FitchRatings

Canton of Zurich

Key Rating Drivers

Rating Affirmed: The affirmation of the Canton of Zurich's ratings with Stable Outlooks reflects Fitch Ratings' expectation that Zurich's economic liability burden (net adjusted debt (+ pro rata share of central government debt / cantonal GDP)) will remain below 20% in the medium term in our rating-case scenario.

Rating Derivation Summary: Zurich's Long-Term Foreign-Currency Issuer Default Rating (IDR) of 'AAA' is based on the canton's Standalone Credit Profile (SCP) of 'aaa'. The SCP results from a 'Stronger' risk profile and debt sustainability that Fitch assesses as 'aaa' under its rating-case scenario. Zurich's IDR is not capped by Switzerland's sovereign rating (AAA/Stable) and no other rating factors affects the rating.

'Stronger' Risk Profile: Zurich's key risk factors (revenue robustness and adjustability, expenditure sustainability and adjustability, and liability and liquidity robustness and flexibility) are all assessed as 'Stronger', which reflects a limited risk that the canton's cash flow will contract beyond expectations.

Debt Sustainability at 'aaa': In Fitch's rating-case scenario, Zurich's economic liability burden, which is the primary metric for a 'Type A' issuer, will remain in line with the past five-year average of 15.2% and amount to 15.1% in 2025, corresponding to a 'aaa' assessment.

The payback ratio will decline to 10x in 2025 from 6.8x in 2020, corresponding to an 'a' assessment and the debt service coverage (Fitch's synthetic calculation) will decline to 1.3x in 2025 from 2.0x in 2020, corresponding to a 'bbb' assessment. The fiscal debt burden will increase to 29% in 2025 from 23% in 2020, corresponding to a 'aaa' assessment and be well below the trigger of 50%. The primary metrics are driving the debt sustainability and the canton's weak debt service coverage is largely mitigated by its prudent debt management.

Neutral Additional Rating Factors: Zurich's Long-Term IDR is rated on a par with the sovereign, reflecting its SCP of 'aaa'. Its rating does not take into account any other extraordinary support from the central government. No additional risk factors has been identified.

ESG Considerations: The highest ESG score is '3', meaning that ESG issues are credit-neutral. These issues are minimally relevant to the rating due to the mission of the issuer and the institutional framework.

Rating Sensitivities

Downgrade Unlikely: Given the canton's tax dynamics and tax-raising potential, a downgrade is unlikely. However, materialisation of the canton's contingent liabilities, or capital injections into its government-related entities that raise the economic liability burden consistently above 40% and a corresponding weakening of the secondary metrics below current levels, would lead to a negative rating action.

Financial Obligations, Sovereign Action: Significant changes in the canton's tax flexibility or additional financial obligations, in either the intra- or inter-cantonal context, could also be ratings-negative. Negative rating action on Switzerland would also trigger rating action on the canton.

Public Finance
Local and Regional Governments
Switzerland

This report does not constitute a new rating action for this issuer. It provides more detailed credit analysis than the previously published Rating Action Commentary, which can be found on www.fitchratings.com.

Ratings

Foreign Currency	
Long-Term IDR	AAA
Short-Term IDR	F1+
Local Currency	
Long-Term IDR	AAA
Senior unsecured debt – LT rating	AAA
Outlooks	
Long-Term Foreign-Currency IDR	Stable
Long-Term Local-Currency IDR	Stable

Issuer Profile

The Canton of Zurich is in northeast Switzerland and has 1.54 million inhabitants. It has, by far, the largest economy in the country and its wealth level is well above the Swiss average.

Financial Data

Canton of Zurich

(CHFm)	2020	2025rc
Economic liability burden (%)	14.9	15.1
Payback (x)	6.8	10.0
Synthetic coverage (x)[a]	2.0	1.3
Actual coverage (x)	3.4	1.0
Fiscal debt burden (%)	23.0	29.0
Net adjusted debt	3,697	5,211
Operating balance	543	520
Operating revenue	16,099	17,967
Debt service	823	499
Mortgage-style debt annuity[a]	268	359

rc: Fitch's rating-case scenario
[a] Fitch's calculation (see *Appendix C*)
Source: Fitch Ratings, Canton of Zurich

Applicable Criteria

International Local and Regional Governments Rating Criteria (October 2020)

Related Research

Fitch Affirms Canton of Zurich at 'AAA'; Outlook Stable (July 2021)

Switzerland (June 2021)

