DEPOSIT SOLUTIONS

Negative Rates & Banking Profits, Vol. 2

How the ECB's two-tier system affects European banks

January 2020

Agenda

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2. Eurozone & Switzerland
3. Market spotlights
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Summary

Negative interest charges reach a total of EUR 25 billion

Since the European Central Bank (ECB) has introduced negative interest rates in 2014, banks in the eurozone have paid EUR 25 billion on their surplus deposits. However, as the ECB introduced a two-tier system for remunerating excess liquidity holdings in October in 2019, the total payments decreased for the first time.

German and French banks pay the highest share

In 2019, German banks have paid EUR 2.3 billion and French banks have paid EUR 1.8 billion in negative interest. Thus, these two countries alone account for almost 60% of all eurozone charges. Swiss banks have paid CHF 2 billion to their national bank, a new record high. In total, the negative interest payments of Swiss banks are equivalent to 27% of the charges of all eurozone banks.

New two-tier system: Southern European banks benefit most

The new two-tier system particularly helps banks with moderate excess liquidity. Especially Southern European banks benefit from the new allowances. In Spain, Portugal, Greece and Slovakia, the total allowances even exceeded the banks' deposit surpluses on an aggregated level in November 2019.

Outlook: A further 10 basis point interest rate cut would lead to 1 billion more interest payments

With regard to future interest rate decisions by the ECB, the following applies: Each interest rate cut of 10 basis points would result in another billion euros in charges for the eurozone banks. Each increase of 10 basis points in turn would relieve the banks by one billion euros.

“We can contribute to a more resilient and integrated European financial system”

“Last year the eurozone banks paid more than 6,5 billion euros to the European Central Bank. With its new two-tier system, the ECB significantly relieves banks with moderate excess liquidity within the exempt tier. Banks with high excess liquidity, on the other hand, are sanctioned even more by the lower interest rate. As a result, the relief is mainly felt by southern European banks. German and French institutions are still facing annual negative interest payments in the billions.

The eurozone banks could make much more effective use of the ECB's exempt tier, if they could mediate deposit surpluses to other banks that have a demand for customer deposits. Our open banking platform makes this possible. We can contribute to a more resilient and integrated European financial system.”

Dr. Tim Sievers, CEO & Founder of Deposit Solutions

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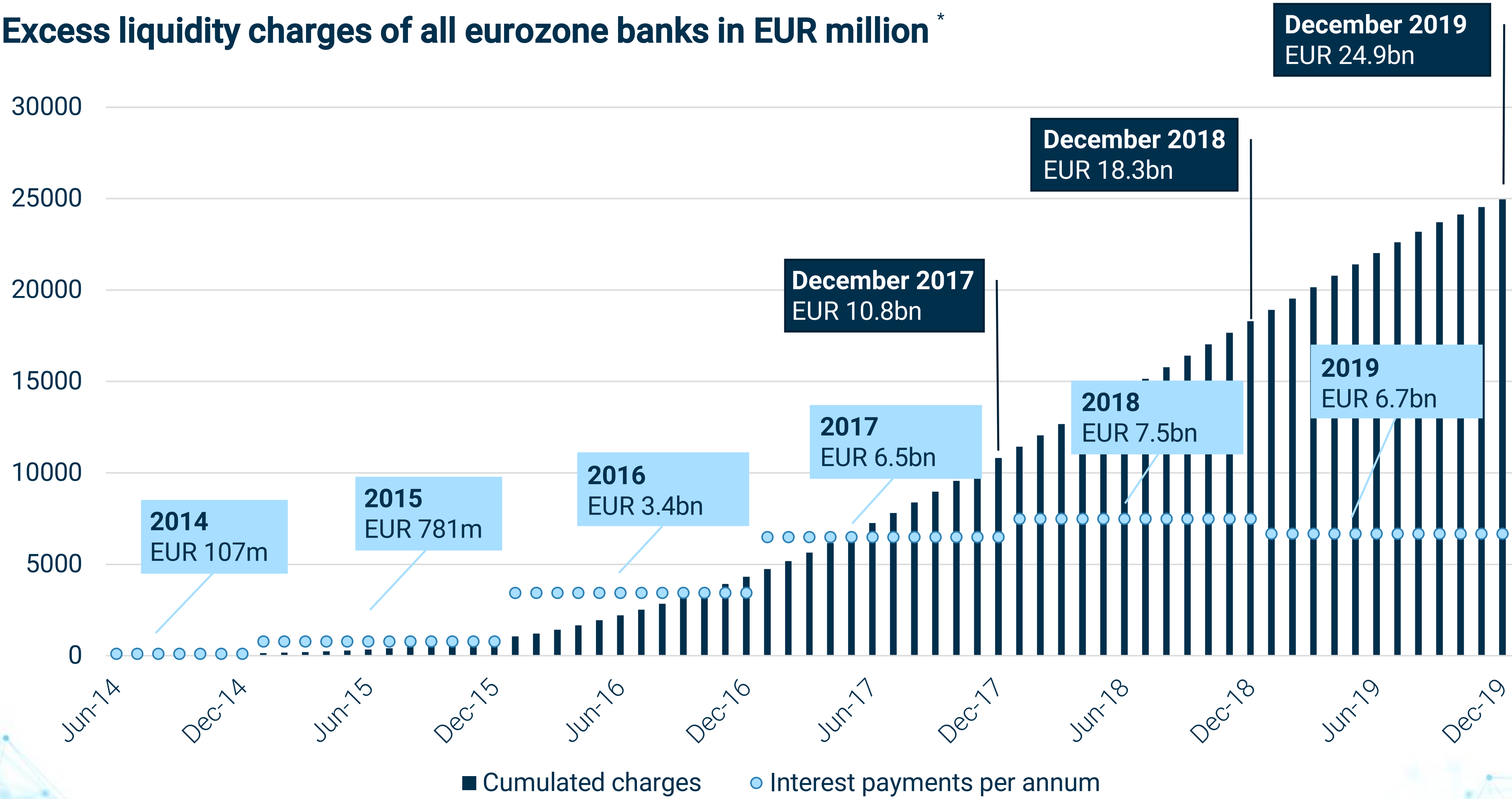
Eurozone & Switzerland

