Deutsche Bank Treasury Markets



**Investor Meetings - November 2019** 

## Deutsche Bank Structured Covered Bond Programme

#### SALES & MARKETING MATERIAL

This document is for institutional clients (professional clients / eligible counterparties) only and not for retail distribution.

### Base Prospectus and Pre-Sale Reports



The Base Prospectus of Deutsche Bank Structured Covered Bond Programme was published on 25<sup>th</sup> June 2019 and is here available for download.

Press releases and pre-sale reports on provisional ratings by Moody's and DBRS can be found directly at rating agencies websites: www.moodys.com and www.dbrs.com.

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#### Please read the Prospectus

The complete terms and conditions of the Financial Instruments are included in the respective Base Prospectus and in the Final Terms, copies of which are available upon request and free of charge from Deutsche Bank AG, Taunusanlage 12, 60325 Frankfurt am Main, or can be downloaded from <a href="https://www.db.com/ir">www.db.com/ir</a>. The information in this presentation does not constitute the provision of investment advice; its sole purpose is the description of the Financial Instruments or transactions. Any investment decision should be based on the Base Prospectus and the Final Terms. Any views expressed reflect the current views of Deutsche Bank AG which may change without notice. Although the information in this presentation has been taken from sources which are believed to be accurate, no warranty or representation is made as to its correctness, completeness and accuracy. All prices listed are subject to confirmation. They have been listed for information purposes only and do not indicate tradable prices. Past performance is not indicative of future results. As described in the Base Prospectus, there are restrictions on the distribution of the Financial Instruments in certain jurisdictions. In particular, the Financial Instruments may not be offered or sold in the United States, to U.S. persons or U.S. residents. This document and the information contained therein may only be distributed and published in jurisdictions in which such distribution and publication is permitted. Any direct or indirect distribution of this document into the United States, the United Kingdom, Canada or Japan, or to U.S. persons or U.S. residents, is prohibited. The Financial Instruments are also not intended for retail distribution.

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By their very nature, forward-looking statements involve risks and uncertainties. A number of important factors could therefore cause actual results to differ materially from those contained in any forward-looking statement. Such factors include the conditions in the financial markets in Germany, in Europe, in the United States and elsewhere from which we derive a substantial portion of our revenues and in which we hold a substantial portion of our assets, the development of asset prices and market volatility, potential defaults of borrowers or trading counterparties, the implementation of our strategic initiatives, the reliability of our risk management policies, procedures and methods, and other risks referenced in our filings with the U.S. Securities and Exchange Commission. Such factors are described in detail in our SEC Form 20-F of 22 March 2019 under the heading "Risk Factors." Copies of this document are readily available upon request or can be downloaded from <a href="https://www.db.com/ir">www.db.com/ir</a>.

### Key Investment Highlights



#### Deutsche Bank Structured Covered Bond Programme

- Structured Covered Bond Programme as new strategic funding platform
- Aa1 / AA (Moody's / DBRS) rated conditional pass-through notes(1)
- Dual recourse: Deutsche Bank AG as issuer and a SPV as guarantor owning the cover pool assets

#### Cover Pool

- Initial cover pool of € 2.0bn consists of German retail mortgages only
- Dynamic cover pool, replacement of non-performing assets
- Deutsche Bank commits to maintain an OC of 15%, dynamic subject to rating requirements
- Future inclusion of European CRE loans possible (max. 25% nominal of cover pool assets)

#### Deutsche Bank

- Leading German bank with strong European roots and a global network
- Retail mortgages as one of the anchor products with € 154bn DB Group mortgage book(2)
- Solid Counterparty Rating: BBB+ (S&P) / A3 (Moody's) / BBB+ (Fitch) / A(high) (DBRS)
- Strength of balance sheet supports ongoing transformation process

## Mortgage Business in Germany

- Home market, 4th largest economy globally. A stable labour market and low interest rates are driving demand and housing market prices
- Residential property overall still remains affordable due to attractive refinancing costs

<sup>(1)</sup> Provisional rating

<sup>(2)</sup> Germany only, including Postbank retail mortgage book

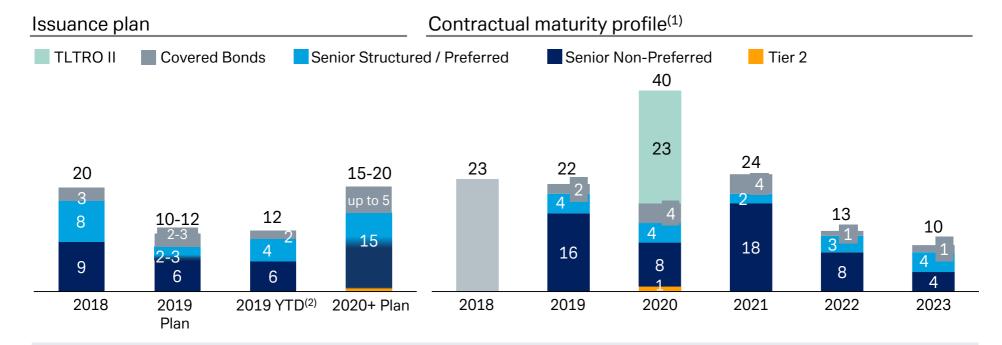
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### 2019 issuance plan

### € bn



- € 12bn issued year to date. Issuance plan materially complete
- Inaugural structured covered bond planned for November / December
- Senior Preferred CDS tightening to 78bps(2) from 103bps since introduction on 13 May 2019. Senior non-preferred CDS tightening to 152bps(2) from 210bps since the beginning of the year
- Strategic transformation will reduce external funding requirements and lower funding costs over time
- (1) Contractual maturities including Postbank do not reflect early termination events (e.g. calls, knock-outs, buybacks) and early repayment at issuer option
- (2) As per 1 November 2019

## Overview of DB Group's Covered Bond Platforms As of Q3 2019



#### Active platforms

DB SAE Cédulas (Aa1 by Moody's)

DB AG Structured Covered Bond (SCB) (provisional Aa1 / AA by Moody's / DBRS)

DB SpA OBG

management

Other platforms with active collateral

DB Privat- und Firmenkundenbank AG (former Postbank AG) covered bond programs

>89% residential mortgage cover pool

**DB AG Mortgage** 

**Pfandbrief** 

(Aaa by Moody's)

