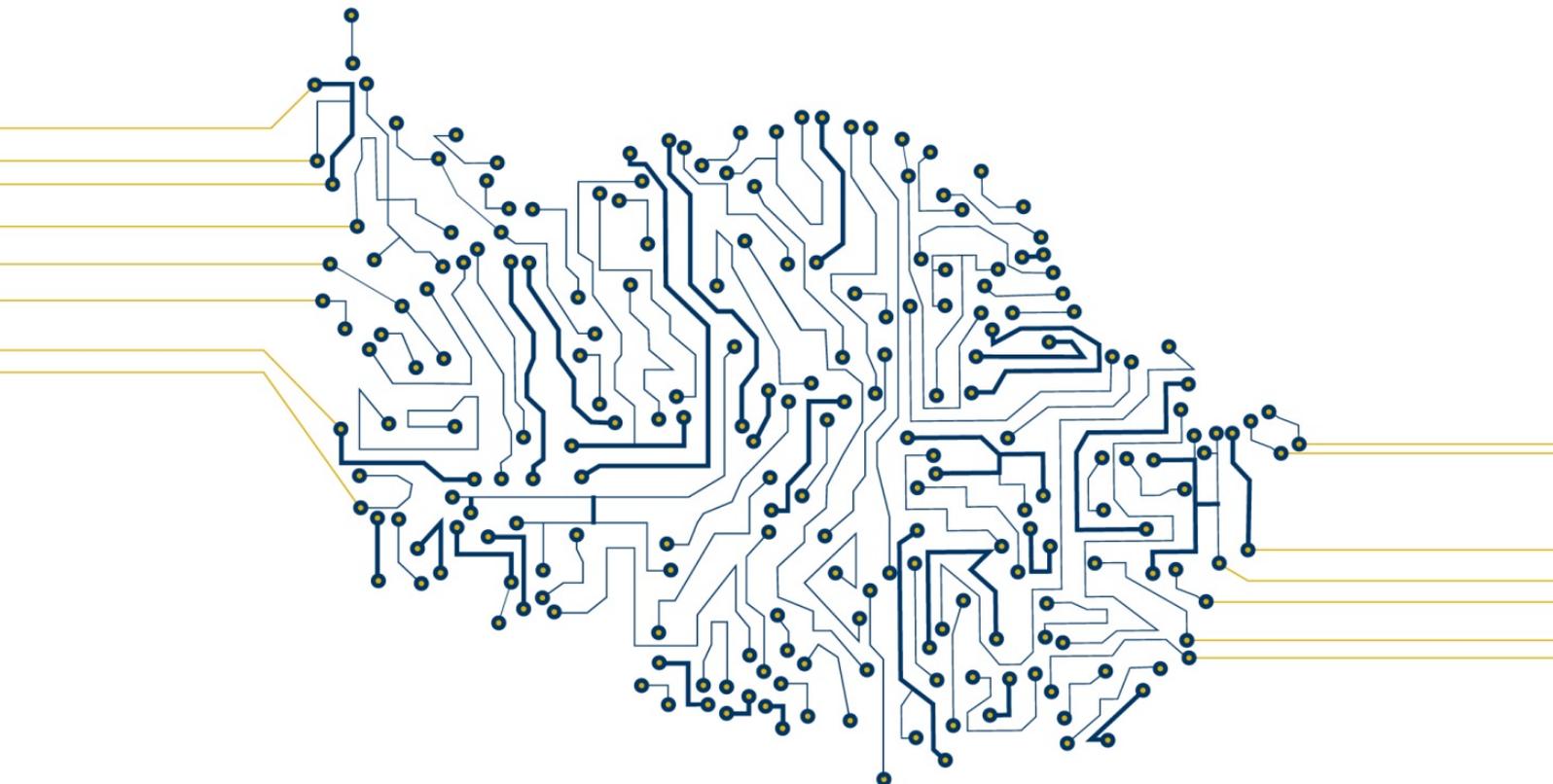


## Regional study: Canton of Zug

February 2017

Swiss Issues Regions

# Location Zug: Structure and Prospects



Corporate Tax Reform III

**Zug's tax advantage is shrinking**

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# Editorial

Dear reader,

The Canton of Zug is a success story. Its economy and its residents benefit from the highest locational quality in Switzerland: the tax burden is low, the availability of highly qualified employees and specialists is outstanding, and it enjoys great accessibility by road and rail. Numerous statistics underscore the excellence of the overall conditions: the population of Zug is growing, economic output is increasing, and the number of jobs is rising. Its economy is characterized by sectors with high value creation. For several years now, more people are again migrating to Zug from other cantons than are leaving to settle elsewhere.

Nevertheless, its lead over the other cantons is narrowing: if voters approve Corporate Tax Reform III in February 2017, it will reshuffle the cards in the fiscal competition among the cantons. Within the framework of the reform, many cantons intend to lower their corporate tax rates. This will promote competition, but chip away at one of Zug's key locational advantages. Moreover, Zug is running a budget deficit – the canton is living off its reserves. If it does not manage to ease the burden on its budget in the coming years, the canton may have to raise taxes. Another consequence of its popularity is high real estate prices, which hamper the canton's measures to retain a healthy population mix.

This makes it all the more vital to broaden the discussion concerning the economic factors that contribute to the canton's success, as well as potential risks. As a bank that is deeply rooted in Switzerland, it is important for us to have a detailed knowledge of the country's individual regions. As such, we asked our economists to carry out a detailed analysis of the economic situation in the Canton of Zug. This regional study is intended to contribute to the discussion regarding the future of the canton, and ensure that Zug continues to number among the top locations in the world.

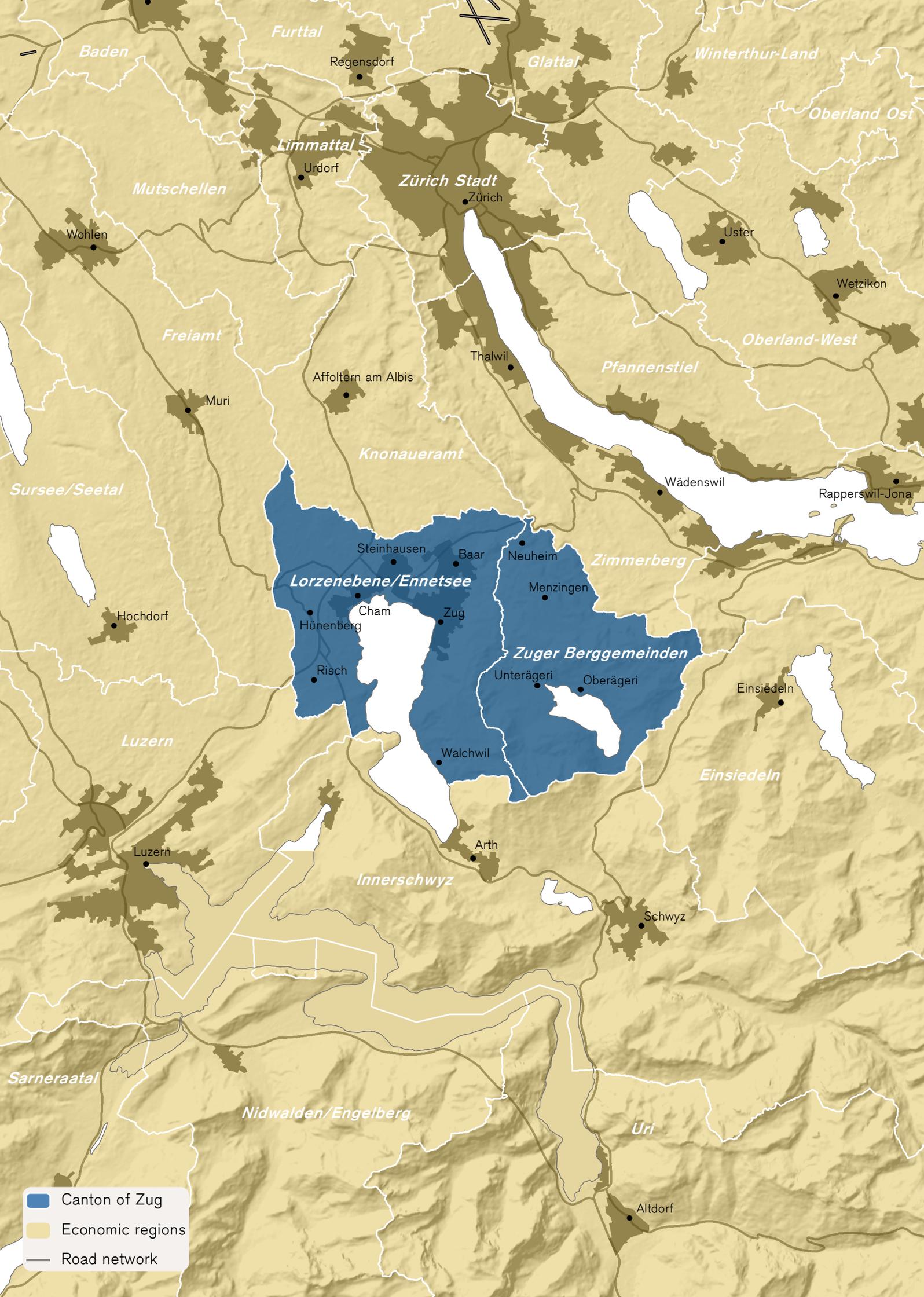
We hope you find our publication interesting and informative.