Analysts

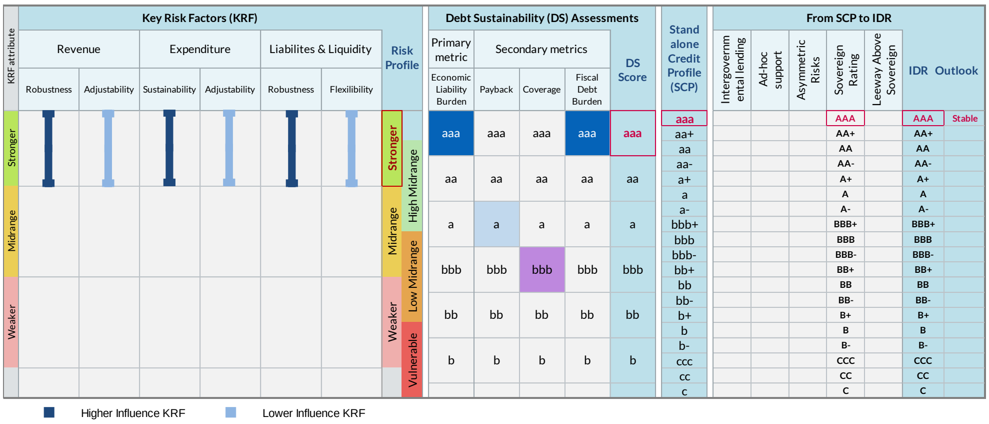
Guido Bach
+49 69 768076 111
guido.bach@fitchratings.com

Nilay Akyildiz
+49 69 768076 134
nilay.akyildiz@fitchratings.com

Rating Synopsis

Rating Building Blocks Overview

Canton of Zurich Rating Derivation Summary



Issuer Profile

Zurich is one of Switzerland's 26 cantons, in the north-east of the country, bordering Germany. The canton has an increasing population of about 1.554 million inhabitants at end-2020. The canton's capital is the city of Zurich (420,217 inhabitants) and the city's greater urban area accounts for 1 million inhabitants.

Wealthy and Dynamic Economy

The economy of Zurich is by far the strongest of all the Swiss regions, and probably is the most diversified and dynamic. However, it is also volatile because it is closely linked to the economic cycle and the performance of the financial and insurance sectors. The canton is one of the wealthiest in Switzerland, and its GDP accounted for about 22% of national GDP in 2018 (most recent data). Its GDP per capita of CHF102,032 in 2018 ranked Zurich fourth among the 26 cantons and was 22% above the average for Switzerland (CHF83,812), which has one of the highest GDP levels per capita in Europe. Zurich's GDP is relatively volatile and it grew by 5.2% in nominal terms in 2018 (Switzerland: 3.7%, latest data). Fitch estimates that national GDP should grow by 3.1% in real terms in 2022 and 2023.

Demographics and Employment

Zurich's population is growing sustainably, driven by net migration mainly of foreigners, who account for 30% of the canton's population. Given its wealthy and above-average economic profile, Zurich is attractive to foreigners, and there is high demand for well-qualified jobseekers from abroad. The employment market is healthy, and the unemployment rate was low at 3.1% in May 2021, in line with that of Switzerland.

Risk Profile: Stronger

Fitch assesses Zurich's risk profile at 'Stronger'. This reflects a 'Stronger' assessment of all six sub-factors listed below.

Canton of Zurich – Risk Profile Assessment

Risk profile	Revenue robustness	Revenue adjustability	Expenditure sustainability	Expenditure adjustability	Liabilities & liquidity robustness	Liabilities & liquidity flexibility
Stronger	Stronger	Stronger	Stronger	Stronger	Stronger	Stronger

Source: Fitch Ratings

Rating History

Date	Long-Term Foreign-Currency IDR	Long-Term Local-Currency IDR
21 Nov 05	AAA	AAA

Source: Fitch Ratings

Canton of Zurich

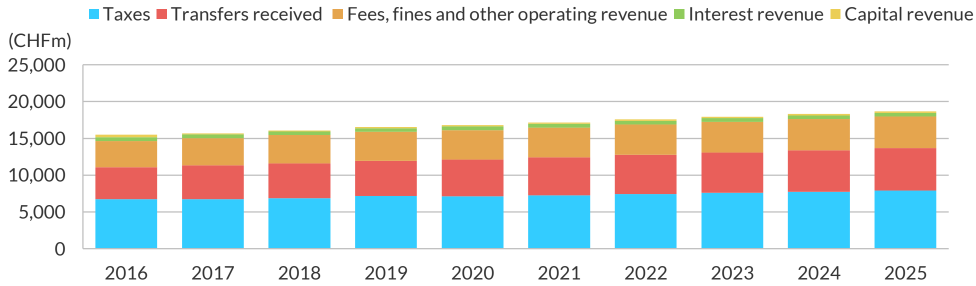
Source: Fitch Ratings

Socioeconomic Indicators

	Zurich	Switzerland
Population (m)	1.554	8.586
(2015-2020) average annual population growth (%)	1.0	0.7
GDP per capita, 2018 (CHF)	102,032	83,812
Unemployment rate, May 2021 (%)	3.1	3.1

