

A background paper to:

## **Safe havens in Europe**

### **Switzerland and the ten dwarfs**

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## 1. Classification of all partially or fully independent countries in Europe

Table 1 covers all European countries sorted by the size of population. The two countries in italics (Vatican and Aland) are not included as data are missing. The data are for 2010, but for some countries they have to be projected (by 3% pa) to apply to 2010. Dependencies are included if they are deemed sufficiently independent to pursue safe haven policies if they so choose. The first 13 are the microstates. Eight of these are safe havens and two are close. The Vatican state receive it full income from abroad. So only two are 'normal' countries.

The most important borderline countries are Scotland, Wales, Ulster, Catalunya and Euskal Herria that are in the process of becoming more independent. Svalbard and Akrotiri and Dhekelia have some de jure independence as well, but it is assessed to be insufficiently large by the said criteria. The list includes five countries, which may be termed Asian as well: Armenia, Georgia, Azerbaijan, Kazakhstan and Turkey.

Livigno and Campione d'Italia are Italian areas (in the Dolomites) with a special status allowing them lower value added taxes and a big casino respectively. Helgoland is a German island with a special history allowing it lower sales taxes on booze, giving the island enough tourism for comfortable living. In addition Europe has 6 contested areas, of which Kosovo is almost a country. However, it can probably not provide enough security to be a viable safe haven. The remaining 5 areas are: Abkhazia, Northern Cyprus, South Ossetia, Nagorno-Karabakh and Transnistria. Finally, Chechnya had jure independence in 1997-99; here its government attempted to create an offshore banking sector.

Table 1. A survey of the countries and dependent areas of Europe: Microstates

	Name	Dependent	Population	Area	Income	Finance	Low tax	Post com
1	<i>Vatican City</i>	<i>Country</i>	832	0.44		<i>Transfers</i>		
2	<b>Gibraltar</b>	HR, UK dependency	28'956	6,5	16	Yes	Yes	
3	<b>Monaco</b>	Country	30'539	2	44	Yes	Yes	
4	<b>San Marino</b>	Country	31'817	61	31	Yes	Yes	
5	<b>Liechtenstein</b>	Country	35'236	160	2	Yes	Yes	
6	Faroe Islands	HR, Denmark	49'267	1'393	41			
7	<b>Guernsey</b>	HR, UK	65'068	78	14	Yes	Yes	
8	<b>Isle of Man</b>	HR, UK	84'655	572	36	Yes	Yes	
9	<b>Andorra</b>	Country	84'825	468	12	Yes	Yes	
10	<b>Jersey</b>	HR, UK	94'161	116	6	Yes	Yes	
11	<i>Aland</i>	<i>HR, Finland</i>	<i>275'000</i>	<i>13'517</i>				
12	Iceland	Country	311'058	103'000	25	Tried		
13	Malta	Country	408'333	316	53	(Yes)	(Yes)	

Table 1 continued: The countries with more than 500,000 inhabitants

	Name	Status	Population	Area	Income	Finance	Low tax	Post com
14	<b>Luxembourg</b>	Country	503'302	2'586	3	Yes	Yes	
15	Montenegro	Country	661'807	13'812	108			X
16	<b>Cyprus</b>	Country	1'120'489	9'251	62	Yes		
17	Estonia	Country	1'282'963	45'228	63		(Yes)	X
18	Slovenia	Country	2'000'092	20'273	50			X
19	Macedonia	Country	2'077'328	25'713	112			X
20	Latvia	Country	2'204'708	64'589	77			X
21	Armenia	Country	2'967'975	29'743	140			X
22	Albania	Country	2'994'667	28'748	132			X
23	Lithuania	Country	3'535'547	65'300	70			X
24	Moldova	Country	4'314'377	33'851	176			X
25	Croatia	Country	4'483'804	56'594	67			X
26	Georgia	Country	4'585'874	69'700	149			X
27	Bosnia	Country	4'622'163	51'197	134			X
28	Ireland	Country	4'670'976	70'273	27	(Yes)	(Yes)	
29	Norway	Country	4'691'849	323'802	7			
30	Finland	Country	5'259'250	338'145	34			
31	Slovakia	Country	5'477'038	49'035	58			X
32	Denmark	Country	5'529'888	43'094	28			
33	Bulgaria	Country	7'093'635	110'879	89			X
34	Serbia	Country	7'310'555	88'361	101			X
35	<b>Switzerland</b>	Country	7'639'961	41'277	17	Yes	Yes	
36	Austria	Country	8'217'280	83'871	19			
37	Azerbaijan	Country	8'372'373	86'600	100			X
38	Sweden	Country	9'088'728	450'295	23			
39	Belarus	Country	9'577'552	207'600	88			X
40	Hungary	Country	9'976'062	93'028	64			X
41	Czech Rep.	Country	10'190'213	78'867	54			X
42	Belgium	Country	10'431'477	30'528	26	(Yes)		
43	Greece	Country	10'760'136	131'957	47			
44	Portugal	Country	10'760'305	92'090	57	(Yes)		
45	Kazakhstan	Country	15'522'373	2'724'900	91			X
46	Netherlands	Country	16'847'007	41'543	20			
47	Romania	Country	21'904'551	238'391	96			X
48	Poland	Country	38'441'588	312'685	65			X
49	Ukraine	Country	45'134'707	603'550	133			X
50	Spain	Country	46'754'784	505'370	48			
51	Italy	Country	61'016'804	301'338	43			
52	U.K.	Country	62'698'362	243'610	37	(Yes)		
53	France	Country	65'312'249	643'427	39			
54	Turkey	Country	78'785'548	783'562	94			
55	Germany	Country	81'471'834	357'022	32			
56	Russia	Country	138'739'892	17'098'242	71			X