Stefan Weber  
Head of Corporate Clients  
Market Area Zug



Urs Inderbitzin  
Head of Private & Wealth Management Clients  
Market Area Zug



## Regional overview

# A combination of advantages

### Zug: a test lab for the future

No other canton symbolizes the development of the Swiss economy as neatly as the Canton of Zug. Indeed, like a test lab, the central Swiss canton that is small only in terms of area can even offer us a glimpse into the future. By deliberately trimming its sails to the winds of economic change, Zug attracts companies in the sectors that create the highest value. Challenging job opportunities in turn attract highly qualified personnel from Switzerland and abroad, setting a virtuous circle in motion. There are many other similarities.

### The advantages of a central location

Like Switzerland in the heart of Europe, Zug benefits from its central location, and appeals to cross-border workers. Many more commuters make the daily trek from the surrounding cantons into Zug than in the opposite direction. Its proximity to Zurich gives Zug access to highly qualified personnel, centers of education and training, and an international airport – but also to cultural activities and nightlife. Its closeness to nature and idyllic landscape enhance the quality of life. The city of Zug is a world-class player in the international contest among locations, but with a population of barely 30,000, it retains its small-town character.

### A model for success

Like Switzerland, the Canton of Zug is not a homogeneous entity, but comprises both urban and rural areas: the rapidly growing Lorzenebene/Ennetsee economic region, and the city of Zug and its closely interlinked urban area on the one hand, and the Zuger Berggemeinden – a group of four rural mountain municipalities – on the other. While employment in the Lorzenebene/Ennetsee region has risen sharply, it is declining in the Zuger Berggemeinden. Nonetheless, more people have moved to these regions than away from them in recent years. Like Switzerland, Zug is confronted by the downside of success: the canton is aiming to limit the growth in population and employment, and counteract rising real estate prices with subsidized housing. Thanks to the unique combination of advantages, the Canton of Zug remains a model for success that is unequalled in cantonal and international competition.

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#### Development in Zug and its surrounding regions

	Population		Employment 2014			GDP 2014		Income 2017 (forecast)
	Number of persons 2015	Growth p.a. 2005–2015	Sector I	Sector II	Sector III	Share of CH total	Per employee, in CHF	Per capita (median) in CHF
<b>Municipalities</b>								
Zug	29,256	1.8%	100	6,183	25,729	-	-	-
Baar	23,561	1.2%	202	3,883	14,320	-	-	-
Cham	15,954	1.5%	130	1,756	5,723	-	-	-
Menzingen	4,439	0.2%	167	214	886	-	-	-
Walchwil	3,584	0.7%	59	256	532	-	-	-
Neuheim	2,154	0.9%	48	333	422	-	-	-
<b>Economic regions</b>								
Lorzenebene/Ennetsee	101,018	1.4%	773	18,817	59,975	2.6%	212,046	66,730
Zuger Berggemeinden	21,116	1.0%	440	1,461	3,909	0.1%	154,258	59,826
Knonaeramt	51,602	1.6%	498	3,683	8,378	0.3%	149,670	63,904
Lucerne	221,439	1.0%	1'607	24,501	85,445	2.4%	141,280	54,574
Innerschwyz	69,260	0.9%	1'431	8,503	16,482	0.6%	141,888	54,422
Einsiedeln	21,184	1.1%	544	2,216	3,721	0.1%	134,792	52,324
March/Höfe	70,335	1.4%	895	8,196	20,924	0.7%	152,285	65,479
<b>Cantons</b>								
ZG	122,134	1.3%	1,213	20,278	63,884	2.8%	208,113	65,586
ZH	1,466,424	1.4%	7,860	132,442	639,797	21.4%	176,875	58,614
LU	398,762	1.1%	8,939	50,686	125,712	4.0%	137,464	54,005
SZ	154,093	1.1%	2,737	18,436	39,534	1.4%	147,149	59,210
AG	653,675	1.4%	6,889	89,381	163,808	6.2%	152,599	58,707
<b>Switzerland</b>	<b>8,327,126</b>	<b>1.1%</b>	<b>108,318</b>	<b>1,006,655</b>	<b>2,850,763</b>	<b>100.0%</b>	<b>162,336</b>	<b>53,448</b>

Source: Swiss Federal Statistical Office (SFSO), Credit Suisse

## Business cycle

# Steady recovery

**The Swiss economy is forecast to post growth of 1.5% in 2017. The export sector is reviving, and the domestic economy continues to underpin Swiss economic growth. The outlook for wholesaling, an important sector for Zug, is also brightening.**

### Hesitant growth

With a growth rate of 1.5%, the Swiss economy should expand at the same pace in 2017 as it did in 2016.<sup>1</sup> This may be tepid growth, but it still represents a substantial improvement compared to 2015: in the year of the “franc shock”, the economy only expanded by 0.8%. Squeezed margins and cost-cutting were the economic hallmarks of 2016, with companies scrambling to regain their price competitiveness. Meanwhile, there are some encouraging results: export volumes are up on the whole, and the downturn in employment is losing momentum.

### Positive outlook for industry

The Purchasing Managers' Index (PMI) underscores the bright outlook for Swiss industry, reaching values by the end of 2016 that in the past have only been associated with growth cycles. The export industry benefits from benign economic developments in its foreign sales markets. This is particularly true for exporters in the Canton of Zug: the Credit Suisse export barometer for Zug has been well above the growth threshold for a number of years. The indicator is based on economic developments in the foreign sales markets for Zug's exports, and gives an outlook for the next six months.

### Zug's exports reach a new record

Exports from the Canton of Zug hit a new all-time high in the first three quarters of 2016, with the value of exported goods in this period exceeding CHF 6.8 billion, compared with CHF 6.1 billion in 2015. The surge in exports was mainly driven by the pharmaceuticals industry, which accounts for more than half of exports from Zug. As the host of international distribution centers for global pharmaceutical companies, Zug saw the pharma industry's share of its exports increase steadily in recent years as the sector flourished. The positive outlook for the industry means that Zug should continue to reap these benefits in the years to come. The franc's overvaluation compared to the euro is an ongoing challenge for the export sector.

