries	-0.784	0	5	36	1970-2005
Nicoletti et al. (1999) EPL	-0.671	0.000	25	2	1990-1998
Nicoletti et al. (1999) product market	-0.656	0.001	26	1	1998
Grubb and Wells (1993) employment regulation	-0.570	0.085	11	1	1989
OECD EPL temporary v1	-0.534	0	59	31	1985-2015
Pistor et al. (2000) EXIT	-0.477	0.018	16	4	1992-1998
Djankov et al. (2002) procedures	-0.465	0.006	70	1	1999
Botero et al. (2004) employment laws	-0.458	0.006	71	1	1997
Botero et al. (2004) collective laws	-0.424	0.012	71	1	1997
OECD EPL temporary v3	-0.401	0	59	8	2008-2015
Seelkopf et al. (2021) TID	-0.370	0	109	109	1910-2018
Djankov et al. (2002) time	-0.349	0.043	71	1	1999
Djankov et al. (2002) cost	-0.302	0.082	70	1	1999
Pistor et al. (2000) SMINTEGR	-0.282	0.182	16	4	1992-1998
Adams et al. (2015) CBR labor 117 countries	-0.280	0	88	46	1970-2015
OECD EPL individual	-0.271	0	60	31	1985-2015
Pistor et al. (2000) COLLAT	-0.262	0.216	16	4	1992-1998
Whitehead et al. (2012) rent control	-0.223	0.331	11	2	1980-2000
Lele and Siems (2007) CBR shareholder 5 countries	-0.174	0.019	5	36	1970-2005
Pistor et al. (2000) REMEDY	-0.165	0.440	16	4	1992-1998
OECD EPL individual and collective v2	-0.149	0.002	60	18	1998-2015
Kholodilin (2020) Tenure security	-0.138	0	113	111	1910-2020
Cuerpo et al. (2014) tenant landlord	-0.109	0.677	20	1	2012
OECD EPL individual and collective v3	-0.080	0.267	60	8	2008-2015
Bradford et al. (2019) CCL competition law	-0.080	0.000	107	101	1910-2010
La Porta et al. (1997) creditor rights	-0.058	0.764	42	1	1996
Pistor et al. (2000) ANTIBLOCK	-0.051	0.814	16	4	1992-1998
Pistor et al. (2000) LLSVsh	-0.015	0.945	16	4	1992-1998
Kholodilin (2020) Rationing	-0.001	0.929	113	111	1910-2020
Djankov et al. (2007) creditor rights	0.006	0.877	90	25	1978-2002
Kholodilin (2020) RMRI	0.012	0.455	113	111	1910-2020
Pistor et al. (2000) VOICE	0.015	0.946	16	4	1992-1998
Malpezzi and Ball (1993) rentcontrol	0.025	0.914	46	1	1991
Gwartney and Lawson (2003) EFW interp	0.030	0.143	103	69	1950-2018
Siems (2010) CBR shareholder 30 countries	0.033	0.423	29	24	1990-2013
Pistor et al. (2000) ANTIMANAG	0.043	0.842	16	4	1992-1998
Bandiera et al. (2000) financial reform	0.055	0.706	5	25	1970-1994
Kholodilin (2020) Rent laws	0.093	0	113	111	1910-2020
Siems (2010) CBR creditor 31 countries	0.110	0.007	30	24	1990-2013
Andrews et al. (2011) tenant-landlord	0.133	0.525	31	1	2009
Botero et al. (2004) social security laws	0.137	0.438	71	1	1997
Andrews et al. (2011) rent control social	0.174	0.417	26	1	2009
Gwartney and Lawson (2003) EFW	0.200	0	103	25	1970-2018
Gwartney and Lawson (2003) EFW Panel	0.213	0	103	25	1970-2018
Cuerpo et al. (2014) rent control	0.237	0.360	20	1	2012
La Porta et al. (1997) antidirector rigths	0.249	0.193	44	1	1996
Freedom House (2020) Freedom House	0.257	0	109	18	2003-2020
Lele and Siems (2007) CBR creditor 5 countries	0.281	0.000	5	36	1970-2005
Botero and Ponce (2011) Rule of the law	0.283	0.000	81	6	2014-2020
Laeven (2003) financial liberty	0.283	0.037	11	11	1988-1998
Pistor et al. (2000) creditor rights	0.296	0.161	16	4	1992-1998
La Porta et al. (1998) antidirector rigths	0.376	0.045	44	1	1998
Djankov et al. (2008) debt enforcement	0.399	0.019	72	1	2006
Pistor et al. (2000) LLSVcr	0.502	0.013	16	4	1992-1998

Note: Corr denotes linear correlation coefficient. Countries (Years) stands for the number of overlapping countries (years) for the corresponding pairwise correlations.