ECB charges reach a total of EUR 25 bn in December 2019

Excess liquidity charges of all eurozone banks in EUR million *



*) Figures for December 2019 assuming unchanged excess liquidity
Source: ECB, Deposit Solutions

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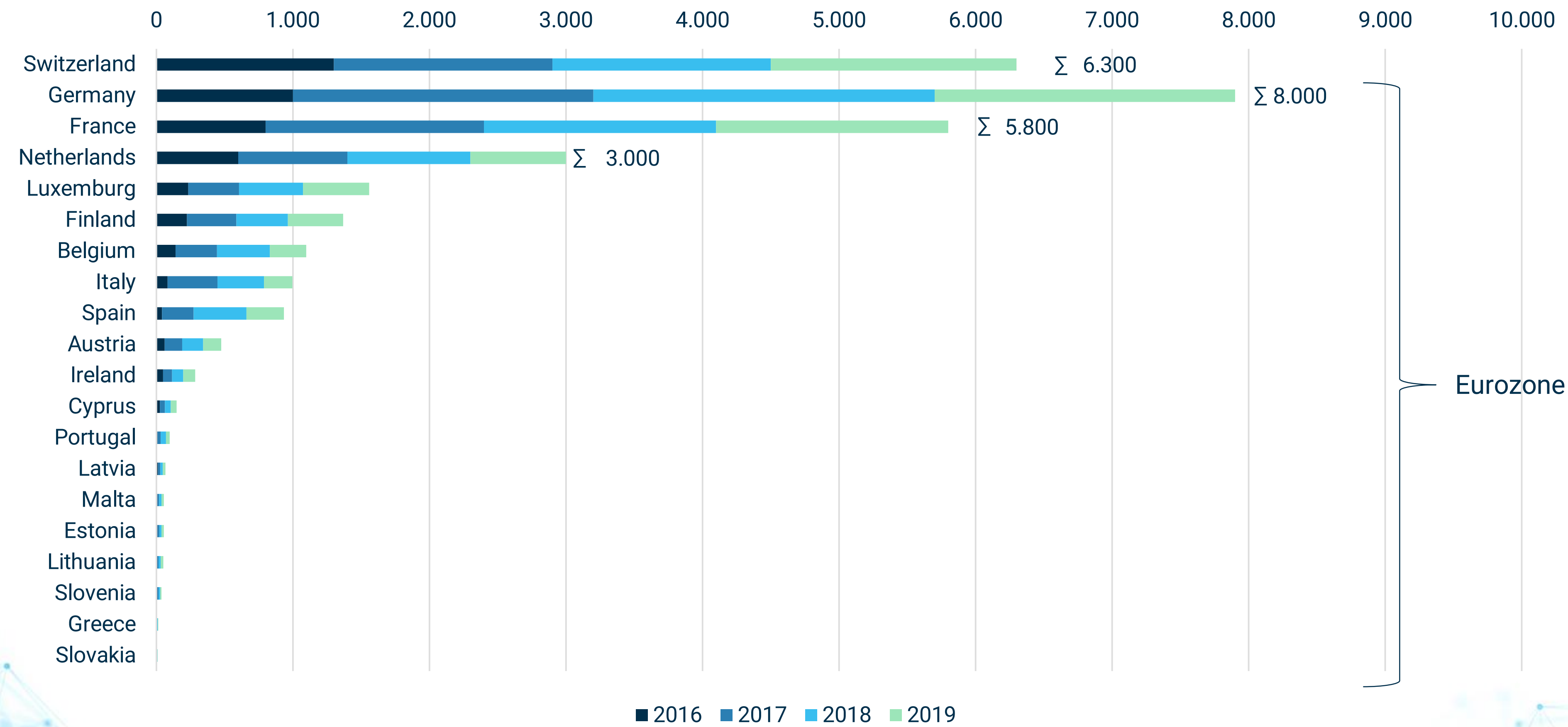
Charges per country: Swiss, German and French banks hit hardest