### Economy expands, unemployment rate levels off

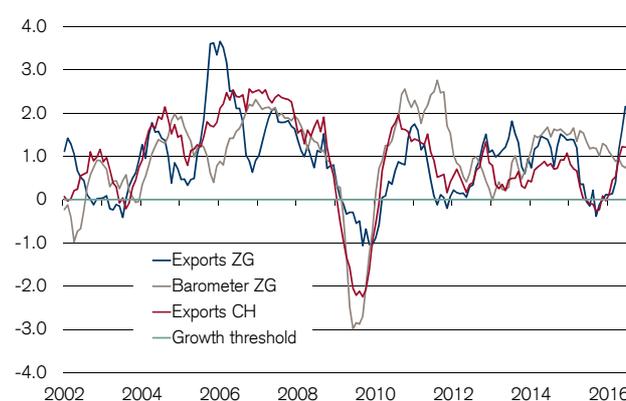
National accounts; YoY in %; unemployment rate: annual average

	2014	2015	2016E	2017E
Real GDP	2.0	0.8	1.5	1.5
Consumer spending	1.2	1.1	0.9	1.0
Government spending	1.5	2.2	2.3	1.8
Capital investment	2.6	1.3	3.1	2.5
Construction investments	3.2	2.2	0.5	1.5
Exports (goods and services)	4.0	1.0	4.7	4.5
Imports (goods and services)	3.2	3.0	3.0	3.5
Consumer prices	0.0	-1.1	-0.4	0.5
Unemployment rate (%)	3.0	3.2	3.3	3.3
		<b>Current</b>	<b>in 3M, E</b>	<b>in 12M, E</b>
Benchmark rates, target range		-0.75	-1.25 / 0.25	-1.25 / 0.25

Source: State Secretariat for Economic Affairs (Seco), SFSO, Credit Suisse

### Export volumes on the rise again

In standard deviations; annual growth rates, moving six-month average



Source: Swiss Federal Customs Administration, Bloomberg, PMI Premium, Datastream, Credit Suisse

<sup>1</sup> For further information: “Monitor Switzerland”, Credit Suisse, December 2016

## Recovery in wholesaling

A recovery is also emerging in the wholesale trade, which is the dominant sector in the Canton of Zug.<sup>2</sup> Swiss commodities traders saw revenues drop sharply in 2015, mainly due to the collapse in oil prices as of the fourth quarter of 2014. In 2016, the fall in oil prices was less pronounced; accordingly, the revenue erosion in wholesaling also decelerated. Oil prices are expected to rebound in 2017, and wholesaling revenues with them.

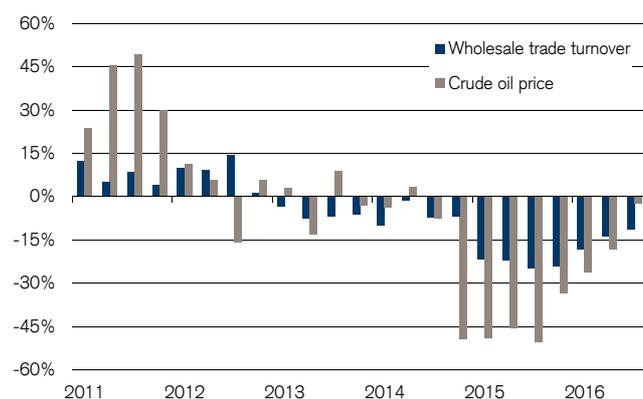
## Stable domestic economy

What is the state of the Swiss domestic economy? We can get an idea from the labor market, which has a strong influence on consumer spending. The tide seems to have turned in the jobs market: the Swiss unemployment rate has stabilized at 3.3%, and the rate for the Canton of Zug is typically around one percentage point below the national average. At the same time, jobs are being created, making a collapse in domestic demand quite unlikely, and Swiss consumers will remain a key element of the country's economic growth in 2017. Nevertheless, domestic demand is unlikely to surge, and the additional demand from immigration will probably be lower than in the previous year. Moreover, the days of falling inflation fueling purchasing power are over, since prices have begun to rise slightly. Consumer sentiment also remains depressed, due to the high unemployment rate: Swiss consumers have too little confidence in the strength of their own economy.

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### Recovery in wholesaling revenues

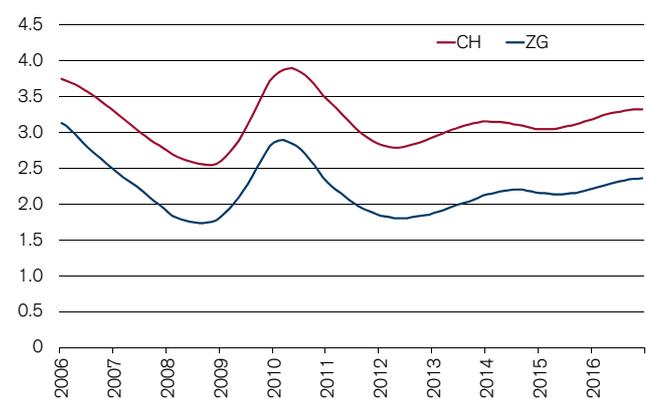
Change YoY in %



Source: SFSO, Datastream, Credit Suisse

### Slight increase in unemployment

Unemployment rate, moving 12-month average



Source: State Secretariat for Economic Affairs (Seco), Credit Suisse

<sup>2</sup> "Sector Handbook 2017", Credit Suisse, January 2017

Economy | Locational quality

# Most attractive – but competitors not far behind

The Canton of Zug has a lot to offer companies, and as such has topped the locational quality rankings for many years. If Corporate Tax Reform III is approved however, the fiscal conditions in some competing locations will become considerably more attractive, and the tax advantages in Zug will diminish.

**Locational quality is the key to prosperity**

The overall economic conditions of a location determine the long-term development of value creation and prosperity. New businesses settle in attractive locations, while firms already based there invest more heavily than in less attractive regions. In addition to immutable natural conditions, key factors contributing to locational quality include government regulations, the availability of personnel, and the business environment.

**Seven “hard” criteria**

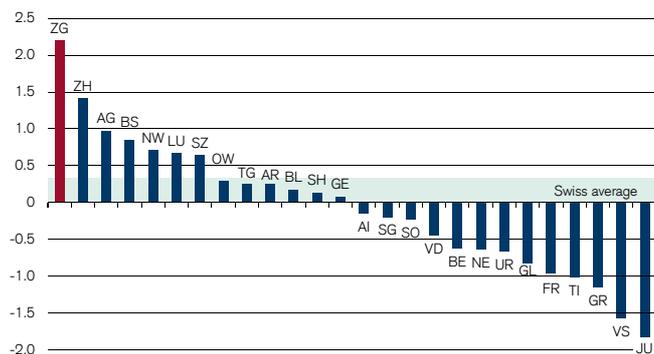
Our locational quality indicator (LQI) measures the relative attractiveness of Swiss regions and cantons from a business perspective.<sup>3</sup> It expresses the attractiveness of an area in the form of a relative index, based on the following seven quantitative sub-indicators: tax burden on legal entities; tax burden on private individuals; availability of specialist labor; availability of highly-qualified personnel; population accessibility; employee accessibility, and access to airports. Land prices and wage costs are deliberately omitted, as they are to some extent merely a reflection of the degree of attractiveness. A region's appeal as a tourist destination depends upon different criteria than those for a corporate location. Moreover, these criteria are difficult to quantify, which is why we omit them from the LQI.

**Top of the league in terms of attractiveness, but competitors closing in**

The Canton of Zug posted above-average values in all sub-indicators, keeping it in first place ahead of Zurich and Aargau in 2016 (cf. Fig.). Basel-Stadt is in fourth place, followed by three cantons of Central Switzerland: Nidwalden, Lucerne and Schwyz. Zug's two sub-regions are also high up the list of 110 Swiss economic regions (cf. Fig.): Lorzenebene/Ennetsee is ranked second, after the City of Zurich, With Baden, Glatttal and some Lake Zurich towns hot on its heels, the competition is not far behind. The Zuger Berggemeinden take ninth place, with an LQI value similar to Limmattal's (eighth), March/Höfe (10<sup>th</sup>), Winterthur (11<sup>th</sup>), and Lucerne (12<sup>th</sup>).

