

# Adverse scenarios for the 2025 European Insurance and Occupational Pensions Authority's EU-wide pension fund stress test exercise

## Introduction

In accordance with its mandate, the European Insurance and Occupational Pensions Authority (EIOPA), in cooperation with the European Systemic Risk Board (ESRB), initiates and coordinates EU-wide stress tests to assess the resilience of institutions for occupational retirement provision (hereafter “pension funds”) to adverse developments. For this purpose, the ESRB, in collaboration with the European Central Bank (ECB) and EIOPA, provides the calibration of the adverse market stress parameters.

This document presents the adverse scenarios that pension funds are required to use in the 2025 EU-wide stress test. This year's pension fund stress test focuses on liquidity risk, with a view to assessing liquidity strains stemming from an episode of instantaneous market turmoil with shocks to asset prices and potential margin calls. EIOPA asked the ESRB to provide two adverse macro-financial scenarios for this stress test: a “yield curve up” scenario and a “yield curve down” scenario.

The stress test is a scenario-based analysis that measures how pension funds would fare given hypothetical adverse economic developments. The adverse scenarios describe shocks to key financial variables triggered by the materialisation of risks to which pension funds in the EU are exposed. Accordingly, the scenarios reflect a hypothetical situation and should not be considered as forecasts of the most likely negative shocks to the financial system.

The scenario horizon is five days. The shock profiles of the adverse scenarios are one-off, instantaneous shifts in asset prices relative to their end-2024 levels without further changes over the five-day horizon. In the adverse scenarios, no monetary or fiscal policy actions are assumed beyond what is implicitly captured in the historical asset price movements on which the scenarios were calibrated.

The adverse scenarios were approved by the ESRB General Board on 18 March 2025 and sent to EIOPA on 27 March 2025.

## **Systemic risks and vulnerabilities addressed by the scenarios**

The scenarios reflect the ESRB's assessment of prevailing sources of systemic risks identified for the EU financial system as of March 2025. These include:

- (i) the materialisation of geopolitical and/or macro-financial risks resulting in balance sheet stress for the private sector, notably for non-financial corporations;
- (ii) the materialisation of geopolitical and/or macro-financial risks triggering a disorderly market correction, possibly amplified by the non-banking financial sector;
- (iii) unfavourable growth and debt financing cost dynamics triggered by increased borrowing needs, leading to a re-emergence of sovereign debt sustainability concerns;
- (iv) deteriorating asset quality and funding liquidity risk for the banking sector triggered by adverse macro-financial or geopolitical shocks;
- (v) the materialisation of vulnerabilities in the real estate sector, particularly in the commercial real estate sector.

The adverse scenarios are calibrated also to replicate certain key features of relevant episodes like the September 2022 gilt crisis that caused liquidity stress in UK pension funds. Both scenarios feature strong shifts in swap rate curves as well as a depreciation of the domestic currency. While events with a rapid unravelling of imbalances like the one seen during the UK gilt crisis have not been observed in the euro area, these are still considered unlikely but plausible in the current context. Both scenarios are calibrated to be severe, consistent with a materialisation of tail risks amid high geopolitical uncertainty stemming from trade disputes and multiple conflicts around the world. In the “yield curve up” scenario, the escalation of geopolitical tensions affects the supply side of the economy, resulting in inflationary effects and triggering an upward shift in swap rate curves. Conversely, in the “yield curve down” scenario, geopolitical tensions affect the demand side more, triggering a persistent recessionary and disinflationary environment and, as a result, a downward shift in swap rate curves.

## **Narrative of the scenarios**

In the “yield curve up” scenario, EU interest rates increase sharply as market participants anticipate economic developments related to an abrupt escalation of geopolitical tensions. These geopolitical tensions cause disruptions to trade and a sharp rise in commodity prices, which leads to a large upward revision in inflation expectations. In this context, the vulnerability of the EU to trade restrictions causes a depreciation of the euro.

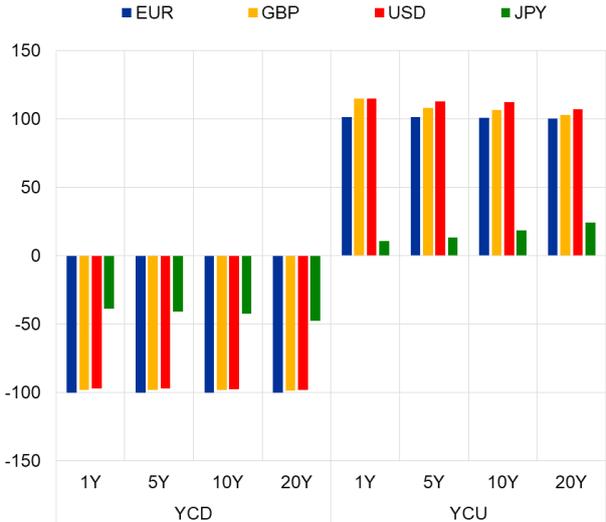
In the “yield curve down” scenario, EU interest rates decline sharply as market participants internalise an unexpected prolongation of geopolitical tensions, triggering a loss of confidence in financial markets. Expectations of persistent subdued investment and productivity drag down GDP growth and inflation expectations. The unanticipated prolongation of geopolitical tensions and the worsening economic outlook are reflected in a decline of global risk-free rates. The