Source: Fitch Ratings, Bundesamt fuer Statistik, Schweiz, Staatssekretariat fuer Wirtschaft SECO

Revenue Structure



Source: Fitch Ratings, Canton of Zurich

Revenue Breakdown, 2020

	Operating revenue (%)	Total revenue (%)
PIT	32.7	
CIT	7.6	
Other tax items	3.9	
Transfers received	31.1	
Fees, fines and other operating revenue	24.7	
Operating revenue	**100.0**	**95.7**
Financial revenue		**3.2**
Capital revenue		**1.1**

Source: Fitch Ratings, Canton of Zurich

Revenue Robustness: Stronger

Fitch assesses Zurich's revenue robustness as 'Stronger' in view of the canton's stable revenue sources with revenue growth prospects in line with national GDP growth. Tax revenue accounts for 44% of Zurich's operating revenue (in 2020), being based on moderately cyclical economic activities. Personal income tax (PIT), the largest single tax item, accounted for 74.1% of the canton's tax revenue.

The other two main sources of the canton's operating revenue are transfers (31% of operating revenue) and fees, fines and other operating revenue (25%).

We assume all of the canton's operating revenue to be moderately cyclical in nature, as proceeds from PIT do not necessarily change in line with the economic cycle, and transfers and fees have not been very volatile in the past.

Zurich's operating revenue growth was consistently in line with the nominal and deflated GDP growth of Switzerland. Zurich is the main contributor to Switzerland's GDP and has wealth levels that are well above average. The GDP base of the canton is largely driven by the services, banking and financial sectors, insurance and real-estate services. Operating revenue was stable even in times of financial crisis when the banks located in the canton faced losses, because taxes are largely driven by PIT.

Zurich can rely on a stable tax base, consisting of PIT and corporate income tax (CIT), transfers and fees. Both tax items have shown little volatility and have grown consistently. Charges and fees as well as transfers received also are stable, in line with cantonal GDP growth.

Revenue Adjustability: Stronger

We assess Zurich's ability to generate additional revenue in response to a possible economic downturn as 'Stronger', supported by a record of revenue growth, even in times of lower GDP growth.

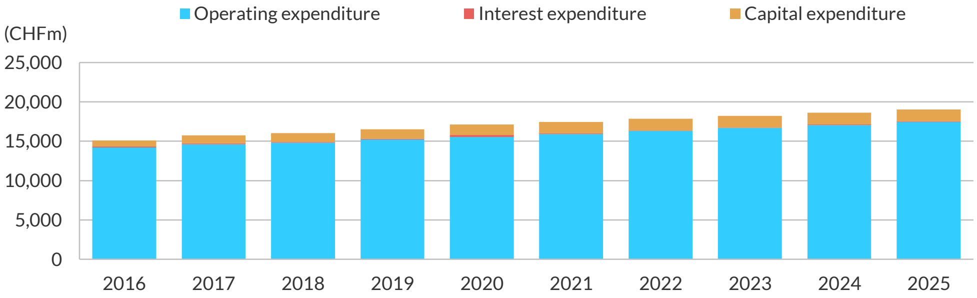
Cantons in Switzerland have a high degree of fiscal autonomy and are independent from the central government. Cantons have some leeway in adjusting tax rates on PIT and CIT. The IDRs of Zurich reflect headroom for tax increases as its PIT rate is below the national average. However, we do not expect the canton to use this headroom unless to avoid a default.

Using the canton's discretionary tax leeway on the highest rates applying in Switzerland under the PIT, the additional revenue increase would cover 200% of a reasonably expected decline in revenue.

During the Covid-19 pandemic in 2020 the canton's tax revenue declined by 1.1%, driven by CIT losses (conversely, PIT increased). The drop in CIT amounted to CHF300 million or 20% yoy. In terms of the tax burden, Zurich is below the average and ranks 9th out of 26 cantons in 2019. Based on public data available, Zurich generated CHF61,114 million of taxable income in 2019 and PIT on this amounted to CHF3,447 million. This would correspond to an average tax rate of 5.64%. To calculate a rough estimate of the canton's PIT tax leeway, we increase the latter tax rate by 1% to 6.64%. This would have generated PIT proceeds of CHF4,058 million and would have already covered twice the loss the canton faced on its CIT decline in 2020.

Moreover, Zurich would not even have approached the maximum rate applicable in Switzerland[1].

