



Policy Department
EIOPA REGULAR USE
EIOPA-BoS-21/198
14 April 2021

Technical Specification of the Information Request on the impact of IBOR transitions

Background

1. The information request on the IBOR transitions is part of EIOPA's work to incorporate the new OIS reference rates and more specifically the ESTR, in the risk-free rate production. Before proposing concrete changes in the risk-free rate (RFR) methodology we would like to estimate the impact of changes in the inputs to the risk-free rate term structures on the financial positions of European insurance and reinsurance undertakings.
2. EIOPA's work on the IBOR transitions started in January 2020 with the publication of a discussion paper where a generic approach was presented for all currencies. Following the departure of the UK from the union, and given that 86% of the total technical provisions in the EEA are now denoted in EUR (2019 QRT solo data), the potential impact of the switch of the EURIBOR to the ESTR is expected to be eventually material. Although a decision for the termination of the EURIBOR has not been taken, EIOPA believes that it is possible in the coming months to observe increases in liquidity for the new instrument.

3. Along with the change to ESTR, EIOPA intends to test the change in four additional currencies. For three of those (GBP, CHF and JPY) the IBOR curve is expected to cease to exist at the end of the 2021.
4. The responses to this information request will further inform EIOPA about the impact of potential changes due to the IBOR transitions on the financial position of insurance and reinsurance undertakings.
5. According to EIOPA's discussion paper proposal for the IBOR transitions methodology, and the consultation, the impact of a potential change of EURIBOR to ESTR should be estimated through a possible reduction of the RFR term structures. This reduction would be applied instantaneously assuming the conditions of liquidity and proximity are both satisfied¹.
6. The information request aims to assess the impact of a change to the risk-free term structures for five currencies (EUR, GBP, USD, CHF and JPY) due to the IBOR transitions. For the remaining 28 currencies no change will be assumed. For the EUR, GBP and USD a parallel shift in the respective RFR term structures up to the Last Liquid Point (LLP) will be assessed. For the CHF and the JPY a change of instrument is foreseen from swaps to government bonds².

Framework

7. The information request is addressed to a European sample of insurance and reinsurance undertakings. Participants are requested to report assets, liabilities, own funds and capital requirements according to a baseline and under the scenario in which the level of the RFR curves is changed due to the IBOR transitions of the five main currencies.
8. The baseline coincides with the reporting of information with a reference date **of 31 March 2021**. In particular, valuations according to the baseline are carried out with the relevant risk-free interest rate term structures based on the current UFRs.
9. The **Scenario** consists of the following changes³:
 - a reduction of the basic RFR term structure for the EURO by 10 basis points
 - a reduction of the basic RFR term structure for the GBP by 15 basis points and a change of the LLP from 50 to 30 years

¹ For currencies where the IBOR curve ends at the end of 2021 the proximity condition may not be met. If the liquidity precondition is not met either, EIOPA would need to consider a possible change of instrument (swaps to government bonds).

² As of 31st of March 2021, the change from swaps to government bonds does not result in a parallel shift for the CHF and the JPY.

³ For the derivation of the scenario please refer to the Annex.

- a reduction of the basic RFR term structure for the USD by 15 basis points and a change of the LLP from 50 to 30 years
- a change of instrument and LLP for the CHF (Swaps to Government bonds with an LLP change from 25 of 15 years)
- a change of instrument for the JPY (Swaps to Government bonds with no change in the LLP)
- For the remaining 28 currencies used in the production the term structures remain unchanged.

The reason why only one scenario was selected for this information request was to ease the statistical burden for the undertakings due the stress test exercise which takes place also this year.

10. The parallel shift to the basic RFR term structure up to the LLP applies for both the situation without volatility adjustment (VA) and with VA. However if the VA is applied the parallel shift will give rise to an increase in the VA which should be applied by those undertakings using the VA. The impact on the VA is be shown separately as demonstrated in the annex. Undertakings which use the VA or the MA will need to use the adjusted risk free rate term curves.
11. Participants are requested to recalculate their assets, liabilities, own funds and capital requirements in accordance to this scenario. The risk-free interest rate term structures for the scenario are provided by EIOPA in the Technical information file (EIOPA-BoS-21/200).
12. Participants should take a **proportionate** approach to the recalculation of assets, liabilities, own funds and capital requirements. Where participants expect that the difference between the baseline and the recalculated item is not material, they can choose not to make the recalculation. In particular, participants can choose not to recalculate any of the requested items where they expect the difference between the baseline and the recalculated figure to be immaterial for all items.
13. Where participants have received supervisory approval for the use of:
 - internal models,
 - undertaking-specific parameters,
 - matching adjustments (MA),
 - volatility adjustment (VA),

They should make all calculations on that basis.