expected particularly severe deterioration in the euro area economic outlook also leads to a large depreciation of the euro.

In both scenarios, the deterioration in the economic outlook leads to a loss of confidence in financial markets and to disorderly adjustments in asset prices. This is particularly true for asset markets with stretched valuations, such as equities. This results in higher volatility and a large increase in risk premia across asset markets. Since the macroeconomic deterioration is more prolonged and more persistent in the “yield curve down” scenario, the level of financial distress is more significant overall than in the “yield curve up” scenario.

**Chart 1**  
Shocks to swap rates under the YCD and YCU scenarios

(absolute change in basis points)

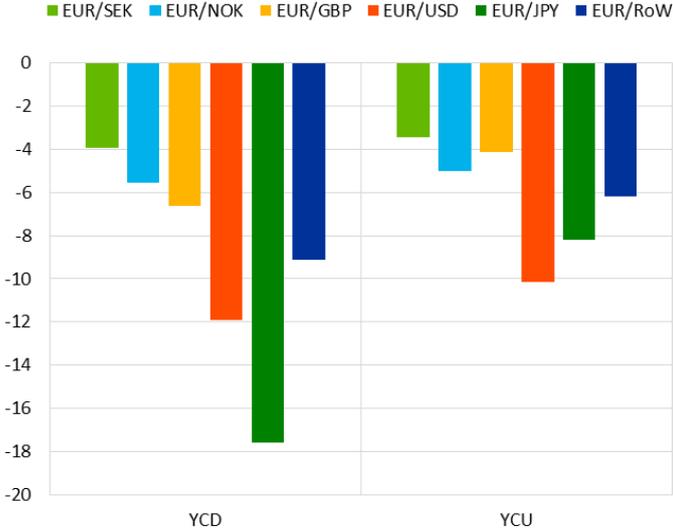


Sources: ECB and ECB/ESRB calculations.

Notes: YCD and YCU stand for the “yield curve down” and the “yield curve up” scenarios respectively. The same holds for Charts 2-6.

**Chart 2**  
Shocks to euro foreign exchange rates under the YCD and YCU scenarios

(relative changes in percentages)

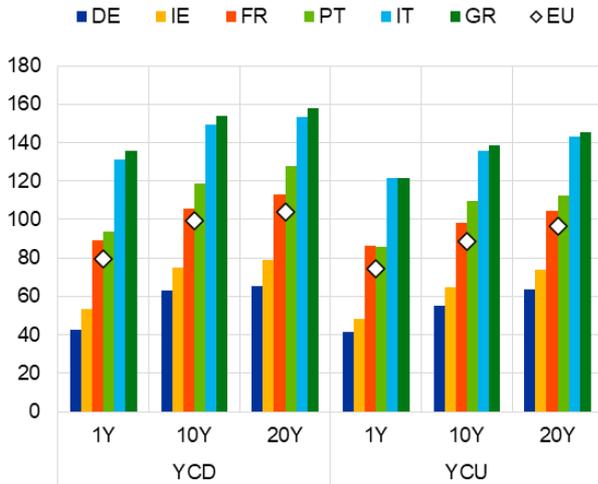


Sources: ECB and ECB/ESRB calculations.

In both scenarios, the worsening economic outlook and the expected increase in defence spending related to the escalation of geopolitical tensions also cause concerns among investors about countries' fiscal positions. This triggers a sharp sell-off of sovereign bonds and leads to a large increase in corresponding risk premia. The effects of this differ across EU countries, reflecting heterogeneous fiscal positions. The increase in sovereign risk premia is larger in the “yield curve down” scenario, in which the geopolitical tensions and economic downturn are prolonged. Growing concerns about the sustainability of corporate debt leads to a widening of corporate credit spreads and a tightening of credit standards.