Expenditure Structure



Source: Fitch Ratings, Canton of Zurich

Expenditure Sustainability: Stronger

Zurich has a record and good prospects of tight control over total expenditure growth. A large part of the canton's main responsibilities is non-cyclical, such as education, healthcare, public safety and public transport.

Zurich's operating expenditure (opex) growth has generally been in line with that of operating revenue, resulting in an operating surplus. Zurich has effective budget rules and commits itself to a medium-term balanced budget over a period of eight years. This is subject to review and, if the medium-term surplus is not met, the cantonal government can call on all departments to review their opex and recommend savings.

Zurich also has a good record of adjusting capex when necessary. The canton usually underspends (2020: by 7%). We assume Zurich will cut capex in response to a revenue decline and the canton has shown it is well able to cut back heavily.

Expenditure Adjustability: Stronger

Fitch assesses the canton's ability to reduce spending in response to shrinking revenue as 'Stronger'. This is due to effective balanced-budget rules. Despite the canton's tax leeway, Zurich would first adjust operating spending to cope with a revenue decline. The canton has a strong record of cutting back spending to achieve a medium-term balanced budget. The canton also has some leeway for smaller adjustments to cope with cyclical revenue swings. For instance, in 2020, Zurich underspent its materials budget by 6.5%. Further, based on financial data for 2016-2020, capex realised has on average been 11% below budget, which reflects the canton's fiscal flexibility.

Liabilities & Liquidity Robustness: Stronger

Zurich has a prudent debt management policy and has proven access to the capital markets. Its debt is mostly bonds with bullet repayment and none of its annual debt repayments exceeded 20% of its outstanding debt at end-2020. Further, the canton is not exposed to floating rates and has no foreign-currency debt.

Zurich has a strong record of liquidity and its liquidity ratio covered debt servicing by at least 1x in the past decade. Zurich has high working-capital needs at the beginning of each budgetary year and therefore increases its short-term debt (to 23% of its total debt at end-2020), which usually declines to zero during the year.

The canton is exposed to contingent liabilities, which Fitch views to be of moderate risk. The largest single contingent liability stems from the guarantee Zurich provided to its fully owned cantonal bank, Zuercher Kantonalbank (ZKB; AAA/Stable). This incorporates the bank's liabilities of CHF36.3 billion at end-2020, but we assume the canton would support the bank

Expenditure Breakdown, 2020

	Opex (%)	Total expenditure (%)
Personnel costs	36.4	
Goods & services	20.5	
Current transfers made	43.1	
Other	0.0	
Operating expenditure	**100.0**	**91.7**
Financial charges		**0.4**
Capital expenditure		**7.9**

Source: Fitch Ratings, Canton of Zurich

Debt Analysis

	End-2020
Fixed rate (% of adjusted debt)	100
Short-term debt (% of adjusted debt)	29.9
Apparent cost of debt (%)	1.1
Average maturity (year)	7.9
Debt service (CHFm)	823
Operating balance (CHFm)	543

Source: Fitch Ratings, Canton of Zurich

Liquidity

(CHFm)	End-2020
Available cash	1,450
Unrestricted cash[a]	0.0
Undrawn committed credit lines	500

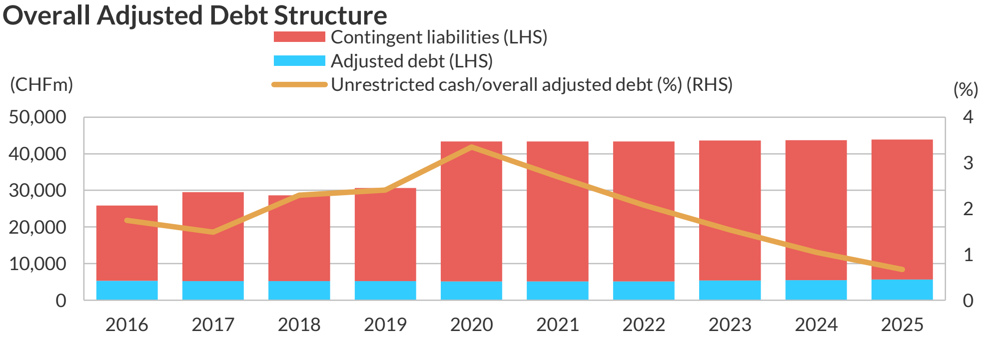
[a] Fitch's calculation (see *Appendix C*)
Source: Fitch Ratings, Canton of Zurich

[1] Using elderly married couples with two children and an income of CHF100,000 as a sample, the average tax rates for this group vary between 3.74% and 4.88% (depending on the city of residence) in the canton of Zurich and between 1.66% and 10.49% in Switzerland as a whole.

through capital measures to prevent a default. Furthermore, the bank is supervised by the canton and its business profile is of limited risk.

