SFI Public Discussion Note
Global Financial Regulation, Transparency, and Compliance Index (GFRTCI)

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English Version

Introduction

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Financial regulation, transparency, and compliance have become major aspects in the analysis of a financial center's reputation and attractiveness. Influential factors in this regard include a country's general political and regulatory environment, its governance structure and efficiency, the scope and quality of the services provided by its financial institutions, the safety of its banks and how strictly they are regulated, and its exposure to corruption, money laundering, and terrorist financing.

Financial regulation always comes with costs and benefits. In terms of costs, financial institutions will typically have to expand their risk management and compliance departments. Client relationships have to be reassessed and redefined, product offerings have to be reviewed, transactions have to pass compliance tests. On the other side, stricter financial regulation and enforcement typically benefit individual financial institutions and the financial center alike through reputation improvements, lower funding costs, or less ambiguity within the financial services industry and individual institutions.

Against this background, the goal of this public discussion note is to introduce a simple "Global Financial Regulation, Transparency, and Compliance Index (GFRTCI)", which scores and ranks various countries in terms of adoption of, compliance with, and enforcement of a set of global financial regulatory, transparency, and compliance standards. The index is constructed as a "meta-index", based on public data from established existing rankings, indices, and research studies. It can help to identify and understand strengths and weaknesses of different countries and therefore support the ongoing discussion of the current regulatory environment for Switzerland.

With its Public Discussion Note series the Swiss Finance Institute (SFI) is actively promoting a well-founded discussion of topics relevant to the financial industry, politics, and academia. Furthermore, SFI disseminates its findings through research, publications, Master Classes, conferences, and continuing education courses.

Why a GFRTCI?

Over the last decades financial regulation has become broader, more complex, and more global. On one side are the Basel II, Basel III, and subsequent frameworks, sometimes accompanied by additional national "finishes" (in Switzerland for example the so-called "Swiss Finish"). On the other side, various standards with respect to issues including transparency, corruption, money laundering, and data exchange have been suggested, requested, or introduced.

These rules and standards are usually created (or suggested) by supranational organizations, NGOs, or think tanks, representing various different stakeholders. Individual countries can then adopt them into their national laws. Subject to signed international treaties, individual countries still have some freedom as to if, when and how they want to implement these rules and standards, and to what extent they want to enforce them.

Various studies regularly document specific components under the umbrella of "Bank Regulation", "Financial Transparency", and "Financial Compliance". For example: The Basel Committee on Banking Supervision (BCBS) supervises the implementation of the Basel standards on a regular basis. The Organisation for Economic Co-operation and Development (OECD) publishes an EOIR (exchange of information on request) rating. Transparency International calculates a "Corruption Perceptions Index". The Basel Institute on Governance assesses the risk of money laundering and terrorist financing with its Basel AML index.

The GFRTCI aggregates several well-known and accepted ratings and indices into a simple, understandable, holistic, and transparent metric, which then allows to rank countries according to their overall standing in terms of financial regulation, transparency, and compliance. The index is based on publicly available and established data, classifications, and rankings. The institutions behind these rankings are credible and publish their findings on a regular basis (annual or semiannual).

The index also helps to understand the sources of the index score and can therefore help to give guidance to policymakers in terms of improving on deficiencies in specific areas.

It is planned to update the index on an annual basis.

