Communal commercial check
Commune of Cham

Location	Commune	Cham (BFS: 1702)
	Location	Cham (FPRE: CH-09-000010)
	Agglomeration BFS	Zug
	Commune type BFS	Urban workplace commune of a medium-sized agglomeration
	Canton	Zug
	MS region	Zug (BFS: 38)
	FPRE region	Zurich
	Spatial type FPRE	Other agglomerations
	Fusions:	-

Topics

1 Workplaces, employees and full-time equivalent
2 Key figures, branch structure and structural change
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6 Segmentation of demand in the retail property market
7 Population
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11 Accessibility and commuting
12 Building zones
13 Perspectives 2035 (Scenario «unchanged urban planning»)

Summary

Macro location text commerce Commune of Cham

According to the FSO, Cham is an «urban workplace commune» and part of the medium-sized agglomeration of Zug with 133'013 inhabitants (2019) and 57'035 households (2019). The commune of Cham itself has 16'893 inhabitants (2019) living in 7'036 households (2019); the average number of persons per household is 2.4. The average migratory balance between 2014 and 2019 is 156 persons. According to Fahrländer Partner (FPRE) & sotomo, in 2018, 38% of the households belonged to the upper social classes (Switzerland: 32.8%), 34.4% of the households to the middle classes (Switzerland: 32%) and 27.7% of the households to the lower social classes (Switzerland: 35.2%). Between 2017 and 2019, the tax burden for families decreased weakly and for single people stayed stable. In 2018, the commune of Cham had 1'876 businesses employing 10'256 persons according to FSO business statistics (STATENT). This corresponds to an increase of 198 businesses and to an increase of 647 employees since 2012. Of the 8'025 full-time equivalent posts 118 (1%) were in the primary sector, 1'857 (23%) in the industrial sector and 6'050 (75%) in the services sector.

The most easily accessible centres from Cham by motorised individual transport are Zug (13 mins), Luzern (18 mins) and Schwyz (21 mins). By public transport the centres within easiest reach are Zug (12 mins), Wohlen (AG) (37 mins) and Luzern (42 mins).

In terms of full-time equivalent posts (FTE), the most important sectors in Cham (according to the FSO business statistics) are «Wholesale trade, except of motor vehicles and motorcycles» (12.9% of the FTE), «Specialised construction activities» (7.5% of the FTE) and «Human health activities» (6.7% of the FTE).

According to the Federal Office for Spatial Development, Cham has a total construction area of 277 hectares with around 23% of that earmarked for commercial use. In 2017 at least 18% (range: 18% - 25%) of this area was undeveloped, corresponding to an available commercial surface of at least 11.7 hectares (range: 11.7 - 16.1 hectares). Thus the proportion of construction zone surface area available for economic activity in Cham is below that of the MS region Zug (at least 25%) and above that of the FPRE region Zürich (at least 17%).

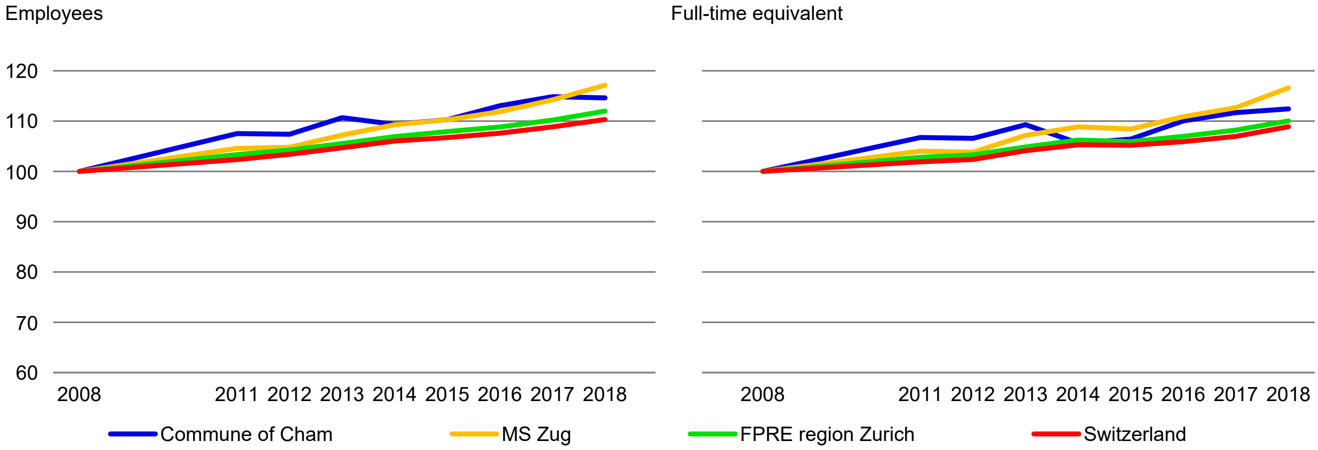
The market rental cost of a typical office space (new build) is 218 CHF/m²a, according to the FPRE hedonic calculation model (data as of 31 December 2020). The typical rental cost of a retail space is 293 CHF/m²a. The FPRE business prospective model calculates that, between 2018 and 2035, in the commune of Cham there will be additional demand for 33'228 m² (+3.6%, 1'955 m² per year) of total floor area in the commercial space sector, assuming the intermediate scenario. The inner value of building land (developed) is, depending on the micro-situation, for a typical office building between 610 - 1'320 CHF/m² and for a typical retail building between 1'445 - 2'630 CHF/m². For a typical commercial building on an average micro-situation, it is between 435 - 535 CHF/m². Since the 1st quarter 2008, market rents for office surfaces decreased by -22.3% in the MS region Zug. Inner values of building land (developed) for office buildings decreased during the same time period by -38.8%.

Labour market key data: Commune of Cham

	2012	2013	2014	2015	2016	2017	2018
Workplaces	1'678	1'705	1'741	1'798	1'850	1'904	1'876
Employees	9'609	9'904	9'784	9'868	10'116	10'277	10'256
Full-time equivalent	7'607	7'800	7'539	7'596	7'855	7'972	8'025

Note: Structural break 2014-2015: A new estimation model for the calculation of the FTE leads to slightly lower FTE figures as of 2015. 2018: provisionally.
Source: BFS, modelling Fahrländer Partner.

Indexed evolution of the labour market



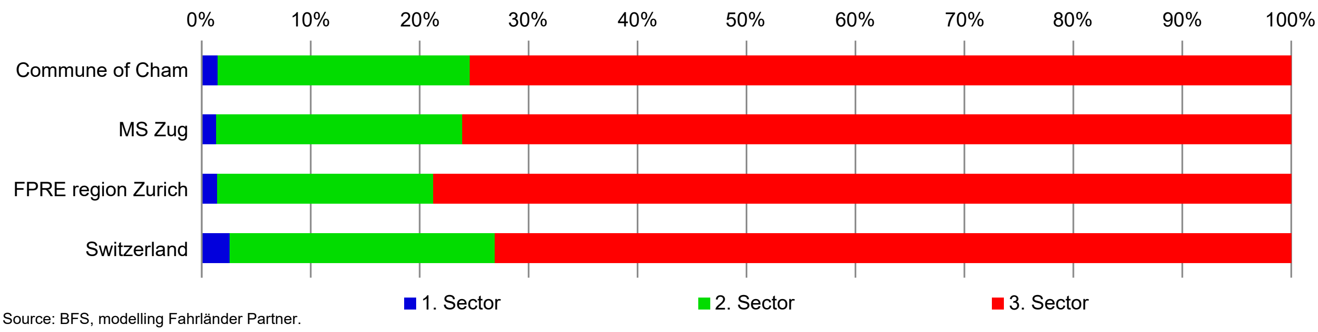
Source: BFS, modelling Fahrländer Partner.

Indicators by sector 2018: Commune of Cham

	1. Sector	2. Sector	3. Sector	Total
Workplaces (WP)	59	215	1'602	1'876
Employees (EMP)	171	2'107	7'978	10'256
Full-time equivalent (FTE)	118	1'857	6'050	8'025
Average company size (FTE/WP)	2.01	8.64	3.78	4.28
Average employment status (FTE/EMP)	69.2%	88.1%	75.8%	78.2%

Source: BFS, modelling Fahrländer Partner.

Full-time equivalent 2018



Source: BFS, modelling Fahrländer Partner.