In addition to ZKB, the canton had CHF1.7 billion of contingent liabilities at end-2020, with the bulk of it being commitments to its employees. The canton also has a 100% share in two entities, with a moderate CHF219 million of liabilities at end-2020, which are of low risk.

Overall Adjusted Debt Structure



Source: Fitch Ratings, Canton of Zurich

Liabilities & Liquidity Flexibility: Stronger

We assess the canton's liabilities and liquidity flexibility as 'Stronger'. This is based on its well-established access to funding in capital markets, and it being a frequent bond issuer in the domestic market. Zurich is not largely focused on international placements, as its demand is fully satisfied in the domestic market and its most recent funding even was placed at negative rates. Zurich has further sufficient liquidity usually covering its annual debt repayment needs and has a committed credit line with ZKB. In a severe financial distress, which we deem to be very unlikely considering the canton's credit strength, we assume the central government will provide emergency liquidity.

Debt Sustainability of 'aaa'

Debt Sustainability Metrics Summary

	Primary metric	Secondary metrics		
	Economic liability burden (%)	Payback ratio (x)	Coverage (x)	Fiscal debt burden (%)
aaa	**X ≤ 40**	X ≤ 5	X >= 4	**X ≤ 50**
aa	40 < X ≤ 70	5 < X ≤ 9	2 ≤ X < 4	50 < X ≤ 100
a	70 < X ≤ 100	**9 < X ≤ 13**	1.5 ≤ X < 2	100 < X ≤ 150
bbb	100 < X ≤ 140	13 < X ≤ 18	**1.2 ≤ X < 1.5**	150 < X ≤ 200
bb	140 < X ≤ 180	18 < X ≤ 25	1 ≤ X < 1.2	200 < X ≤ 250
b	X >180	X > 25	X < 1	X >250

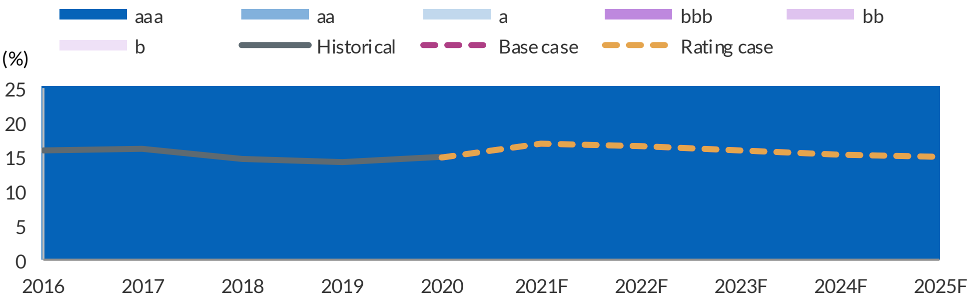
Note: Yellow highlights show metric ranges applicable to the issuer
Source: Fitch Ratings

Fitch views Swiss cantons as a 'Type A' local and regional government (LRG) under its criteria, given that their main spending responsibilities cover health, education and social spending, with a material share of general government expenditure and debt, and fiscal imbalances. As such, their primary debt sustainability metric is the economic liability burden, which is strongly correlated to central government debt.

In Fitch's rating case, Zurich's economic liability burden will increase slightly to 15.1% in 2025, corresponding to a 'aaa' assessment, from 14.9% in 2020. This is based on an assumed nominal GDP growth being in line with expected debt growth of the canton and central government in 2021-2025. We expect debt payback to increase to 10x in 2025 from 6.8x in 2020, the synthetic debt service coverage ratio (DSCR) to decline to 1.3x from 2x and the fiscal debt burden to increase to 29% from 23%.

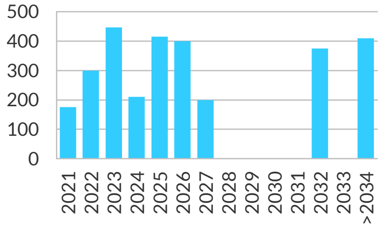
Our rating case expects debt to increase to almost CHF5.7 billion by 2025 from CHF5.2 billion in 2020, assuming an operating balance consistently below the most recent five-year average and large annual investments of CHF1.5 billion during the same period. This would lead to a slight increase in the canton's economic liability burden.