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Appendix C: An overview of the evolution of the country-specific homeownership tax treatment

In this Appendix, we document the historical development of homeownership taxation in individual countries. We do this in the form of concise comments upon the relevant legal acts.[1]

1 Argentina

An imputed rent tax for owner-occupied dwellings was provided for by the *Ley 11.682 regimen sobre impuesto a los réditos* of January 4, 1933. It was based on the fiscal valuation (*valuación fiscal*) of the dwelling. Cheaper dwellings were exempted from this tax. Since the introduction of the *Ley 20.628 sobre impuesto a las ganancias* of December 29, 1973, it does not exist anymore. However, if one possesses a second dwelling, it is subject to the imputed rent tax. The capital gains tax for owner-occupied dwellings has never existed.[2] The possibility to deduct mortgage payments from income taxes was first provided for in the *Ley 11.682 Regimen sobre impuesto a los réditos*, which allowed to subtract the annual amount of mortgage interests from the tax basis. Later, it was modified by the *Ley 20.628 sobre impuesto a las ganancias*, which permits reducing the income tax by a certain amount. This amount is adjusted on a regular basis by the legislators in order to

[1] A complete list of these legal acts can be accessed online in the *Longitudinal database of homeownership taxation: Documentation* https://rpubs.com/Konstantin_Xo/HOTI.

[2] Both the Ley 11.682 and the ley 20.628 covered only periodic incomes, but not the windfall gains. It is only with the advent of the *Ley 27.430 Reforma tributaria* of December 28, 2017 that capital gains become subject to the income tax. However, the owner-occupied housing remains exempted from it.

account for inflation. The VAT on newly built housing is levied at least since its origins in Argentina by the *Ley 20.631 Impuesto al valor agregado* of December 29, 1974. However, prior to its origins, it can be traced to the indirect tax that was introduced by the *Ley 12.143 Impuesto a las ventas* of January 10, 1935. Nevertheless, it is only the *Decreto 24.671/45* of October 10, 1945 that extended the tax to the real estate.

2 Australia

In 1915, the first income tax was introduced in Australia (*Income Tax Act 1915*). Imputed rent was subject to income taxation for 8 years until 1923. *The Income Tax Assessment Act 1915* defined 5% of the capital value of a residential home as taxable income which was offset by any interest paid on mortgage for that residence therefore allowing mortgage interest deduction for a relatively short time. *The Income Tax Act 1923* abolished these measures and the taxation policy regarding imputed rent and interest deduction remained like that until now. Capital gains taxation emerged in 1985 (*Income Tax Assessment Amendment (Capital Gains) Act 1986*) but gains from the sale of an owner occupied property were secured under the principal residence exemption which remained in place until now. The sale of new residential properties is taxed since 2000 under the *New Tax System (Goods and Services Tax) Act 1999*. But it does not apply to the re-sale of these properties.

3 Austria

The income tax act from 1896 (*Gesetz betreffend der direkten Personalsteuern*) already included taxation of imputed rent and allowed interest deduction. In 1973, taxation of imputed rent expired along with mortgage interest deductibility (Merz, 1977). Interestingly, mortgage interest deductibility was reintroduced in 1979 (*Änderung des Einkommensteuergesetzes 1972, des Umsatzsteuergesetzes 1972 und des Familienlastenausgleichsgesetzes 1967*) but came to an end in 2015 (*Steuerreformgesetz 2015/16*). For a long time, capital gains were only subject to taxation if they derived from speculative transactions, which normally is not the case for owner occupied housing. This changed in 1939, when the Austrian tax legislation was adjusted to the

German legislation, which imposed a capital gains tax on the sale of real estate within two years. In 2012, the Austrian government introduced a law (*1. Stabilitätsgesetz 2012*) that made an exemption for owner occupied housing. The Austrian sales tax (*Umsatzsteuer*) does not apply to real property as long as real property transfer tax (*Grunderwerbssteuer*) is paid.

4 Belgium

The tax on imputed rent existed as part of the personal income tax based on rental value of one's property existed since the 19th century. In 1919, a schedular tax based on the (actual or presumed) rental value was introduced by the *Wet van 29 october 1919 tot vestiging van cedulaire belastingen op de inkomsten en van eene bijkomende belasting op het globaal inkomen* (Law establishing schedular taxes on income and an additional tax on global income). In 1962, a personal tax on income from real estate (*Inkomen van onroerende goederen*) was introduced, based on the cadastral value of property (Traversa and Possoz, 2019). Since 2005, according to the *Loi portant réforme de l'impôt des personnes physiques* (Law reforming personal income tax) of 2001, imputed rent is no longer subject to taxation. The mortgage interest deduction takes form of a tax credit without time limit. It is provided for new and owner occupied residential property (van der Hoek and Radloff 2007, p. 399 and Cheung 2011, p. 38). Tax on capital gains from the transfer of real estate is not levied, if occupied by the owner in the last 12 months.[3] The acquisition of new buildings is subject to VAT. VAT in Belgium was introduced by the *Loi du 3 juillet 1969 créant le Code de la taxe sur la valeur ajoutée* and took effect in 1971.

5 Brazil

No information on the imputed rent tax for the owner-occupied dwellings could be found in Brazilian legal acts between 1922 and 2020. Therefore, it is assumed that such tax did not exist there. The possibility of mortgage interest deductibility was provided for in the *Lei nº 4.625, de 31 de dezembro de 1922* and was enacted in 1924. It was abolished by the *Decreto-lei nº*

[3] https://www2.deloitte.com/content/dam/Deloitte/global/Documents/Tax/dttl-tax-belgiumhighlights-2019.pdf and (Cheung, 2011, p. 38).