**Canton of Zug has topped the league for years**

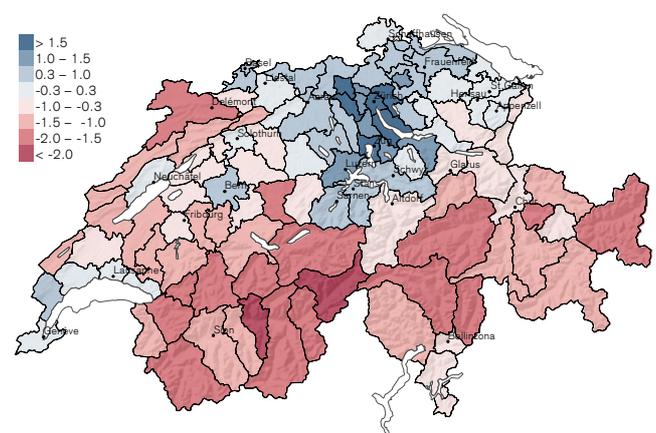
Locational quality 2016, synthetic index, CH = 0



Source: Credit Suisse

**Lorzenebene/Ennetsee: 2<sup>nd</sup> place after City of Zurich**

Locational quality of economic regions, 2016, synthetic index, CH = 0



Source: Credit Suisse, Geostat

<sup>3</sup> For further information: "Locational quality 2016: Basel-City Set to Overtake Canton Zurich", Credit Suisse, September 2016

**Low tax burden**

The Canton of Zug's attractiveness is based partly on its tax rates, which are generous compared to its urban competitors (cf. Fig.). Zug pioneered the low-tax strategy back in the 1920s, when it positioned itself as an alternative to Zurich and its suburbs. Today, Zug is still one of the most attractive cantons in terms of tax rates. The tax burden for individuals is lowest here, especially since 2015 when neighboring Schwyz raised taxes slightly. Zug's tax burden for legal entities is ranked sixth, although its distance from the leaders – Nidwalden, Appenzell Ausserrhoden and Lucerne – is minimal. With a view to Corporate Tax Reform III, Zug is planning to lower its corporate tax rate, which would make it the most attractive canton for legal entities as well. However, many other cantons are also investing in attractive tax measures, on balance the differences in corporate taxation at cantonal level are likely to diminish (see Corporate Tax section, p. 11).

**Zug earns points with trained specialists, highly-qualified personnel**

Professional apprenticeships and similar training programs remain extremely important for Switzerland. The model is an effective tool to combat youth unemployment, and is regarded with interest by other countries. Moreover, the availability of specialists with practical training is a locational advantage, in both the industrial and the service sectors. Both of Zug's economic regions stand out for the great availability of specialist personnel. Highly-qualified workers are a central production factor for the local sector structure, which in Zug leans heavily toward knowledge-intensive activities. The Lorzenebene/ Ennetsee economic region is particularly rich in such workers.

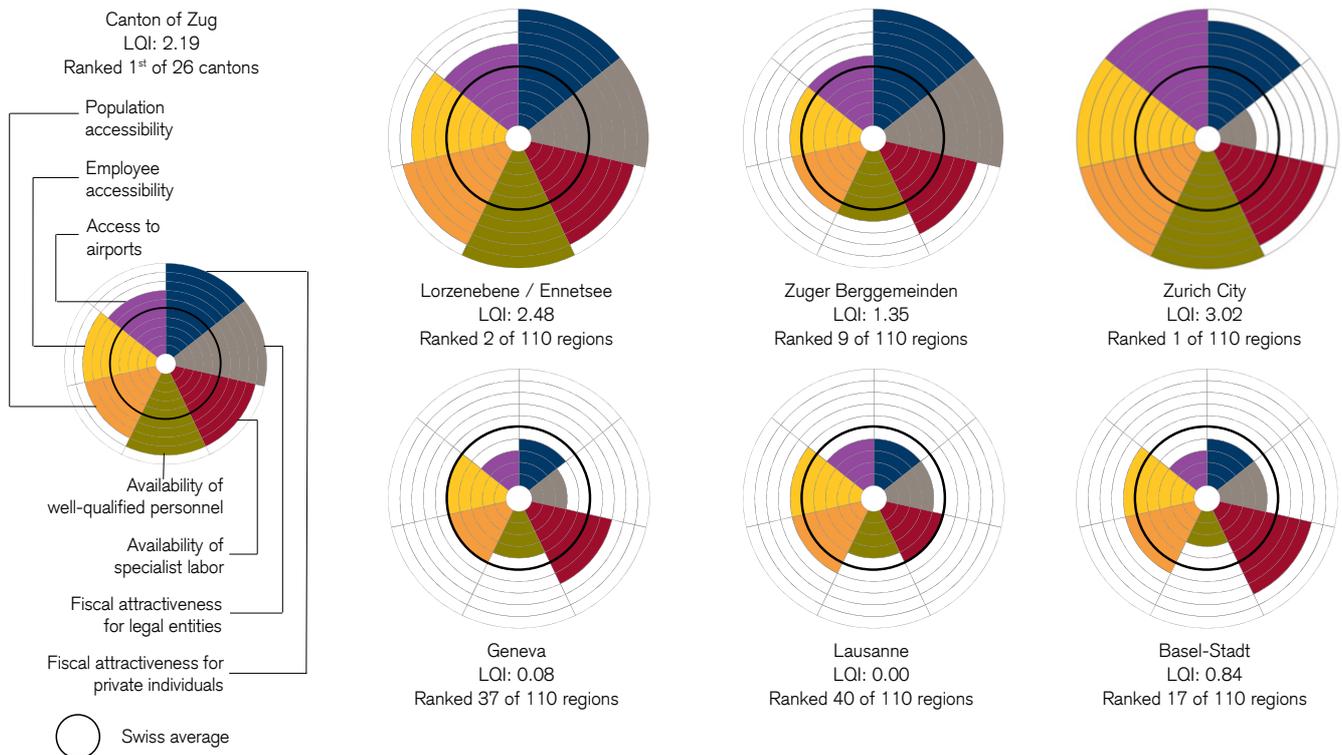
**Efficient connections with metropolitan areas of Zurich and Lucerne**

The regions around the City of Zug offer high accessibility of population and employees, but in this respect even the Zuger Berggemeinden have values that exceed the national average. Efficient connections by road and rail in the major metropolitan areas simplify the exchange of goods, ideas and personnel. In the city centers, particularly Zurich, accessibility is greater, due mainly to the higher population and employment density, as well as its immediate proximity to Zurich Airport.

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**Factors of locational quality – economic regions**

Synthetic indicators



Source: Credit Suisse

## Economy | Locational quality

### Zug/Baar bypass improves accessibility of mountain areas

The accessibility indicators for the Zuger Berggemeinden are higher than the Swiss average, but well below those for the Lorzenebene. The East-West bypass connecting the Zuger Berggemeinden and the valley, set to be completed in 2021, will improve accessibility. At the same time, direct access to the highway towards Zurich and Lucerne/Gotthard decreases the travel time to the national airport. Compared to Zurich's suburbs, however, the travel time is still considerable. In addition, chronic overloading of Zurich's Northern bypass adds to travel time.

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### Switzerland is very competitive

In the global rankings of attractive locations to do business, Switzerland often appears near the top. Its attractions include political stability, high-quality infrastructure and educational institutions, freedom from industrial disputes, and healthy public finances. On the other hand, studies point out increasing isolationism, restrictions to international market access, and an aging population as threats to competitiveness. Companies may be discouraged from setting up offices in Switzerland by high wage and property costs. However, capital-intensive sectors (wholesaling, financial services) and tax-sensitive activities (corporate headquarters) can enjoy the cost advantages derived from low interest rates and taxes.