Economic Liability Burden - Fitch's Base- and Rating-Case Scenarios



Source: Fitch Ratings, Canton of Zurich

Debt Amortisation Schedule 2021-2034 – Capital Repayments



Source: Fitch Ratings, Canton of Zurich

Debt Sustainability Ratios:

- **Economic liability burden**: (Net adjusted debt + pro rate share of the central government's debt)/cantonal GDP
- **Payback:** Net adjusted debt/operating balance (x)
- **Fiscal debt burden:** Net adjusted debt/operating revenue (%)
- **Synthetic debt service coverage ratio (DSCR):** operating balance/mortgage style debt annuity; Fitch's synthetic calculation (x; see *Appendix C*)

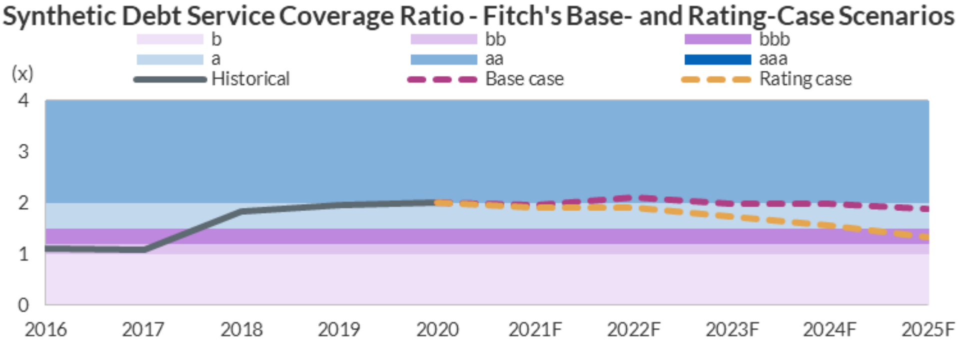
Debt Sustainability Ratios – Fitch's Rating-Case Scenario

	2020	2025rc
Economic liability burden (%)	14.9	15.1
Payback Ratio (x)	6.8	10.0
Synthetic coverage (x)	2.0	1.3
Fiscal debt burden (%)	23.0	29.0

rc: Fitch's rating case
Source: Fitch Ratings, Canton of Zurich

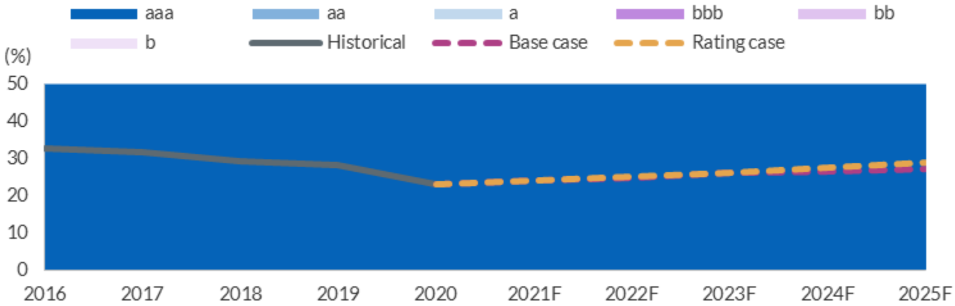
Fitch's Rating-Case Scenario:
The rating case is a through-the-cycle scenario that incorporates a combination of revenue, cost or financial risk stresses.

Synthetic Debt Service Coverage Ratio - Fitch's Base- and Rating-Case Scenarios



Source: Fitch Ratings, Canton of Zurich

Fiscal Debt Burden - Fitch's Base- and Rating-Case Scenarios



Source: Fitch Ratings, Canton of Zurich

Fitch's rating-case scenario ends in 2025 and is based on conservative assumptions as reflected in the table below.

Fitch's Base and Rating Cases - Main Assumptions

		2021-2025 CAGR	
	2016-2020	Base case	Rating case
National nominal GDP growth (Fitch's assumptions)[a]	0.7	3.0	-
Operating revenue growth (%)	2.6	2.3	2.2
Tax revenue and transfers received growth (%)	2.5	2.6	2.5[b]
Charges and fees growth (%)	2.9	1.5	1.5
Operating expenditure growth (%)	2.3	2.2	2.3[c]
Apparent cost of debt (%)	1.8	1.3	1.3
Net capital expenditure (average per year; CHFm)	1,087	1,500	1,500

[a] Base case is based on Fitch's sovereign assumptions. Rating case is a stressed assumption used for Zurich's rating-case scenario
[b] Additional stress of -0.3pp for tax revenue
[c] Additional stress of 0.1pp for opex
Source: Fitch Ratings

Sound Operating Performance and Improving Debt Ratios

Zurich's operating performance has been sound despite the pandemic; tax declined by CHF80 million or by 1.1%, and it faced an increase of operating spending of 2.3%. The decline in its operating margin to 3.4% 2020 from 4.2% in 2019 was limited by extraordinary revenue from the share of profit paid by the Swiss National Bank and a EUR100 million jubilee dividend of ZKB. The canton records these proceeds as concessions, while Fitch accounts these to the operating revenue of the canton. In our rating-case scenario, we expect Zurich's operating balance to remain around its 2020 result of CHF543 million, mainly driven by conservative assumptions but also limited growth of opex below operating revenues. This will correspond to a margin of between 3.5% in 2022 and 2.9% in 2025 but will remain sufficient to cover debt service requirements in 2021-2025. Our rating-case assumptions on the canton's capex plans are above the canton's own medium-term planning level. This is because the canton faces substantial demands to maintain and develop infrastructure to cope with the increasing population.