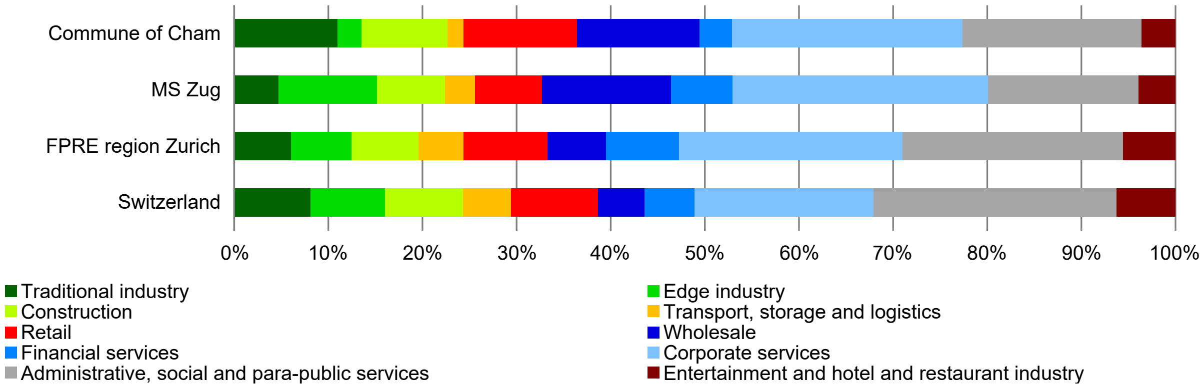
2 Key figures, branch structure and structural change

Key figures economic structure 2018: Commune of Cham

	Commune of Cham	MS region Zug
Variety of branches (Herfindahl index*)	very diverse (4.75)	concentrated (4.46)
Company concentration (Herfindahl index*)	very low (0.53)	very low (0.20)
Business start-ups (2017-2018)	293	3'044
Start-up dynamics (2017-2018)	significantly above average (7.8%)	significantly above average (8.4%)

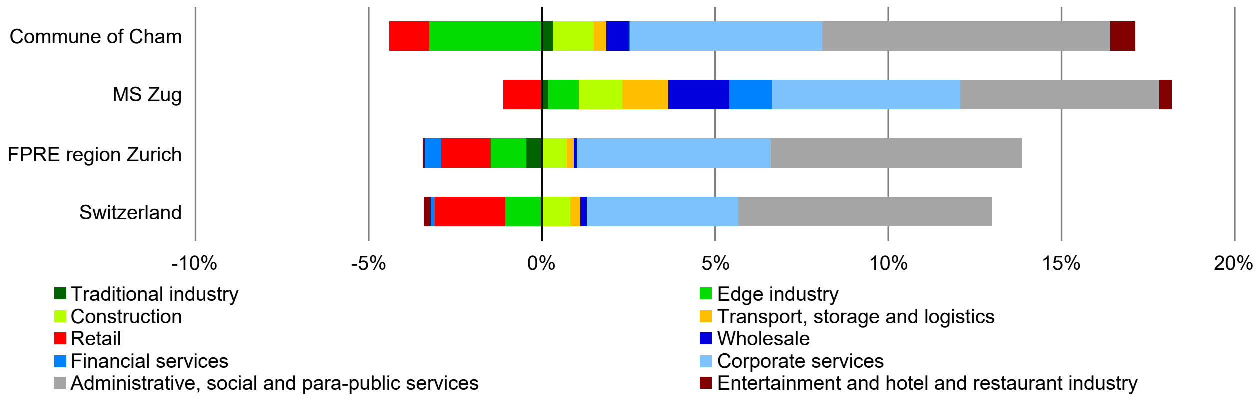
Note: Classification of communes and MS regions. Start-up dynamics: business start-ups as measured by current number.
* Values of the index multiplied by 100.
Source: BFS, modelling Fahrländer Partner.

Branch structure: full-time equivalent by branch group (2018), 2. and 3. sector



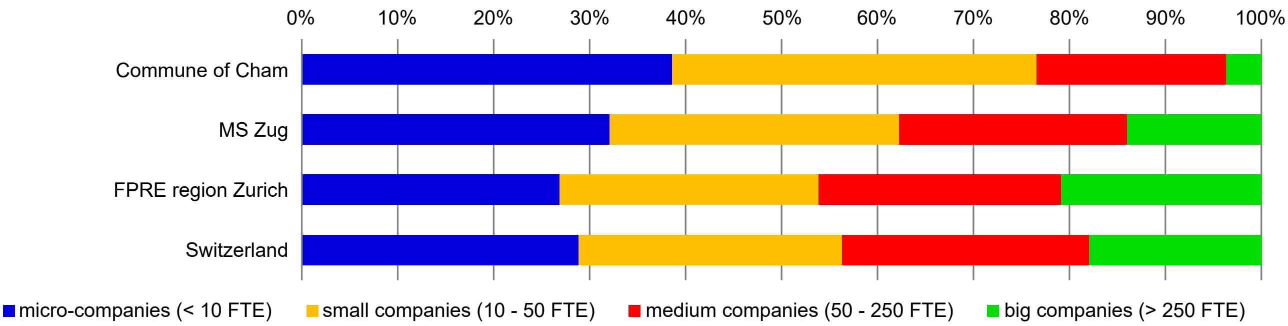
Source: BFS, modelling Fahrländer Partner.

Structural change: growth contribution by branch group (2008-2018), 2. and 3. sector



Note: The sum of all growth contributions corresponds to the employment growth (FTE) of the region.
Source: BFS, modelling Fahrländer Partner.

Company structure: full-time equivalents by company size (2018)



Source: BFS, modelling Fahrländer Partner.

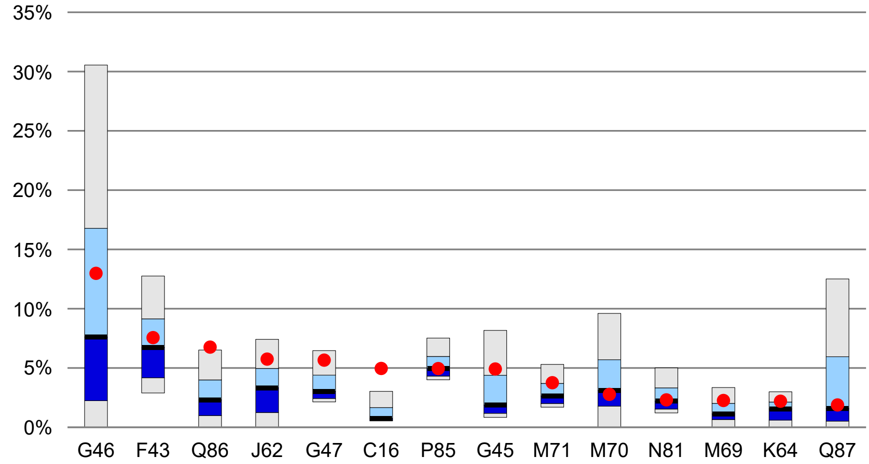
Key branches 2018: Commune of Cham

NOGA 2008		Ø size*	Workplaces		Full-time equivalent	
G46	Wholesale trade, except of motor vehicles and motorcycles	6	177	9.3%	1'031	12.9%
F43	Specialised construction activities	6	94	4.9%	601	7.5%
Q86	Human health activities	3	158	8.3%	537	6.7%
J62	Computer programming, consultancy and related activities	4	129	6.8%	457	5.7%
G47	Retail trade, except of motor vehicles and motorcycles	5	94	4.9%	450	5.6%
C16	Manufacture of wood and of products of wood and cork, except furniture; manufacture of articles of straw and plaiting materials	36	11	0.6%	394	4.9%
P85	Education	5	76	4.0%	393	4.9%
G45	Wholesale and retail trade and repair of motor vehicles and motorcycles	15	26	1.4%	391	4.9%
M71	Architectural and engineering activities; technical testing and analysis	3	95	5.0%	299	3.7%
M70	Activities of head offices; management consultancy activities	2	145	7.6%	220	2.8%
N81	Services to buildings and landscape activities	5	36	1.9%	184	2.3%
M69	Legal and accounting activities	2	89	4.7%	179	2.3%
K64	Financial service activities, except insurance and pension funding	3	50	2.6%	175	2.2%
Q87	Residential care activities	-	**	-	150	1.9%
L68	Real estate activities	2	67	3.5%	141	1.8%
M73	Advertising and market research	5	31	1.6%	140	1.8%
C28	Manufacture of machinery and equipment n.e.c.	19	7	0.4%	131	1.6%
I56	Food and beverage service activities	3	40	2.1%	120	1.5%
S94	Activities of membership organisations	8	15	0.8%	114	1.4%
A1	Crop and animal production, hunting and related service activities	2	57	3.0%	113	1.4%
Listed key branches		-	-	-	6'217	78.0%
Other branches		-	-	-	1'808	22.0%
Total		4	1'876	100.0%	8'025	100.0%

* Average number of full-time equivalent per workplace. ** Not indicated to protect confidentiality.
Source: BFS, modelling Fahrländer Partner.