1.887, de 29 de outubro de 1981. The capital gains tax existed during two periods: 1) 1946–1966, when it was introduced by the *Decreto-lei nº 9.330, de 10 de junho de 1946* and abolished by the *Lei nº 5.172, de 25 de outubro de 1966* and 2) since 1979, when it was re-introduced by the *Decreto-lei n º 1.641 de 7 de dezembro de 1978*. An analog of the VAT on newly built housing originated from the *Lei nº 5.172, de 25 de outubro de 1966*, which created the tax on services of any nature (*impôsto sôbre serviços de qualquer natureza*) that covers also construction services and is levied by the municipalities.

6 Canada

The first income tax in Canada was introduced in 1917 as a temporary measure to pay for war expenses (*Income War Tax Act, 1917*). In this act imputed rent was not considered as taxable income and this did not change in the following years. Since imputed rent was not taxed, home mortgage interest was not deductible either. The 1917 act only allowed mortgage interest deduction for rental property but not for owner occupied housing and this policy remained until the current day. Capital gains tax was introduced in 1971 (*1971 Tax Reform Legislation*) but included the principal residence exemption from the start, which means that capital gains derived from the sale of an owner occupied dwelling are not subject of taxation in Canada. The first VAT-like tax in Canada was introduced in 1920 (*An Act to Amend the Special War Revenue Act, 1915*) but only lasted for a very short time and did not apply to real estate. The manufacturer's sales tax of 1924 similarly applied to manufactured goods and not real estate. This changed in 1991 when the *Goods and Services Tax* was passed. Real property sales are taxed under this act ever since.

7 Chile

The imputed rent tax for the owner-occupied dwellings existed between 1866 (*Decreto 30 de Abril de 1866, Contribucion sobre la renta*) and 1975 (*Decreto Ley nº 824, Ley sobre Impuesto a la Renta*). We suppose that the deductibility of mortgage interests was allowed during two periods: 1) until 1923, since it is not mentioned explicitly in the *Lei nº 3.996, que establece un impuesto* *sobre las rentas*[4] and 2) since 1975, when it was re-introduced by the *Decreto Ley nº 824* of 1974. The capital gains tax for owner-occupied housing was first introduced by the *Ley 20.780 de 2014 sobre Reforma Tributaria* beginning in 2016. Until then, only persons and firms whose business consisted in buying and selling real estates were subject to this tax. Although the value-added tax in Chile was introduced already in 1974 by the *Decreto Ley nº 825, Ley sobre impuesto a las ventas y servicios*, it did not cover construction services. It is only since 1987 that the *Ley 18630* incorporates them into the list of activities subject to the VAT.

8 Colombia

Before 1961, property was subject to a real property tax upon the cadastral value. Assessment was carried out by the Geographic Institute and its cadastral offices (McLure and Zodrow, 1991, p.18). The imputed rent tax was introduced together with mortgage interest deduction and a capital gains tax for property transfer in the course of a major 1960 tax reform (*Law 81 of 1960 Reorganizing Income Tax*). Houses or apartments valued below 100,000 pesos remained tax-free, for other real property a progressive tax rate scale was introduced. A number of deductions were allowed including interest paid on loans. Capital gains tax on the transfer of real estate was introduced in the form that reduced the tax base by 10% for every year the property was held. Thus, after 10 years an owner could sell the property tax-free. Under the current regulation, gains from selling real property are generally subject to a capital gains tax, whereby a lower rate applies for property held for at least two years (*National Tax Statute, Article 300*). The imputed rent tax was abolished by *Law 75 of 1986*. Mortgage interest payments were kept deductible up to a certain limit, which is regularly adjusted. VAT in Colombia was introduced in several phases starting from 1963. However, it was in fact never applied to owner-occupied housing, although an attempt was made by the *Law 1819 of 2016*, which however was declared unenforceable by the court and was repealed in 2018.

[4] By contrast, the *Decreto 30 de Abril de 1866* is very explicit on this matter.

9 Czech Republic

Prior to 1918, Czechia formed part of Austria–Hungary. Therefore, we assume that Austrian laws also applied to the Czech territory. The Czech Republic that gained independence in 1918 does not have a tradition of taxing imputed rent. In the period between the world wars, a house tax (per room) and a land tax have been applied in Czechoslovakia (Englis, 1929, pp.227-228). Interest costs were not tax-deductible (Spitaler, 1929, p.97f). This opportunity was only introduced by the *Law 210/1997* coming into force in 1998. The VAT has been introduced starting from 1993 by the *VAT Law 222/1992* and was also imposed on the transfer of immovable property (at a reduced rate for most cases) from the start. The 1992 *Act of the Czech National Council on Income Taxes* also introduced a tax on the income from the sale of immovable property, whereby such transactions become tax-free after a 2-year holding period.