Note: The 11 safe havens are bolded.

## 2. The variables

For the calculations the information in Table 1 is coded as follows:

- Safe-haven** coded from the two columns *Finance* and *Low tax*. If two ‘Yes’ it is coded as 2, if one ‘Yes’ or ‘(Yes)’ it is coded 1, else it is coded 0.
- Dependent** the country is dependent, but has enough home rule so that it can pursue safe haven policies, if it so desires it is coded 1 else 0. The countries in this group have different institutional arrangements with the ‘mother’ country.
- Income** ‘Rank’ of the GDP per capita in 2010. Scaled by division by 10. The rank falls when income rises – to prevent confusion the signs in Tables 6 and 7 on income effects are reversed. It is not the ideal measure, but is available for all countries in Table 1 with the exception of the Vatican and the Alands.
- Pop** Population in 2010 scaled by division with 100,000.
- Ln-pop** Natural log to *Pop*.
- Area** *Area* in km<sup>2</sup>. Scaled by division with 100,000.
- Ln-area** Natural log to *Area*.
- Post-com** if ‘X’ it is coded 1 else 0.

Table 2 shows that none of the eight variables are normally distributed. This is not surprising for the three qualitative variables. Also, the two size variables *Pop* and *Area* are very skew. They are less skew after a logarithmic transformation, but the tests still reject normality. This raises the question if it makes sense to run regressions on such variables. We do it anyhow, in this background paper, but not in the main paper.

Table 2. P-values (in %) for three normality tests

Variable	Obs	Shapiro Wilks W	Shapiro Francia W'	Skewness/ Kurtosis	Assessment
Safe haven	54	0.36	90.0	0.96	No, 3 values
Dependent	54	0	0	0	No, binary
Income	54	0.68	1.22	6.11	Skew
Pop	54	0	0	0	Very skew
Ln-pop	54	0.15	0.42	11.23	Skew
Area	54	0	0	0	Very skew
Ln-area	54	0.01	0.01	0.34	Skew
Post-com	54	99.9	0.00	0	No, binary

### 3. Selecting the safe havens

A number of alternative sources exist for the classification of safe havens. The International Monetary Fund (IMF), the Financial Secrecy Index (managed by the Tax Justice Network URL: [http://www.taxjustice.net/cms/front\\_content.php?idcat=148](http://www.taxjustice.net/cms/front_content.php?idcat=148)) and the Organization for Economic Co-operation and Development (OECD) have made various lists covering the offshore financial centers. Table 3 is the lists as summarized by Wikipedia:

The reason for excluding Ireland is the recent collapse of the Irish economy. The same applies to Iceland that tried to become an instant Switzerland, but failed. The list shows that it is not controversial which countries to include. It is Switzerland and the 10 dwarfs: Andorra, Cyprus, Gibraltar, Guernsey, Isle of Man, Jersey, Liechtenstein, Luxembourg, Monaco and San Marino.