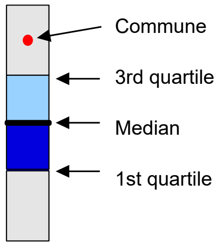
Branch division comparison

Branch division in the agglomeration 2018

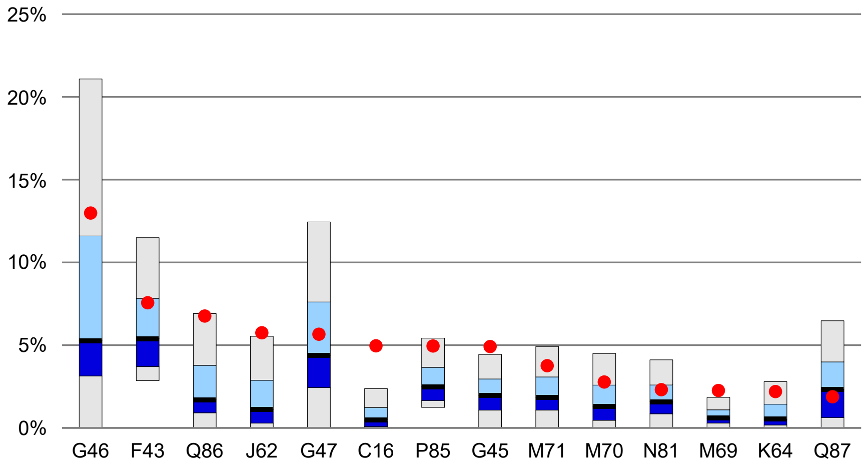


Source: BFS, modelling Fahrländer Partner.

Agglomeration BFS: Zug
(Number of communes: 14)



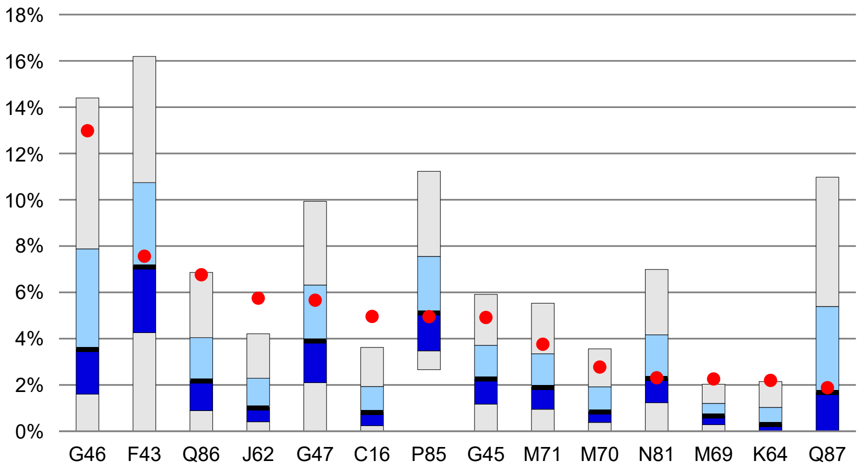
Branch division in the commune type 2018



Source: BFS, modelling Fahrländer Partner.

Commune type BFS: Urban workplace commune of a medium-sized agglomeration
(Number of communes: 62)

Branch division in the FPRE region 2018



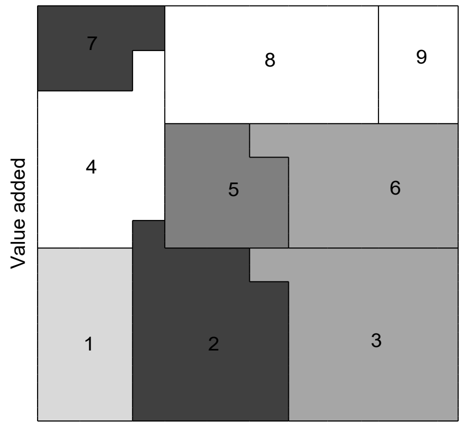
Source: BFS, modelling Fahrländer Partner.

FPRE region: Zurich
(Number of communes: 339)

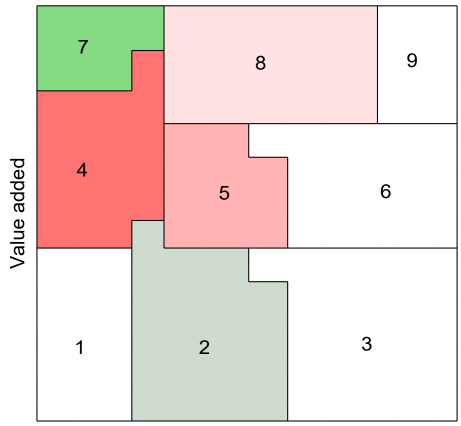
Segmentation of demand 2015	Commune of Cham			MS region	FPRE region	witzerland
	Companies	FTE	Distribution*			
1 Service centres	29	162	5.1%	3.5%	6.1%	5.8%
2 Local service providers	298	739	23.4%	16.9%	15.7%	17.9%
3 Creative thinkers	119	425	13.5%	10.2%	11.0%	12.0%
4 Back offices	1	19	0.6%	9.2%	14.0%	11.4%
5 Public-oriented enterprises	120	618	19.5%	15.3%	22.0%	26.8%
6 Private consultancies	185	471	14.9%	16.7%	15.1%	13.2%
7 Specialised performers	159	655	20.7%	24.2%	10.2%	7.7%
8 Headquarters	1	34	1.1%	1.8%	4.9%	4.4%
9 Exclusive front offices	36	39	1.2%	2.2%	1.0%	0.9%
Total	948	3'162	100.0%	100.0%	100.0%	100.0%

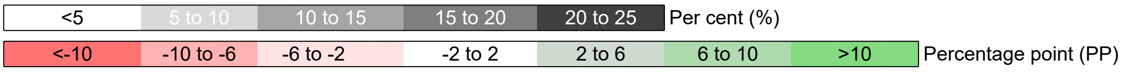
* Percentage distribution of FTE. Note: Further information on the individual demand segments (methodological description/factsheets):
https://en.fpre.ch/marktdaten/nachfragersegmente/nachfragersegmente-im-bueromarkt/
Source: Fahrländer Partner & CSL Immobilien.

Distribution of the segments in the commune of Cham



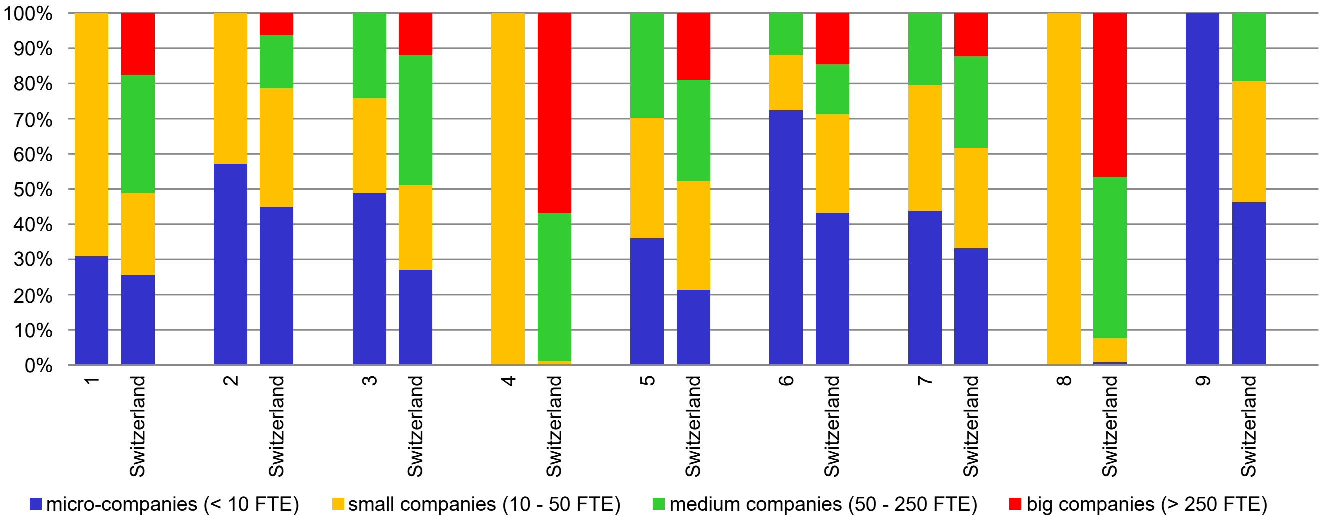
Difference to nationwide percentages





Source: Fahrländer Partner & CSL Immobilien.

Full-time equivalents by company size and segmentation of demand*



* Commune of Cham in comparison to Switzerland.
Source: Fahrländer Partner & CSL Immobilien.