Strong commitment to Spanish market<sup>(1)</sup>

>90% residential mortgage cover pool

Strong commitment to Italian market<sup>(1)</sup> No future issuance out of DB Privat- und Firmenkundenbank AG planned

100% German exposure

Cover pool with low NPL ratio, high residential share and strong risk controls<sup>(2)</sup>

100% German exposure

Currently only retained issuances; no external market access yet Replacement opportunities for investors into DB Mortgage Pfandbrief / Cédulas / SCB

Outstanding bonds: € 7.9bn Cover Pool size: € 10.4bn Outstanding bonds: € 4.0bn (public placement) € 1.4bn (retained) Cover Pool size: € 7.7bn

Outstanding bonds: none Cover Pool size: € 2bn Outstanding bonds: € 3.5bn (retained)
Cover Pool size: € 4.0bn

Three main cover pools<sup>(3)</sup>:
- Residential mortgage: € 3.4 /
5.1 bn

- Public sector: € 0.2 / 0.3bn

- Mixed<sup>(4)</sup>: € 5.8 / 6.6bn

<sup>(1)</sup> Internationally, the Private & Commercial Bank intends to focus on growing markets like Italy and Spain while in Wealth Management, the bank will look to grow in Germany and in international markets. "We intend to grow the business in our Private & Commercial Bank and at DWS," Sewing said. Source: DB Investor Relations Media Release on 26 April 2018

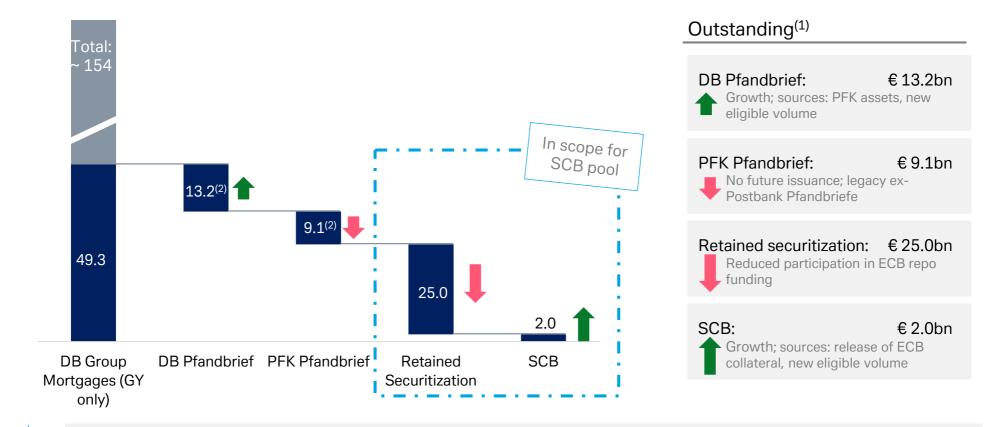
<sup>(2)</sup> Among all Spanish peers, collateral score and cover pool losses are one of the lowest. Both are Moody's metrics to assess quality of cover pool

<sup>(3)</sup> Outstanding bonds / cover pool size

<sup>(4)</sup> Former Deutsche Siedlungs- und Landesrentenbank AdöR now part of DB PFK AG pool; see more: https://www.db.com/ir/de/download/Transparenzangaben\_Register\_C\_Q3\_2019.pdf; DSL cover pool does not comply with PfandBG but with DSLBUmwG

## Strategic Use of German Mortgage Collateral DB Group (GY only), amounts in € bn





- A major part of DB's German retail mortgage book qualifies for SCB platform and allows for the introduction of an additional strategic secured funding programme
- SCB cover pool assets will be mainly shifted from DB's existing securitization platform
- (1) As of August 2019
- (2) Nominal values as per balance sheet do not match to cover values shown on page 6

## Deutsche Bank Structured Covered Bonds Programme Overview



Product	Structured Covered Bond	Strengths of the programme	
Programme Size Est. Issuance p.a.	€ 35bn € 2-3bn	✓ Contractual framework incl. binding over-collateralisation (OC)	
Structure	Dual recourse against the (i) Issuer and (ii) Guarantor owning the cover pool (dynamic)	<ul> <li>✓ Cover pool owned by German SPV</li> <li>✓ Loan-to-lending value cap at 80% for residential /</li> </ul>	
Issuer	Deutsche Bank AG	60% for commercial, in accordance with CRR	
Counterparty Rating	BBB+ (S&P) / A3 (Moody's) / BBB+ (Fitch) / A(high) (DBRS)	<ul><li>✓ Increased credit enhancement in stressed scenario</li><li>✓ Cover pool concentration limits</li></ul>	
Cover Pool Assets	<ul> <li>German retail mortgages</li> <li>European CRE, max. 25% / capped at € 2.5bn<sup>(1)</sup></li> </ul>	✓ Replacement of non-performing assets	
Maturity Type	Conditional-pass-through, hard bullet until default of the issuer		
Guarantor	SCB Alpspitze UG (haftungsbeschränkt) (German	Expected classification <sup>(3)</sup>	
	SPV)	Provisional rating: Aa1 / AA (Moody's / DBRS)	
Currency	EUR, USD, GBP	ECB repo / CBPP: Eligible / No	
Governing Law	German	Bail-in: Exempted (secured liabilities)	
Distribution	Capital markets and / or retained <sup>(2)</sup>	Capital (CRR, SII): Aa1 / AA rated bank liabilities	
Base Prospectus	Dated 25 June 2019, approved by CSSF	UCITS: No	
Trustee	TMF Trustee Services GmbH	LCR: Investor decision	

<sup>(1)</sup> Of nominal value of cover pool assets. Thereof: GBP max. 15% / €1.5bn, max. 7% CRE hospitality and max. 200m CRE single loan

<sup>(2)</sup> Deutsche Bank may retain certain portions of issuance for own-use purposes (collateral)

<sup>(3)</sup> Please note: DB's indicative assessment. You should not rely on this view but make your own assessment / seek advice from an independent adviser. DB does not act as your adviser

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## Programme structure (1/4) Deutsche Bank SCB vs Pfandbrief (PF)