OECD and BCBS Members
BCBS-Only Members
OECD-Only Members
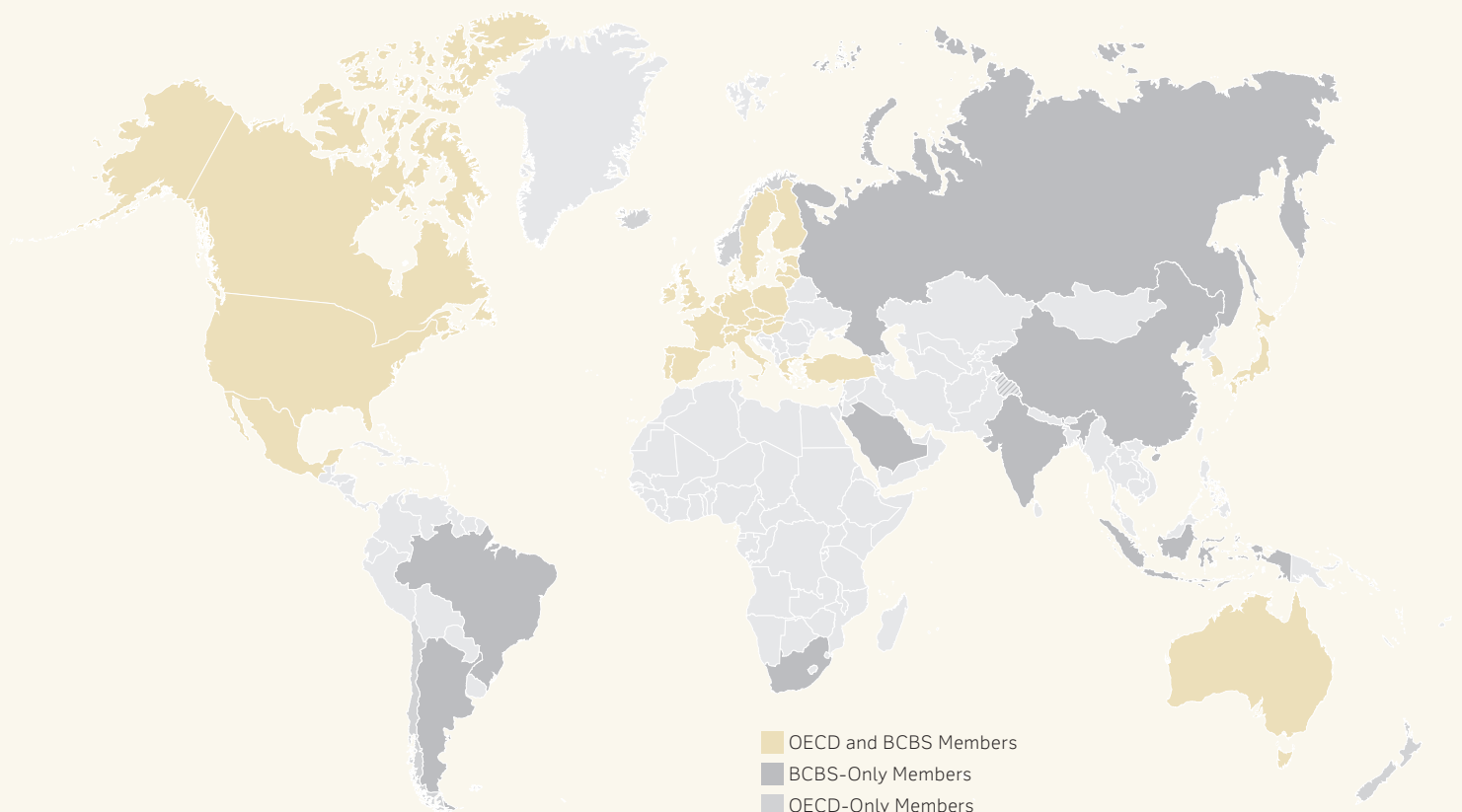
Countries included in the GFRTCI

In its first edition the GFRTCI analyzes and ranks countries which are members of the OECD, and at the same time are also members of the BCBS, the primary global standard setter for the prudential regulation of banks.

Some EU countries are direct members of the BCBS (Belgium, France, Germany, Italy, Luxemburg, Netherlands, Spain, Sweden, United Kingdom); the other EU countries are represented by the European Union's membership.

The 31 joint member countries are listed below:

OECD-Only Members	OECD and BCBS Members	BCBS-Only Members
Chile	Australia (AU)	Argentina (AR)
Iceland	Austria (EU)	Brazil (BR)
Israel	Belgium (EU)	China (CN)
New Zealand	Canada (CA)	Hong Kong SAR (HK)
Norway	Czech Republic (EU)	India (IN)
	Denmark (EU)	Indonesia (ID)
	Estonia (EU)	Russia (RU)
	Finland (EU)	Saudi Arabia (SA)
	France (EU)	Singapore (SG)
	Germany (EU)	South Africa (ZA)
	Greece (EU)	
	Hungary (EU)	
	Ireland (EU)	
	Italy (EU)	
	Japan (JP)	
	Latvia (EU)	
	Lithuania (EU)	
	Luxembourg (EU)	
	Mexico (MX)	
	Netherlands (EU)	
	Poland (EU)	
	Portugal (EU)	
	Slovak Republic (EU)	
	Slovenia (EU)	
	South Korea (KR)	
	Spain (EU)	
	Sweden (EU)	
	Switzerland (CH)	
	Turkey (TR)	
	United Kingdom (EU)	
	USA (US)	

GFRTCI Components

The 31 joint members of the OECD as well as the BCBS are assessed by the following seven ratings and indices: Three components which measure the degree of implementation of various regulations, and four components which quantify the political environment and the enforcement of regulations in general. The cut-off date for the data collection was August 31, 2019.