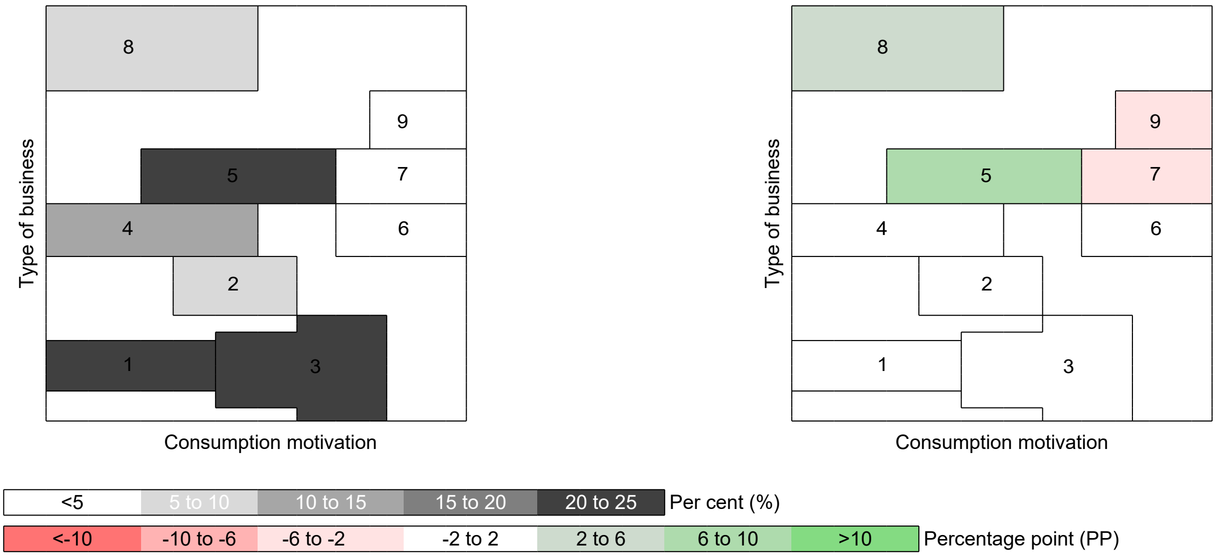
6 Segmentation of demand in the retail property market

Segmentation of demand 2018	Commune of Cham			MS region	FPRE region	Switzerland
	Companies	FTE	Distribution*			
1 Service purveyors	86	116	23.6%	21.7%	24.3%	24.0%
2 Out-of-town shopping	2	26	5.3%	8.3%	6.7%	7.1%
3 Neighbourhood shops	14	104	21.2%	20.1%	21.2%	21.5%
4 Specialist retailers	24	60	12.2%	16.4%	12.6%	12.1%
5 Location generalists	32	107	21.9%	15.6%	11.4%	11.9%
6 Traditional retailers	7	12	2.4%	4.0%	3.9%	4.1%
7 Retail chain stores	6	18	3.6%	8.6%	8.3%	8.5%
8 Retail warehouses	2	48	9.8%	3.7%	7.4%	6.7%
9 Department stores	0	0	0.0%	1.5%	4.2%	4.0%
Total	173	491	100.0%	100.0%	100.0%	100.0%

* Percentage distribution of FTE. Note: Further information on the individual demand segments (methodological description/factsheets): https://en.fpre.ch/marktdaten/nachfragersegmente/nachfragersegmente-im-verkaufsflaechenmarkt/
Source: Fahrländer Partner & CSL Immobilien.

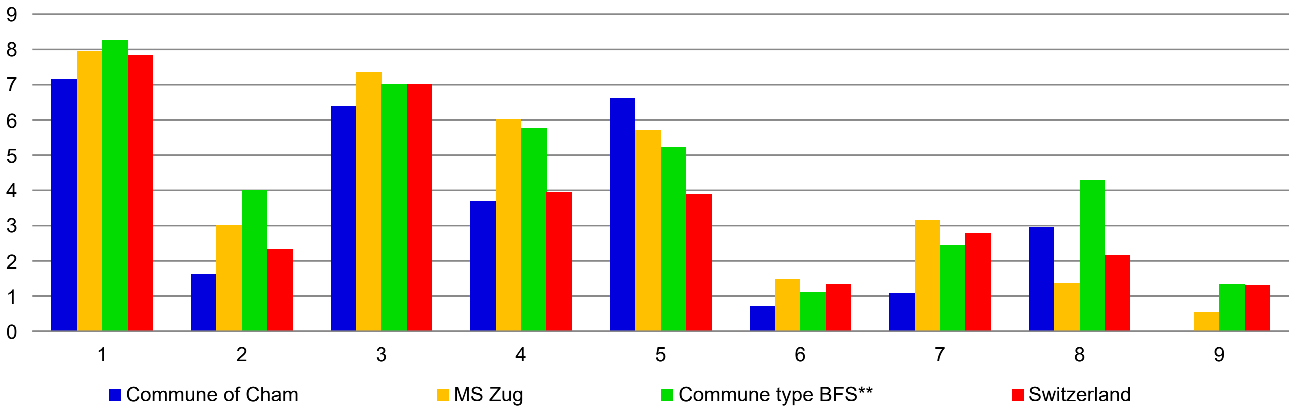
Distribution of the segments in the commune of Cham

Difference to nationwide percentages



Source: Fahrländer Partner & CSL Immobilien.

Density of supply per segment of demand*



* Density of supply = FTE per 1'000 inhabitants.
** Urban workplace commune of a medium-sized agglomeration.
Source: Fahrländer Partner & CSL Immobilien.

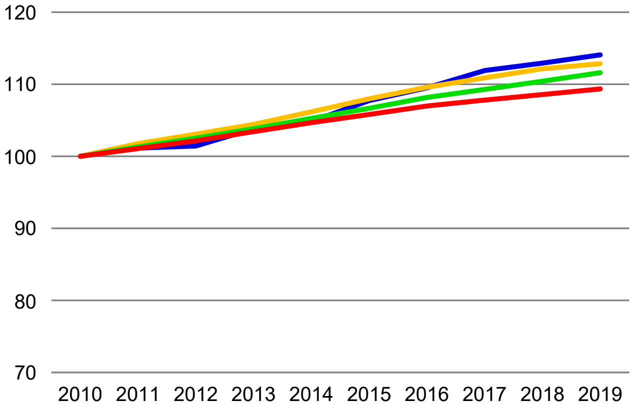
Population

Key data population: Commune of Cham

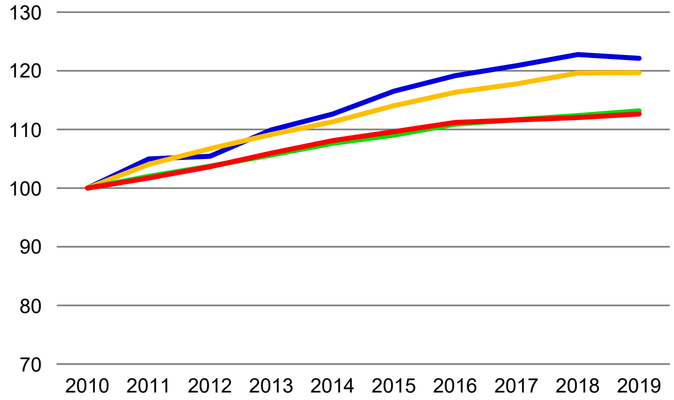
	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019
Population (permanent)	14'808	14'976	15'020	15'375	15'523	15'954	16'216	16'571	16'723	16'893
Number of households	5'972	6'088	6'175	6'342	6'440	6'613	6'770	6'934	6'988	7'036
Ø household size	2.48	2.46	2.43	2.42	2.41	2.41	2.40	2.39	2.39	2.40
Population growth (%)	1.76	1.13	0.29	2.36	0.96	2.78	1.64	2.19	0.92	1.02
Foreign population share (%)	21.12	22.18	22.27	23.22	23.79	24.61	25.17	25.53	25.93	25.80

Note: The figures for 2019 are provisional.
Source: BFS, modelling Fahrländer Partner.

Indexed evolution of the permanent population
(year 2010 = 100)



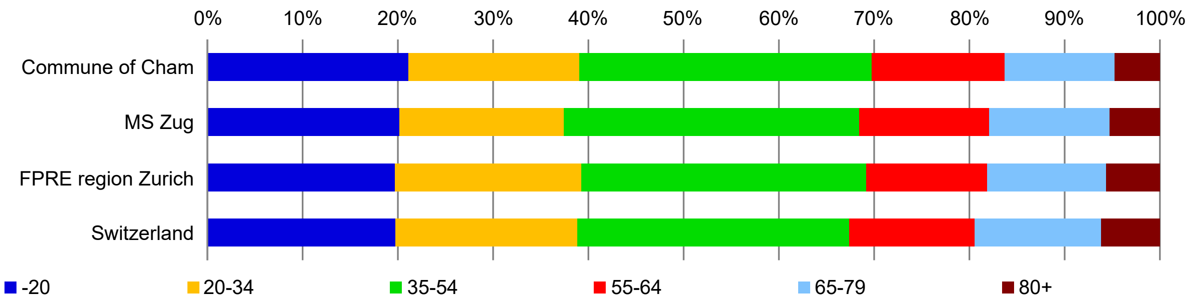
Indexed evolution of foreign population share
(year 2010 = 100)



Commune of Cham
MS Zug
FPRE region Zurich
Switzerland

Source: BFS, modelling Fahrländer Partner.