#### DB Mortgage SCB<sup>(1)</sup> DB Mortgage Pfandbrief<sup>(1)</sup> Contractual framework Governed by Governance / German Pfandbrief law governed by German law Soft-LTLV(2) cap: 80/60 % framework Hard-LTLV Cap: 60 % Conditional pass-through Hard bullet Current key asset ~ 92% retail residential ~ 89% retail residential characteristics ~ 8% retail comm.(4) ~ 11% retail comm.(4) 100% EUR denominated mortgages Asset type / Mortgage loan receivables against private individuals borrowers Private and self-employed clients (e.g. freelancers) AVG loan size < € 120k Country of origin 100% German exposure ~ 7.3 years ~ 4.8 years Seasoning LTLV – ratio ~ 70% ~ 53% Target OC ~ 11.5% 15% (Provisional) rating Aa1 / AA (Moody's / DBRS) Aaa (Moody's) Outstanding bonds: €-bn Outstanding bonds: € 7.9bn Programme size Cover pool size: €2bn Cover pool size: € 10.4bn

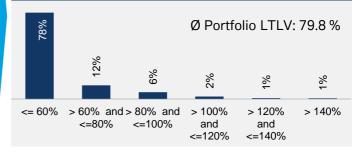
#### Credit quality of Cover Pool compared to PF

- Selected from the same retail mortgage book of the Deutsche Bank brand and DB-Bauspar<sup>(3)</sup>
- Same origination & underwriting standards

#### Calculation of LTLV

For both programmes Loan to lending value (LTLV) is calculated based on the lending value, which is typically 15 – 20% lower than market value

#### LTLV <u>portfolio view of</u> German retail mortgage



#### Driving parameters for not including in PF pool

- PF requires a formalistic appraisal process for the property, introduced in 2010
- It has almost no additional credit benefit
- Requesting additional documents from clients is challenging in competition with other lenders

- (1) DB Mortgage SCB: figures as of 8 Oct 2019; DB Mortgage Pfandbrief: figures as of Q32019
- (2) Soft-LTLV cap means that the cap exceeding values are considered as OC, while for Hard-LTLV it is not. Thus, the average LTLV of the SCB cover pool may exceed the cap, but issuance is always limited to the capped value (based on CRR caps) minus required OC (5% based on outstanding bonds). See page 12
- (3) Deutsche Bank brand includes DB Privat-und Firmenkundenbank (excluding former Postbank AG) and Deutsche Bank AG. DB-Bauspar is now part of BHW AG. See also page 21.
- (4) I.e. commercial use > 50%

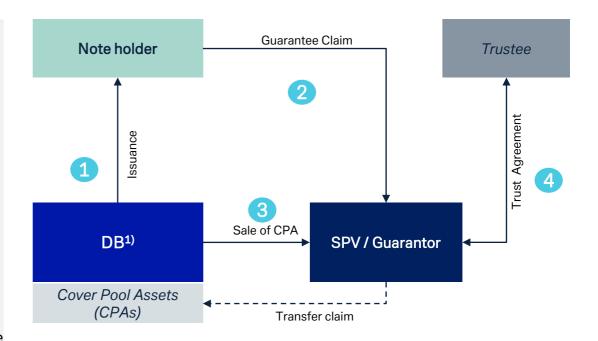
## Programme Structure (2/4)

### Legal structure



#### Under the contractual framework of Deutsche Bank Structured Covered Bond Programme ...

- 1. ... Deutsche Bank AG issues Structured Covered Bonds (SCB)
- 2. ... the SCB are secured by a guarantee issued by the guarantor, a German Special Purpose Vehicle (SPV)
- 3. ... DB Group has established a ring-fenced cover pool by selling retail mortgages via True Sale to the SPV, which collateralize the Guarantee.
- 4. ... the Cover Pool Assets have been pledged by the Guarantor to an independent Security Trustee, who acts in the best interest of the note holders.



## Programme Structure (3/4) Cover Ratio test

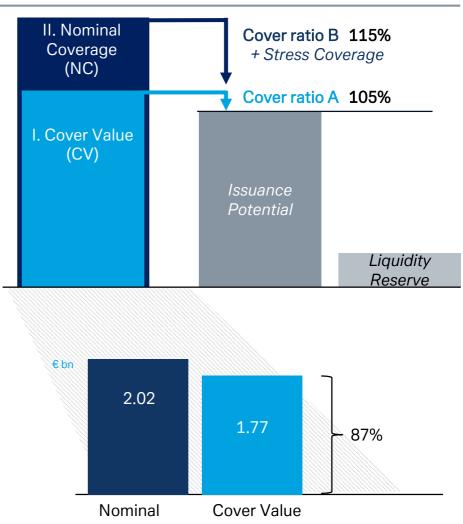


#### A contractual committed and binding cover ratio Test, provides that ...

- I. ... the Cover Value (CV) exceeds the Outstanding Programme Amount multiplied by the Cover Ratio A.
- II. ... the Nominal Coverage exceeds the Outstanding Programme Amount multiplied by the Cover Ratio B, plus "Stress Coverage", including
  - a. Overdue Amounts (if any),
  - b. Concentration Excess (if any),
  - c. Transfer Cost & Set-off Reserve (subject to Rating Trigger).

\*Cover Value (CV) means such portion of the Cover Pool that qualifies pursuant to CRR as eligible collateral for covered bonds, in particular taking into account the LTV limits for residential (80%) and commercial (60%) mortgages.

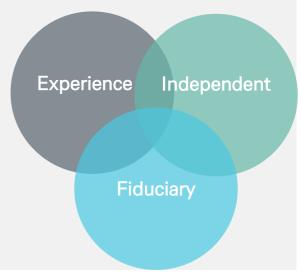
Liquidity Reserve for 6-months coupon payments + SPV expenses (subject to Rating Trigger).



### Programme Structure (4/4) Trust Agreement



- Any asset forming part of the cover pool is subject to a Trust Agreement of the SPV with an independent and experienced Trustee who acts for the benefit of the secured creditors, i.e. the Noteholders.
- The Trustee holds the cover pool assets for the benefit of the secured creditors and, if required(1)
  - ensures the proper processing of all payment flows in the interest of the investors (conditional pass-through)
  - decides on whether enforcement through a sale or collection is in best interest of investors
- DB's Structured Covered Bond trustee is TMF Trustee Services GmbH<sup>(2)</sup>
- TMF is a bank independent firm with extensive experience in terms of Structured Finance services and is familiar with high volume issuance of notes.