**Table 3. Summary of lists of offshore financial sectors in Europe**

Country	IMF	FSI	OECD	Others
Clear cases				
Andorra	x	x	x	x
Cyprus	x	x	x	x
Gibraltar	x	x	x	x
Guernsey	x	x	x	x
Isle of Man	x	x	x	x
Jersey	x	x	x	x
Liechtenstein	x	x	x	x
Luxembourg	x	x	x	x
Monaco	x	x	x	x
San Marino	x	x	x	x
Switzerland	x	x	x	x
Dubious cases				
Ireland	x	x	x	x
Malta	x	x		x
Belgium		x	x	x
Portugal		x	x	x
U.K.		x	x	x

The FSI also report an index for bank secrecy. The index values for 2011 are reported for 71 countries, which include 24 European countries as reported in Table 4. It is clear from the presentation that the remaining countries have low secrecy, so that they will not enter the left hand column. The FSI also weight the index with the size of its offshore banking sector. And

here Switzerland is the top country. The FSI also gives a weighting of the secrecy, reported in Table 5 that allow the reader to see how important the score from Table 4 is in the picture.

Table 4. The FSI ranking of bank secrecy for 2011

Rank	Secrecy Jurisdiction	Score	Rank	Secrecy Jurisdiction	Score
1	<b>Liechtenstein</b>	81	13	<b>Cyprus</b>	58
2	<b>San Marino</b>	79	14	Germany	57
3	<b>Switzerland</b>	78	15	Portugal (Madeira)	51
4	<b>Jersey</b>	78	16	Italy	49
5	<b>Gibraltar</b>	78	17	Netherlands	49
6	<b>Monaco</b>	75	18	Malta	48
7	<b>Andorra</b>	73	19	Hungary	47
8	<b>Luxembourg</b>	68	20	United Kingdom	45
9	Austria	66	21	Latvia	45
10	<b>Guernsey</b>	65	22	Ireland	44
11	<b>Isle of Man</b>	65	23	Denmark	40
12	Belgium	59	24	Spain	34

Note the score is in per cent, so that 100 is full secrecy.

Table 5. The relation between the FSI secrecy Jurisdiction and the Secrecy Score

Rank	Secrecy Jurisdiction	FSI - Value	Secrecy Score	Scale Weight
1	<b>Switzerland</b>	<b>1879.2</b>	<b>78</b>	<b>0.061</b>
2	Cayman Islands	1646.7	77	0.046
3	<b>Luxembourg</b>	<b>1621.2</b>	<b>68</b>	<b>0.131</b>
4	Hong Kong	1370.7	73	0.042
5	USA	1160.1	58	0.208
6	Singapore	1118	71	0.031
7	<b>Jersey</b>	750.1	78	0.004
8	Japan	693.6	64	0.018
9	Germany	669.8	57	0.046
10	Bahrain	660.3	78	0.003
11	British Virgin Islands	617.9	81	0.002
12	Bermuda	539.9	85	0.001
21	<b>Guernsey</b>	402.3	65	0.003
34	<b>Liechtenstein</b>	239.2	81	0
36	<b>Isle of Man</b>	230.4	65	0.001
43	<b>Gibraltar</b>	174.6	78	0
45	<b>Andorra</b>	133.6	73	0
64	<b>Monaco</b>	37.7	75	0
67	<b>San Marino</b>	30.9	79	0

#### 4. Regressions analyzing multicollinearity

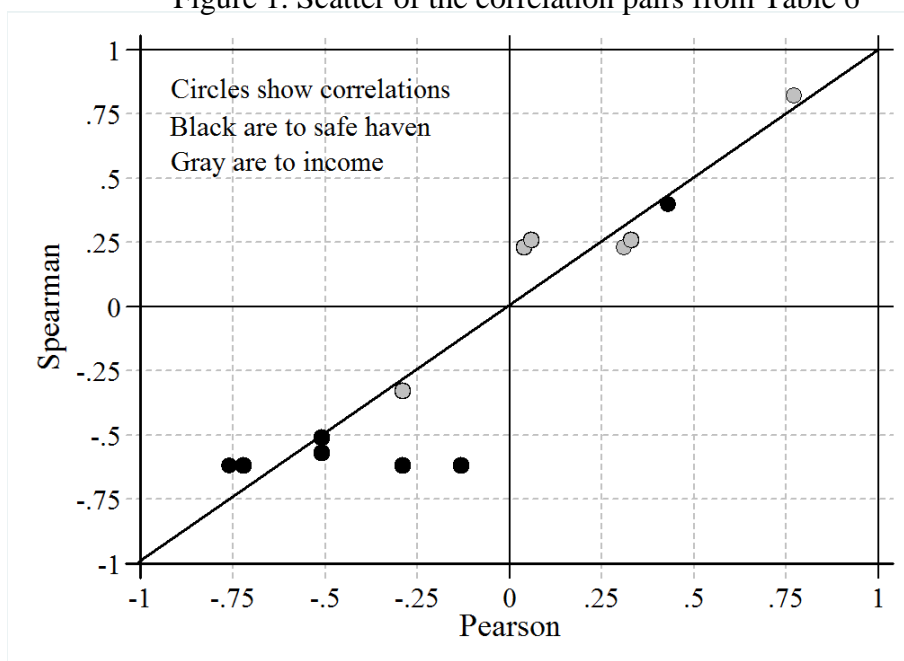
Table 2 showed that it is dubious if the data allow regression analysis. The paper only presents non-parametric correlations, supplemented with causality tests. Table 7 compares the normal Pearson correlation and the corresponding Spearman rank correlation coefficient. If the variables had been normally distributed these correlations would have been very similar.