14. In the case of the use of the VA by the undertaking the same shocks as shown above to the base curve apply, however there is some compensation in terms and increase of the VA. In jurisdictions where the use of the volatility adjustment is not subject to approval, participants should use the curves with the volatility adjustment.
15. Where participants have received approval to use the transitional measure on the risk-free interest rate or the transitional measure on technical

provisions, the value of the transitional on the amount of technical provisions should be provided separately for the baseline only.

16. Participants should submit their results to the national supervisory authorities in the provided Excel reporting template (EIOPA-BoS-21-199).
17. This technical specification document is supplemented by an Excel file, Technical Information (EIOPA-BoS-21-200), which includes the following information for the scenario:
 - Basic risk free interest rate term structures
 - Risk-free interest rate term structures including a VA
 - SCR standard formula shocks for the interest rate risk sub-module

This file is not to be returned to EIOPA.

Participant sample

18. The information request is addressed to a representative sample of insurance and reinsurance undertakings subject to Solvency II. The sample should be representative of:
 - the different types of undertakings (life, non-life, composite insurance undertakings and reinsurance undertakings),
 - the use of the standard formula and/or internal models to calculate the SCR,
 - the use of matching adjustment and the volatility adjustment,
 - risk profile and risk management of undertakings in particular the extent of asset liability matching and use of interest rate risk derivatives.

National supervisory authorities should aim for a sample that is representative to the extent possible. With regards to the size of the participating undertakings the national supervisory authority may consider including undertakings of a different size.

19. For each EEA country the undertakings belonging to the sample will be selected by the national supervisory authorities and should cover at least 50% of the business of undertakings in the local market subject to Solvency II (measured in technical provisions for life insurance obligations and measured in premiums for non-life insurance obligations).
20. The selection of currencies is focused on the five major currencies in which the great majority of EU insurers' liabilities are denominated. Undertakings which do not have a significant part of their liabilities denominated in these five currencies but want to participate in the exercise are free to do so.

Timing

21. Timetable

Launch of the information request: 30th of April

Duration of the exercise: 10 weeks

Collection of the Results by the NSAs: 25th of June

Submission by NSAs to EIOPA: by the 9th of July

Participants should stand ready to reply to possible requests of their national supervisory authorities for clarifications or resubmissions after the submission and until end of July 2021.

Disclosure

22. EIOPA plans to disclose results from the information request together with its consultation on the IBOR transitions in September 2021. Results will only be disclosed in anonymised or aggregated way in order to ensure the confidentiality of undertaking data.

Reporting template (EIOPA-BoS-21-199)

Tab "Participant Information"

23. In this tab information about the participant should be provided. Please provide the contact details of at least one contact point.

Tab "Reporting Information"

24. In this tab, information about the reported figures should be provided.

Tab "Balance Sheet"

25. In this tab, the amounts for liabilities other than technical provisions, assets, capital requirements and own funds for the baseline and the scenario should be provided.
26. Participants should take a **proportionate approach** to the recalculation of these items under the scenarios. Where participants expect that the difference between the baseline and the recalculated item is not material, it can choose not to make the recalculation. In that case the same amount for the scenario and for the baseline should be reported. Please also report if a recalculation has taken place or not.

27. All monetary figures **should be given in unit** (i.e. not in millions or thousands) and should be denoted in **the reporting currency** specified under "Reporting Information".

28. Liabilities

Deferred tax liabilities

Under the baseline the same amount as in template S.02.01.02, R0780 of the 31st of March 2021 reporting should be filled in. Deferred taxes should take account of the transitional measure on the risk-free interest rates or on technical provisions where these measures are used by the participants.

Liabilities other than technical provisions and deferred tax liabilities Under the baseline the same amount as in template S.02.01.02, sum of R0740 to R0770 and R0790 to R0880 of the 31st of March 2021 reporting should be filled in.