A. Degree of Regulation Implementation

The following three components measure the degree of implementation of banking regulation, analyze the standards with respect to the exchange of information on request, and assess the risk of money laundering and terrorist financing.

They define the first part of the GFRTCI (subindex A):

- **BCBS Progress Reports on the Adoption of the Basel Regulatory Framework:**
  The BCBS regularly publishes progress reports on the adoption of the Basel regulatory framework. The 16th progress report has been released in May 2019. It lists 19 different standards in 7 different categories with an implementation deadline of January 2019 or earlier. https://www.bis.org/bcbs/publ/d464.pdf

The categories and standards, and corresponding implementation status, are as follows:

	Basel Standards	Deadline	AR	AU	BR	CA	CN	HK	IN	ID	JP	KR	MX	RU	SA	SG	ZA	CH	TR	US	EU
Capital	Countercyclical capital buffer	Jan 2016	4	4	4	4	*	4	4	4	4	4	4	4	4	4	4	4	4	4	4
	Margin requirements for noncetrally cleared derivates	Sep 2016	1	4	3	4	1	4	2	1	4	4	1	1	4	4	2	4	1	4	4
	Capital requirements for CCP's	Jan 2017	4	3	4	4	1	2	3	1	4	4	1	2	4	4	2	4	2	2	2
	Capital requirements for equity investments in funds	Jan 2017	4	1	4	4	1	2	na	na	4	4	1	4	4	4	2	4	4	1	2
	SA-CCR	Jan 2017	4	3	3	4	4	2	3	4	4	4	1	2	4	4	2	4	2	2	2
	Securitisation framework	Jan 2018	4	4	4	4	1	4	1	4	4	4	1	4	4	4	1	4	1	1	4
	TLAC holdings	Jan 2019	4	1	4	4	1	4	1	1	4	1	1	2	4	4	1	4	1	2	2
Leverage Ratio	Existing (2014) exposure definition	Jan 2018	4	1	4	4	4	4	4	*	4	4	4	4	4	4	4	4	4	4	*
SIB	G-SIB requirements	Jan 2016	na	4	4	4	4	4	na	na	4	na	na	na	na	4	na	4	na	4	4
	D-SIB requirements	Jan 2016	4	4	4	4	*	4	4	4	4	4	4	4	4	4	4	4	4	na	4
IRRBB	Interest rate risk in banking book (IRRBB)	2018	4	1	4	2	4	3	2	4	4	2	1	2	4	4	1	4	1	2	2
Liquidity	Monitoring tools for intraday liquidity management	Jan 2015	3	4	4	3	1	4	4	4	1	1	1	4	4	4	4	4	4	4	4
	Net Stable Funding Ratio (NSFR)	Jan 2018	4	4	4	3	4	4	3	4	2	4	1	4	4	4	4	2	2	2	2
Large Exposures	Supervisory framework for measuring and controlling large exposures	Jan 2019	4	4	4	3	4	3	4	3	1	2	1	2	4	2	1	4	2	4	2
Disclosure	Revised pillar 3 requirements (published 2015)	Dec 2016	4	1	3	4	1	4	1	2	4	4	1	4	4	4	4	4	4	1	*
	CCyB, Liquidity, Remuneration, Leverage ratio (revised)	Dec 2017	4	1	*	*	*	4	1	2	4	4	*	3	4	4	4	*	*	*	*
	Key metrics, IRRBB, NSFR	Jan 2018	4	*	*	*	*	4	*	*	*	*	1	*	4	*	*	4	*	1	2
	Composition of capital RWA overview, Rrudential valuation adjustments, G-SIB indicators	Dec 2017	4	1	*	*	1	4	1	*	*	4	1	3	4	4	*	4	1	*	*
	TLAC	Jan 2019	na	na	1	4	1	4	na	na	4	3	1	na	4	na	na	4	na	2	2

The BCBS assigns number codes to each of the 19 standards as follows: 1 = draft regulation not published; 2 = draft regulation published; 3 = final rule published (not yet implemented by banks); 4 = final rule in force (published and implemented by banks); and * = implementation status mixed (please refer to the progress monitoring report).