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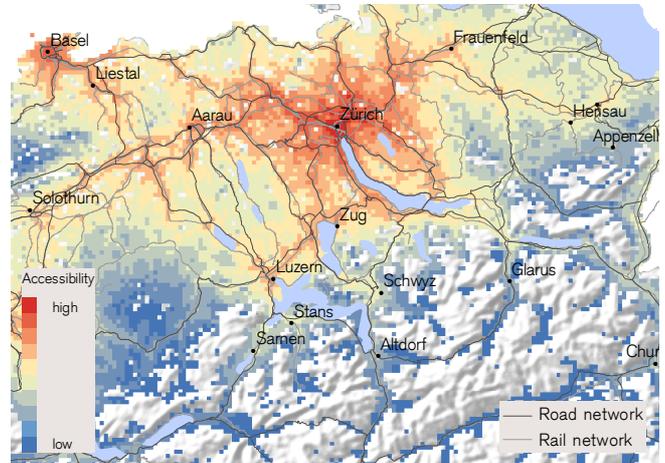
### Highest value creation on Lake Zug

Gross domestic product (GDP) per employee gives an insight into the productivity of persons employed in a particular economic area – that is, into the intensity of value creation by the companies located there. There are significant differences in productivity between the economic regions: the Lorzenebene/Ennetsee region, Basel-Stadt and Fricktal, the city of Zurich, and border regions such as Schaffhausen score the highest. Employees in these regions create nearly double the value of those in Entlebuch and Schanfigg, the least productive regions.

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### Population accessibility

Result per inhabited square kilometer, PMT and PT combined



Source: Credit Suisse

### Attractiveness of various countries for companies

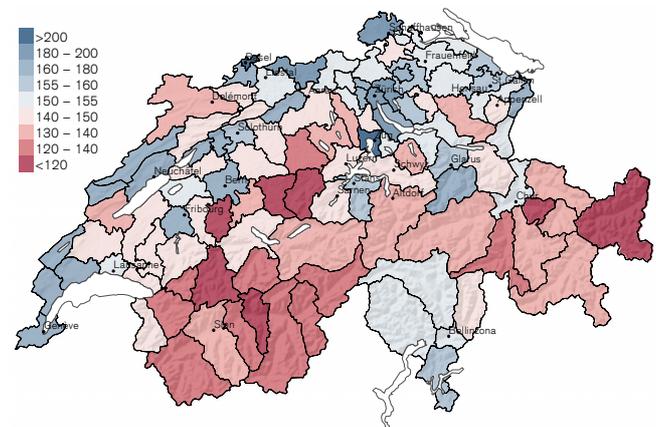
Ranking of economic conditions according to the EIU, WEF and World Bank, in the EIU ranking



Source: Economist Intelligence Unit (EIU), World Economic Forum (WEF), World Bank (WB)

### Productivity

GDP per employee, in CHF 1,000, 2014



Source: SFSO, Credit Suisse



**Attractive formulation of fiscal measures**

The planned formulation of new fiscal measures is also attractive: by easing taxes on income from patents, and by allowing deductions for qualifying R&D expenditure, Zug's government intends to make full use of the options allowable under CTR III. The maximum exemption from cantonal tax resulting from the various individual measures is also the highest possible at 80% of net profit. Other cantons with a high percentage of status companies do not go so far: in Basel-Stadt, the maximum exemption is 40%, and in Geneva a mere 9%.

**Zug approaches CTR III from a relatively strong position**

Zug's cantonal authorities intend to implement the attractive fiscal package without losing significant receipts, and without imposing a higher burden on individuals. The Canton of Zug has an advantageous position: the loss of revenues from standard taxpayers is limited due to the only moderate reduction in the profit tax rate. Moreover, the slight tax increase for current status companies should provide additional revenues. Although some individual companies may opt to leave the canton, an exodus is not foreseen – Zug remains highly competitive by international comparison, and offers other locational advantages compared to other low-tax regions. As a solid canton free of net debt, Zug is in a position to credibly propose a reduction in standard tax rates. Although the canton has been in the red since 2013, in contrast to other locations Zug still has reserves (see section on cantonal finances, p. 25).

**Outlook for locational quality in 2020**

Based on the changes to corporate tax rates that have already been announced, we have recalculated the LQI sub-indicator measuring the tax burden for legal entities. In addition, we took into consideration changes in accessibility indicators stemming from the completion of the NEAT tunnel as of 2020 in order to project an outlook for locational quality in the year 2020 (cf. Fig.). The greatest advances are likely to be made by the Cantons of Geneva (+9 places) and Solothurn (+8), as well as Vaud, Basel-Landschaft and Fribourg (each +4). For these cantons, the current fiscal disadvantage of high corporate taxes will disappear, allowing them to gain ground in the locational quality indicator.

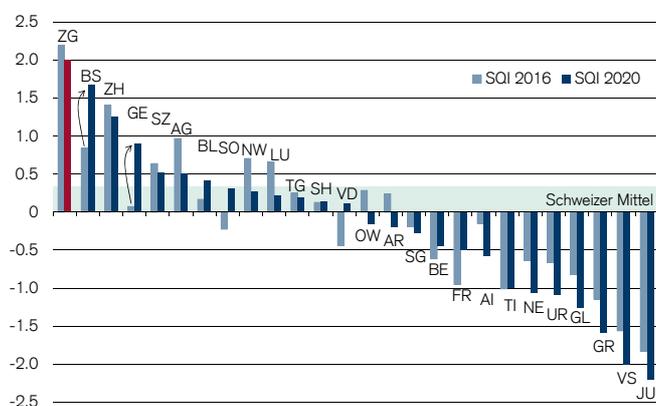
**Canton of Zug defends its place at the top**

Because the assessment of locational quality is relative, cantons may lose attractiveness despite cutting taxes. For example, the cantons that have long granted the greatest fiscal incentives, including Zug, are losing some of their relative advantage. Nonetheless, even in this provisional listing the Canton of Zug remains in first place, with the highest locational quality in Switzerland. Other locations are catching up, particularly the urban regions of Basel-Stadt and Geneva, which also boast excellent accessibility and availability of personnel. Despite having higher corporate taxes, Zurich-City remains the economic region with the highest locational quality. Fiscally-sensitive companies that currently enjoy tax privileges may still consider relocation to a more fiscally attractive location such as Zug.

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**Locational quality: CTR III shakes up the LQI**

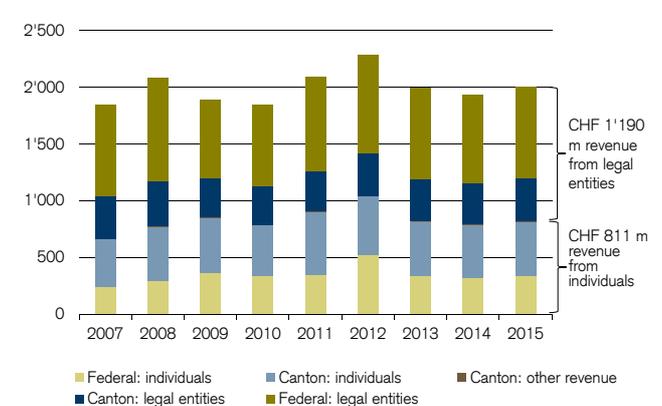
Locational quality indicator (LQI), synthetic index, CH = 0, comparison of 2016 and 2020



Source: Credit Suisse

**Legal entities in the Canton of Zug provide a majority of federal and cantonal taxes**

Revenue from cantonal taxes and direct federal tax (including share of direct federal tax), in CHF m, excluding municipal taxes



Source: Tax Authority of the Canton of Zug, Credit Suisse

## Economy | Corporate taxation

### Status companies are highly relevant in Zug

Corporate Tax Reform III will have a big impact on Zug as a corporate location. In 2015, there were around 6800 status companies in the canton, and of these, 1800 were mixed companies, with business activities mainly abroad but office and personnel in Switzerland as well. Status companies not only provide a large number of jobs, they also make a disproportionate contribution to cantonal tax receipts. Although they make up only around 30% of all companies, they account for more than half of profit taxes collected. Moreover, status companies are often among the most innovative in their sectors.