24. Assets

Deferred tax assets

Under the baseline the same amount as in template S.02.01.02, R040 of the 31st of March 2021 reporting should be filled in. Deferred taxes should take account of the transitional measure on the risk-free interest rates or on technical provisions where these measures are used by the participants.

Assets other than reinsurance recoverables and deferred tax assets Under the baseline the same amount as in template S.02.01.02, sum of R0030, R0050 to R0260 and R0350 to R0420 of the 31st of March 2021 reporting should be filled in.

25. Own funds and capital requirements

SCR

Under the baseline the same amount as in template S.23.01.01, cell R0580/C0010 of the 31st of March 2021 reporting should be filled in.

Total eligible own funds to meet the SCR

Under the baseline the same amount as in template S.23.01.01, cell R0540/C0010 of the 31st of March 2021 reporting should be filled in.

MCR

Under the baseline the same amount as in template S.23.01.01, cell R0600/C0010 of the 31st of March 2021 reporting should be filled in.

Total eligible own funds to meet the MCR

Under the baseline the same amount as in template S.23.01.01, cell R0550/C0010 of the 31st of March 2021 reporting should be filled in.

Tab “Technical Provisions – Currency exposures”

26. In this tab the amounts for technical provisions should be provided.
27. Technical Provisions should be provided according to their currency exposure, i.e. EUR, USD, GBP, CHF, JPY and/or Other.
28. All monetary figures should be given in **units** (i.e. not in millions or thousands) and be denoted **in the reporting currency** specified under “Reporting Information”.
29. Participants should take a **proportionate approach** to the recalculation of the technical provisions under the scenarios. Where participants expect that the difference between the baseline and the recalculated item is not material, it can choose not to make the recalculation. In that case the same amount for the scenario and for the baseline should be reported.
30. On the transitional measures the following information should be applied:
 - *Transitional on the risk-free interest rate: reduction of best estimate by transitional*

Where participants received approval for the use of the transitional measure on the risk-free interest rate, they should enter the difference between the best estimate without and with application of the transitional. Otherwise participants should enter a zero.
 - *Transitional on technical provisions: transitional deduction*

Where participants received approval for the use of the transitional measure on technical provisions, they should enter the amount of the transitional deduction referred to in Article 308d of the Solvency II Directive. Otherwise participants should enter a zero.
30. The following technical provisions in that tab should be provided without the impact of the transitional measures. Technical provisions should be reported according to three components:
 - technical provisions calculated as a whole
 - best estimate
 - risk margin.
31. The components should be provided by line of business (LoB). For non-life insurance LoBs, the direct business LoB and the corresponding accepted proportional reinsurance LoBs have been merged to one reporting segment.
32. The technical provisions calculated as a whole and the best estimates should be provided net of reinsurance, i.e. after deduction of the amounts recoverable from reinsurance contracts and special purpose vehicles.
33. The best estimate for the line of business “Insurance with profit participation” should be split up in two amounts:

- the best estimate without the value of future discretionary benefits
- the value of future discretionary benefits.

Tab “Result Overview”

34. No entries need to be made in this tab. For your information the tab provides the relative changes of the balance sheet items in the scenarios.

Technical Information file (EIOPA-BoS-21-200)

35. The technical information file includes the curves which are to be used for this exercise. These inputs are provided for integer term maturities. Undertakings shall apply the appropriate interpolation techniques for discounting inter-annual cash flows.
36. Undertakings from Bulgaria and Denmark only, need to use the separate set of curves provided in the file (BGN and DKK columns). This is due to the fact that these countries are pegged to the euro but have a different Credit Risk Adjustment (CRA) and VA. Therefore we provide a separate set of curves for these two currencies.

ANNEX

1) Change to the new OIS – Derivation of the scenario for the EUR, GBP and USD

a) Average interquartile range

In order for the instant switch to the alternative OIS curves to be optimal, a ‘proximity’ precondition would need to be satisfied.

The switch would take place when the difference of the two curves is smaller than the average monthly variations, which already exist using the current RFR curve observations. More specifically, we want to set as a trigger a situation when for three consecutive months the difference between the IBOR and the OIS curves is no more than the interquartile range of month-to-month changes for the currencies which this can be applied.

This way, when the switch takes place, undertakings would face a change smaller than they face 50% of the time from monthly shifts in the existing curve. Based on this, we would be able to identify the optimal timing since undertakings will be in a position to absorb until a certain extent the impact of the switch without serious disturbance in their balance sheet positions.