- **Exchange of Information on Request (EOIR) Rating:**
This peer-review based rating, published by the OECD's Global Forum on Transparency and Exchange of Information for Tax Purposes, assesses the standard of exchange of information on request and rates the jurisdictions' compliance with the international standard of transparency and exchange of information on request. Four ratings can be allocated to a jurisdiction: Compliant (4), largely compliant (3), partially compliant (2), non-compliant (1). Data as of July 2019, rating is continuously updated.
http://www.oecd.org/tax/transparency/exchange-of-information-on-request/ratings/

- **Basel Anti-Money-Laundering Index (BA AML):** This index is published by the Basel Institute on Governance and assesses the risk of money laundering and terrorist financing. It provides an overall risk score based on 15 indicators of countries' adherence to anti-money laundering and anti-terrorism financing regulations, levels of corruption, financial standards, political disclosure, and the rule of law. The index ranges from approximately 2-9, where a lower score stands for a lower risk. Data as of 2018.
https://www.baselgovernance.org/basel-aml-index/public-ranking

B. Political Environment and Enforcement of Regulations in General

The following four components measure aspects of the political environment and the enforcement of regulations in a broad context. These four components define the second part of the GFRTCI (subindex B):

- **The Economist Intelligence Unit's (EIU) Democracy Index (EIU DI):** This index rates countries by 60 indicators across five broad categories: Electoral process and pluralism, the functioning of government, political participation, democratic political culture, and civil liberties. The index ranges from 0-10, where 0-4 stand for authoritarian regimes, 4-6 for hybrid regimes, 6-8 for flawed democracies, 8-10 for full democracies. Data as of 2018.
https://www.economist.com/graphic-detail/2019/01/08/the-retreat-of-global-democracy-stopped-in-2018

- **Corruption Perceptions Index (CPI):** This index, published by Transparency International, ranks countries by their perceived levels of public sector corruption according to experts and businesspeople. On a scale from 0 to 100 an index of 0 is highly corrupt and an index of 100 is very clean. Data as of 2018.
https://www.transparency.org/cpi2018

- **Heritage Foundation Business Freedom Index (HF BF):**
This index is a subindex of the Heritage Foundation's Economic Freedom Index. The Heritage Foundation defines Business Freedom as "an overall indicator of the efficiency of government regulation of business". Scores are based on a 0-100 scale. 0 = no business freedom, 100 = total business freedom. Data as of 2018.
https://www.heritage.org/

- **Heritage Foundation Judicial Effectiveness Index (HF JE):**
This index is a subindex of the Heritage Foundation's Economic Freedom Index. The Heritage Foundation defines Judicial Effectiveness as "an essential component of the rule of law which requires efficient and fair judicial systems to ensure that laws are fully respected, with appropriate legal actions taken against violations". Scores are based on a 0-100 scale. 0 = no judicial effectiveness, 100 = total judicial effectiveness. Data as of 2018.
https://www.heritage.org/

GFRTCI Data and Adjustments

In a first step the scales of the seven different GFRTCI components are adjusted to a scale of 0 … 100. The original scale and the adjustments are as follows:

- **Basel Committee on Banking Supervision (BCBS) Progress Report:**
  - The BCBS quantifies each of the 19 standards as either 1, 2, 3, or 4
  - The scores have been added for all the 19 standards, which results in a raw score between 19 … 76
  - The raw score has been normalized to a scale from 0 … 100

- **Exchange of Information on Request (EOIR) Rating:**
  - The EOIR quantifies each country as either 1, 2, 3, or 4
  - The EOIR score has been normalized to a scale from 0 … 100

- **Basel Anti-Money-Laundering Index (BA AML):**
  - The BA AML quantifies each country on a scale between 2 … 9
  - The BA AML score has first been normalized to a scale from 0 … 100
  - The normalized score has then been reversed (100 − normalized score) to make sure that a higher score stands for a lower risk

- **EIU's Democracy Index (EIU DI):**
  - The EIU DI quantifies each country on a scale between 0 … 10
  - The EIU DI score has been normalized to a scale from 0 … 100

- **Corruption Perceptions Index (CPI):**
  - The CPI quantifies each country on a scale between 0 … 100
  - No adjustment needed for the CPI score

- **Heritage Foundation Business Freedom Index (HF BF):**
  - The HF BF quantifies each country on a scale between 0 … 100
  - No adjustment needed for the HF BF score

- **Heritage Foundation Judicial Effectiveness Index (HF JE):**
  - The HF JE quantifies each country on a scale between 0 … 100
  - No adjustment needed for the HF JE score

Table 2: Shows the raw data for the seven components.