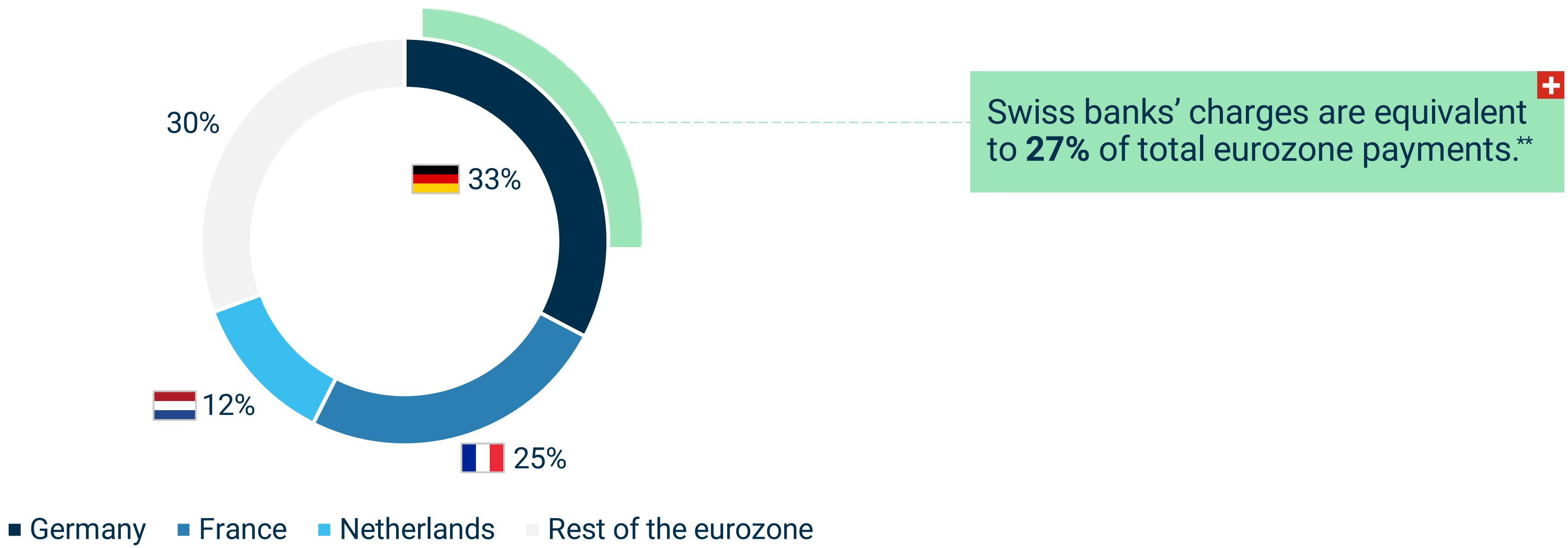
Interest payments on excess liquidity by country in EUR million per annum *



*) assuming unchanged excess liquidity December 2019
*) Negative Rate of 0.75%, partly exempted, converted into Euro at period average exchange rates
Source: ECB, National Central Banks, Eidgenössische Steuerverwaltung, Deposit Solutions

German, French and Dutch banks bear 70% of eurozone charges

Excess liquidity charges by country in %



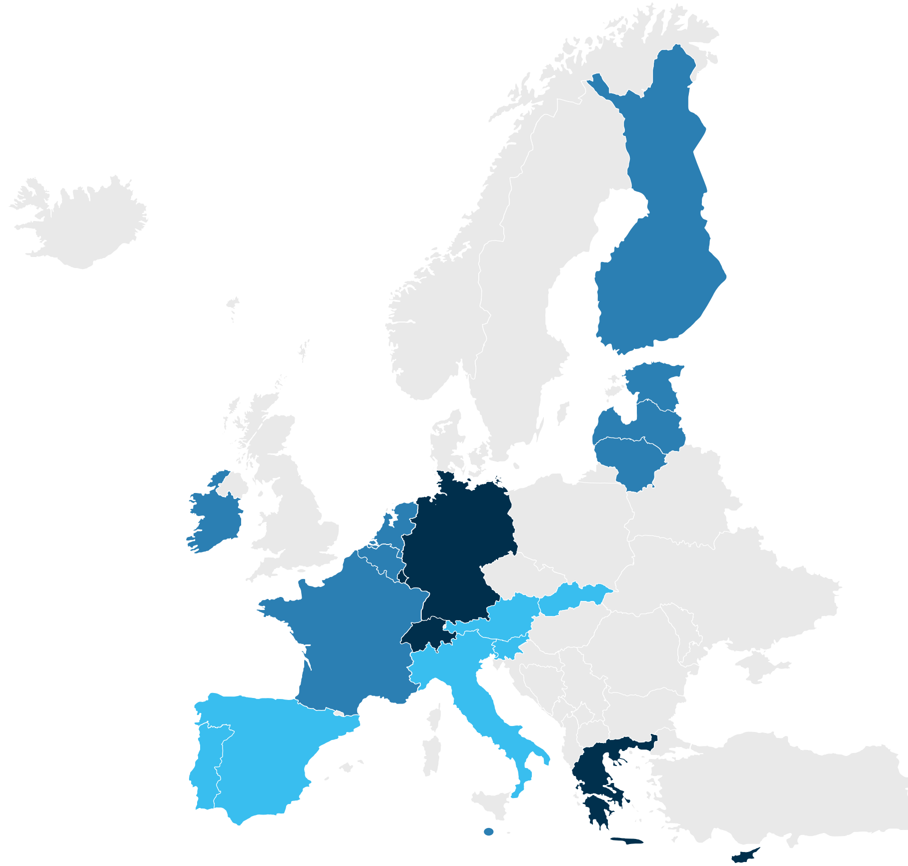
*) assuming unchanged excess liquidity December 2019
**) Negative Rate of 0.75%, partly exempted, converted into Euro at period average exchange rates
Source: ECB, National Central Banks, Eidgenössische Steuerverwaltung, Deposit Solutions

Charges amount to 5.6% of total eurozone banking profits

Charges in relation to pre-tax profits 2018 *

Slovakia	0.3%
Spain	0.9%
Portugal	1.1%
Italy	1.7%
Austria	1.7%
Slovenia	1.8%
Ireland	2.2%
Belgium	3.2%
Netherlands	3.7%
Estonia	3.8%
Malta	4.0%
Eurozone	5.6%
France	4.6%
Lithuania	5.0%
Latvia	6.6%
Finland	7.3%
Lux	10.7%
Germany	12.0%
Cyprus	16.2%
Greece	23,0%
Switzerland	13.0%

Eurozone



*) Negative interest charges 2019 in relation to pre-tax profits 2018; 2017 for Switzerland; assuming unchanged excess liquidity December 2019
Source: ECB, National Central Banks, Eidgenössische Steuerverwaltung, Deposit Solutions

Two-tier system: EUR 770 billion of excess liquidity exempt from negative interest rates

Since October 2019, deposits amounting to six times the minimum reserve of each bank are exempt from negative interest rates. The extent to which a bank feels this relief therefore depends on how much its excess liquidity exceeds the minimum reserve.