At end-2020, Zurich's total direct risk was CHF5,147 million (2019: CHF5,252 million) and we assume its debt will increase to CHF5,685 million in 2025, driven by our capex assumptions. The scheduled 10% increase in the canton's debt will not result in weaker debt ratios. The canton's IDRs are driven by its 'Stronger' risk profile and its 'aaa' debt sustainability offering large leeway. Its economic liability burden was 14.9% in 2020; our rating case expects a slight increase to 15.1% in 2025. Both are well below the trigger of 40%, which would then correspond to a debt sustainability assessment in the 'aa' category.

Other Rating Factors

Zurich's final IDR is driven by the canton's SCP that Fitch assesses as 'aaa'. No other rating factor affects the final rating.

From SCP to IDR: Factors Beyond the SCP

	Cap				
SCP	Sovereign rating	Rating cap	Support	Asymmetric risks	IDR
aaa	AAA	-	-	-	AAA

Source: Fitch Ratings

Peer Analysis

Canton of Zurich and International Peers

LRGs	Risk profile	Primary metric (x)	SCP	IDR	Outlook
Canton of Zurich	Stronger	15.1	aaa	AAA	Stable
State of Hamburg	Stronger	47.6	aaa	AAA	Stable
State of Berlin	Stronger	70.2	aa	AAA	Stable
State of North Rhine-Westphalia	Stronger	56.7	aa+	AAA	Stable
State of Lower Saxony	Stronger	55.1	aa+	AAA	Stable
State of Schleswig-Holstein	Stronger	66.0	aa	AAA	Stable

Source: Fitch Ratings

ESG Considerations

Unless otherwise disclosed in this section, the highest level of ESG credit relevance is a score of '3' – ESG issues are credit neutral or have only a minimal credit impact on the entity, either due to their nature or the way in which they are being managed by the entity.

For more information on our ESG Relevance Scores, visit https://www.fitchratings.com/site/esg.

Appendix A

Canton of Zurich

(CHFm)	2017	2018	2019	2020	2021rc	2025rc
Taxes	6,744	6,851	7,187	7,108	7,250	7,894
Transfers received	4,591	4,742	4,758	4,999	5,164	5,772
Fees, fines and other operating revenues	3,692	3,867	3,939	3,992	4,052	4,301
Operating revenue	**15,027**	**15,460**	**15,884**	**16,099**	**16,466**	**17,967**
Operating expenditure	-14,617	-14,827	-15,210	-15,556	-15,914	-17,447
Operating balance	**409**	**633**	**674**	**543**	**552**	**520**
Interest revenue	528	486	471	532	500	500
Interest expenditure	-118	-87	-88	-73	-57	-85
Current balance	**819**	**1,032**	**1,056**	**841**	**995**	**935**
Capital revenue	145	121	176	190	200	200
Capital expenditure	-1,006	-1,110	-1,213	-1,335	-1,475	-1,500
Capital balance	**-861**	**-989**	**-1,037**	**-1,144**	**-1,275**	**-1,300**
Total revenue	15,700	16,067	16,531	16,821	17,166	18,667
Total expenditure	-15,742	-16,024	-16,512	-16,964	-17,446	-19,030
Surplus (deficit) before net financing	**-42**	**43**	**19**	**-304**	**-280**	**-365**
New direct debt borrowing	275	490	321	645	175	615
Direct debt repayment	-1,200	-207	-251	-750	-175	-415
Net direct debt movement	**-925**	**283**	**70**	**-105**	**0**	**200**
Overall results	**-967**	**326**	**69**	**-409**	**-280**	**-165**
Debt						
Short-term debt	1,450	1,150	1,170	1,185	1,185	1,185
Long-term debt	3,749	4,032	4,082	3,962	3,962	4,500
Intergovernmental debt	0	0	0	0	0	0
Direct debt	**5,199**	**5,182**	**5,252**	**5,147**	**5,147**	**5,685**
Other Fitch-classified debt	0	0	0	0	0	0
Adjusted debt	**5,199**	**5,182**	**5,252**	**5,147**	**5,147**	**5,685**
Guarantees issued (excluding adjusted debt portion)	21,885	21,296	23,250	36,286	36,286	36,286
Majority-owned GRE debt and other contingent liabilities	2,405	2,202	2,101	1,914	1,914	1,914
Overall adjusted debt	**29,489**	**28,680**	**30,603**	**43,347**	**43,347**	**43,885**
Total cash, liquid deposits, and sinking funds	439	659	736	1,450	1,170	474
Restricted cash	0	0	0	0	0	0
Unrestricted cash	439	659	736	1,450	1,170	474
Net adjusted debt	**4,760**	**4,523**	**4,516**	**3,697**	**3,977**	**5,211**
Net overall debt	**29,050**	**28,021**	**29,867**	**41,897**	**42,176**	**43,411**