Country	BCBS	EOIR	BA AML	EIU DI	CPI	HF BF	HF JE
Australia	45	3	3.97	9.09	77	88.3	86.5
Austria	45	3	4.64	8.29	76	74.9	71.3
Belgium	45	3	4.29	7.78	75	78.1	61.6
Canada	60	3	4.92	9.15	81	81.9	69.4
Czech Republic	45	3	4.15	7.69	59	72.4	47.6
Denmark	45	3	3.95	9.22	88	90.7	77.8
Estonia	45	4	2.68	7.97	73	75.3	76.0
Finland	45	4	3.17	9.14	85	89.4	81.2
France	45	4	4.09	7.80	72	81.2	66.1
Germany	45	3	4.49	8.68	80	83.3	75.4
Greece	45	3	4.56	7.29	45	74.1	49.5
Hungary	45	3	4.90	6.63	46	61.1	45.2
Ireland	45	4	4.55	9.15	73	83.1	68.4
Italy	45	4	4.99	7.71	52	71.7	49.8
Japan	60	3	5.02	7.99	73	80.5	68.5
South Korea	57	4	4.60	8.00	57	91.3	57.5
Latvia	45	3	4.89	7.38	58	77.5	48.4
Lithuania	45	4	3.55	7.50	59	75.2	61.2
Luxembourg	45	3	4.82	8.81	81	68.8	72.4
Mexico	26	4	5.13	6.19	28	67.8	34.9
Netherlands	45	3	4.86	8.89	82	81.4	74.7
Poland	45	3	4.34	6.57	60	65.4	44.0
Portugal	45	3	4.10	7.84	64	79.7	64.3
Slovak Republic	45	3	4.04	7.10	50	61.3	37.2
Slovenia	45	4	3.70	7.50	60	79.3	46.5
Spain	45	4	4.42	8.08	58	66.8	51.4
Sweden	45	4	3.51	9.39	85	88.0	84.0
Switzerland	74	3	4.96	9.03	85	75.4	82.0
Turkey	37	3	6.19	4.37	41	66.0	49.8
United Kingdom	45	3	4.13	8.53	80	92.9	85.9
USA	40	3	5.03	7.96	71	83.8	78.6

GFRTCI Calculation

One of the central aspects of an index are the weights which go into the calculation. Two different approaches have been used. First, the index has been calculated based on assumed weights. Second, in a sensitivity analysis the seven index components have been assigned weights in 5% increments from 0%, 5%, 10%, …, 95%, 100%, with the restriction that the sum of the weights adds up to 100%. For all possible scenarios all country scores have been calculated and a country ranking has been established. By counting the frequency of how often a specific country was ranked as #1, the sensitivity analysis allowed to establish a list of the top scoring countries based on a wide range of component weights.

A. Weights, Scores, and Ranks

For subindex A (degree of regulation implementation), the component weights have been set as follows: BCBS = 60%; EOIR = 20%; BA AML = 20%. The BCBS component is given a higher weight based on the high number of subcomponents included in the BCBS progress reports (7 categories and 19 standards).

For subindex B (political environment and enforcement of regulations in general) the four index components have been equally weighted with 25% each.

For the final index calculation, the two subindices A and B have been combined by calculating an arithmetic average.

Table 3 shows the final index calculation as well as the final ranking.

Table 3: Country rankings based on subindex A, subindex B, and combined GFRTCI.

Rank	Country	Subindex A
1	Switzerland	82.8
2	South Korea	72.6
3	Canada	68.1
4	Japan	67.9
5	Estonia	65.4
6	Finland	64.0
7	Sweden	63.1
8	Lithuania	62.9
9	Slovenia	62.5
10	France	61.4
11	Spain	60.5
12	Ireland	60.1
13	Italy	58.8
14	Denmark	55.1
15	Australia	55.1
16	Slovak Republic	54.9
17	Portugal	54.7
18	United Kingdom	54.6
19	Czech Republic	54.6
20	Belgium	54.2
21	Poland	54.0
22	Germany	53.6
23	Greece	53.4
24	Austria	53.2
25	Luxembourg	52.6
26	Netherlands	52.5
27	Latvia	52.4
28	Hungary	52.4
29	USA	46.8
30	Turkey	40.3
31	Mexico	38.4