- (1) E.g. in the case of DB AG insolvency
- (2) Part of the TMF Group Holding B.V., Amsterdam

## Agenda

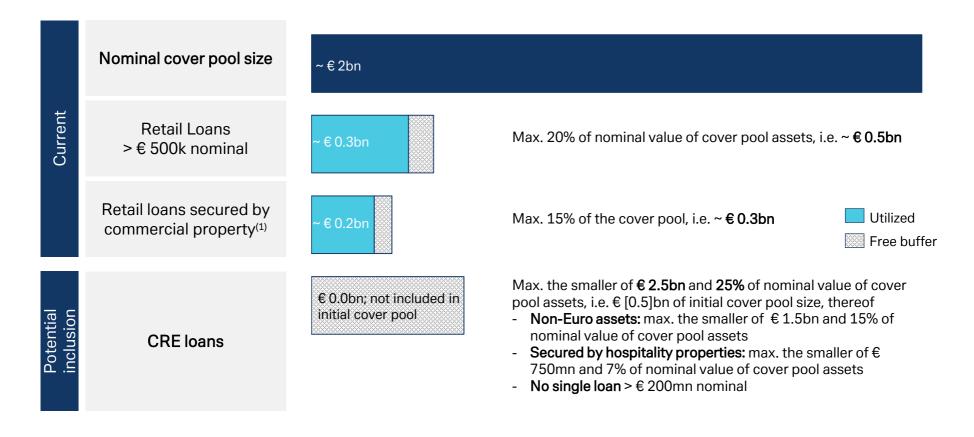


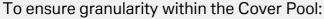
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### Cover Pool Composition

## Concentration limits – Initially only German retail







For the purpose of calculating the Cover Pool Test, only the value which is within the concentration limits will be taken into account

Is defined as retail property where more than 50% of the total square footage is used for commercial purposes

### Cover Pool Composition Key statistics as of 8<sup>th</sup> October 2019



Total cover pool (initial cover pool)			
Total nominal size	€ 2.02bn	Min. committed nominal OC	15%
thereof retail mortgages	€ 2.02bn	Ø LTLV	69.8%
thereof residential	~ € 1.85bn	Ø Seasoning	7.3yrs
thereof commercial	~€0.17bn	Ø Time to maturity	16.4yrs
Total cover value	€1.77bn	Ø Life assets	9.0yrs
Number of loans	23,102	Redemption Type	
Number of borrowers	18,758	Amortising	€1.78bn
Ø Loan amount	€87,419	Bullet	€ 0.25bn
Currency		Coupon	
EUR	€ 2.02bn	Fixed	98.1%
GBP	€ 0.0	Floating	1.9%

#### Liabilities

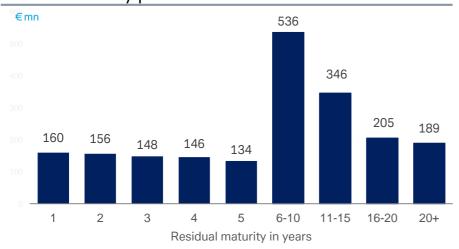
As of 8th October 2019 no liabilities were outstanding

Source: Deutsche Bank AG, Cover Pool Report

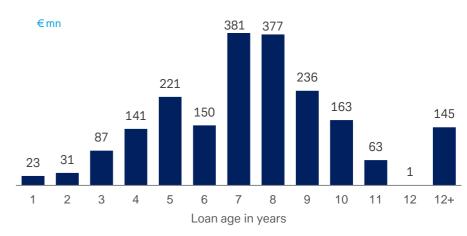
### Cover Pool Composition Stratifications as of 8<sup>th</sup> October 2019



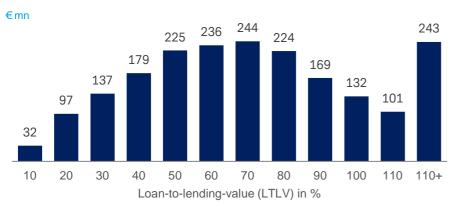
#### Asset maturity profile



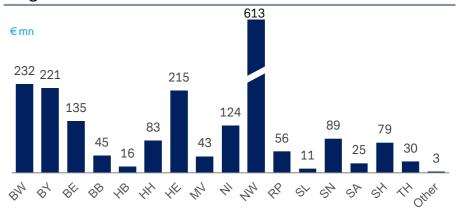
#### Seasoning



#### LTLV



#### Regional distribution



Source: Deutsche Bank AG, Cover Pool Report

Note: Baden-Wuerttemberg (BW), Bavaria (BY), Berlin (BE), Brandenburg (BB), Bremen (HB), Hamburg (HH), Hesse (HE), Mecklenburg Western Pomerania (MV), Lower Saxony (NI), North Rhine-Westphalia (NW), Rhineland Palatinate (RP), Saarland (SL), Saxony (SN), Saxony-Anhalt (SA), Schleswig-Holstein (SH), Thuringia (TH)

## Cover Pool Composition Investor reporting



Reporting Frequency	Quarterly
Reporting Period	Calendar quarter
Reporting Date	Latest 10th business day after quarter end
Reporting Medium	Upload to Investor Relation section of db.com website (www.db.com/ir)
Content of Report	<ul> <li>Outstanding nominal amount of all loan receivables</li> <li>Cover value of the cover pool</li> <li>Value of eligible investments</li> <li>Value of liquidity reserve asset</li> <li>Outstanding programme amount</li> <li>Target rating of notes, the original DBRS rating and the original Moody's rating of the notes</li> <li>Stratification tables for the key characteristics of the loan receivables</li> <li>Maturity structure of the cover pool and the maturity structure of the notes</li> <li>Result of the cover ratio test</li> <li>Original DBRS minimum OC level or the updated DBRS minimum OC level as applicable and the original Moody's minimum OC level or the updates Moody's minimum OC level, as applicable</li> <li>Names of the counterparties assuming the relevant functions under the programme</li> </ul>

## Scope of Loan Type Inclusion of CRE exposure possible



- The European Commercial Real Estate Group ("CRE Europe") was established in 2001 and provides debt capital across the entire risk spectrum, including:
  - Stable asset financing for syndication, securitisation, or balance sheet lending
  - Transitional asset financing for refurbishments, lease up strategies, pre-planning bridge loans, hotel stabilisation
  - Construction lending, both senior and whole loan, for residential, office, and retail
- Geographies: UK, Ireland, Spain, Portugal, Germany, France, Sweden, Italy, Netherlands, Belgium
- Inclusion is limited to certain boundaries (concentration criteria):
  - CRE loans are limited to the smaller of € 2.5bn and 25% of the nominal value of the cover pool assets
    - Non-Euro loans; limited to the smaller of € 1.5bn and 15% of the nominal value of the cover pool assets
    - Non-Retail Loans secured by hospitality properties; limited to the smaller of € 750mn and 7% of the nominal value of the
    - Non-Retail Loans exceeding € 200mn nominal
- CRE loan contracts are mainly governed by English law. DB will only include CRE loans to the cover pool if the potential impact of Brexit for this programme can be evaluated with certainty.