**Chart 3**  
Shocks to EU government bond spreads vis-à-vis euro swap rates under the YCD and YCU scenarios

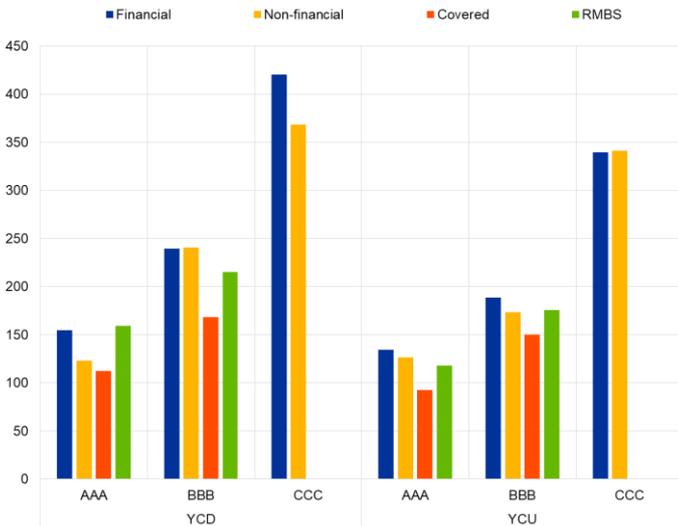
(absolute changes in basis points)



Sources: ECB and ECB/ESRB calculations.

**Chart 4**  
Shocks to EU corporate bond spreads vis-à-vis the five-year euro swap rate under the YCD and YCU scenarios

(absolute changes in basis points)



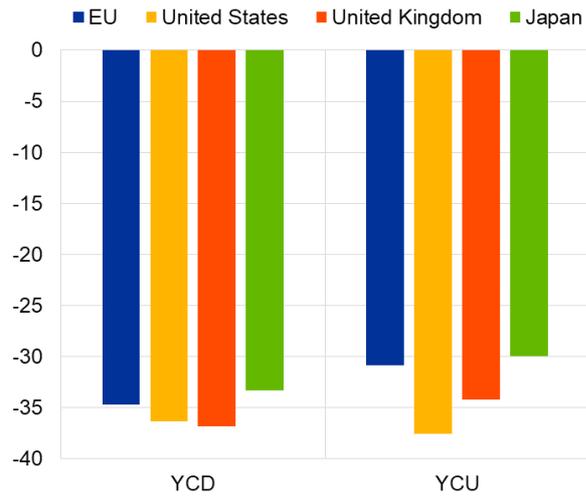
Sources: ECB and ECB/ESRB calculations.

Notes: Covered bonds and residential mortgage-backed securities (RMBS) shocks are only computed up to a BBB rating.

Tighter financial conditions lead to a fall in residential and commercial real estate prices in both scenarios. The fall in commercial real estate prices is greater owing to the tightening of credit standards and structurally lower post-pandemic demand for certain commercial real estate assets, such as offices.

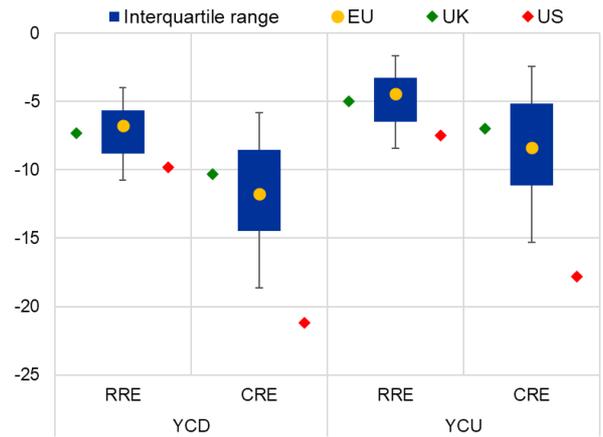
The overall more severe financial stress in the “yield curve down” scenario than in the “yield curve up” scenario is also consistent with the larger falls in real estate and equity prices. This is in line with a more intense and prolonged economic downturn and stronger sovereign risk shocks.

**Chart 5**  
 Shocks to stock prices under the YCD and YCU scenarios  
 (relative changes in percentages)



Sources: ECB and ECB/ESRB calculations.

**Chart 6**  
 Shocks to residential real estate prices and commercial real estate prices under the YCD and YCU scenarios  
 (relative changes in percentages)



Sources: ECB and ECB/ESRB calculations.

Notes: The interquartile range is defined as the difference between the 75th and 25th percentiles of the EU distribution at the country level. RRE stands for residential real estate and CRE stands for commercial real estate.