Based on the historical behaviour of the interest rate movements per tenor for the three currencies EUR, GBP and USD the average interquartile are shown in the table below⁴:

Currency	Instrument	Current LLP	New LLP	Average Interquartile range
EUR	SWP	20	20	11.99
GBP	SWP	50	30	17.94
USD	SWP	50	30	20.96

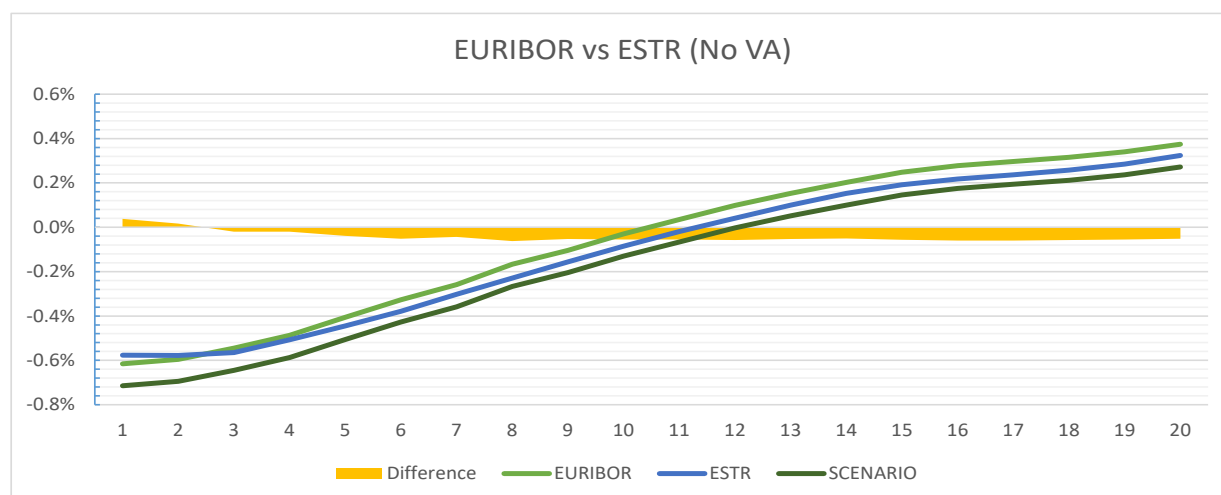
Note: The average has been taken over all tenors up to and including the LLP; The Average interquartile range indicates the range for 50% of the observations, i.e. the average monthly movement of rates is half of the time within this range.

The proximity condition will be based on the interquartile ranges shown above, i.e. if the average difference over the liquid part of both IBOR and OIS curves are below the interquartile range for three consecutive months the transition will be made.

b) Market observation

In order to define the scenario, EIOPA observed also the market behaviour of the alternative OIS based EUR and GBP swaps⁵.

i) For the euro: The comparison for Euribor and ESTR curves can be seen in the graph below:



Source: Refinitiv; Note: Tickers used: "EURAB6ExY=" and "EURESTxY="; Ref. date: 31/03/2021

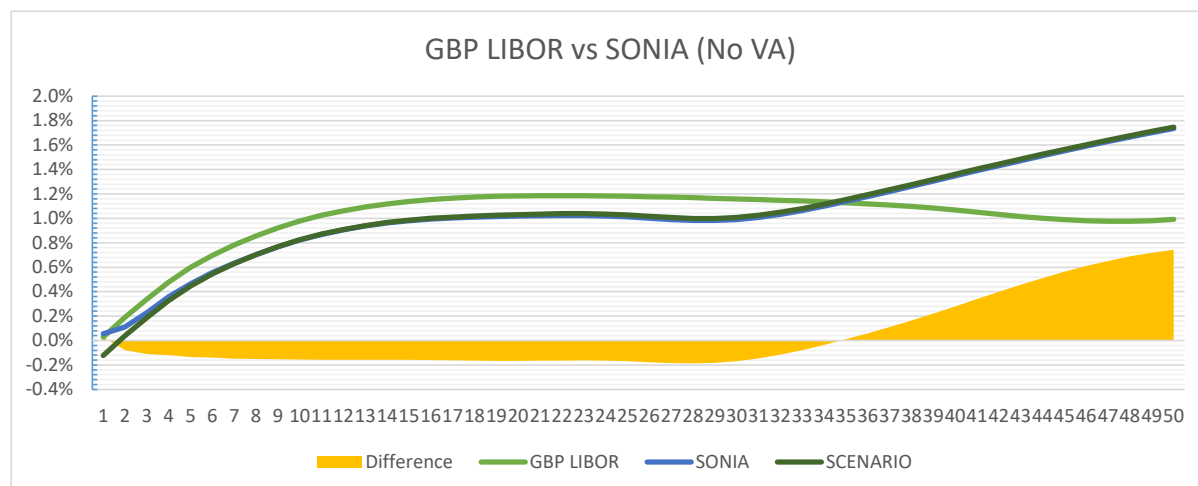
It should be noted that the EURIBOR based curve includes a Credit Risk Adjustment (CRA) of 10, while for the ESTR based curve the CRA has been set to