Savoy Hotel



56 Curzon



Elephant & Castle

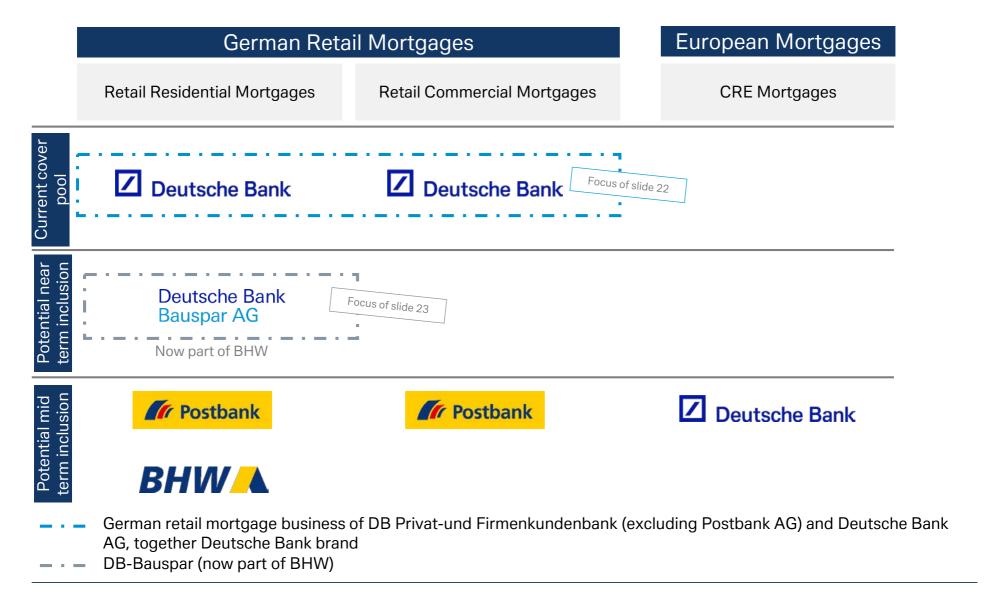
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## Originators within DB Group Inclusion into SCB cover pool





## German Retail Mortgage Business Deutsche Bank brand



#### Our products

#### **Fixed interest** rate mortgages

- Annuity or bullet loan
- Up to 30 years fixed interest and up to 40 years maturity
- Usually monthly payment
- Contractual prepayment option up to 10% p.a. possible
- Insurance optionally possible
- Minimum Ioan size € 25,000

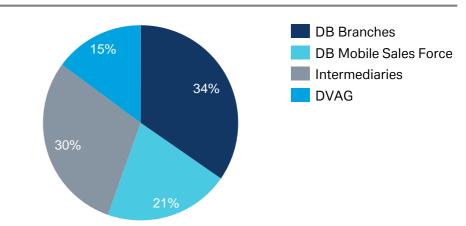
#### Forward mortgages

- Forward time between 3-48 months
- Variable Forward rates calculated at actual costs
- Up to 25 years fixed interest
- Other details as stated above

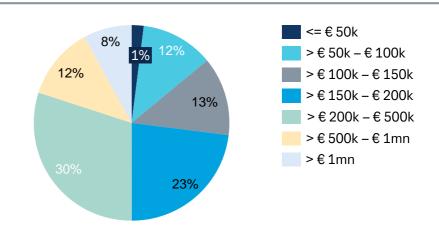
#### Variable interest rate mortgages

- With or without interest-CAP
- Interest rate adjustment with ECB key rate changes

#### Sales channels for new business 2018 (1)



#### Proportion of ticket sizes for new business 2018 (1)



## German Retail Mortgage Business DB-Bauspar<sup>(1)</sup>

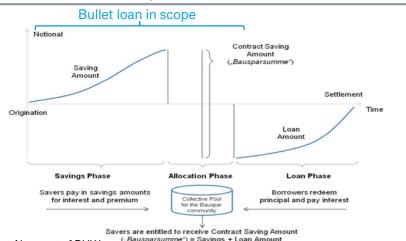


#### Our products

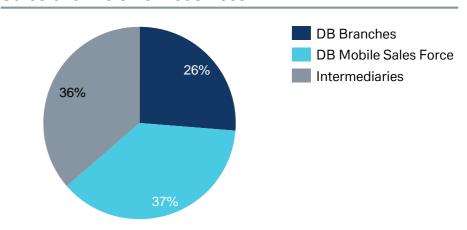
Non collective loans (in scope of SCB)

- Pre-financing of home loan saving contract
- Bullet loans & parallel payments in savings contracts (redemption substitute)
- Up to 20 years fixed interest
- Monthly interest payments
- Contractual prepayment option up to 10% p.a. possible
- Minimum Ioan size € 15,000

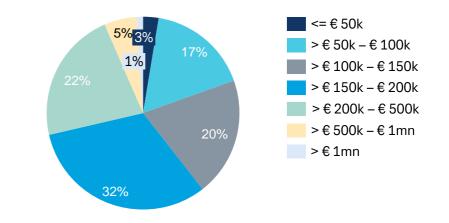
#### Basic scheme of 'Bausparen'