## Scenario methodology, calibration and probability of materialisation

The methodology for the scenario calibration is based on the non-parametric application of a multivariate copula model.<sup>1</sup> Each scenario is the outcome of several simulations based on a number of triggers that reflect the main sources of financial stability risks, with a focus on swap rates and the VIX volatility index. Shocks to corporate and government credit spreads, equity, exchange rates and real estate prices in the EU and other advanced economies are derived by conditioning on the triggering events.

Simulations consider severe outcomes from distributions of cumulated shocks over a one-quarter horizon. However, the shocks obtained under this horizon are assumed to materialise over a shorter five-day horizon, in line with the narrative of the scenarios. This frontloading assumption - where shocks that tend to materialise over longer quarterly horizons are accelerated to fit into a shorter timeframe - makes it possible to obtain swap rate shifts of a magnitude comparable to those observed during episodes such as the UK gilt crisis. While such rapid shifts have not been observed in the euro area, they are considered unlikely but plausible in the current geopolitical environment.

The sample period for the calibration has been set in close collaboration with EIOPA. The sample period chosen for the calibration of both scenarios spans from January 2008 to December 2024. The simulation of the “yield curve up” scenario focuses on the 2022 period, with an emphasis on the significant rise in geopolitical tensions that induce inflationary pressures. For the “yield curve down” scenario, the simulation sampling focuses on the period spanning from 2008 to 2011 to highlight the financial amplification effects observed during that period, for example those related to the global financial crisis and to debt sustainability concerns in the euro area. A parallel increase (decrease) in the euro swap rate for all tenors and an increase in the VIX volatility index are the events triggering the adverse “yield curve up” (“yield curve down”) scenario.

The overall probability of the scenarios materialising depends on several factors, including the probability of the triggering events occurring and their level of correlation.<sup>2</sup> The scenarios have been calibrated based on distributions conditional on the materialisation of triggering events whereby the VIX volatility index and the euro swap rate shocks are assumed to reach given thresholds (100 basis points and -100 basis points in the “yield curve up” and “yield curve down” scenarios respectively, and 30% for the VIX volatility index in both scenarios).

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<sup>1</sup> See “[Technical note on the Financial Shock Simulator \(FSS\)](#)” ECB, Frankfurt am Main, 25 February 2019.

<sup>2</sup> The European Court of Auditors suggested in its [Special Report No 29/2018](#) that EIOPA should compute the overall probability of the scenario materialising. Characterising the severity of the scenario by measuring the probability that it may materialise is complex, owing to the large dimensionality of the scenario and the continuous nature of the variables considered. Such an assessment would need to be based on estimated marginal complementary cumulative distribution functions for the triggers or for the main outcome variables.

Based on the full historical distribution, the marginal cumulative probability of the VIX volatility index reaching levels (at least) equal to the threshold assumed in the triggering event is 13.9%. In the “yield curve up” scenario, the corresponding marginal cumulative probabilities for the one-year swap rate and the ten-year swap rate are 2.4% and 2.9% respectively. The joint likelihood of the three triggers occurring is 0.2%, based on the historical sample distribution. In the “yield curve down” scenario, based on the full historical distribution, the marginal cumulative probability of the triggers is 3.2% for both the one-year swap rate and the ten-year swap rate. The joint likelihood of the three triggers occurring is 0.1%, again based on the historical sample distribution.

The above probabilities could also be computed by referring to simulated distributions that represent the regularities specific to periods featuring high levels of geopolitical risks, in line with the current risk environment. Based on such simulated distribution, the joint likelihood of the three triggers occurring would be 6.5% for the “yield curve up” scenario and 1.0% for the “yield curve down” scenario.<sup>3</sup>

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<sup>3</sup> In the “yield curve up” (“yield curve down”) scenario, the marginal cumulative probability for the one-year swap rate and the ten-year swap rate is 39.1% (4.0%) and 33.5% (10.1%) respectively. The marginal cumulative probability for the VIX is 31.0% (29.3%).