Population by age class (2019)



Source: FSO, modelings Fahrländer Partner.

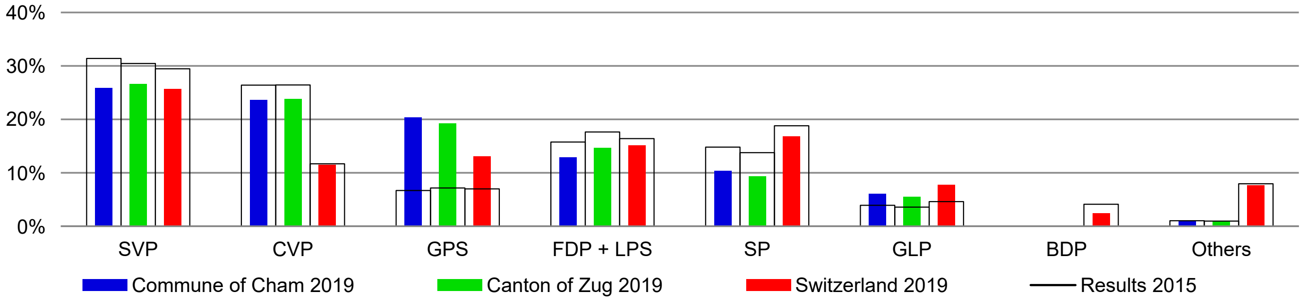
Population in retirement age and expectancy of life (2019)

	65-69	70-74	75-79	80-84	85-89	90+
Population in retirement age (abs.)						
Commune of Cham	751	716	499	378	211	108
MS region Zug	6'122	5'564	4'543	3'092	1'819	936
Expectancy of life in years (Switzerland) *						
Men	18.4	14.6	11.1	7.9	5.4	3.4
Women	21.0	16.8	12.9	9.2	6.2	3.9

* Population between 65 and 99 years; weighted average within each age class
Source: FSO, modelings Fahrländer Partner.

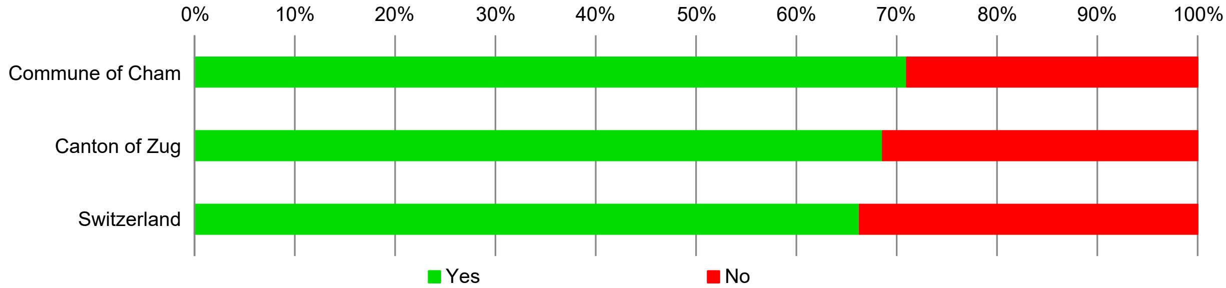
Population (2)

National Council election 2019 and 2015 in comparison



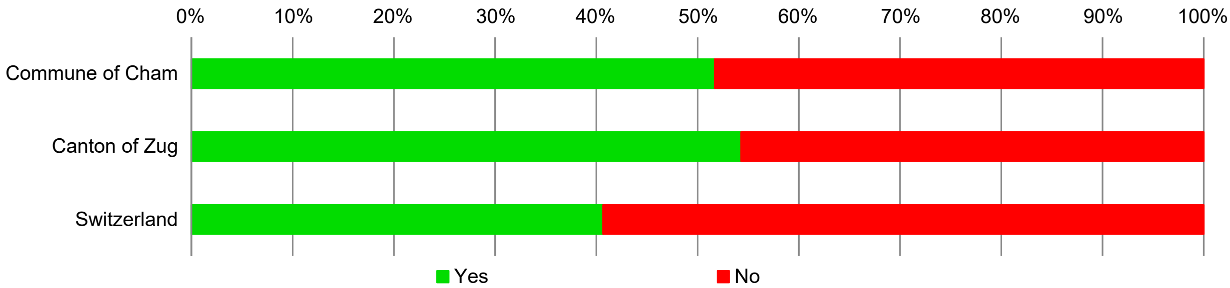
Source: BFS, Fahrländer Partner.

Vote (19 May 2019): «Tax reform and AHV financing»



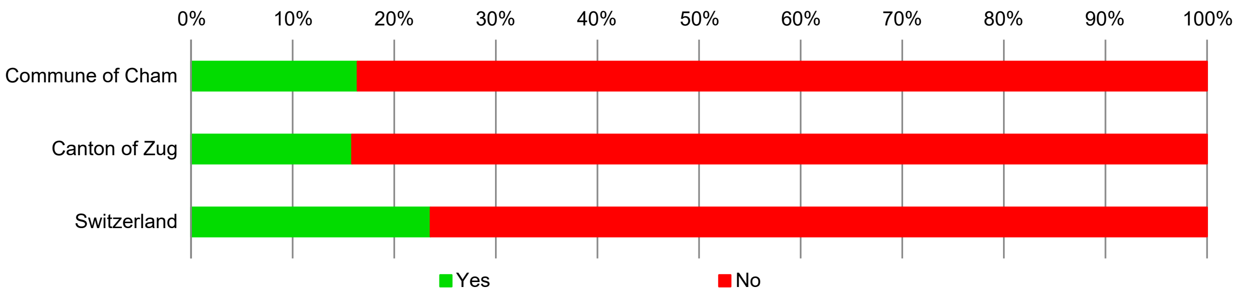
Source: BFS, Fahrländer Partner.

Vote (12 February 2017): «Corporate Tax Reform Act III»



Source: BFS, Fahrländer Partner.

Popular initiative (18 May 2014): «For the protection of fair wages (minimum wage initiative)»



Source: BFS, Fahrländer Partner.

Proportion of households by social stratum (purchasing power potential, 2018)

	Lower class*	Middle class**	Upper class***
Commune of Cham	27.7%	34.4%	38.0%
MS region Zug	28.7%	30.2%	41.1%
FPRE region Zurich	32.6%	30.2%	37.2%
Switzerland	35.2%	32.0%	32.8%

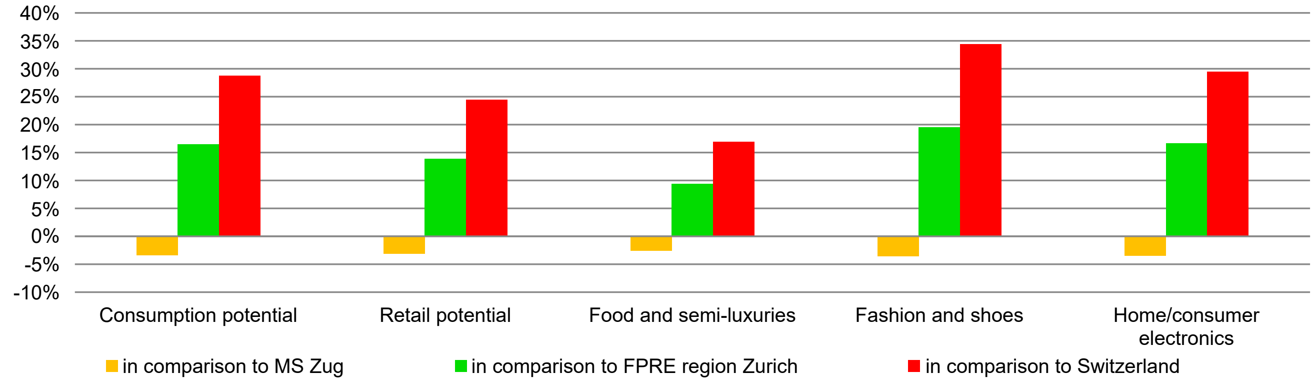
* Segmentation of demand 1-3; ** Segmentation of demand 4-6; *** Segmentation of demand 7-9
Source: Fahrländer Partner & sotomo.

Key data consumption/retail potential* (2017)

	Commune of Cham		MS region	FPRE region	Switzerland
	in 1'000	per HH	per HH	per HH	per HH
Consumption potential**	406'490	58'623	60'659	50'339	45'526
Retail potential***	175'243	25'273	26'086	22'194	20'318
Food and semi-luxuries	72'210	10'414	10'686	9'520	8'908
Fashion and shoes	24'214	3'492	3'621	2'923	2'599
Home/consumer electronics	11'449	1'651	1'710	1'416	1'275

* Potential of the resident households; ** Gross income net of compulsory transfer expenditure, other insurances, fees and transfers, housing and energy, savings.
*** Consumption potential net of non-retail expenditures.
Source: Retail model 2020 Fahrländer Partner.