10 Denmark

The taxation of imputed rent goes back to the first introduction of income taxation in Copenhagen in 1861 and on the national level in 1903. In 2000, the taxation of imputed rent was replaced by a general property tax independent of income (Wood, 2019). With the introduction of national income taxation in 1903, mortgage interest payments also became deductible (Torgersen, 1996). But interest deduction even goes back to the 1881 Copenhagen Tax Act (Zimmer, 1982). The capital gains tax for owner-occupied housing was introduced in 1903 with exemptions for long holdings. In 1960 a special income tax scheme for ordinary people came into force with the result that the capital gains of most taxpayers were taxed (Atkinson and Søgaard, 2013). The VAT on new homes was imposed by the *Value added tax law of 1967*, although VAT on new houses was partly deductible at a flat rate (Shoup, 1969). An exemption was introduced in 1994. This exemption for newly constructed buildings has however been abolished starting in 2011. Before the VAT there was the sales tax of 1962 (*Lov om almindelig omsætningsafgift*), however this act contained an exemption for real estate.

11 Estonia

Prior to 1918, Estonia formed part of the former Russian Empire. Therefore, we assume that it was subject to the same laws as Russia. There is no tax on imputed rent in Estonia. The gains from the transfer of real estate are not taxed if the property has been the main residence of the taxpayer (*Income Tax Act of 1993*). Mortgage interest became deductible starting from 1996 through the *Income Tax Act Amendment Act of 1995*. Selling of new housing is subject to VAT since its introduction on the 1.1.1992 (*VAT Act of 1991*), although most other real estate transactions were made VAT-exempt by the *1995 Income Tax Act Amendment Act*.

12 Finland

Income taxation was introduced in 1920 (*Laki tulo- ja omaisuusverosta 207/1920*) and included imputed rent taxation. The tax was revised in 1924 (*Laki tulo- ja omaisuusverosta 306/1924*) but remained similar to the former act which was copied from the Swedish model (Tapaninaho, 2016). In 1973 a separate law for imputed rent taxation was enacted (*Laki asuntotulon verottamisesta eräissä tapauksissa 505/1973*). In 1992 this law was repealed and imputed rent taxation was replaced by a property tax. Interest deduction was introduced in 1920 but interest on capital invested in one's own home was exempted from this (*Laki tulo- ja omaisuusverosta 207/1920*). In 1943 mortgage interest payments became fully deductible (*Tulo- ja omaisuusverolaki 888/1943*) until 1973 when interest deduction was limited (*Tulo- ja varallisuusverolaki 1043/1974*). Capital gains were taxable under the 1920 act for a holding period of less than 10 years. Under the 1943 these gains were taxed with the same rules as capital gains from other assets (*Tulo- ja omaisuusverolaki 888/1943*). Since 1974 capital gains from selling one's home are tax free if the building was the permanent residence for at least one years before the transfer (*Tulo- ja varallisuusverolaki 1043/1974*). This was changed to two years in 1992. A sales tax was introduced in 1941 but with an exemption for real property (Linnakangas and Juanto, 2016). A new sales tax came into force in 1964 but still with an exemption for real property (Tait and Due, 1965). This exemption also remained for the VAT of 1993 (*Arvonlisäverolaki 30.12.1993/1501*).

13 France

The imputed rent tax for the owner-occupied dwellings has a long history in France having its origins in as early as 1792 (Allix and Lecerclé, 1926). However, starting in 1965 it is not levied anymore, being eliminated by the *Loi n 64-1279 de finances pour 1965* of December 23, 1964. The same *Loi n 64-1279* allowed for the interest deductibility, until the *Loi n 96-1181 du 30 décembre 1996 de finances pour 1997* suppressed it. Nevertheless, it was restored for a short period 2007–2010 by the *Loi n 2007-1223 du 21 août 2007 en faveur du travail, de l'emploi et du pouvoir d'achat* in the form of a tax credit (*crédit d'impôt*). The capital gains tax was introduced in 1964 by the *Loi n 63-254 portant réforme de l'enregistrement, du timbre et de la fiscalité immobilière* of March 15, 1963. Initially, after 10 years of possessing the real estate, the owner was exempted from the tax. However, over time, the period has been extended to 30 years. The VAT on newly built housing was first imposed in 1963 by the *Loi n 63-254*.

14 Germany

The first nationwide income tax in Germany was introduced in 1920. Before that, different German states had their own income taxes. In the law from 1920 (*Einkommensteuergesetz, 1920*), imputed rent was regarded as taxable income and therefore mortgage interest was regarded as an expense which leads to an income which meant that it was deductible. This changed in 1986 when imputed was not regarded as income under the *Einkommensteuergesetz* anymore. Since then imputed rent is not taxed and mortgage interest is not deductible. Starting from 1920 capital gains through the sale of a dwelling were taxable when they occurred within ten years after the purchase or when they were purchased for the purpose of reselling. The time limit was later reduced to only two years until 1999, when the German government introduced a change in legislation (*Steuerentlastungsgesetz 1999/2000/2002*). They reset the time limit to 10 years and made an exemption for owner occupied housing.[5] The first German sales tax was introduced in 1918. Prior to that,

[5] At the moment of writing this paper, the leftist parties come with projects of sharpening taxation of capital gains. For example, the head of Berlin's Social Democrats N. Walter-Borjans suggested in January 2020 the introduction of a tax on land value increases *Bodenwertzuwachssteuer*.

there were different stamp taxes also for housing purchases. The sales tax included real property until 1932. From this point in time on, real property was excluded from the sales tax as long as real property transfer tax (*Grunderwerbssteuer*) was paid.