## Annex 1: Tables for the “yield curve up” scenario

**Table 1.1 Shock to swap rates – absolute changes (basis points)**

Shocks to swap rates														
Country/region	Currency	1Y	2Y	3Y	5Y	7Y	10Y	15Y	20Y	25Y	30Y	35Y	40Y	50Y
EA	EUR	101.5	101.4	101.3	101.1	101.0	100.3	99.7	99.8					
BG	BGN	119.3	117.4	115.6	113.2	109.8	105.5	102.8	100.5					
CZ	CZK	119.7	119.6	117.5	114.4	109.3	106.1	100.8						
PL	PLN	131.5	129.3	127.4	124.7	121.0	116.3	113.3	110.8					
DK	DKK	109.9	109.4	106.8	104.8	100.0	97.4	92.6	88.7					
CH	CHF	98.7	95.9	93.6	89.9	88.3	86.4	83.8	83.0	82.5				
NO	NOK	98.9	92.6	85.7	79.6	78.9	74.4							
SE	SEK	109.2	107.1	102.2	101.7	97.9	95.1							
UK	GBP	115.2	113.8	108.2	106.6	103.9	103.0	102.4	102.2	100.3	98.4	97.0	95.6	94.9
AU	AUD	119.8	118.9	114.4	106.4	103.3	100.9	98.9	97.1	93.5	91.6			
CA	CAD	120.9	116.2	108.7	107.0	104.8	100.3	98.8	95.7	91.5	87.2			
CN	CNY	91.9	91.9	83.2	81.7	74.7	75.0							
HK	HKD	124.5	114.5	101.7	99.7	96.7	94.4	91.3						
JP	JPY	11.0	12.5	13.4	18.4	22.6	24.1	25.9	26.8	27.0	27.5			
MX	MXN	124.4	122.4	114.9	107.3	104.1	100.9	100.2	99.6					
NZ	NZD	119.9	114.3	108.2	102.4	100.4	94.4	92.9	90.6					
SG	SGD	114.7	99.4	95.2	91.1	87.7	84.4	81.6	81.6					
ZA	ZAR	127.6	121.3	120.0	118.4	114.8	111.5	109.1						
KR	KRW	114.4	114.6	113.7	112.5	109.4	106.2	104.9	103.6					
US	USD	115.0	114.5	112.9	112.2	108.8	107.3	105.8	105.5	104.2	102.9	102.5	102.1	100.5

**Table 1.2 Shocks to sovereign bond spreads – absolute changes (basis points)**

Shocks to sovereign bond spreads							
Country/region	Country/region	1Y	2Y	5Y	10Y	20Y	30Y
Belgium	BE	58	68	68	72	78	83
Bulgaria	BG	108	114	121	126	133	143
Czech Republic	CZ	60	69	73	73	81	86
Denmark	DK	41	47	52	55	66	67
Germany	DE	41	47	51	55	64	65
Estonia	EE						
Ireland	IE	48	56	63	65	74	78
Greece	GR	122	132	136	139	146	155
Spain	ES	117	118	126	131	138	147
France	FR	86	88	92	98	104	106
Croatia	HR	86	88	94	104	110	112
Italy	IT	122	128	133	136	143	151
Cyprus	CY	85	88	94	106	112	117
Latvia	LV	50	57	65	69	77	82
Lithuania	LT	86	91	96	111	117	119
Luxembourg	LU	45	49	54	60	71	76
Hungary	HU	110	116	123	128	136	145
Malta	MT	82	90	98	111	119	121
Netherlands	NL	42	47	52	55	67	71
Austria	AT	50	56	63	65	76	80
Poland	PL	88	91	99	111	117	119
Portugal	PT	86	90	94	110	112	118
Romania	RO	110	117	125	129	137	145
Slovenia	SI	51	62	66	69	77	83
Slovakia	SK	89	95	100	113	116	120
Finland	FI	46	50	56	65	74	76
Sweden	SE	44	48	54	57	71	73
Euro Area (weighted averages)	EA	75	79	84	89	97	101
EU (weighted averages)	EU	74	79	84	89	97	101
United Kingdom	UK	75	81	83	87	92	95
Switzerland	CH	46	54	56	61	67	79
Norway	NO	46	51	57	62	68	79
Iceland	IS						
Brazil	BR	184	221	228	235	239	243
United States	US	48	58	63	71	75	83
Japan	JP	47	54	59	65	70	80
Other advanced economies		56	63	67	72	78	86
Emerging markets		180	184	191	194	204	211

Notes: Owing to the absence of liquid benchmark bonds issued by Estonia, shocks for sovereign bond spreads are not provided for this country. To treat exposures to recently issued Estonian government bonds, shocks at euro area level should be considered.

**Table 1.3 Shocks to foreign exchange rates – relative changes (percentages)**

<b>Shocks to foreign exchange rates</b>		
<b>Exchange rate name</b>	<b>Historical rates 2024</b>	<b>Shock</b>
EUR/SEK	11.44	-3.46
EUR/GBP	0.85	-4.11
EUR/NOK	11.63	-5.02
EUR/USD	1.08	-10.17
EUR/JPY	163.85	-8.17
EUR/rest of the world	1.08	-6.18

**Table 1.4 Shocks to stock prices – relative changes (percentages)**

<b>Shocks to stock prices</b>		
<b>Country/region</b>	<b>Country/region</b>	<b>Shock</b>
European Union	EU	-31
United Kingdom	UK	-34
Switzerland	CH	-26
Norway	NO	-28
United States	US	-38
Japan	JP	-30
Other advanced economies	Other advanced economies	-31
Emerging markets	Emerging markets	-41