#### Sales channels new business<sup>(2,3)</sup>



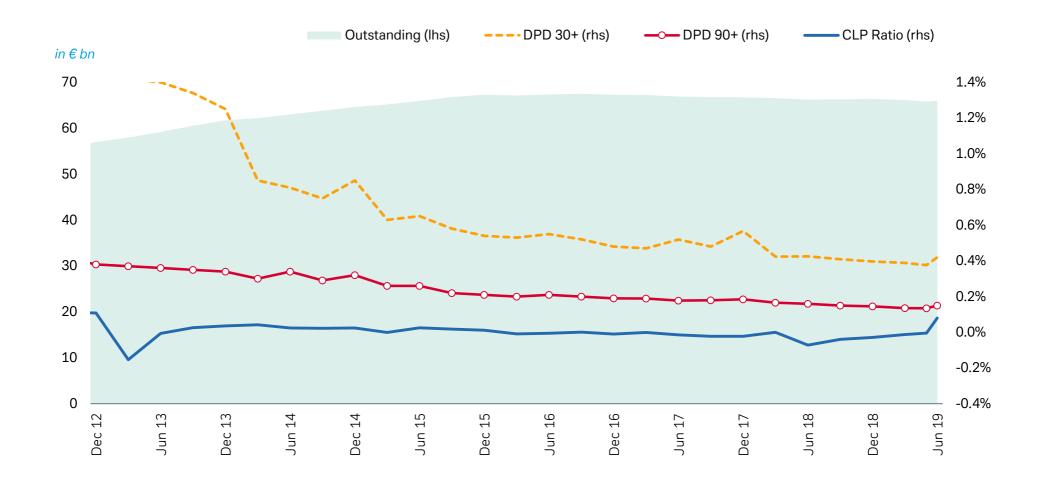
#### Proportion of ticket sizes new business<sup>(2)</sup>



- (1) Now part of BHW
- (2) Credit approvals always take place in special sales forces (Spezialberatung Baufinanzierung) with identical rules
- (3) As per YE 2018

## German Retail Mortgage Portfolio Development Deutsche Bank brand and DB-Bauspar<sup>(1)</sup>





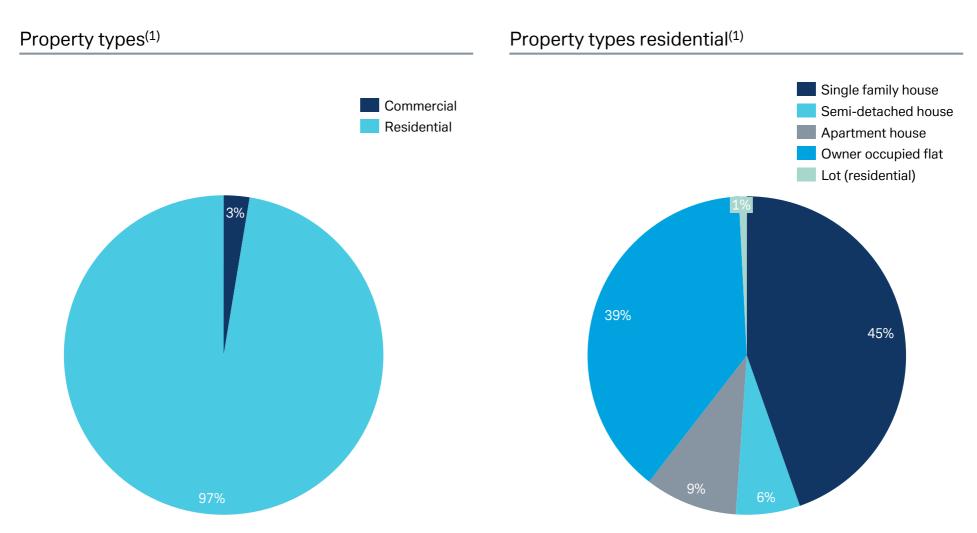
Now part of BHW

Note: (1)

DPD = Days Passed Due; CLP = Credit Loss Provision

# German retail mortgage portfolio consists of 97% residential properties and is well diversified Deutsche Bank brand





(1) As of July 19, collateral (not financed) object

Note: Charts are reflecting Deutsche Bank brand mortgage portfolio w/o DB-Bauspar (now part of BHW)

## New business of German retail mortgage portfolio has a high share of owner occupied business

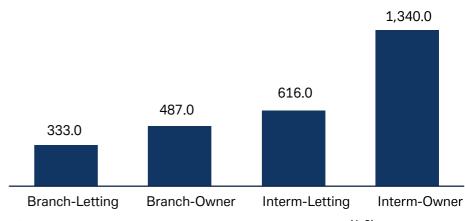


Ø Volume over last 12 months by product type (1,2)



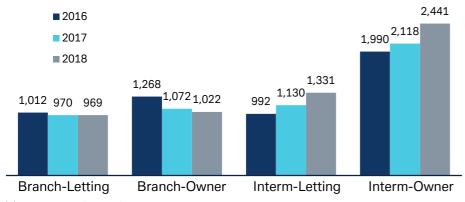
Ø Volume p.a. over last 3 years by product type<sup>(2)</sup>

#### Ø Number over last 12 months by product type<sup>(1,2)</sup>

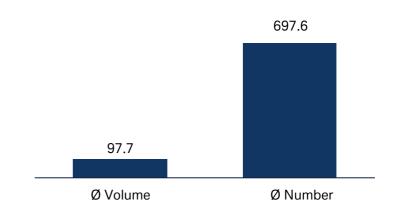


Ø Volume / Number over last 12 months<sup>(1,3)</sup>

#### In € mn



- (1) As of May 19
- (2) Deutsche Bank brand
- (3) DB-Bauspar (now part of BHW)



### Origination and Underwriting Process



#### Origination

- Majority of the loans underlying were originated by DB Privat-und Firmenkundenbank (686 branches across Germany)
- With the remainder being originated by Deutsche Bank AG and DB-Bauspar<sup>(1)</sup>

#### **Underwriting Processes**

- Underwriting criteria are set out in the "PCC compendium credit process for Private and Commercial Clients" and supplementary guidelines. The credit process controls, for instance:
  - The process of applications to be used,
  - Appropriate risk scoring model,
  - Appraisal process and
  - The supporting documentation needed
- Following documents are if applicable generally required for an approval of a loan:
  - Purchase agreement/leasehold rights agreement ('Erbbaurechtsvertrag'),
  - Construction plans,
  - Calculation of total and usable space,
  - Floorplans,
  - Excerpt from the land registry and
  - Documents confirming creditworthiness, e.g. statement of assets, liabilities, income and expenses ('Selbstauskunft') and salary statements (employed) or financial statement (self-employed).