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### Zug is very attractive from an international viewpoint

The Canton of Zug is also very competitive in the international contest for companies. The current tax burden is well below that of neighboring European countries. The UK and the USA have been discussing a reduction in profit tax to 15%–17%. Based on the information available today, after the profit tax rate is lowered to around 12%, only a few low or zero-tax countries would be more attractive than the Canton of Zug. In addition, Swiss locations offer political stability, high-quality infrastructure and educational institutions, freedom from industrial disputes, and healthy public finances.

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### Options available with the patent box

A relatively high number of patent applications originate in the Canton of Zug. Although details regarding the patent box (the special tax regime for intellectual property revenues) have not yet been finalized, tax privileges should be available for income from patents. More patent applications were made for IT and communications technology – 34% of the total – than for any other business in 2013. Medical and biotechnology and the pharmaceuticals industry also rank among the most innovative sectors. Only under a very broad definition of the patent box, however, could certain corporate headquarters, luxury goods producers and trading companies also profit from this measure. For small and mid-sized enterprises, tax breaks should also be available for non-patented innovations.

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### Status companies in the Canton of Zug

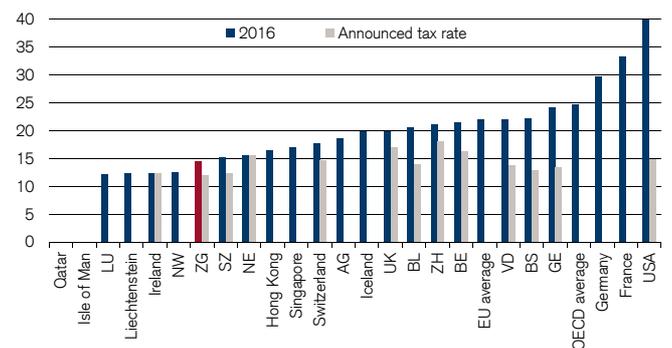
Number of status companies by type



Source: Tax Authority of the Canton of Zug, Credit Suisse

### Corporate tax rates in international comparison

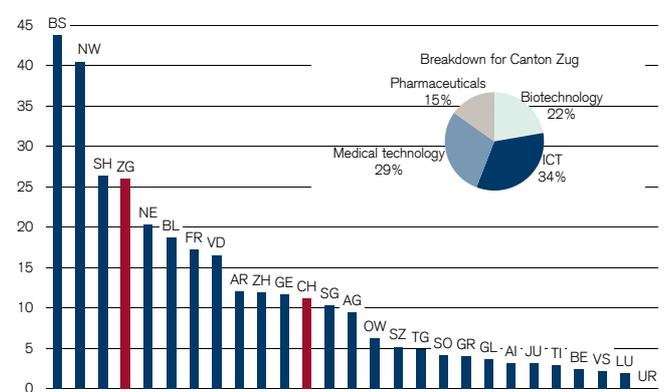
Maximum profit tax rates, CHF: canton's principal town; tax rate after CTR III



Source: KPMG, cantons, Credit Suisse

### Patent applications

Per 10,000 employees, by domicile of the applicant, 2013



Source: OECD, SFSO, Credit Suisse

## Economy | Individual taxation

# Zug defends its top spot

Among Switzerland's cantons, the tax burden for individuals, regardless of income level, is nowhere more attractive than in the Canton of Zug. Affluent taxpayers are disproportionately represented in the canton.

### High income classes predominate in Zug

As early as the 1920s, Zug positioned itself as a low-tax alternative to the nearby major city of Zurich. After a phase of fierce locational competition, several cantons in Central Switzerland dethroned Zug as the canton with the lowest corporate taxes in 2006. However, Zug has remained to this day the canton with the lowest taxes for private individuals. The low level of income and wealth taxes is a key locational factor for the canton, and is reflected in the distribution of the tax base. Compared to Switzerland as a whole, a disproportionate number of individuals with high incomes live in Zug: 23% of taxpayers report taxable income in excess of CHF 121,700. As a result of the tax progression, they account for around 88% of tax receipts (cf. Fig.). In Switzerland as a whole, around 14% of taxpayers report income at this level. In contrast, there are disproportionately few households in the lowest income classes: 39% of taxpayers earn less than CHF 60,700 and contribute 1.9% of tax receipts.

### High growth in incomes and tax receipts

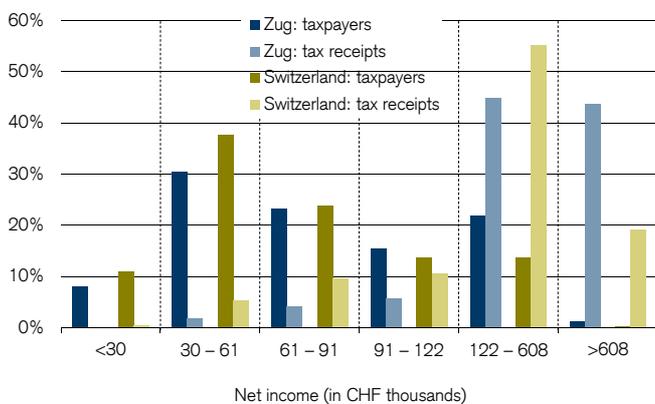
Incomes as well as tax receipts in the Canton of Zug have increased (cf. Fig.). The average net income in the Canton of Zug rose by a good 21% from 2003 to 2013 – significantly outpacing the Swiss average (9%). Tax receipts from individuals also increased at an above-average rate. Changes in a region's average income depend upon income trends, but are also influenced by taxpayers moving into or out of the region. The attraction for affluent individuals doubtless played a role in Zug, as well as leaders Obwalden and Schwyz.

### Central Switzerland increasingly attractive to the wealthy

Zug is also attractive for very high net worth individual taxpayers, and a disproportionate number of Switzerland's 278,746 millionaires (5% of taxpayers) have settled in Zug (12% of taxpayers). Only in the Canton of Schwyz is the figure slightly higher. On the other hand, very few individuals with no net assets live in Zug: such individuals make up nearly 15% of Zug's taxpayers, in contrast to the Swiss average of 25%. As for the trend in affluent taxpayers, the Canton of Zug is in the midfield: from 2004 to 2013, the number of millionaires rose by 63%, which exceeds the Swiss rate of 55% but is considerably lower than the increase reported by Obwalden and Schwyz (140%).