**Table 1.5 Shocks to corporate bond spreads – absolute changes (basis points)**

<b>Shocks to corporate bond spreads</b>								
<b>Country/region</b>	<b>Type</b>	<b>AAA</b>	<b>AA</b>	<b>A</b>	<b>BBB</b>	<b>BB</b>	<b>B</b>	<b>CCC</b>
EU	<i>Financial</i>	134	143	152	188	227	263	340
	<i>Non-financial</i>	126	129	134	174	213	273	341
United Kingdom	<i>Financial</i>	151	163	183	203	241	278	354
	<i>Non-financial</i>	133	143	142	175	214	274	342
United States	<i>Financial</i>	158	181	195	219	258	294	370
	<i>Non-financial</i>	150	157	162	193	233	292	361
Emerging markets	<i>Financial</i>	262	277	291	318	356	393	469
	<i>Non-financial</i>	251	258	260	295	335	394	463
Other advanced economies	<i>Financial</i>	148	162	177	204	242	279	355
	<i>Non-financial</i>	136	143	146	180	220	280	348

**Table 1.6 Shocks to covered bond spreads – absolute changes (basis points)**

<b>Shocks to covered bond spreads</b>				
<b>Country/region</b>	<b>AAA</b>	<b>AA</b>	<b>A</b>	<b>BBB</b>
EU	92	114	127	150
United Kingdom	120	137	160	183
United States	146	160	174	197
Asia	207	237	251	280
Others	141	162	178	203

**Table 1.7 Shocks to residential mortgage-backed securities (RMBS) spreads – absolute changes (basis points)**

<b>Shocks to RMBS spreads</b>				
<b>Country/region</b>	<b>AAA</b>	<b>AA</b>	<b>A</b>	<b>BBB</b>
EU	118	139	153	176
United Kingdom	147	164	187	210
United States	171	184	216	239
Asia	231	261	276	304
Other advanced economies	145	162	185	208
Emerging markets	260	277	300	323

**Table 1.8 Shocks to real estate prices – relative changes (percentages)**

Shocks to real estate			
Country/region	Country/region	Residential	Office and commercial
Belgium	BE	-6.03	-10.15
Bulgaria	BG	-3.19	-5.89
Czech Republic	CZ	-3.55	-9.64
Denmark	DK	-6.77	-9.91
Germany	DE	-4.09	-11.15
Estonia	EE	-7.30	-11.81
Ireland	IE	-1.63	-4.98
Greece	GR	-5.50	-5.18
Spain	ES	-3.22	-4.82
France	FR	-4.39	-11.37
Croatia	HR	-1.68	-4.91
Italy	IT	-3.49	-3.04
Cyprus	CY	-4.29	-7.65
Latvia	LV	-3.65	-7.16
Lithuania	LT	-3.35	-6.66
Luxembourg	LU	-8.39	-13.31
Hungary	HU	-7.01	-6.15
Malta	MT	-2.85	-5.15
Netherlands	NL	-4.37	-2.45
Austria	AT	-7.63	-11.40
Poland	PL	-6.61	-15.28
Portugal	PT	-6.34	-6.03
Romania	RO	-4.18	-12.48
Slovenia	SI	-2.92	-6.73
Slovakia	SK	-4.08	-11.08
Finland	FI	-2.97	-7.02
Sweden	SE	-7.30	-4.78
Euro area (weighted averages)	Euro area (weighted averages)	-4.05	-8.11
EU (weighted averages)	EU (weighted averages)	-4.40	-8.39
United Kingdom	UK	-4.95	-6.96
Switzerland	CH	-4.94	-10.35
Norway	NO	-7.93	-13.42
United States	US	-7.48	-17.82
Japan	JP	-8.36	-14.78
Other advanced economies	Other advanced economies	-4.95	-6.96
Emerging markets	Emerging markets	-4.95	-6.96