Example:

- The total amount of exempted excess liquidity in the eurozone is EUR 770 billion
- In October 2019, **German** banks had a deposit surplus of **EUR 640 billion**. Their minimum reserve was 37 billion, 6 times of which was exempt from the negative interest – 224 billion, or **35% of their deposit surplus.**
- **Italian** banks had a deposit surplus of **EUR 139 billion**. In accordance with their minimum reserve requirements, EUR 108 billion were exempt from negative interest, which is **78% of their surplus.**

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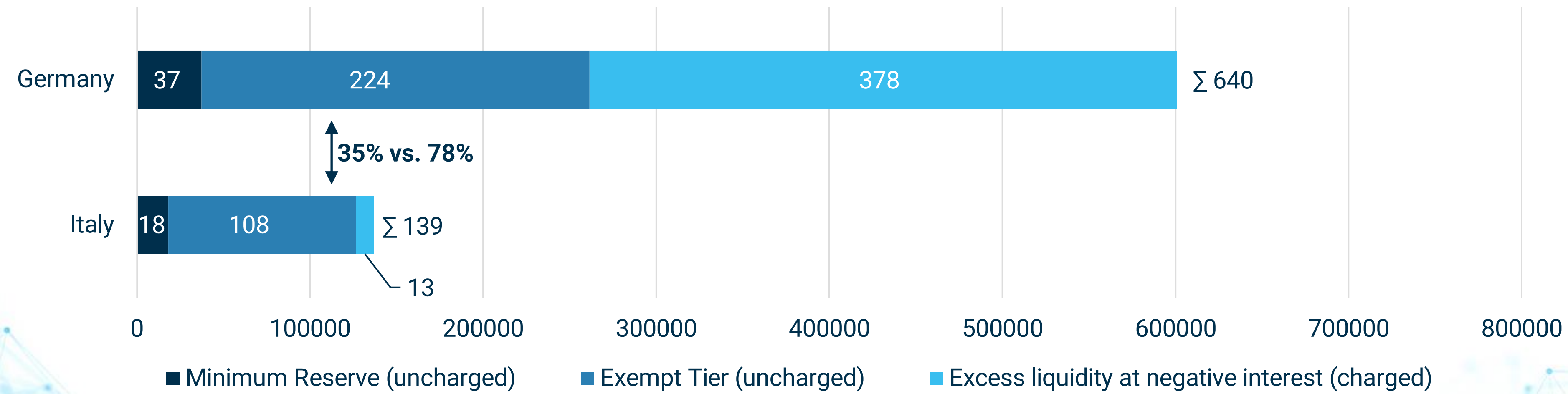
Charged and uncharged Excess Liquidity in EUR billion*



*) as of November 2019
Source: ECB, National Central Banks, Deposit Solutions

How does the banks‘ burden vary, if the ECB changes interest rates or exempt tier?

Negative rate charge sensitivies in the eurozone in EUR billion per annum *

Rate/ Multiplier	-0.20%	-0.30%	-0.40%	-0.50%	-0.60%	-0.70%	-0.80%
3	-2.3	-4.2	-5.6	-7.0	-8.4	-9.8	-11.2
4	-2.6	-3.8	-5.1	-6.4	-7.7	-8.9	-10.2
5	-2.3	-.34	-4.6	-5.7	-6.9	-8.0	-9.2
6	-2.0	-3.1	-4.1	Current regulation -5.1	-6.1	-7.2	-8.2
7	-1.8	-2.8	-3.7	-4.6	-5.5	-6.4	-7.3
8	-1.6	-2.5	-3.3	-4.1	-4.9	-5.8	-6.6
9	-1.5	-2.2	-2.9	-3.7	-4.9	-5.1	-5.8

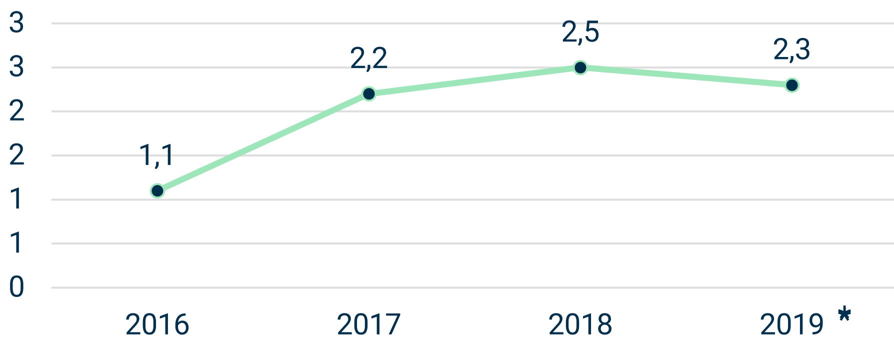
*) based on November 2019 run rate
Source: ECB, National Central Banks, Deposit Solutions

Market spotlights

Germany: charges reach a total of over EUR 8 billion

German banks pay 33% of the ECB's negative interest rate charges. In total, German banks have paid over EUR 8 billion to the ECB on their excess liquidity. German banks pay the highest negative interest rate charges among all members of the eurozone. The charges they paid in 2019 correspond to 12% of their pre-tax profits. The new exempt tier covers 35% of their excess liquidity.