⁴ Note: All historical RFR curves as published by EIOPA up to and including March 2021.

⁵ For those two currencies Refinitiv provides tickers for the new OIS instruments for the majority of the tenors. For the USD at the time of the construction of the scenario there were no liquid SOFR tenors available.

zero. The yellow area indicates the difference between two curves. The average difference up to and including the LLP is 5 basis points (bp).

ii) For the GBP: The comparison for GBP LIBOR and SONIA can be seen in the graph below:



Source: Refinitiv; Note: Tickers used: "GBPSB6LxY=" and "GBPOISxY=(TREU)"; Ref. date: 31/03/2021

It should be noted that the LIBOR based curve includes a CRA of 10bp, while for the SONIA based curve the CRA has been set to zero. The yellow area indicates the difference between two curves. The average difference up to and including the LLP is 15bp.

c) Derivation of the Scenario

Combining the historical observed behaviour and the observed market differences, we can define the following scenario for each currency going from current IBOR-based swaps (including CRA) to alternative OIS-based swaps (CRA=0).

For the current RFR curves **without VA** a **parallel** shift up to the new Last Liquid Point of⁶:

EUR: -10bp; GBP: -15bp; USD: -15bp;

Please note that this scenario does not take into account the full interquartile range. This is due to the fact that within the range there are both positive and negative movements. The purpose of this exercise is to focus on the negative part.

d) Adjustment of the shock for Volatility Adjustment (VA) users

⁶ This parallel shift includes the change to new alternative OIS based swaps, a CRA of zero and a change in the LLP for the GBP and the USD.

Value of the VA before and after transition from IBOR to OIS			
Currency	Before	After	Difference
EUR	5	9	4
GBP	8	13	5
USD	25	33	8
BGN	-3	0	3
DKK	45	49	4

2) Derivation of the scenario for the CHF and JPY including the change of instrument (Swaps to government bonds)

a) Derivation of the Scenario

In addition to 'proximity', the 'liquidity' precondition would need to be satisfied before the switch takes place. More specifically, swaps traded under the new OIS rate would need to be 50% of the total traded volume. EIOPA's overall position is to follow rather than lead the market. This is why we would not want to propose to change until at least half of the swap market is using the new OIS instruments.

Currently, from the three currencies the IBOR rate ceases to exist at the end of 2021 and only the GBP (SONIA) is found to be liquid. EIOPA has been observing closely the liquidity of the interest rate swap market and we believe it is very likely that the TONAR (New OIS for the JPY) and the SARON (New OIS for CHF) will not be liquid by the end of the year.

If the new OIS curve is not DLT, a fall back solution would be needed so that the RFR production for this particular currency is not discontinued. The solution to this would be a change of instrument, more specifically, we would need to replace swaps with government bonds.

For the case of the JPY there will be a shift in the curve but the LLP will not change. A bigger change is expected for the case of the CHF where the swap curve will change to the government bond curve with a lower LLP (25 years to 15 years).