rc: Fitch's rating case, based on conservative assumptions (see Debt Sustainability assessed at 'aaa'). The last year of the rating case scenario is 2025
Source: Fitch Ratings, Canton of Zurich

Appendix B

Canton of Zurich

	2017	2018	2019	2020	2021rc	2025rc
Fiscal performance ratios						
Operating balance/operating revenue (%)	2.7	4.1	4.2	3.4	3.4	2.9
Current balance/current revenue (%)	5.3	6.5	6.5	5.1	5.9	5.1
Operating revenue growth (annual % change)	2.6	2.9	2.7	1.4	2.3	2.0
Operating expenditure growth (annual % change)	2.8	1.4	2.6	2.3	2.3	2.3
Surplus (deficit) before net financing/total revenue (%)	-0.3	0.3	0.1	-1.8	-1.6	-2.0
Surplus (deficit) before net financing/GDP (%)	0.0	0.0	0.0	-0.2	-0.2	-0.2
Total revenue growth (annual % change)	1.3	2.3	2.9	1.7	2.1	1.9
Total expenditure growth (annual % change)	4.2	1.8	3.0	3.7	1.9	2.2
Debt ratios - type A						
Primary metrics						
Economic liability burden (%)	16.2	14.7	14.2	14.9	16.9	15.1
Enhanced economic liability burden (%)	16.2	14.7	14.2	14.9	16.9	15.1
Secondary metrics						
Payback ratio (x)	11.6	7.1	6.7	6.8	7.2	10.0
Overall payback ratio (x)	71.0	44.3	44.3	77.2	76.4	83.8
Fiscal debt burden (%)	31.7	29.3	28.4	23.0	24.2	29.0
Synthetic debt service coverage ratio (x)	1.1	1.8	2.0	2.0	2.1	1.3
Actual debt service coverage ratio (x)	0.3	2.2	2.0	0.7	3.2	1.3
Other debt ratios						
Liquidity coverage ratio (x)	0.7	3.6	3.9	1.6	11.4	2.4
Direct debt maturing in one year/total direct debt (%)	27.9	22.2	22.3	23.0	23.0	20.8
Direct debt (annual % change)	-1.4	-0.3	1.4	-2.0	0.0	3.6
Apparent cost of direct debt (interest paid/direct debt) (%)	2.3	1.7	1.7	1.1	1.1	1.1
Revenue ratios						
Tax revenue/total revenue (%)	43.0	42.6	43.2	42.3	42.2	42.3
Current transfers received/total revenue (%)	29.2	29.5	28.6	29.7	30.1	30.9
Interest revenue/total revenue (%)	3.4	3.0	2.8	3.2	2.9	2.7
Capital revenue/total revenue (%)	0.9	0.8	1.1	1.1	1.2	1.1
Expenditure ratios						
Staff expenditure/total expenditure (%)	33.4	33.4	33.4	33.0		
Current transfers made/total expenditure (%)	40.2	39.8	39.4	39.2		
Interest expenditure/total expenditure (%)	0.7	0.5	0.5	1.4	0.3	0.4
Capital expenditure/total expenditure (%)	6.4	6.9	7.3	7.8	8.5	7.9

rc: Fitch's rating case, based on conservative assumptions (see Debt Sustainability assessed at 'aaa'). The last year of the rating case scenario is 2025
Source: Fitch Ratings, Canton of Zurich

Appendix C: Data Adjustments

Net Adjusted Debt Calculation

- Fitch's adjusted debt includes Zurich's short-term (CHF1,185 million) and long-term debt (CHF3,962 million). Net adjusted debt corresponds to the difference between adjusted debt and the year-end available cash that Fitch considers 'unrestricted' (CHF1,450 million) at end-2020.

Synthetic Coverage Calculation

- Fitch's synthetic coverage calculation assumes a mortgage-style amortisation over 15 years of the entity's net adjusted debt, using its average cost of debt. This synthetic calculation is used to assess Zurich's debt sustainability.

The ratings above were unsolicited and have been provided by Fitch as a service to investors.