## Annex 2: Tables for the “yield curve down” scenario

**Table 2.1 Shock to swaps – absolute changes (basis points)**

Shocks to swap rates														
Country/region	Currency	1Y	2Y	3Y	5Y	7Y	10Y	15Y	20Y	25Y	30Y	35Y	40Y	50Y
EA	EUR	-100.3	-100.3	-100.3	-100.3	-100.3	-100.4	-100.4	-100.4					
BG	BGN	-100.9	-102.0	-103.0	-105.1	-107.2	-110.3	-115.6	-120.8					
CZ	CZK	-64.7	-67.1	-69.6	-74.6	-79.5	-86.9	-99.3						
PL	PLN	-94.2	-94.4	-94.6	-95.1	-95.5	-96.2	-97.4	-98.5					
DK	DKK	-98.5	-98.8	-99.1	-99.8	-100.4	-101.3	-102.8	-104.4					
CH	CHF	-76.5	-77.3	-78.1	-79.7	-81.3	-83.7	-87.6	-91.6	-95.6				
NO	NOK	-90.1	-91.3	-92.4	-94.7	-97.0	-100.5							
SE	SEK	-69.7	-73.7	-77.7	-85.7	-93.7	-105.6							
UK	GBP	-98.1	-98.1	-98.2	-98.3	-98.3	-98.5	-98.7	-99.0	-99.2	-99.5	-99.7	-100.0	-100.4
AU	AUD	-97.3	-97.8	-98.3	-99.3	-100.3	-101.7	-104.2	-106.6	-109.1	-111.6			
CA	CAD	-99.7	-99.9	-100.0	-100.4	-100.8	-101.3	-102.2	-103.1	-104.0	-104.9			
CN	CNY	-91.7	-92.9	-94.0	-96.3	-98.6	-102.0							
HK	HKD	-95.3	-95.6	-96.0	-96.7	-97.4	-98.5	-100.2						
JP	JPY	-38.6	-39.6	-40.6	-42.5	-44.5	-47.5	-52.5	-57.5	-62.4	-67.4			
MX	MXN	-96.3	-96.9	-97.5	-98.6	-99.7	-101.3	-104.1	-106.9					
NZ	NZD	-97.8	-98.2	-98.6	-99.4	-100.2	-101.5	-103.5	-105.6					
SG	SGD	-91.0	-92.8	-94.7	-96.5	-100.2	-103.9	-109.4	-118.6					
ZA	ZAR	-95.2	-95.6	-96.0	-96.8	-97.6	-98.8	-100.9						
KR	KRW	-92.2	-92.9	-93.6	-95.0	-96.4	-98.5	-101.9	-105.4					
US	USD	-97.0	-97.2	-97.3	-97.5	-97.7	-98.0	-98.5	-99.1	-99.6	-100.1	-100.7	-101.2	-102.3

**Table 2.2 Shocks to sovereign bond spreads – absolute changes (basis points)**

Shocks to sovereign bond spreads							
Country/region	Country/region	1Y	2Y	5Y	10Y	20Y	30Y
Belgium	BE	64	77	86	85	92	100
Bulgaria	BG	113	127	129	138	142	150
Czech Republic	CZ	66	81	86	89	93	101
Denmark	DK	43	52	56	63	69	72
Germany	DE	43	51	55	63	65	69
Estonia	EE						
Ireland	IE	53	62	71	75	79	83
Greece	GR	136	144	151	154	158	163
Spain	ES	131	132	141	143	152	160
France	FR	89	95	102	106	113	119
Croatia	HR	90	96	105	112	119	125
Italy	IT	131	140	147	149	153	161
Cyprus	CY	91	97	106	118	121	126
Latvia	LV	58	69	75	82	84	87
Lithuania	LT	94	100	109	121	124	129
Luxembourg	LU	48	56	61	71	73	77
Hungary	HU	114	129	131	139	143	151
Malta	MT	97	103	108	121	126	132
Netherlands	NL	45	52	59	67	70	73
Austria	AT	53	63	73	77	82	86
Poland	PL	100	104	109	124	131	136
Portugal	PT	94	100	106	119	128	133
Romania	RO	116	130	138	141	145	153
Slovenia	SI	62	71	80	83	89	93
Slovakia	SK	102	108	115	124	132	137
Finland	FI	48	58	69	72	75	78
Sweden	SE	45	53	59	69	72	76
Euro Area (weighted averages)	EA	80	87	94	99	104	109
EU (weighted averages)	EU	80	87	93	99	104	109
United Kingdom	UK	64	77	83	92	94	97
Switzerland	CH	45	52	54	59	62	66
Norway	NO	45	49	52	62	64	68
Iceland	IS						
Brazil	BR	179	213	224	234	240	253
United States	US	49	53	62	69	73	78
Japan	JP	46	51	56	63	66	71
Other advanced economies		55	62	67	74	77	81
Emerging markets		146	158	188	204	213	215

Notes: Owing to the absence of liquid benchmark bonds issued by Estonia, shocks for sovereign bond spreads are not provided for this country. To treat exposures to recently issued Estonian government bonds, shocks at euro area level should be considered.