Therefore the scenario for the two currencies are defined as follows:

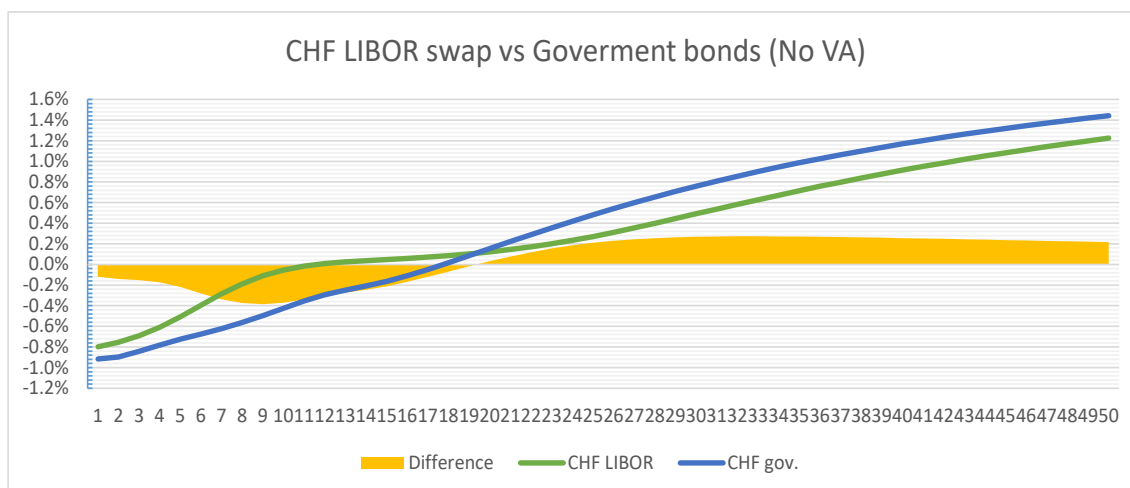
- i) For the CHF: Change in the instrument from swaps to government bonds and change of LLP from 25 to 15 years.
- ii) For the JPY: Change in the instrument from swaps to government bonds and no change in the LLP (30 years)

This information can also be used at a later stage in reverse, in order to quantify the reverse impact from a switch from government bonds to the new OIS swaps, once they become liquid.

b) Market observation

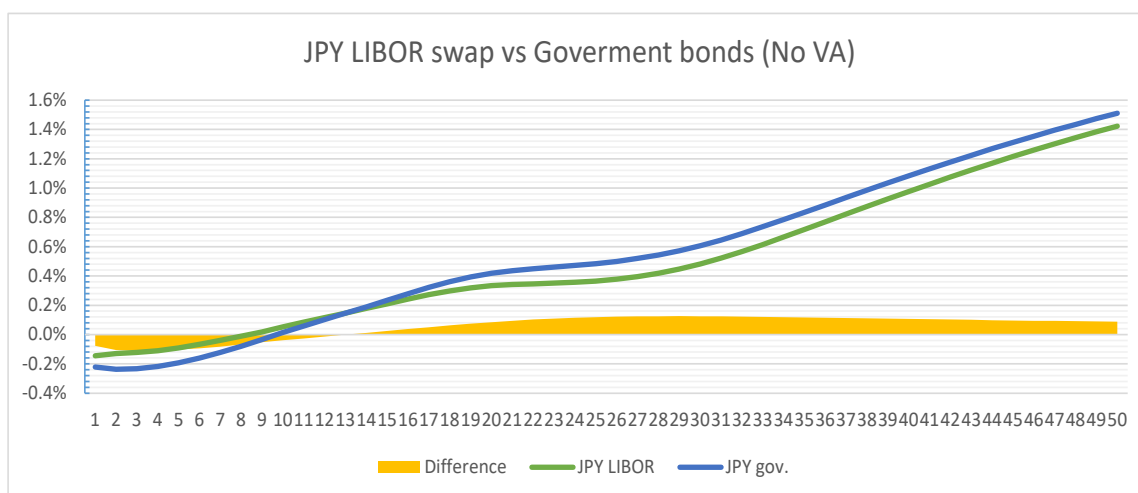
In order to define the scenarios EIOPA observed the market behaviour of the IBOR and government bond curves for the CHF and the JPY.

i) For the CHF: The comparison for the CHF can be seen in the graph below:



Source: Refinitiv; Note: Tickers used: "CHGOVxYZ=R" and "CHFAB6LxY="; Ref. date: 31/03/2021

ii) For the JPY: The comparison for the JPY can be seen in the graph below:



Source: Refinitiv; Note: Tickers used: "JPYSB6LxY=" and "JPGOVxYZ=R"; Ref. date: 31/03/2021

c) Adjustment of the shock for Volatility Adjustment (VA) users

Value of the VA before and after transition from Swaps to Government bonds			
Currency	Before	After	Difference
CHF	10	11	1
JPY	7	9	2