15 India

Taxation of imputed rent was part of the Indian Income Tax from the beginning in 1860. *The Income Tax Act 1860* was meant to be a temporary measure to create more revenue but taxation of imputed rent remained in place throughout the 20th century until now. Since imputed rent was regarded as taxable income from land and houses, any interest that was paid on mortgage was deductible which is also the case under the *Income Tax Act* 1961, which is in application now. A capital gains tax was introduced in 1946 through an amendment of the Income Tax Act. The capital gains tax is also part of the current Income Tax Act, which covers gains from the sale of real estate and there is no exemption for a primary residence in place. A nationwide value-added tax was only introduced in 2017 (*Goods and Services Tax*). It is applicable to real estate, which is still under construction but does not apply to the sale of completed properties or resale of older properties. Before that there were several sales taxes on state level since the *Government of India Act 1935* allowed states to impose their own sales taxes, which usually did not involve residential properties.

16 Ireland

Ireland gained independence from the United Kingdom in 1919, but the income taxation stayed the same for the following years. In 1970 (seven years after the UK), Ireland abolished imputed rent taxation (Merz, 1977). Mortgage interest deduction, on the other hand, remained in place for many more years but was downgraded gradually. In 1974, the government introduced a ceiling to mortgage interest relief which was cut in 1987, 1990, and 1997 (Norris, 2016). Mortgages taken out after 2012 are not entitled for mortgage interest relief. In 2015, the first-time-buyers relief was introduced, which is an amount of tax deducted at source from interest that is paid on money saved in certain financial institutions. A capital gains tax was introduced in

1975 (*Capital Gains Act, 1975*) but it included a private residence exemption. In order to join the European Economic Community Ireland had to introduce a VAT as well, which it did in 1972 *(Value-Added Tax Act, 1972)*. This tax also applies to newly built houses and is still in place today.

17 Israel

Israel largely inherited the British law system in the initial years of its independence. The *1947 Income Tax Ordinance* included the imputed rent tax, mortgage interest deductibility, and the capital gains tax for real estate. The 1968 reform abolished the first two but kept the capital gains tax (*Law on the Amendment of the Income Tax Ordinance No. 13*). The VAT was introduced in Israel in 1976 (*Value-Added Tax Law 5736-1975*). Sale of properties by VAT dealers is subject to VAT, transactions between private individuals are exempted from VAT.

18 Italy

The imputed rent tax for owner-occupied dwellings in Italy is known since at least the *Regio decreto-legge n. 652* of April 13, 1939. It was abolished informally in 2000 (Hilber, 2007). The interest deductibility was established by the *Regio decreto 30 dicembre 1923, n. 3062*. The capital gains tax became effective since 1974, being introduced by the *Decreto del Presidente della Repubblica del 29 settembre 1973, n. 597*, but eliminated again by the *Finanziaria 2002 — Legge 28 dicembre 2001, n. 448*. The VAT on newly built housing was introduced by the *Decreto del Presidente della Repubblica del 26 ottobre 1972 n. 633*. For a discussion of the 1974–2014 period see also Bises and Scialà (2014).

19 Japan

In the case of construction of owner occupied houses by the household sector, a tax system different from that applicable to rental housing construction is applied. In particular, no tax is levied on the imputed rent and no interest cost is deducted from the taxable income (Iwata et al., 1987, p. 23). Tax on capital gains from the transfer of real estate was for the first time introduced through the Income Tax Act of 1947 and had progressive rates between 25 and 65% (Shiomi, 1957, pp. 66-69). VAT (or consumption tax) is levied on new homes starting with the introduction of VAT in Japan on April 1, 1989.[6] The consumption tax is imposed on the sale and purchase of housing and the construction of new housing at the time of hand over.

20 Latvia

Prior to 1918, Latvia formed part of the former Russian Empire. Therefore, we assume that it was subject to the same laws as Russia. In the interwar period, a capital gains tax on real estate transfer was applied in Latvia (Siew, 1925, p.115). No tax on imputed rent and no interest tax deduction were applied. According to the current legislation (*1993 Law on Personal Income Tax*), no mortgage interest deduction is allowed. Transfer of real estate is tax-free if it is owned for longer than 5 years. The sale of new residential property is subject to VAT since 1995 *Law on value-added tax*.

21 Lithuania

Prior to 1918, Lithuania formed part of the former Russian Empire. Therefore, we assume that it was subject to the same laws as Russia. Lithuania has not apply an imputed rent tax. The *2002 Law on personal income tax* introduced the possibility to deduct mortgage interest payments from the income. However, this clause has been removed by the *2008 Amendment of the law on personal income tax*. The same amendment set the holding period for the tax-free transfer of real estate to two years, instead of three years previously. Transactions with real estate are subject to VAT since its introduction by the *VAT law of 1994*.

22 Luxembourg

The application of the imputed rent income taxation in Luxembourg has its roots in the German tax laws imposed in 1940 and kept by the *Grand-Ducal decree of October 26, 1944 concerning taxes, fees, contributions and duties*.

[6] Japan: Selected issues. IMF country reports 18/334 https://www.concieria.tokyo/eng/news/japanese-real-estate-expertise/190719eng.