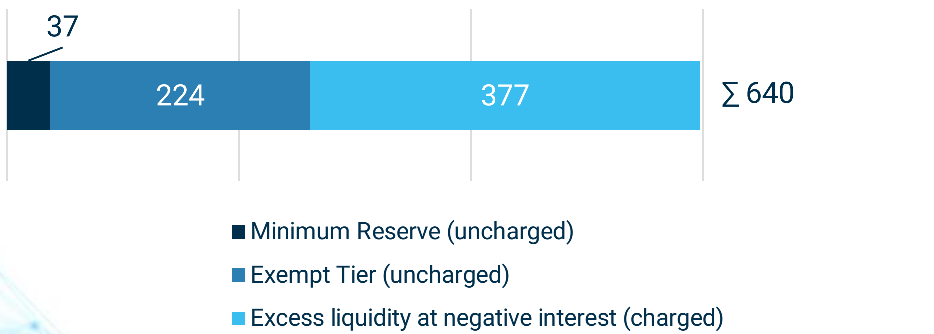
Excess liquidity charges in EUR billion*



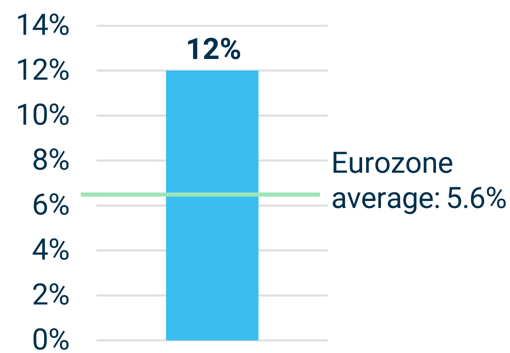
Negative rate charge sensitivities in EUR billion per annum

Rate/ Multiplier	-0.40%	-0.50%	-0.60%
5	-1.7	-2.1	-2.5
6	-1.5	-1.9	-2.3
7	-1.4	-1.7	-2.1

Charged and uncharged excess liquidity in EUR billion**



Charges in relation to pre-tax profits 2018



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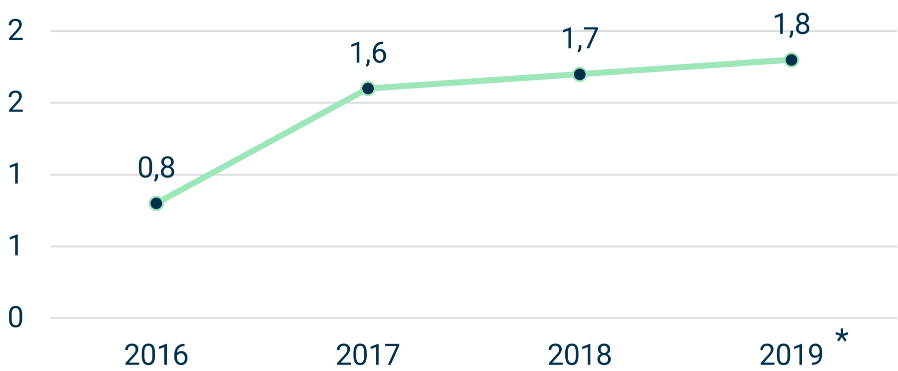
*) assuming unchanged excess liquidity in December 2019 , **) as of November 2019
Source: ECB, National Central Banks, Deposit Solutions

France: second highest negative interest charges in the eurozone

French banks pay 24.7% of the ECB's excess liquidity charges. Since 2016, French banks have paid approximately EUR 6 billion to the ECB in negative interest. Thus, French banks pay the second highest amount of negative interest rate charges among all members of the eurozone. The exempt tier excludes an additional 34% of their excess liquidity from negative interest rates.

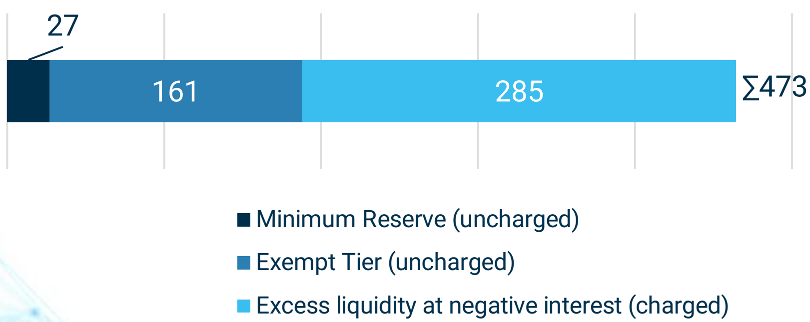
Excess liquidity charges in EUR billion*



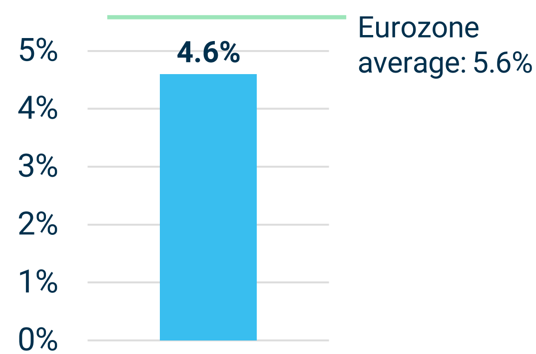
Negative rate charge sensitivities in EUR billion per annum

Rate/ Multiplier	-0.40%	-0.50%	-0.60%
5	-1.2	-1.6	-1.9
6	-1.1	-1.4	-1.7
7	-1.0	-1.3	-1.6