## Agenda

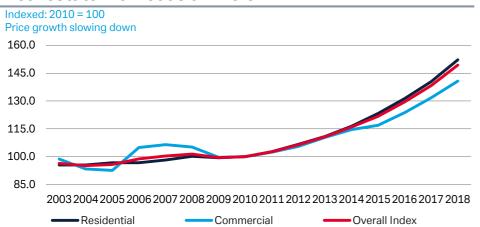


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## German housing price development and DB property valuation mechanism (lending value)



#### Real estate market as a whole



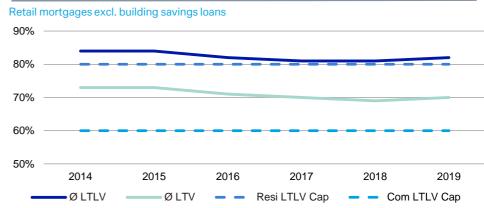
Sources: vdp Property Price Indices as of Q2 2019

- All Deutsche Bank in-/external real estate appraisals are based on BelWertV<sup>(1)</sup>, KWG<sup>(2)</sup> and PfandBG<sup>(3)</sup> requirements.
- Means Deutsche Bank takes credit decision based on lending value and not market value, which is typically 15-20% lower than the market value.
- Therefore, the lower loan-to-lending values are the respective benchmark for the LTLV hurdles of the programme.

- A stable labour market and low interest rates are driving up housing market prices while supply continues to lag behind demand.
- Factors that have led to shortage of supply in the past are expected to continue to exist for next few years. A change is not expected at least until 2022.

Source: Deutsche Bank Research, "Germany property and metropolis market outlook 2019" published March 14, 2019

#### Ø LTLV vs Ø LTV<sup>(1)</sup>



Sources: Deutsche Bank, 1) Loan to Market Value, market value is calculated based on actual recorded market values since mid 2013 - for any legacy cases where no data were available a conversion ratio of 1.15 was assumed 2) 2019 data as of May 2019

<sup>(1)</sup> Regulation on the Determination of the Mortgage Lending Value

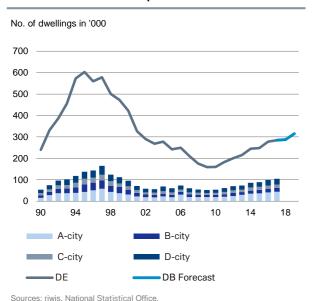
<sup>(2)</sup> German Banking Act

<sup>(3)</sup> German Pfandbrief Act

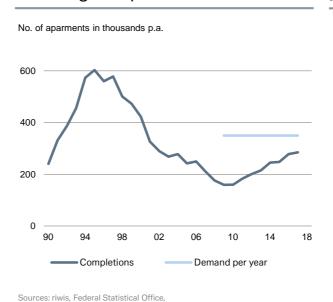
### Demand still outpaces supply



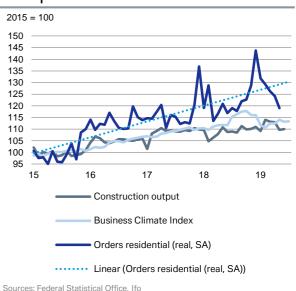
#### 1991-2018 Completions



#### **Building completions**



## Construction: Seasonal volatility but upward trend intact



It is expected that only expansion of supply, end of labour migration, significant interest rate increases and rent-or buy decisions made in favour of renting could end the price surge.

Deutsche Bank Research

- Around 1mn apartments are missing, especially in the metropolitan cities. The removal of this overhang could take several years. Especially against the background of lack of skilled workers and building land in the construction industry.
- Wage increases, full employment, net immigration plus very low interest rates keeps the demand for housing high.

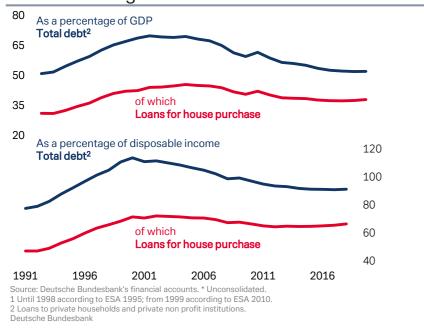
Source: Deutsche Bank Research, "Germany property and metropolis market outlook 2019" published March 14, 2019

Deutsche Bank Research

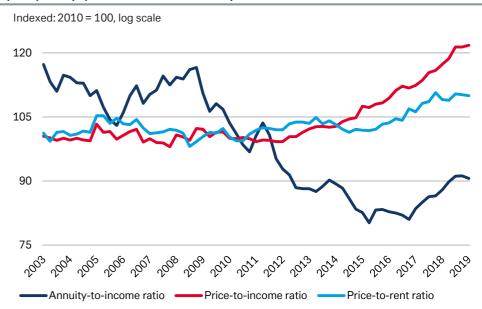
## Germany did not use released cost of borrowing for excessive additional debt



#### Debt of households in Germany, Annual Average<sup>1</sup>



## Standard indicators to evaluate residential property prices in Germany\*



Sources: Bundesbank. \* Bundesbank calculations based on data provided by the Association of German Pfandbrief Banks (vdp).

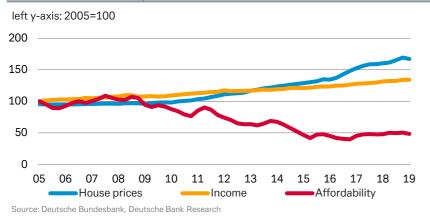
1. Annuity of a mortgage loan with a fixed interest rate (between five and ten years) and a hypothetical term of 30 years in relation to household income. 2 Disposable income per household in Germany, nominal. 3 Prices and rents of apartments. Deutsche Bundesbank

- As observable from Bundesbank statistics, debt annuity to income ratio is decreasing since 2009 and disposable income of households is increasing.
- Increased price to income/rent still not worrisome, as higher disposable income still available and not used for additional debt, i.e. consumer finance.

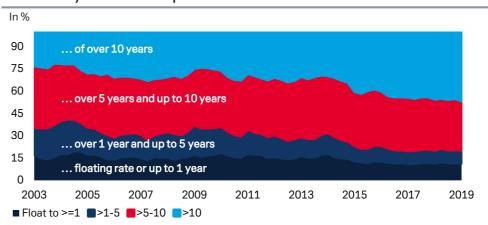
## Long term refinancing ensures borrowers ability to pay



#### Home ownership affordable, due to low interest



## Fixed interest periods for loans to households in Germany for house purchase\*



Sources: Deutsche Bundesbank. \* Calculated as domestic banks' volume of new business with respective rate fixation periods as a share of total new business (also including extensions).