The rental value of the home occupied by the owner has been treated as a source of income in the income tax law until the *Grand-Ducal Regulation of 23 December 2016 amending the amended Grand-Ducal Regulation of 12 July 1968 concerning the fixing of the rental value of the dwelling...*, which set this value to zero. Mortgage interest payments became deductible with the *Law of 29 December 1983 amending article 111 of the law of 4 December 1967 on income tax*. There is no capital gains tax on primary residence in Luxembourg. The VAT has been introduced in 1970 and applies to new real estate, although at a reduced rate (*VAT tax law*).

23 Netherlands

There is no tax on capital gains from the transfer of real estate (Cheung, 2011, p. 39).[7] The tax on imputed rent was introduced through the *Wet op de vermogensbelasting* (Property Tax Act) of 1892, according to which the income from property over fl. 13.000 was taxed in the form of a fictitious yield of 4% (Fritschy, 1997, p. 1045). It currently still exists (Needham et al., 2018, p. 135). The mortgage interest deduction was introduced by the *Wet op de bedrijfsbelasting* (Business Tax Act) in 1893 as an element of the first personal income tax (van der Hoek and Radloff, 2007, p. 407) and it is still being applied (Needham et al., 2018, p. 136). The VAT in The Netherlands was introduced in 1968 by the *Wet op de omzetbelasting* (Turnover Tax Act). A "new" home is defined as the one that was bought before or no later than two years after the time at which it was first occupied. When buying new property in this sense, a 21% VAT is currently payable.

24 New Zealand

The first income tax in New Zealand came into force in 1891 (*Land and Income Assessment Act, 1891*) and did not include taxation of imputed rent nor mortgage interest deduction. The following governments kept this policy in place including the *Income Tax Act 2007* which is the current legislation. Capital gains from the sale of property on the other hand were taxed under

[7] See also Stephen Brunner (Deloitte) International Tax Netherlands Highlights 2019, https://www2.deloitte.com/content/dam/Deloitte/global/Documents/Tax/dttl-tax-netherlandshighlights-2019.pdf.

the *Property Speculation Tax Act, 1973* and currently under the *Taxation (Bright-Line Test for Residential Land) Act, 2015*. Neither of these two acts applies to the primary residence. Since the *Goods and Services Tax Act, 1985* the sale of new homes is subject to a value-added tax. This was not the case under different sales taxes before 1985 because they were only applicable to movable property.

25 Norway

The imputed rent tax for the owner-occupied dwellings was already introduced in 1882 in Norway and confirmed in the big income-tax reform of 1911 (Torgersen, 1996). It was abolished in 2004 (Sørvoll, 2011). Interest deduction emerged very early in 1882 and remained in place ever since (Zimmer, 1982). The capital gains tax for owner-occupied housing was introduced in the income-taxation law in 1911 for speculative gains. In 1918 a 5-year holding exemption was introduced. This was changed to a 10-year holding rule later but since 1987 the capital gain is tax free if the house was owned for at least one year and was owner-occupied for at least one year during the last two years (Zimmer, 1982). A national sales tax for goods and property was introduced as a temporary measure in 1935 (*midlertidig omsetningsavgift til kriseformål*) and changed to a last link system in 1940. The taxes are not known to have exemptions for new housing constructions. The *Act relating to value added tax* was adopted in 1969 and real estate has been exempted since then.

26 Peru

The imputed rent tax for the owner-occupied dwellings was introduced as soon as 1935 by the *Ley 7904 del 26 de julio de 1934* and was lifted in 1999 by the *Decreto Supremo N 054-99-EF*. The deductibility of mortgage interests exists at latest since 1981 and was allowed for by the *Decreto Legislativo 200 — Ley del Impuesto a la Renta*. The capital gains tax was imposed already in 1935 by the *Ley 7904* of 1934. Between 1981 and 1998, it was not levied, according to the *Decreto Legislativo 200* of 1981. Since 1999, it is imposed again by the *Decreto Supremo N 054-99-EF*. The VAT on newly built dwellings was introduced since 1973 by the *Decreto-Ley 19620* of 1972.

27 Poland

According to the *1991 Income Tax Law*, imputed rentals for owner-occupied housing are not taxed and neither are realised capital gains if the property is held for more than 5 years. Interest deductibility was first introduced by the *Act of November 21, 2001 amending the act on income tax from natural persons*, but it was repealed already 5 years later by the *Act of November 16, 2006 amending the Personal Income Tax Act and certain other acts*.

VAT was originally applied at a 0% rate to the sales of residential premises through real estate agents. This exemption has however been repealed by the *2001 Ordinance of the Minister of Finance amending the ordinance on the implementation of certain provisions of the Act on tax on goods and services and on excise duty.*

28 Portugal

The imputed rent tax for the owner-occupied dwellings apparently has not been levied in Portugal, as no evidence of its existence could be found in the principal legal acts on personal income tax, between *Lei n.º 1368* of September 21, 1922 and *Decreto-Lei 442-A/88 Aprova o Código do Imposto sobre o Rendimento das Pessoas Singulares (IRS)* of November 30, 1988. The mortgage interest deductibility became possible starting from at least 1922 (*Lei n.º 1368*), but was suppressed in 2011 in accordance to the *Memorandum of Understanding on specific economic policy conditionality* imposed in the wake of the Great Recession by the Troika (the European Commission, the ECB, and the IMF). The capital gains tax was introduced by the *Decreto-Lei n.º 46373, Aprova o Código do Imposto de Mais-Valias* of June 9, 1965. The VAT on newly built housing is levied since the promulgation of the *Decreto-Lei 394-B/84, Aprova o Código do Imposto sobre o Valor Acrescentado* of December 26, 1984.