Charged and uncharged excess liquidity in EUR billion**



Charges in relation to pre-tax profits 2018

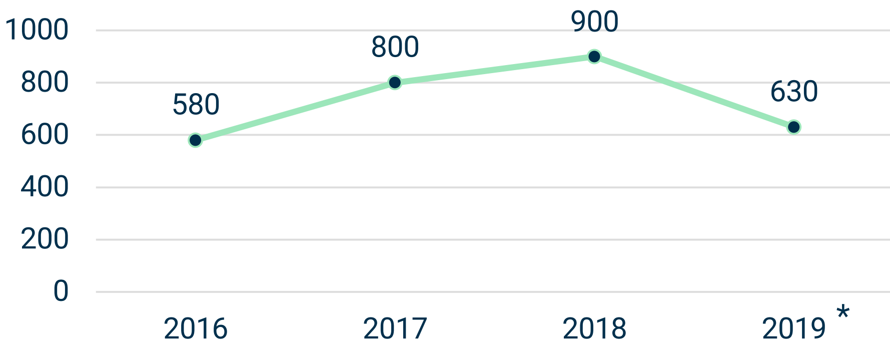


*) assuming unchanged excess liquidity in December 2019 , **) as of November 2019
Source: ECB, National Central Banks, Deposit Solutions

Netherlands: charges decrease for the first time

Dutch banks pay 12.1% of the ECB's negative interest rate charges. Since 2016, Dutch banks have paid EUR 3 billion to the ECB on their excess liquidity. This is the third highest amount in the eurozone behind Germany and France. The charges amount to 3.6% of the pre-tax profits of Dutch banks. The new exempt tier includes 40% of Dutch banks' surplus liquidity.

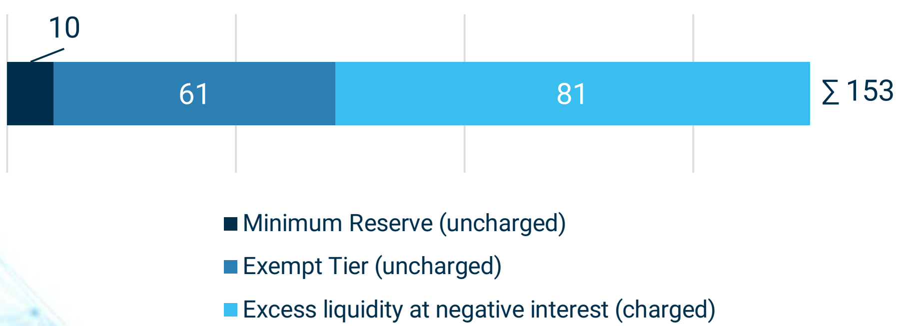
Excess liquidity charges in EUR million*



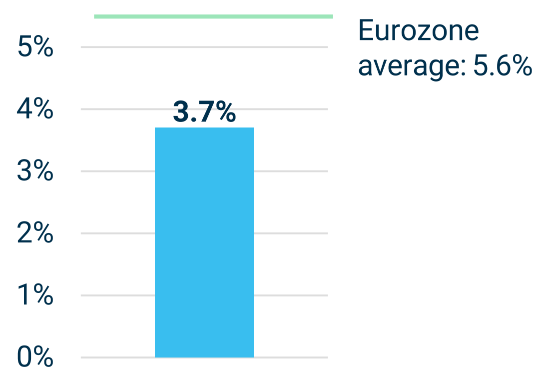
Negative rate charge sensitivities in EUR million per annum

Rate/ Multiplier	-0.40%	-0.50%	-0.60%
5	-370	-460	-550
6	-330	-400	-490
7	-280	-360	-430

Charged and uncharged excess liquidity in EUR billion**



Charges in relation to pre-tax profits 2018

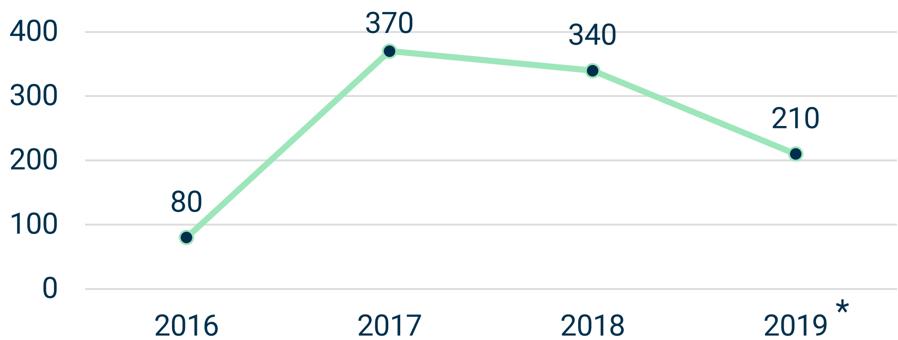


*) assuming unchanged excess liquidity in December 2019 , **) as of November 2019
Source: ECB, National Central Banks, Deposit Solutions

Italy: total charges reach EUR 1 billion

Italian banks pay 4.1% of the eurozone's negative interest to the ECB. Since 2016, Italian banks have paid EUR 1 billionon their excess liquidity. Italy is one of the biggest beneficiaries of the new exempt tier. The new allowance excludes 78% of the surplus liquidity from negative interest rates.

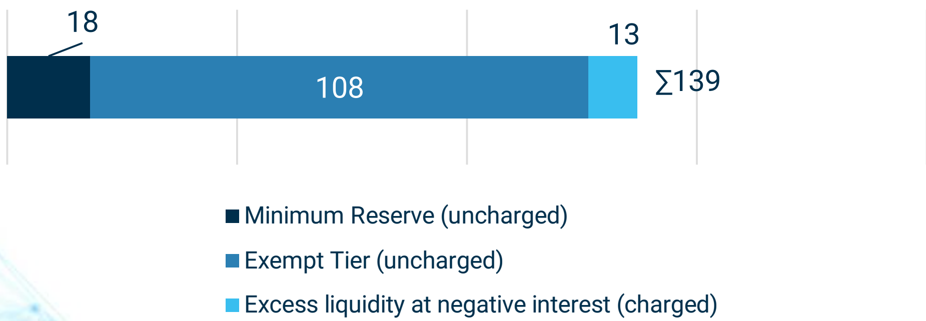
Excess liquidity charges in EUR million*