**Table 2.3 Shocks to foreign exchange rates – relative changes (percentages)**

<b>Shocks to foreign exchange rates</b>		
<b>Exchange rate name</b>	<b>Historical rates 2024</b>	<b>Shock</b>
EUR/SEK	11.44	-3.95
EUR/GBP	0.85	-6.64
EUR/NOK	11.63	-5.53
EUR/USD	1.08	-11.89
EUR/JPY	163.85	-17.61
EUR/rest of the world	1.08	-9.12

**Table 2.4 Shocks to stock prices – relative changes (percentages)**

<b>Shocks to stock prices</b>		
<b>Country/region</b>	<b>Country/region</b>	<b>Shock</b>
European Union	EU	-35
United Kingdom	UK	-37
Switzerland	CH	-30
Norway	NO	-36
United States	US	-36
Japan	JP	-33
Other advanced economies	Other advanced economies	-35
Emerging markets	Emerging markets	-39

**Table 2.5 Shocks to corporate bond spreads – absolute changes (basis points)**

<b>Shocks to corporate bond spreads</b>								
<b>Country/region</b>	<b>Type</b>	<b>AAA</b>	<b>AA</b>	<b>A</b>	<b>BBB</b>	<b>BB</b>	<b>B</b>	<b>CCC</b>
EU	<i>Financial</i>	155	175	195	239	362	385	420
	<i>Non-financial</i>	123	162	202	241	280	315	368
United Kingdom	<i>Financial</i>	143	157	189	215	337	360	395
	<i>Non-financial</i>	118	136	153	164	203	238	291
United States	<i>Financial</i>	151	171	191	222	344	367	402
	<i>Non-financial</i>	120	159	164	181	220	255	308
Emerging markets	<i>Financial</i>	231	249	273	307	429	452	487
	<i>Non-financial</i>	202	234	254	277	316	351	404
Other advanced economies	<i>Financial</i>	150	168	192	225	347	371	406
	<i>Non-financial</i>	120	153	173	195	235	269	323

**Table 2.6 Shocks to covered bond spreads – absolute changes (basis points)**

<b>Shocks to covered bond spreads</b>				
<b>Country/region</b>	<b>AAA</b>	<b>AA</b>	<b>A</b>	<b>BBB</b>
EU	113	131	153	168
United Kingdom	106	123	139	155
United States	109	129	147	163
Asia	176	184	202	217
Others	126	142	160	176

**Table 2.7 Shocks to residential mortgage-backed securities (RMBS) spreads – absolute changes (basis points)**

<b>Shocks to RMBS spreads</b>				
<b>Country/region</b>	<b>AAA</b>	<b>AA</b>	<b>A</b>	<b>BBB</b>
EU	159	178	200	215
United Kingdom	132	148	165	180
United States	152	170	190	204
Asia	201	210	245	258
Other advanced economies	148	165	185	200
Emerging markets	229	247	266	281

**Table 2.8 Shocks to real estate prices – relative changes (percentages)**

Shocks to real estate			
Country/region	Country/region	Residential	Office and commercial
Belgium	BE	-8.38	-13.50
Bulgaria	BG	-5.54	-9.24
Czech Republic	CZ	-5.90	-12.99
Denmark	DK	-9.12	-13.25
Germany	DE	-6.44	-14.49
Estonia	EE	-9.65	-15.15
Ireland	IE	-3.98	-8.33
Greece	GR	-7.85	-8.53
Spain	ES	-5.57	-8.17
France	FR	-6.74	-14.72
Croatia	HR	-4.03	-8.25
Italy	IT	-5.85	-6.38
Cyprus	CY	-6.65	-10.99
Latvia	LV	-6.00	-10.51
Lithuania	LT	-5.70	-10.01
Luxembourg	LU	-10.74	-16.66
Hungary	HU	-9.36	-9.49
Malta	MT	-5.20	-8.50
Netherlands	NL	-6.72	-5.80
Austria	AT	-9.98	-14.75
Poland	PL	-8.96	-18.63
Portugal	PT	-8.69	-9.37
Romania	RO	-6.53	-15.83
Slovenia	SI	-5.27	-10.08
Slovakia	SK	-6.43	-14.43
Finland	FI	-5.32	-10.36
Sweden	SE	-9.65	-8.13
Euro area (weighted averages)	Euro area (weighted averages)	-6.40	-11.46
EU (weighted averages)	EU (weighted averages)	-6.75	-11.74
United Kingdom	UK	-7.30	-10.31
Switzerland	CH	-7.29	-13.70
Norway	NO	-10.28	-16.76
United States	US	-9.83	-21.17
Japan	JP	-10.71	-18.13
Other advanced economies	Other advanced economies	-7.30	-10.31
Emerging markets	Emerging markets	-7.30	-10.31