Some of the pairs of correlations are actually reasonably similar. But the *Pop* and *Area* variables are so non-normal that they make no sense in a regression, but perhaps the other variables may work.

Table 6. The correlations corresponding to Table 7 with two correlation formulas

	Safe haven		Income	
	Pearson	Spearman	Pearson	Spearman
Safe haven	1	1	-0.51	-0.57
Income	-0.51	-0.57	1	1
Pop	-0.29	-0.62	0.04	0.23
Area	-0.13	-0.62	0.06	0.26
Ln-pop	-0.72	-0.62	0.31	0.23
Ln-area	-0.76	-0.62	0.33	0.26
Post-com	-0.51	-0.51	0.77	0.82
Status	0.43	0.40	-0.29	-0.33

Figure 1. Scatter of the correlation pairs from Table 6



However, the OLS estimator provide estimates irrespective what, and as this is a background paper Table 7 reports a set of systematic regressions exploring the multicollinearity of the eight variables listed in Table 6. The two size variables, *Pop* and *Area*, are used in the log version. They explain the safe haven variable in section A of the table, while neither works explaining income in section B.

The best equation explaining the *safe haven* variable is (1.4) where only *income* and *Ln-area* works. In the best equation explaining *income* (2.4) the coefficient to *safe haven* is rather large, but only borderline significant.

It is interesting to see that the size variables explain safe haven, but not income. This is interpreted as a support for the causal chain from (small) size to safe haven to (high) income found in the paper.

Table 7A. Regressions explaining the *Safe-haven* variable

		<i>Income</i>	<i>Ln-Pop</i>	<i>Ln-Area</i>	<i>Post-com</i>	<i>Dependent</i>	<i>Constant</i>	Adj. R <sup>2</sup>
(1.1) All variables	Coef.	0.036	0.016	<b>-0.181</b>	-0.260	-0.114	0.587	0.635
	t-ratio	(1.4)	(0.2)	(-3.3)	(-1.2)	(-0.4)	(1.7)	
(1.2) Pop as size	Coef.	0.028	<b>-0.200</b>		<b>-0.435</b>	-0.033	<b>1.577</b>	0.560
	t-ratio	(1.0)	(-5.0)		(-1.9)	(-0.1)	(8.1)	
(1.3) Area as size	Coef.	0.06		<b>-0.171</b>	-0.271	-0.124	<b>0.657</b>	0.643
	t-ratio	(1.4)		(-6.5)	(-1.3)	(-0.5)	(4.7)	
(1.4) Tested down	Coef.	<b>0.059</b>		<b>-0.168</b>			<b>0.667</b>	0.644
	t-ratio	(3.4)		(-7.4)			(4.9)	

Table 7B. Regressions explaining the *Income* variable

		<i>Safe-haven</i>	<i>Ln-Pop</i>	<i>Ln-Area</i>	<i>Post-com</i>	<i>Dependent</i>	<i>Constant</i>	Adj. R <sup>2</sup>
(2.1) All variables	Coef.	1.033	-0.429	0.376	<b>-5.589</b>	1.088	-2.181	0.600
	t-ratio	(1.4)	(-1.1)	(1.2)	(-6.5)	(0.7)	(-1.2)	
(2.2) Pop as size	Coef.	1.032		0.100	<b>-5.460</b>	1.402	<b>-4.091</b>	0.599
	t-ratio	(1.4)		(0.5)	(-6.4)	(1.0)	(-6.0)	
(2.3) Area as size	Coef.	0.660	-0.061		<b>-5.560</b>	0.935	<b>-3.723</b>	0.597
	t-ratio	(1.0)	(-0.3)		(-6.5)	(0.6)	(-2.8)	
(2.4) Tested down	Coef.	<b>0.914</b>			<b>-5.574</b>		<b>-3.973</b>	0.607
	t-ratio	(1.8)			(-6.7)		(-6.0)	

Note: The sign to income is reversed to be more intuitive.