29 Russia

The imputed rent tax for owner-occupied dwellings existed in Russia between 1892, when it was introduced by the Положение «О государственном квартирном налоге» of May 26 (14, according to the Julian calendar) 1892, and 1930, when it was abolished by the Постановление ЦИК и СНК СССР

«О налоговой реформе» of September 2, 1930. Deduction of mortgage payments from income taxes was first provided for by the Положение «О государственном подоходном налоге» of April 19 (6), 1916. However, already in the next year, it was eliminated by the Bolshevik government. Its new life began 74 years later with the Федеральный закон № 112-ФЗ «О внесении изменений в статьи 220 и 224 части второй Налогового кодекса Российской Федерации» of August 20, 2008. Both prior to the October 1917 revolution and during the Soviet period, the capital gains tax was not levied. It is only the Закон РСФСР № 1998-1 «О подоходном налоге» of December 7, 1991 that made the sale of real estates subject to this tax. The VAT on newly built housing was first introduced by the Закон РСФСР № 1992-1 «О налоге на добавленную стоимость» of December 6, 1991. Prior to that, the predecessor of the VAT, the sales tax, did not cover transactions related to housing.

30 South Africa

There is and was no tax on imputed rent in South Africa. Furthermore, there is no possibility of home mortgage interest deduction. The capital gains tax was introduced in 2001 (South African Reserve Bank, 2015) and included a primary residence beyond 1 million rand. This threshold rose to 1.5 million rand in 2006 and to 2 million rand in 2012. The *Value-Added Tax Act 89 of 1991* was introduced in 1991 and includes an exemption for leasing but not for sales of residential property.

31 South Korea

Between 1910 and 1945, Korea was under Japanese rule. Hence, it is assumed that in Korea some homeownership taxation was applied as in Japan. The 1949 *Income Tax Act No. 33* did not include provisions for an imputed rent tax, interest cost deductibility, or a capital gains tax for owner-occupied housing. The capital gains tax adopted in 1967 aimed at reducing land speculation and made an exemption for housing owned for more than 3 years (Cho and Kim, 1994, p.260). A later *Income Tax Act No. 6276* of 2000 introduced a possibility to deduct the interest paid on a long-term housing mortgage loan from labour income. The same law reduced the holding period needed for the exemption of a house transfer from the capital gains tax to two years. Currently, this period is set to 1 year (*Income Tax Act No. 15225*). A VAT was introduced in 1977 by the *Value-Added Tax Act No. 2934* and is since then applicable to sales of private housing.

32 Spain

The imputed rent tax for the owner-occupied dwellings was introduced by the *Ley* of November 20, 1932 and removed by the *Ley 40/1998, del Impuesto sobre la Renta de las Personas Físicas y otras Normas Tributarias* of December 9, 1998. The same *Ley* of November 20, 1932 made mortgage payments deductible. Since January 1, 2013, this possibility does not exist anymore, because it was suppressed by the *Ley 16/2012, por la que se adoptan diversas medidas tributarias dirigidas a la consolidación de las finanzas públicas y al impulso de la actividad económica* of December 27, 2012. The capital gains tax was imposed by the *Real Decreto* of March 13, 1919 and at that time applied to the value increases of land (*incrementos de valor de los terrenos*). Since then, its existence has been confirmed by many consequent legal acts. The VAT on newly built housing was enacted on January 1, 1986 by the *Ley 30/1985, del Impuesto sobre el Valor Añadido* of August 2, 1985, which introduced for the first time in Spain the value-added tax. No information on any similar tax (e.g., sales tax) used until 1985 could be found.

33 Sweden

In 1910, an imputed income tax based on property assessment was added to the general income taxation at the local level, amount to about 6–7% (Stenkula, 2015). This taxation was in addition to the true income coming from real estate and municipalities estimated a hypothetical value to assess imputed rents. In 1920, a guarantee system was implemented at the local level, which assured municipalities a tax flow even if the property did not generate direct income. In 1953, this system was more formalized in a system referred to as *villaschablon* where owner-occupiers (of one- or two-family houses) could also deduct interest payments from the imputed tax assessment base. However, interest deduction goes back to the state income tax of 1902 (*Inkomstskatt*), when interest payments were deductible on the state level and 1920 for the municipal level (Zimmer, 1982). The tax rate on imputed income was 3%, but lowered to 2.5 and 2% in 1957 and 1965, respectively. In 1967, a progressivity was added, with rates between 2–8%, subject to various changes. Generally, the tax system was explicitly meant to aim at "neutrality of tenure" between the four different tenure forms: family-house ownership, flat ownership and public and private rentals (Bengtsson, 2006). This taxation principle was made explicit in 1974 and mainly motivated additional subsidies for owner-occupiers. In 1985, an additional tax on old apartment flats, including those of housing associations, was introduced to make the tax system more equitable. The tax reform in 1990–1991 abolished the system of imputed rents, while the reform of 2008 abolished real estate taxes in the traditional sense altogether and replaced them with an annual "fee". The former neutrality principle can be said to have stopped functioning since the 1990s (Bengtsson, 2006). In 1911, the taxation of both wealth and capital gains was introduced (Stenkula, 2014). Speculative gains were distinguished from non-speculative ones by exempting gains made after certain holding periods. Residential wealth was taxed at 75% of market value according to the *taxeringsvärdet* (Du Rietz and Henrekson, 2015). Wealth taxation itself was abolished in 2007. In 1996, the capital-gains tax was estimated to add 0.38% to annual real estate taxes (Stenkula, 2015). When real estate taxes were transformed to a fee in 2008, the tax rate on capital gains on housing were increased from 20 to 22% and the possibilities to postpone the tax reduced (Stenkula, 2015). Custom duties and individual consumption taxes were replaced by a general value-added tax in 1960 (Stenkula, 2015), but sales of real estate are exempted.