### 23% report taxable income of more than CHF 122,000

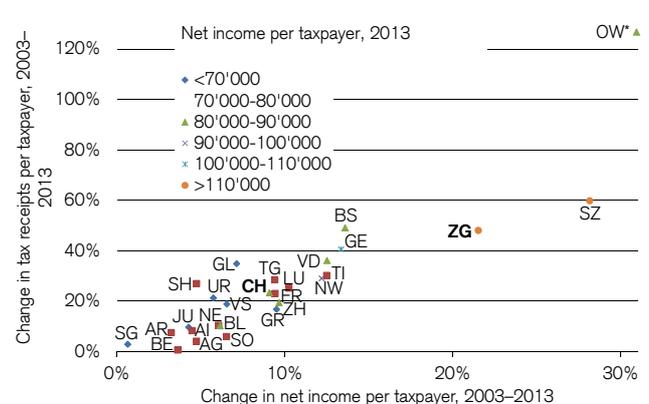
Taxpayers and tax receipts by income class, 2013, relative frequency in %



Source: Federal Tax Authority, Credit Suisse

### Strong growth in incomes and tax receipts

Change in average net income and tax receipts, individuals, 2013 vs. 2003



\*The high growth in Obwalden mainly originated in 2013: tax receipts rose 58% YoY and incomes 19%

Source: Federal Tax Authority, Credit Suisse

**Zug attractive for all income classes**

A detailed analysis provides an assessment of the income tax and wealth tax burden for private individuals. The figure (below left) shows the tax burden as a percentage of gross income for a married couple with no children, in various income classes. In Zug, taxes at all income levels are below the Swiss average, and fiscal advantages increase as income rises. In the Canton of Zug, a married couple with a household income of CHF 100,000 pays around 6% less in taxes than the Swiss average. At an income of CHF 300,000, the fiscal advantage increases to 8%.

**Zug offers generous tax breaks**

The differences observed in the tax burden translate into considerable sums of money (figure below right): a married couple with an income of CHF 100,000 would have to pay nearly CHF 11,000 more in taxes in the Canton of Neuchatel, and CHF 3,700 more in Zurich. At an income level of CHF 300,000, the difference would be CHF 41,000 more in Neuchatel and CHF 15,000 more in Zurich.

**Tax climate influences choice of residence and business location**

The tax burden is a key factor for companies deciding upon a location. Firms not only react to differences in profit and capital taxes, they also increasingly take into consideration the tax burden for individuals. Large multinationals, in particular, consider a mild tax climate a key prerequisite for attracting highly-qualified personnel to a certain location. Advances in mobility, and the separation of residence and workplace, make the fiscal attractiveness for individuals more important, especially for mobile, affluent persons. The Canton of Zug is ideally positioned for this challenge.

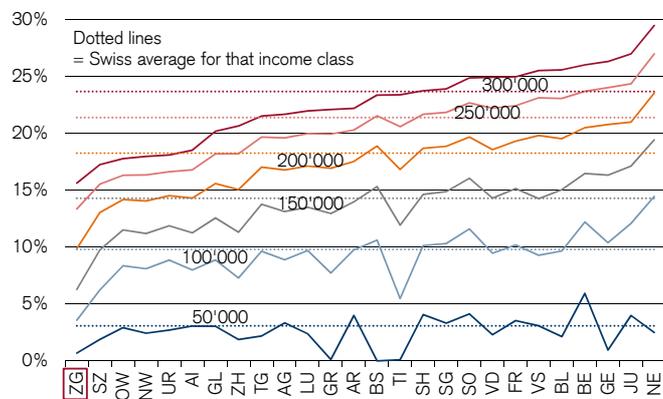
**Defending its position in fiscal competition**

The modest taxation of companies and individuals in Zug is a proven model for success. However, growth in tax receipts has slowed in recent years, and the canton's finances are currently in the red. The moderate decrease in corporate taxes foreseen as part of Corporate Tax Reform III should underpin the canton's appeal for legal entities; companies are more likely to settle there. Nonetheless, a repetition of the success story of the 2000s is unlikely. As for individuals, given the budget deficit, the main issue will be to defend their current position. The cantonal council would like to avoid tax increases for individuals, but if the budget remains unbalanced, it may have no other choice (see. p. 25).

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**Tax rates in Zug markedly lower for all income classes**

Tax burden\* as percentage of gross income, by income class, 2016, married couple with no children

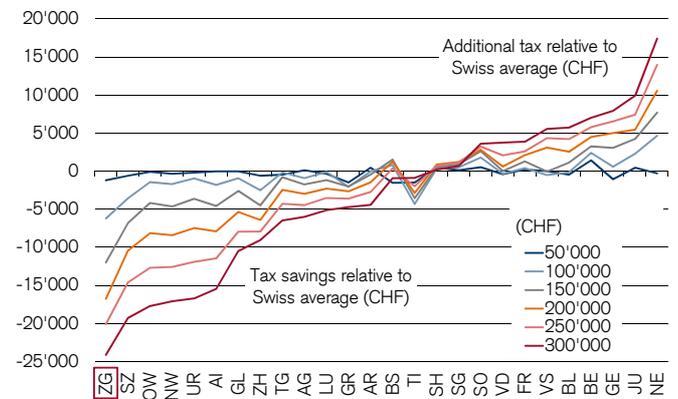


\*Income and wealth taxes at municipal, cantonal and federal level

Source: TaxWare, Credit Suisse

**Moving to Zug can lower taxes**

Difference to average Swiss tax burden\* in CHF, by income class, 2016, married couple with no children



\*Income and wealth taxes at municipal, cantonal and federal level

Source: TaxWare, Credit Suisse

## Economy | Sector structure and structural change

# Few structural risks in the sector portfolio

**Zug's popularity as a location for corporate headquarters and services companies continues unabated. Zug-West is growing the fastest, driven by the high-tech industry. In the mountain municipalities however, employment is declining.**

### Sector portfolio as basis for added value

The sector structure is of vital importance to a region's potential performance. The economy's sector breakdown, its competitiveness, and the strength of its growth not only provide an indication of the region's current economic muscle, but also enable conclusions to be drawn about its future potential growth.

### Zug is not post-industrial

Three-quarters of Zug employees work in the service sector, and this figure is around ten percentage points higher than it was in 1995. At the beginning of the 20<sup>th</sup> century, Zug was still very much an agricultural canton; today, it enjoys impressive success as a global center for trading and services. Despite the growing importance of the tertiary sector, 23% of Zug employees remain active in construction and industry, which corresponds roughly to the national average. Agriculture takes up half of the canton's area, but employs just 1.4% of its workers.

### Service offering is a locational advantage

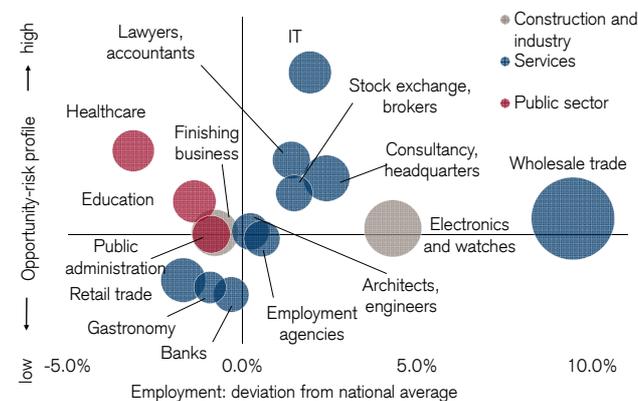
The dominant sector within the canton is wholesaling, which employs one out of seven workers. In addition to commodities trading, the marketing of pharmaceutical products is highly significant. However, Zug is also home to trade in energy sources, machinery and building technology, as well as other goods. The extremely high-value-creation life sciences are also relevant, employing around 8% of Zug employees, chiefly in the pharmaceuticals, biotechnology and medical technology businesses. Finally, Zug's employment picture is rounded out by other corporate service-providers, company headquarters, legal firms, and financial services providers. This highly specialized environment constitutes its own locational advantage for Zug, since companies moving to the area can benefit from resident expertise. Public administration and other sectors with close ties to the state continue to have a lower significance than average in Zug.

### Numerous drivers for further growth

Our assessment of the opportunities and risks for Zug's sectors indicates intact or even high growth potential for all the larger sectors. In our view, the highest potential is evident in the IT services sector (see section "Crypto Valley", p. 18). Sectors with a risk overhang include retailing and gastronomy, where the strong franc and online trade are exerting pressure throughout Switzerland. Narrow interest margins and high regulatory costs indicate that the banking industry is also in the throes of structural change.