Rank	Country	Subindex B
1	Sweden	87.7
2	Denmark	87.2
3	Finland	86.8
4	United Kingdom	86.0
5	Australia	85.7
6	Switzerland	83.2
7	Netherlands	81.8
8	Germany	81.4
9	Canada	81.0
10	Ireland	79.0
11	USA	78.3
12	Luxembourg	77.6
13	Austria	76.3
14	Estonia	76.0
15	Japan	75.5
16	France	74.3
17	Belgium	73.1
18	Portugal	71.6
19	South Korea	71.5
20	Lithuania	67.6
21	Slovenia	65.2
22	Latvia	64.4
23	Spain	64.3
24	Czech Republic	64.0
25	Italy	62.7
26	Greece	60.4
27	Poland	58.8
28	Slovak Republic	54.9
29	Hungary	54.7
30	Turkey	50.1
31	Mexico	48.2

Rank	Country	Subindex A	Subindex B	GFRTCI
1	Switzerland	82.8	83.2	**83.0**
2	Sweden	63.1	87.7	**75.4**
3	Finland	64.0	86.8	**75.4**
4	Canada	68.1	81.0	**74.5**
5	South Korea	72.6	71.5	**72.0**
6	Japan	67.9	75.5	**71.7**
7	Denmark	55.1	87.2	**71.2**
8	Estonia	65.4	76.0	**70.7**
9	Australia	55.1	85.7	**70.4**
10	United Kingdom	54.6	86.0	**70.3**
11	Ireland	60.1	79.0	**69.5**
12	France	61.4	74.3	**67.9**
13	Germany	53.6	81.4	**67.5**
14	Netherlands	52.5	81.8	**67.1**
15	Lithuania	62.9	67.6	**65.3**
16	Luxembourg	52.6	77.6	**65.1**
17	Austria	53.2	76.3	**64.7**
18	Slovenia	62.5	65.2	**63.9**
19	Belgium	54.2	73.1	**63.6**
20	Portugal	54.7	71.6	**63.2**
21	USA	46.8	78.3	**62.5**
22	Spain	60.5	64.3	**62.4**
23	Italy	58.8	62.7	**60.7**
24	Czech Republic	54.6	64.0	**59.3**
25	Latvia	52.4	64.4	**58.4**
26	Greece	53.4	60.4	**56.9**
27	Poland	54.0	58.8	**56.4**
28	Slovak Republic	54.9	54.9	**54.9**
29	Hungary	52.4	54.7	**53.5**
30	Turkey	40.3	50.1	**45.2**
31	Mexico	38.4	48.2	**43.3**

B: Sensitivity Analysis

In order to see how systematically assigned weights for the seven index components would influence the final ranking, a statistical sensitivity analysis has been performed. Each of the seven index components has been assigned weights of 0%, 5%, 10%, …, 95%, 100%, with the restriction that the sum of all weights adds up to 100%. Then a sensitivity analysis has been performed with respect to which country would be ranked first in each of the scenarios. Only nine countries were ranked first in at least one of the scenarios, and out of these nine countries no country was ranked first more frequently than Switzerland. The nine countries and the corresponding statistical distribution for rank 1 is as follows:

Country	% Country Was Ranked #1
Switzerland	30.19%
Finland	28.94%
Sweden	27.75%
USA	5.99%
South Korea	2.10%
Estonia	1.81%
Denmark	1.55%
United Kingdom	1.39%
Australia	0.27%

Overall 202'107 scenarios have been calculated.

Interpretation and Comments

The main findings of the index are as follows:

- Only four out of the 31 countries are among the top ten ranked by subindex A *and* subindex B. The four countries are Switzerland, Canada, Finland, and Sweden.

- Switzerland ranks on top for subindex A.

- Switzerland is ranked #6 for subindex B. The reason is that Switzerland is slightly lagging behind Sweden, Denmark, Finland, the UK, or Australia with respect to HF BF and HF JE rankings.

- Switzerland ranks on top in the final index calculation.

- If weights are allocated in 5% increments to all seven components, Switzerland ranks first in about 30% of all possible scenarios.

It appears that over the years Switzerland has taken significant steps towards the implementation and enforcement of financial regulation, transparency, and compliance. Given the significance and importance of the banking sector for the country these are important steps, and consequently they are reflected in publicly available indices and rankings.

While sometimes progress seems to be slow in Switzerland, in the end the country does very well comparatively.

Swiss Finance Institute

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