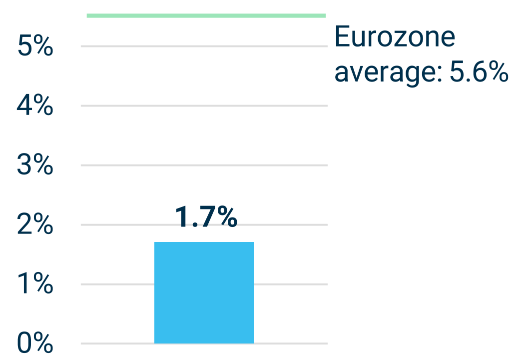
Negative rate charge sensitivities in EUR million per annum

Rate/ Multiplier	-0.40%	-0.50%	-0.60%
5	-120	-150	-180
6	-50	-60	-80
7	0	0	0

Charged and uncharged excess liquidity in EUR billion**



Charges in relation to pre-tax profits 2018

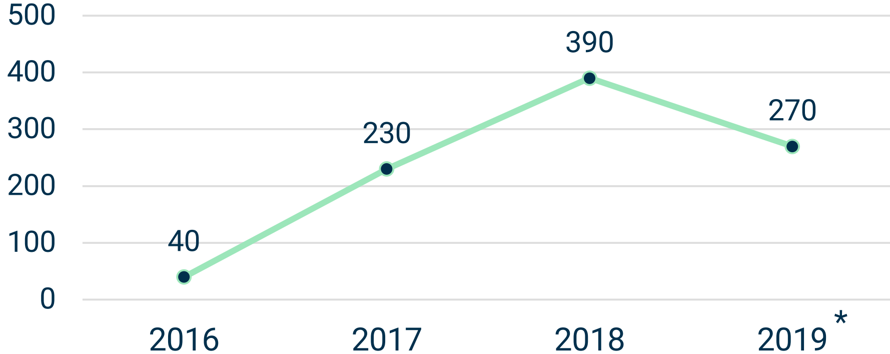


*) assuming unchanged excess liquidity in December 2019 , **) as of November 2019
Source: ECB, National Central Banks, Deposit Solutions

Spain: banks benefit from the ECB's new two-tier system

Spanish banks account for 3.9% of the ECB's negative interest rate charges. Since 2016, Spanish banks have paid EUR 935 million to the ECB on their excess liquidity. Spanish banks particularly benefit from the new ECB regulation. Their excess liquidity is lower than the aggregated allowances.

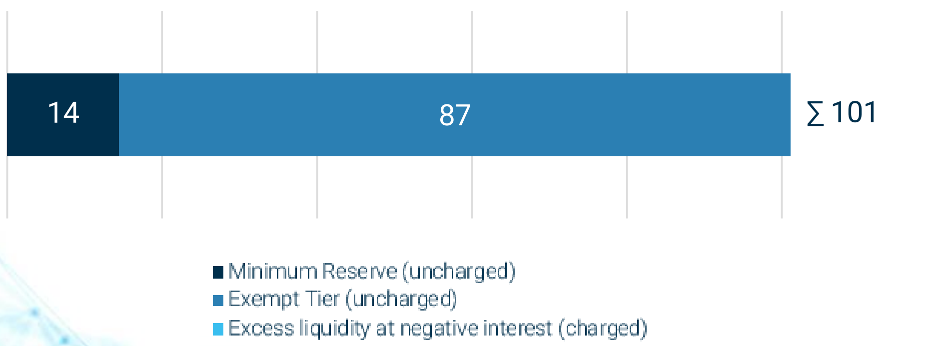
Excess liquidity charges in EUR million*



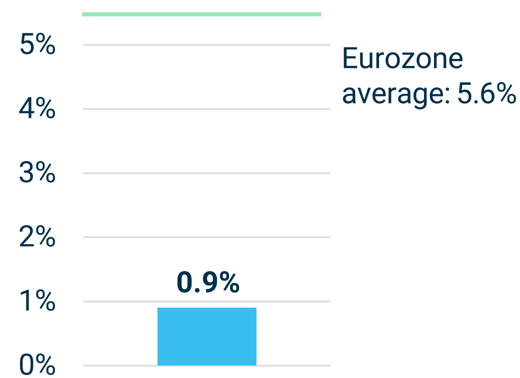
Negative rate charge sensitivities in EUR million per annum

Rate/ Multiplier	-0.40%	-0.50%	-0.60%
5	-50	-70	-80
6	0	0	0
7	0	0	0

Charged and uncharged excess liquidity in EUR billion**



Charges in relation to pre-tax profits 2018



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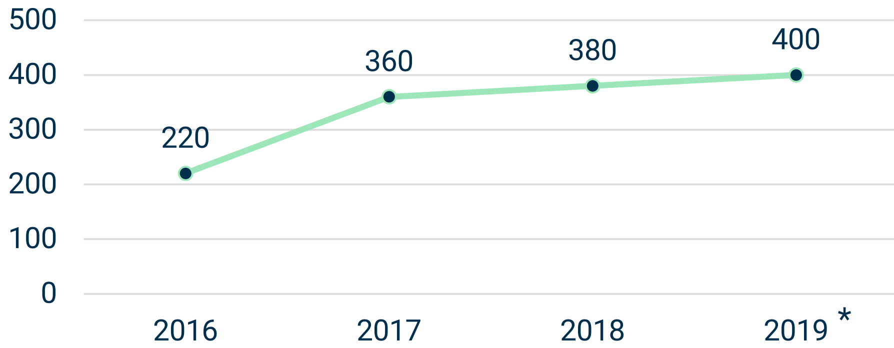
*) assuming unchanged excess liquidity in December 2019 , **) as of November 2019
Source: ECB, National Central Banks, Deposit Solutions

Finland: banks suffer from -0,5% interest rate

Finnish banks pay 5.7% of the ECB's negative interest rate charges. Since 2016, they have paid approximately EUR 1.4 billion on their excess liquidity. The new two-tier system barely helps Finnish banks lower their interest burden, because only 10% of their excess liquidity is being affected by the exempt tier. Therefore, charges remain high.