34 Switzerland

The first income tax in Switzerland was introduced in 1915 as a temporary measure to pay for war expenses (*Bundesbeschluss betreffend die eidgenössische Kriegssteuer*), but did not include a taxation of imputed rent. This changed in 1934 with another temporary measure (*Eidgenössiche Krisenabgabe*). Since then, taxation of imputed rent and mortgage interest deduction remained an integral part of the Swiss tax system. Whether capital gains from the sale of a house were subject to taxation was dependent on the location of the estate for a long time since the different Cantons introduced a capital gains tax for real estate at different times. While some municipalities in Solothurn already introduced such a tax in 1912, other cantons followed in the second half of the 20th century (e.g., canton Glarus in 1971). Since 1990, all Cantons are required to impose a capital gains tax on real estate sales (*Bundesgesetzes über die Harmonisierung der direkten Steuern der Kantone und Gemeinden*). Real estate sales were not subject to sales tax throughout the history of Switzerland.

35 Turkey

Imputed rent taxation seems to have a long history in Turkey. The estimated rental income of a building has been taxed at least since 1910 (Halil, 1938, pp.39-41). The 1931 *Building tax law No. 1837* prescribed that the value of the building is estimated and 10% of it is accepted as net income subject to a tax. The 1934 *Income Tax Law No. 2395* and a number of its later editions until today included provisions specifying the assessment of the equivalent rental value and its taxation. These laws only allowed for interest cost deductions for rented housing, and not for owner-occupied housing. The 1970 *Financing Law No. 1318* introduced a real estate value increase tax, and overruled the previous provision of the 1949 *Income Tax Law No. 5421* that left proceeds from real estate transfer tax-free after a 2-year holding period. The universal coverage was however abolished by the 1981 *Law on Amendments to the Articles of the Financing Law No. 1318 on the Real Estate Gains Tax*. Currently, only earnings arising from the disposal of the real estate within five years starting from the date of acquisition are subject to the capital gains tax (*Income Tax Law No. 5615 of 2007*). Real estate delivery in Turkey is in general subject to VAT since its introduction from 1985 onward (*VAT Law of 1984*). There exist multiple VAT rates for different provinces and areas.

36 United Kingdom

Imputed rent taxation was first introduced in 1803 in the United Kingdom under Schedule A of the *Income Tax Act, granting His Majesty, until the sixth day of May next after the ratification of a definitive treaty of peace, a contribution on the profits arising from property, professions, trades and offices) as a temporary measure* passed on August 11, 1803. It was then reintroduced in 1842 along with the possibility to fully deduct mortgage interest. Although the taxation of imputed rent was abolished in 1963, mortgage interest deductibility remained for many more years but was slowly phased out at the end of the 20th century, providing a so-called "homeownership bias". In 1974, the ceiling for mortgage which was eligible for deduction was set to 25 000 pounds. In 1983, the UK government introduced MIRAS (Mortgage Interest Relief at Source), which lasted until 2000, when mortgage interest deduction came to an end. The capital gains tax was introduced in 1965 but included an exemption for owner occupied housing from the start which is applicable until now. The same is true for the value-added tax, which does apply to real estate, therefore meaning that neither capital gains nor sales of one's personal home were taxed in the United Kingdom.

37 USA

In contrast to other countries, the homeownership policies did not change a lot over the years in the United States. In the *Revenue Act of 1913*, all interests were tax deductible, including mortgage interests. Although this changed in 1986 (*Tax Reform Act of 1986*), mortgage interest remained deductible throughout the years. This is quite an exception because most countries that allow mortgage interest deductibility view imputed rent as taxable income, which was never the case in the USA. Also starting in 1913, capital gains were taxed with the same rate as income. The rate of taxation changed multiple times until 1997, when the government introduced an exemption for owner occupied housing. Up to 250,000 dollars (500,000 dollars for married couples) of capital gains are not taxed when the property was owner occupied for at least 2 of the last 5 years. Since there is no federal sales tax in the United States, the sales taxes vary substantially across states. But generally the sales tax does not apply to transfer of real property. There are only very few examples of sales taxes that include real property (e.g., Washington).

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