Consumption/retail potential per household: Commune of Cham in comparison (2017)



Source: Retail model 2020 Fahrländer Partner.

Perspectives 2035 (consumption/retail potential)*: Commune of Cham

	Stagnation	Trend		Prosperity
Evolution of the number of households 2017 - 2035	670	1'788	25.8%	2'069
Evolution of consumption potential 2017 - 2035 (in 1'000)**	47'216	111'555	27.4%	131'304
Evolution of retail potential 2017 - 2035 (in 1'000)**	20'030	47'653	27.2%	56'004

* Scenario «unchanged urban planning», ** Real evolution in prices 2017.
Source: Prospective model 2020 Fahrländer Partner, retail model 2020 Fahrländer Partner.

Perspectives 2035 (consumption/retail potential)*: MS region Zug

	Stagnation	Trend		Prosperity
Evolution of the number of households 2017 - 2035	5'385	14'089	26.2%	16'295
Evolution of consumption potential 2017 - 2035 (in 1'000)**	393'600	912'355	28.0%	1'072'107
Evolution of retail potential 2017 - 2035 (in 1'000)**	166'835	388'672	27.8%	456'134

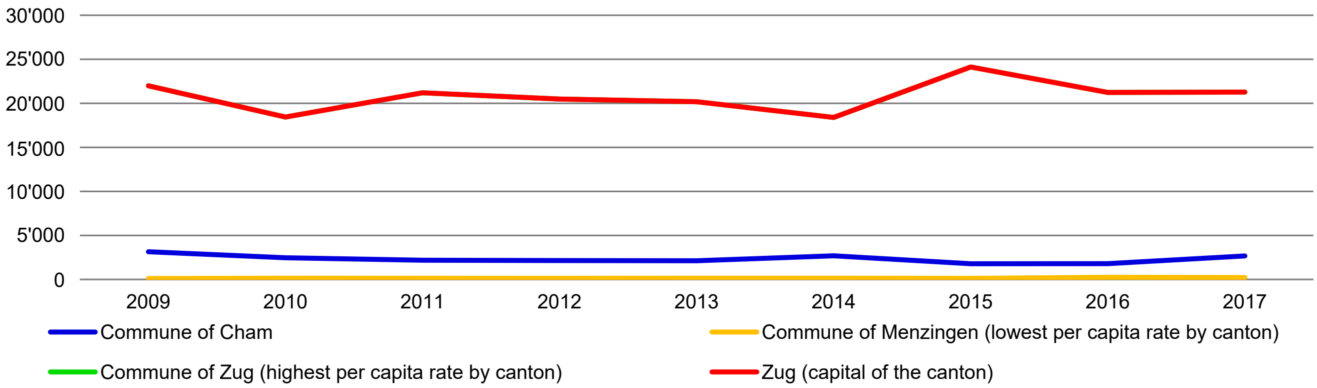
* Scenario «unchanged urban planning», ** Real evolution in prices 2017.
Source: Prospective model 2020 Fahrländer Partner, retail model 2020 Fahrländer Partner.

Key data taxes/income: Commune of Cham

	2011	2012	2013	2014	2015	2016	2017
Tax revenue of corporate bodies*	32'801	32'354	32'737	41'785	28'574	29'207	44'338
Per capita rate	2'190	2'154	2'129	2'692	1'791	1'801	2'676
Ø Net income	106'863	101'759	102'029	97'249	97'601	99'572	100'403

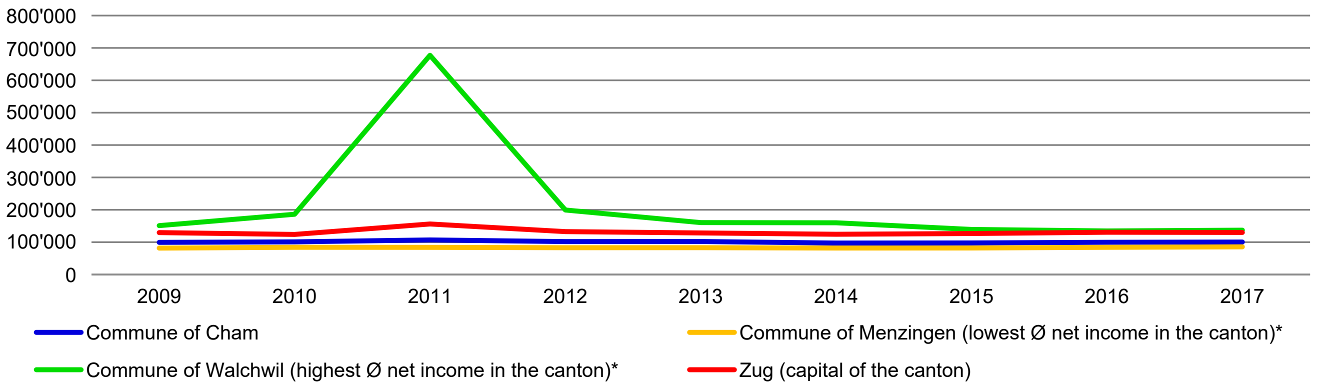
* Direct federal tax in thousand francs.
Source: ESTV, modelling Fahrländer Partner.

Comparison of tax revenue of corporate bodies per capita



* Reference year 2017 (commune mergers: weighted average).
Source: ESTV, modelling Fahrländer Partner.

Comparison Ø net income; all natural persons*



* Reference year 2017.
Source: ESTV, modelling Fahrländer Partner.

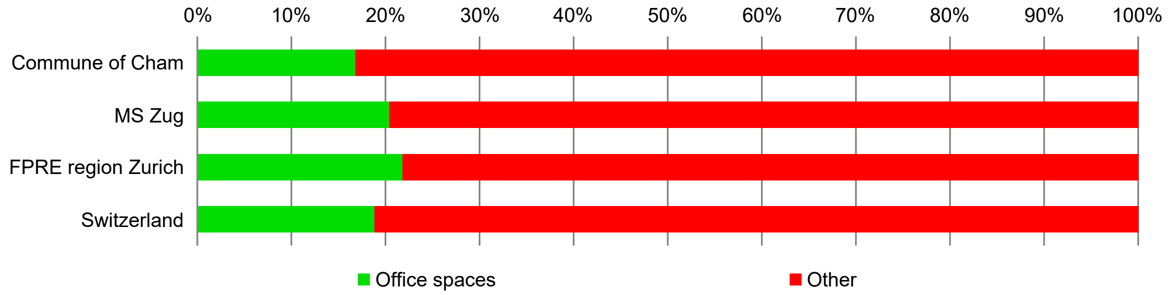
Commercial floor space requirement

Commercial floor space requirement 2018 (m² BGF): Commune of Cham

	Office spaces	Other	Total
2. Sector	12'310	301'104	313'413
3. Sector (incl. public sector)	141'730	461'946	603'676
Retail	6'376	38'840	45'216
Gastronomy	540	10'799	11'339
Accommodation	228	4'555	4'783
Total	154'039	763'050	917'089

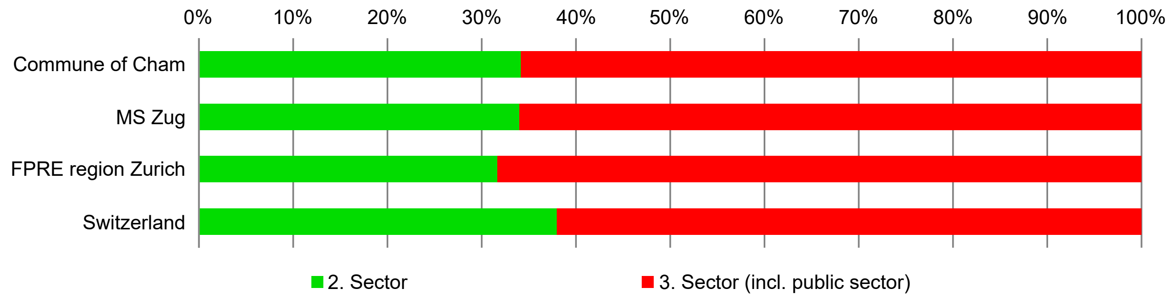
Source: modelling Fahrländer Partner.

Commercial floor space requirement 2018: Office spaces vs. Other



Source: modelling Fahrländer Partner.