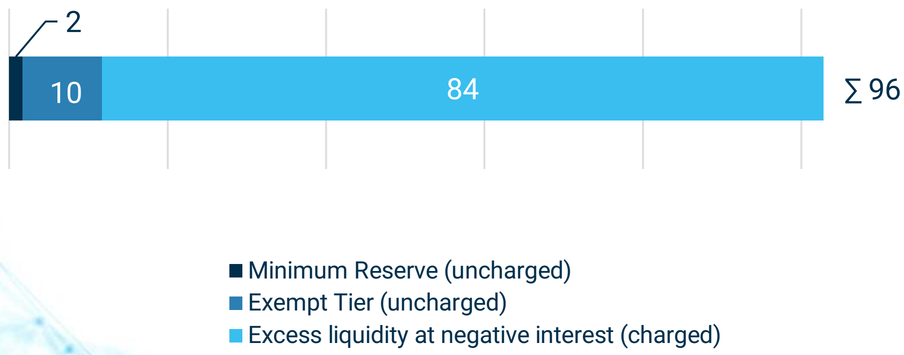
Excess liquidity charges in EUR million*



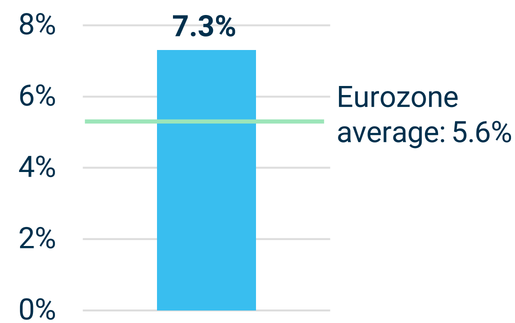
Negative rate charge sensitivities in EUR million per annum

Rate/ Multiplier	-0.40%	-0.50%	-0.60%
5	-340	-430	-515
6	-335	-420	-505
7	-330	-410	-495

Charged and uncharged excess liquidity in EUR billion**



Charges in relation to pre-tax profits 2018

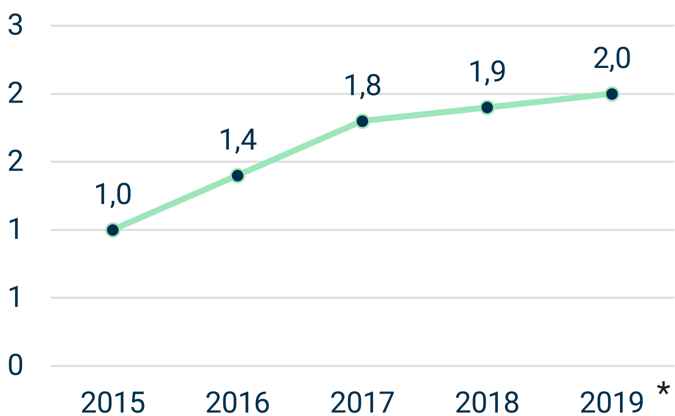


*) assuming unchanged excess liquidity in December 2019 , **) as of November 2019
Source: ECB, National Central Banks, Deposit Solutions

Switzerland: banks significantly relieved by higher allowances

Since 2015, Swiss banks have paid over CHF 8.0 billion in negative interest to the Swiss National Bank. In 2019, interest payments rose to a record level. After the Swiss National Bank increased its exempt tier, Swiss banks are expected to feel significant relief in 2020.

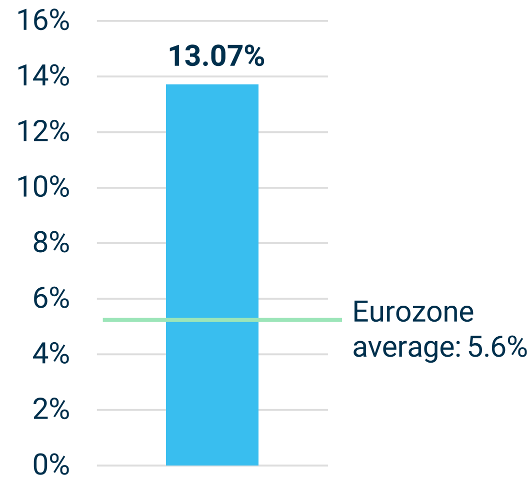
Excess liquidity charges* in CHF billion



Negative rate charge sensitivities in CHF million per annum

Rate/ Multiplier	-0.50%	-0.75%	-1.00%
22.5	-906	-1359	-1811
25.0	-724	-1086	-1448
27.5	-542	-813	-1084

Charges in relation to pre-tax profits 2018



*) November and December 2019 assuming unchanged excess liquidity;
Source: ECB, National Central Banks, Eidgenössische Steuerverwaltung, Deposit Solutions

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Methodology

Methodology

Data collected: excess liquidity volumes, deposit rates, interest on excess liquidity per annum & cumulated, banking profits of the eurozone and Switzerland

Sources: European Central Bank, Deutsche Bundesbank, Swiss National Bank, Swiss Federal Tax Administration

Calculation model: The negative interest burden was calculated on the basis of aggregated central bank data on excess liquidity and minimum reserves as of 31 November 2019. For the calculation of the total burden in 2019, total deposit surpluses are assumed to remain unchanged.

All data has been sourced from publicly accessible databases. Deposit balances with central banks that are not charged to banks were not taken into account.

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