- Although rising house prices should slightly reduce affordability in 2019, in comparison with high interest rates in 2015, residential property overall is expected to remain affordable due to the current level of interest rates.

  Source: Deutsche Bank Research, "Deutschland-Monitor Baufinanzierung Q3/2019", published July 5, 2019
- Currently, further interest-rate cuts and asset purchases characterize ECB monetary policy.
   Source: Deutsche Bank Research, "Only a technical recession? It is all about risks!", published August 19, 2019
- Germans have always preferred long-term financing for real estate. Almost half of new housing loans show a rate fixation of more than 10 years, which indicates low refinancing risk for customers.
   Source: Deutsche Bank Research, "Home buyers are financing even more long-term", published June 18, 2019

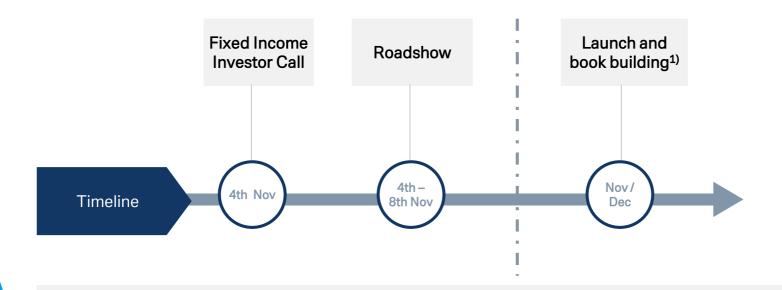
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## Next Steps





- Condense investor feedback
- Prepare inaugural transaction
- Regular issuances in public and private placement format envisaged

### Offered Notes Summary of Key Terms



Programme	Structured Covered Bond Programme		
Issuer	Deutsche Bank AG, Frankfurt am Main		
Guarantor	SCB Alpspitze UG (haftungsbes	schränkt)	
	Currency	[Euro]	
	Principal Amount	[•]	
	Coupon Type	[fixed] [floating]	
	Tenor (Maturity Date)	[●] years (date)	
	Provisional Rating	Aa1 / AA (Moody's / DBRS)	
	Expected Issue Date	[•] 2019	
Notes	Listing	[Regulated Market Luxemburg]	
	Clearing System	[•]	
	Documentation	Final Terms	
	Paying Agent	Deutsche Bank AG	
	Dealer	Deutsche Bank AG	
	Distribution	No retail distribution	
	ISIN / Common Code / WKN	[•] / [•] / [•]	

## Agenda



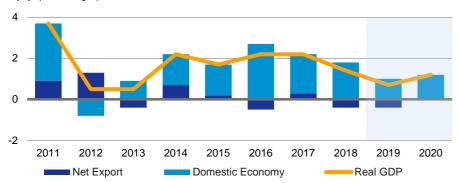
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### German Economy



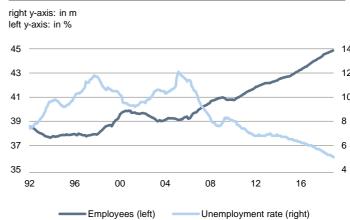
#### **Growth driver of GDP**

% yoy, percentage points



Sources: Federal Statistical Office, Deutsche Bank Research

#### Germany: Labour market



Sources: Deutsche Bank Research, Federal Employment Federal Statistical Office

	Actual	Outlook until YE 2019
Interest rate for housing loans with fixed interest rate for 5-10years (last value = May 2019)	1.46%	
Inflation in 2019 (DB forecast)	1.5%	
Economic growth in 2019 (DB forecast)	0.7%	
Unemployment rate (last value= June2019)	5.0%	

### **Current Ratings**



	Moody's Investors S&P Global Fitch Ratings		Fitch Ratings	DBRS	
Counterparty obligations (e.g. Deposits / Structured Notes / Derivatives / Swaps / Trade Finance obligations/ LOC's)	A3	BBB+ <sup>(1)</sup>	BBB+	A (high)	
Senior unse- cured  Preferred <sup>(2)</sup> Non-preferred	A3	BBB+	BBB+	A (low)	
unse- cured Solution Non-preferred	Baa3	BBB-	BBB	BBB (high)	
Tier 2	Ba2	BB+	BBB-	-	
Legacy T1	B1	B+	BB-	-	
AT1	B1	B+	B+	-	
Short-term	P-2	A-2	F2	R-1 (low)	
Outlook	Negative	Stable Evolving		Negative	

**₩** 

Following the transformation announcement, all rating agencies affirmed their ratings and argue that execution of the plan would lead to rating upgrades

Note: Ratings as of 15 October 2019

1) The Issuer Credit Rating (ICR) is S&P's view on an obligor's overall creditworthiness. It does not apply to any specific financial obligation, as it does not take into account the nature of and provisions of the obligation, its standing in bankruptcy or liquidation, statutory preferences, or the legality and enforceability of the obligation

Defined as senior unsecured debt rating at Moody's and S&P, as preferred senior debt rating at Fitch and as senior debt at DBRS

## Overview Rating Triggers



Counterparty criteria required rating	Moody's		DBRS		
	Rating Category	Trigger (loss of)	Rating Category	Trigger (loss of)	Consequence
1. Account Bank	Danasita	eposits Baa2	The maximum of the  (i) Issuer, Senior- preferred or Deposit rating and  (ii) Counterparty minus one (1) Notch	BBB (high)	Replacement / Guarantee
2. Issuer (Liquidity Reserve)	Deposits				Establish Liquidity Reserve (6 month coupons & expenses)
3. Seller (Set- Off)	Counterparty	Baa1(cr)	Counterparty	BBB (high)	Overcollateralization requirements increases by Setoff Exposure Amount
4. Transfer Cost Reserve	Counterparty	Baa3(cr)	Counterparty	BBB (low)	Overcollateralization requirements increases by Transfer Cost Reserve Amount

### **Imprint**



Deutsche Bank AG is authorised under German Banking Law (competent authority: European Central Bank) and, in the United Kingdom, by the Prudential Regulation Authority. It is subject to supervision by the European Central Bank and by BaFin, Germany's Federal Financial Supervisory Authority, and is subject to limited regulation in the United Kingdom by the Prudential Regulation Authority and Financial Conduct Authority.

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