Commercial floor space requirement 2018: 2. Sector vs. 3. Sector (incl. public sector)



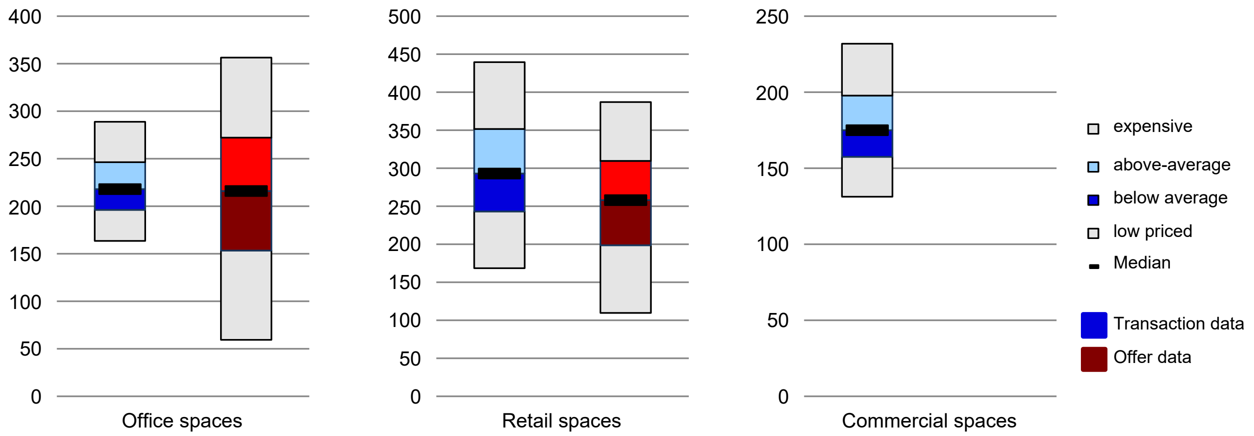
Source: modelling Fahrländer Partner.

Market rents of typical commercial floor spaces, Location Cham

Market rents office spaces (150 m² NF SIA 416, CHF net by m²a)*	218
Market rents retail spaces (150 m² NF SIA 416, CHF net by m²a)**	293

* New construction, 1st floor, ready for completion, average standard and average office location.
** New construction, ground floor, ready for completion, average standard and good retail location.
Source: IMBAS Fahrländer Partner. The models are based on transaction data as of 31 December 2020.

Distribution of rents (CHF net by m²a)



Source: IMBAS Fahrländer Partner. Date as of 31 December 2020.

Inner values of building land (developed), Location Cham

CHF/m²	average location	good location	Best location
Building land for office buildings*	610 - 640	835 - 920	1'135 - 1'320
Building land for retail buildings**	1'445 - 1'520	1'790 - 1'980	2'265 - 2'630
Building land for commercial buildings***	435 - 535	-	-

CHF/m² GF SIA 416 (above ground)	average location	good location	Best location
Building land for office buildings*	1'000 - 1'050	1'365 - 1'510	1'860 - 2'160
Building land for retail buildings**	2'890 - 3'040	3'585 - 3'960	4'530 - 5'265

* Building with the following properties: 1'750 m², utilisation factor: 0.6, total usable area: 800 m², floor height: 3.2 m.
** Building with the following properties: 5'000 m², utilisation factor: 0.5, total usable area: 2'000 m², floor height: 3.5 m.
*** Modelled building land prices for industrial and commercial zones.
Source: IMBAS Fahrländer Partner. The models are based on transaction data as of 31 December 2020.

Discounting factors, Location Cham

Discounting factor Office (net, real terms; new construction, average standard and office location)	3.4%
Discounting factor Retail (net, real terms; new construction, average standard and good retail location)	2.7%
Discounting factor Commercial (net, real terms; new construction, average standard and average location)	3.8%

Source: IMBAS Fahrländer Partner. The models are based on transaction data as of 31 December 2020.

Market rents and price levels (2)

Commune Cham, Location Cham

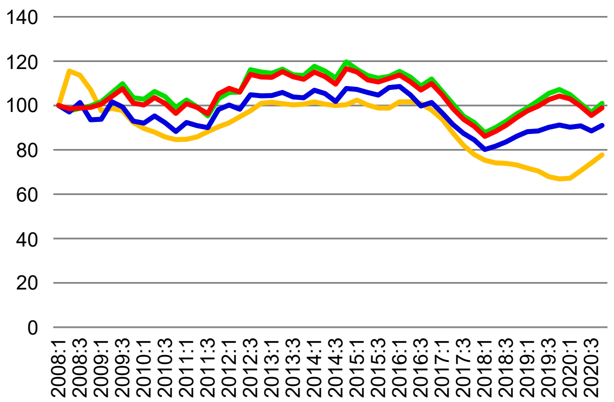
Market rents in the region

	Office spaces (CHF/m²a)*		Retail spaces (CHF/m²a)**	
Cham	218		293	
Chämleten (Hünenberg)	296	(+36%)	392	(+34%)
Lindencham (Cham)	259	(+19%)	353	(+20%)
Steinhausen	220	(1%)	302	(+3%)
Choller (Zug)	297	(+36%)	387	(+32%)
Hünenberg	249	(+14%)	321	(+10%)
Hagendorn (Cham)	238	(+9%)	330	(+13%)
Holzhäusern (Risch)	347	(+59%)	468	(+60%)
Niederwil (Cham)	251	(+15%)	347	(+18%)
Zug	345	(+58%)	639	(+118%)
Berchtwil (Risch)	218	(0%)	304	(+4%)
Knonau	248	(+14%)	359	(+23%)
Chamau (Hünenberg)	240	(+10%)	332	(+13%)
Buonas (Risch)	231	(+6%)	320	(+9%)
Sins	199	(-9%)	277	(-5%)
Rotkreuz (Risch)	241	(+11%)	312	(+6%)
Oberrüti	197	(-10%)	269	(-8%)
Baar	248	(+14%)	370	(+26%)
Oberwil (Zug)	319	(+46%)	421	(+44%)
Rossau (Mettmenstetten)	216	(-1%)	298	(+2%)
Uerzlikon (Kappel am Albis)	207	(-5%)	286	(-2%)
Inwil (Baar)	348	(+60%)	449	(+53%)
Ibikon (Risch)	214	(-2%)	298	(+2%)
Risch	227	(+4%)	316	(+8%)
Hauptikon (Kappel am Albis)	228	(+5%)	313	(+7%)
Dietwil	178	(-18%)	248	(-15%)

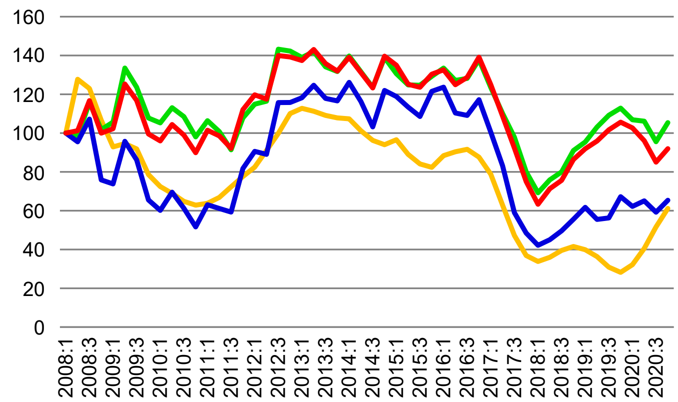
* New construction, 1st floor, ready for completion, average standard and average office location.
** New construction, ground floor, ready for completion, average standard and good retail location.
Source: Fahrländer Partner, data as of 31 December 2020.

Evolution of market rents and building land*

office spaces, new building, ready for completion



Inner values of building land (developed) for office buildings



MS Zug** FPRE region Zurich Other agglomerations Switzerland

* Index, 1st quarter 2008 = 100. ** Smoothing: gliding and centred mean during three quarters. The most actual data point is provisional.
Source: Fahrländer Partner, data as of 31 December 2020.

Most accessible centres from Commune of Cham (public transport, PT) 2010

Travel time to Zug*	12 min.
Travel time to Wohlen (AG)*	37 min.
Travel time to Luzern*	42 min.
Travel time to Zürich*	51 min.

* Mean transport times, districts taken into account (time of travel plus time to change), without access times within the commune.
Source: ARE, modelling Fahrländer Partner.

Most accessible centres from Commune of Cham (private motorised transport, PMT) 2010

Travel time to Zug*	13 min.
Travel time to Luzern*	18 min.
Travel time to Schwyz*	21 min.
Travel time to Zürich*	26 min.

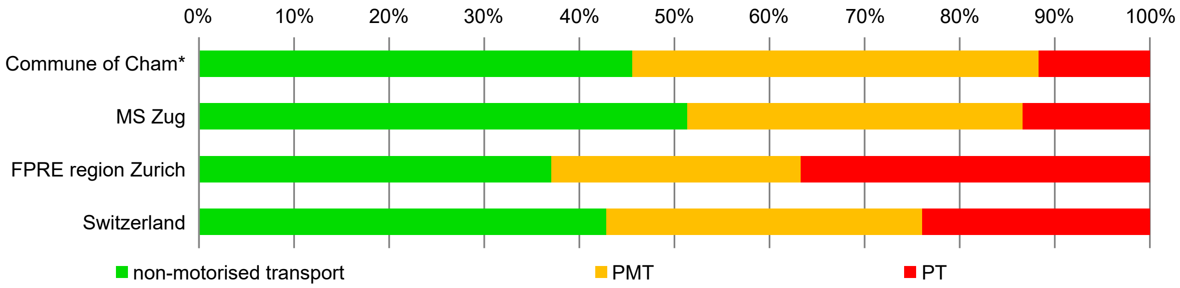
* Time of travel under the load of the average weekday traffic volume.
Source: ARE, modelling Fahrländer Partner.

Accessibility

	15 min.	20 min.	25 min.	30 min.	45 min.
Population (PT)	87'219	114'732	137'610	163'095	452'301
Population (PMT)	185'456	483'812	807'035	1'476'235	2'638'630
Employees (PT)	88'183	116'560	126'538	140'015	305'941
Employees (PMT)	144'252	360'967	516'595	1'144'882	1'742'121

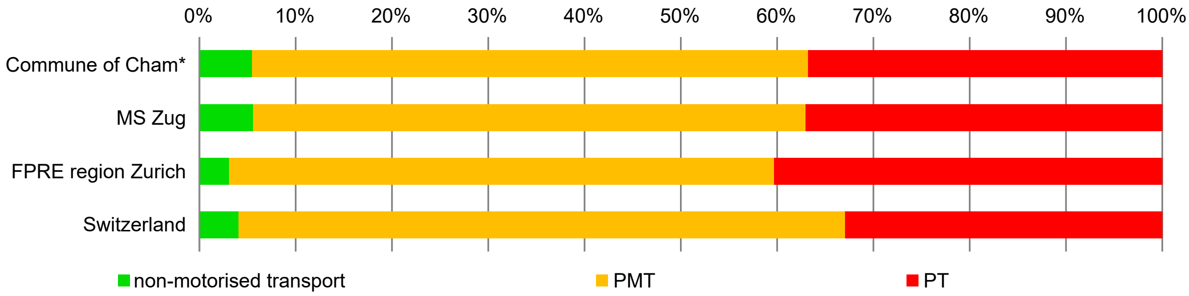
* Population (2019) and employees (2018) accessible with public transport (2010) and private motorised transport (2010).
Source: ARE, BFS, modelling Fahrländer Partner.

Commuters: Modal split (place of work within residential commune)



*Number of observations: 414.
Remark: Extrapolation based on structural surveys 2013 - 2017 (pooled).
Source: BFS, modelling Fahrländer Partner.

Commuters: Modal split (place of work outside the commune)



*Number of observations: 1'836.
Remark: Extrapolation based on structural surveys 2013 - 2017 (pooled).
Source: BFS, modelling Fahrländer Partner.

Building zones

Ground areas, building zones and land reserves 2017: Commune of Cham

	in hectares	in %		Housing units/ hectare	Potential (add.) housing units*	Potential (add.)population*
Total area	1'773	100%				
Habitable area	1'518	86%			66'099 - 72'595	145'574 - 159'880
Building zone	277	18%	1)	27		
of which built-up	239 - 254	86% - 92%	2)			
of which not built-up	23 - 38	8% - 14%	2)		1'193 - 2'168	2'628 - 4'775
Residential zone	152	55%	2)	48		
of which built-up	130 - 141	85% - 93%	3)	52 - 57		
of which not built-up	11 - 22	7% - 15%	3)		580 - 1'256	1'278 - 2'766
Working zone	64	23%	2)			
of which built-up	48 - 52	75% - 82%	3)			
of which not built-up	12 - 16	18% - 25%	3)			

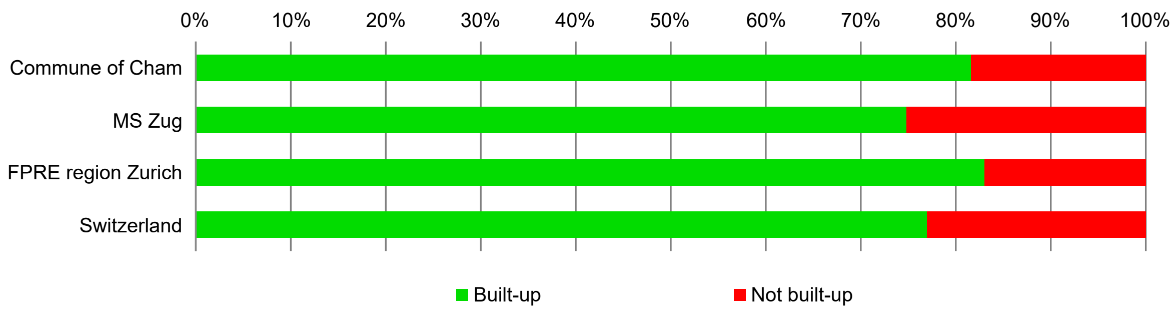
* At constant average building density and constant surface consumption per housing unit and per person.
1) In % of the habitable area; 2) In % of the building zones; 3) In % of the residential/working zones.
Source: ARE, BFS, modelling Fahrländer Partner.

Change in undeveloped building zones 2012-2017: Commune of Cham

Residential	decrease (-1)*
Work-use	decrease (-1)*

* strong decrease (-2), decrease (-1), constancy (0), increase (1) of undeveloped building zones.
Source: ARE, BFS, modelling Fahrländer Partner.

Working zone



Source: ARE, BFS, modelling Fahrländer Partner.

13 Perspectives 2035 (Scenario «unchanged urban planning»)

Perspectives 2035 (commercial surfaces): Commune of Cham

	Stagnation		Trend		Prosperity	
Employment (full-time equivalent) 2018-2035	-112	-1.4%	578	7.3%	1'325	16.8%
2. Sector 2018-2035	-104	-5.6%	52	2.8%	221	11.9%
3. Sector (incl. public sector) 2018-2035	-8	-0.1%	526	8.7%	1'105	8.7%
Gross floor area (m²) 2018-2035	-44'217	-4.8%	33'228	3.6%	117'108	12.8%
2. Sector 2018-2035	-19'437	-6.2%	6'674	2.1%	34'957	11.2%
3. Sector (incl. public sector) 2018-2035	-24'780	-4.1%	26'554	4.4%	82'151	13.6%

Source: Prospective model 2020 Fahrländer Partner.

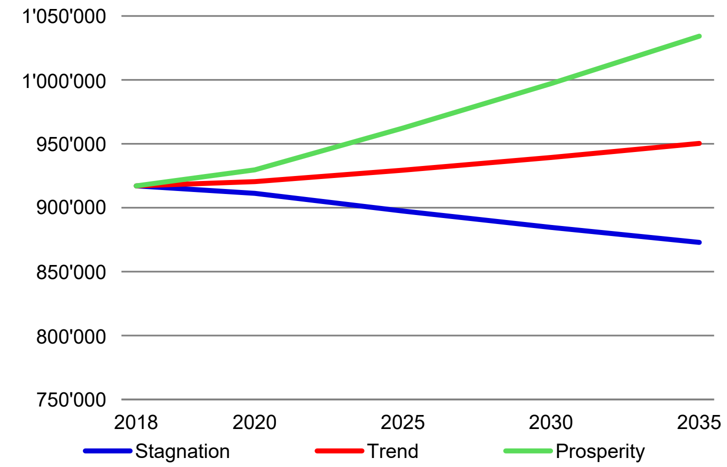
Perspectives 2035 (commercial surfaces): MS region Zug

	Stagnation		Trend		Prosperity	
Employment (full-time equivalent) 2018-2035	778	0.9%	8'869	9.8%	17'631	19.4%
2. Sector 2018-2035	823	4.0%	2'731	13.1%	4'797	23.1%
3. Sector (incl. public sector) 2018-2035	-44	-0.1%	6'139	8.8%	12'834	18.3%
Gross floor area (m²) 2018-2035	-30'832	-0.3%	835'543	8.5%	1'773'684	18.1%
2. Sector 2018-2035	199'436	6.0%	511'629	15.3%	849'588	25.4%
3. Sector (incl. public sector) 2018-2035	-230'268	-3.6%	323'914	5.0%	924'097	14.3%

Source: Prospective model 2020 Fahrländer Partner.

Evolution gross floor area (m²)

Commune of Cham



Source: Prospective model 2020 Fahrländer Partner.

Perspectives 2035 (Commerce) per year, Trend

Commune of Cham	
Employment (full-time equivalent) p.a.	34
2. Sector p.a.	3
3. Sector (incl. public sector) p.a.	31
Gross floor area (m²) p.a.	1'955
2. Sector p.a.	393
3. Sector (incl. public sector) p.a.	1'562

MS region Zug	
Employment (full-time equivalent) p.a.	522
2. Sector p.a.	161
3. Sector (incl. public sector) p.a.	361
Gross floor area (m²) p.a.	49'150
2. Sector p.a.	30'096
3. Sector (incl. public sector) p.a.	19'054