### Mainly high-opportunity sectors

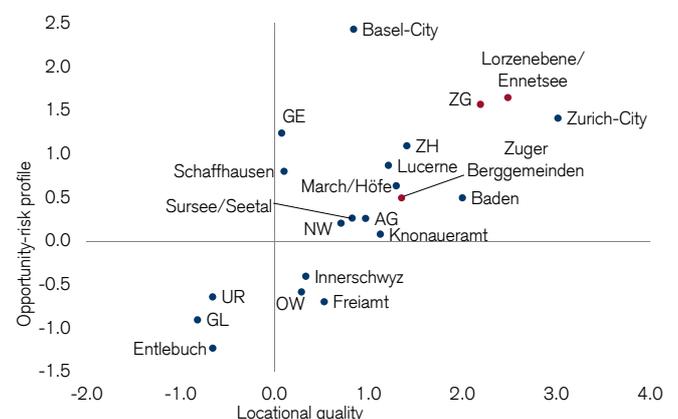
Canton of Zug, opportunity/risk profile for the 15 largest sectors, 2016  
Size of circle: Employment



Source: SFSO, Credit Suisse

### Above-average medium-term growth potential

Medium term: opportunity/risk assessment 2016, CH = 0  
Long term: locational quality 2016, synthetic index, CH = 0



Source: Credit Suisse

**High growth potential in the medium and long term**

An evaluation of the medium-term opportunity/risk profile for the entire sector portfolio gives quite a favorable result for the Canton of Zug. The canton should benefit disproportionately from an upturn in the Swiss economy. For the long-term outlook, we refer to locational quality, which measures a region's attractiveness for companies to locate there and make additional investments. Under the new fiscal conditions, Zug will continue to be an attractive location for companies to do business (see section on Corporate taxation, p 11).

**Structural change: decline opens up room for new things**

Growth in employment is not linear across the entire economy, but involves structural change. In a process of creative destruction, markets can force less productive businesses out of an area or dismantle them altogether. This frees space and capacity for the production of new, high-value goods and services. Despite consequences that are painful in the short term – such as the elimination of jobs or a temporarily high unemployment rate – such processes are vital for a competitive economy from a long-term viewpoint.

**Zug-West is the growth engine**

From 2011 to 2014, 3,300 new jobs were created in the Canton of Zug. Its growth rate of 4.1% is higher than the national average of 3%, and similar to that of the urban centers of Zurich-City and Lucerne (cf. Fig.). Half of the growth in Zug stems from corporate services, followed by administrative and social services with close ties to the state, and trading and sales sectors. Financial services and the traditional industrial sectors are in a declining trend. Moreover, employment in the Zuger Berggemeinden is decreasing slightly. In contrast, Risch and Steinhausen have posted strong growth, illustrating that even within a canton, there are considerable differences in structural momentum.

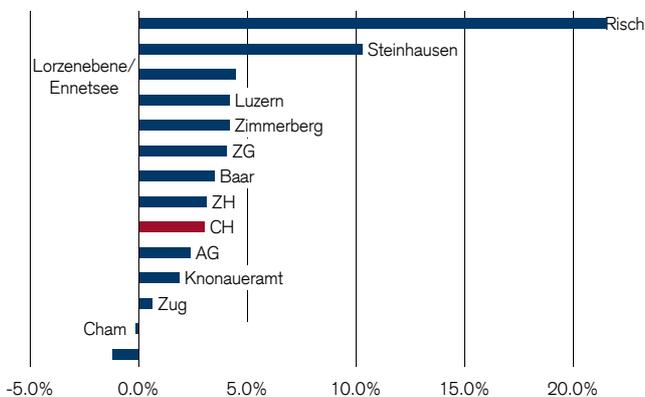
**Digitalization and “Industry 4.0” are opportunities for Zug**

The global economy is shaped by overarching megatrends. As a result of digitalization, some business models, such as trade with media, have changed fundamentally. “Industry 4.0” refers to the highly automated, data-driven integration of value chains. The service sector is also confronted by digitalization in the form of artificial intelligence, algorithms and web-based supply. This spells big changes for the world of work. Previous technological leaps have typically made jobs for lower qualified workers obsolete through automation, and this process is now increasingly affecting more challenging positions too. Zug as a business location should enjoy a net benefit from these developments, as neither the industrial nor the service sector has mass production facilities or large back offices here. Most of the jobs in Zug demand a high level of specialization and cannot be entirely replaced with digitalization, even with the technologies of the future. Moreover, as a capital of information technology, Zug can be involved in developing such solutions, and thus will tend to be on the winning side.

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**Boom in Zug-West**

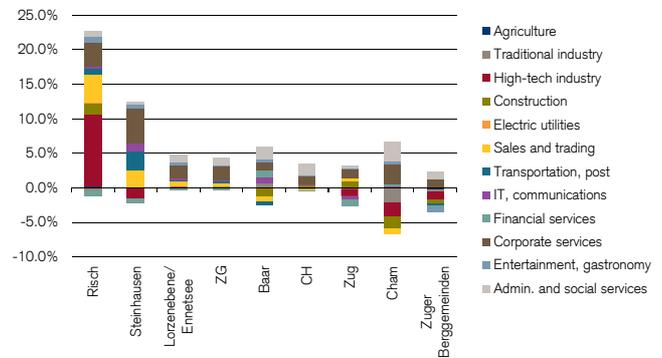
Employment growth 2011–2014 (full-time equivalents), in %



Source: SFSO, Credit Suisse

**Financial services declining**

Growth contribution by employment 2011–2013, in %



Source: SFSO, Credit Suisse

## Economy | Focus on IT services

# Stimulus from Crypto Valley

**The digitalization trend is providing a powerful stimulus to the IT sector. This above-average sector growth functions as an incubator for a FinTech cluster in the Zug region that has the potential to change the financial world.**

### Strong growth thanks to digitalization

Digitalization, the Internet of things, Industry 4.0, FinTech – these concepts all have one thing in common: they represent change, and they are helping Swiss IT services to post a strong positive performance. Over the past ten years, growth in employment in the Swiss IT sector<sup>5</sup> has increased by an average of 2.8% p.a., significantly outpacing the rate for the overall economy (+1.1% p.a.). At the end of 2016, there were around 78,000 employees in the sector. In line with employment, gross value-added also increased disproportionately. While total nominal gross value added has been rising by 1.6% p.a. on average since 2006, the figure for the IT sector is 4.0% (pharmaceuticals: +1.7%, healthcare: +4.0%, wholesaling: +2.4%). Although the IT sector typically has a domestic focus, it does account for 12% of all Swiss exports of services. IT exports rose by around 5.9% p.a. between 2006 and 2015, while total exports of services increased by just 2.2%. This dynamic growth in IT services should continue: our opportunity/risk valuation<sup>6</sup> assumes that the ongoing and accelerating digitalization process contains disproportionately high growth potential for the IT services sector. No sector in Switzerland has a better opportunity/risk valuation.

### IT job density highest in Canton of Zug

The IT sector is not represented evenly throughout Switzerland. The largest share of IT jobs, around 32%, is in the Canton of Zurich, followed by the Lake Geneva region and the Bern economic region. The density of IT services, however, is greatest in the Canton of Zug, if measured as a percentage of total employment. In Zug, 3.9% of all employees work for an IT services firm, compared with 2.0% for Switzerland as a whole. The total number of jobs in Zug increased by 1.3% p.a. from 2011 to 2014, but the IT sector created around 2.6% new jobs each year. This shows that Zug's IT services firms grew dynamically, but not faster than in other areas of Switzerland. The municipality of Baar contributed most to this increase, hosting around half of the newly-created IT jobs in Zug between 2011 and 2014. This corresponds to average annual growth of around 5.4%. Most of Zug's IT services firms are active in consulting (50%) and programming (45%). Furthermore, IT firms settling in Zug in recent years have included those that offer not only information technology services, but a mixture of IT and financial services, which are referred to as "FinTech" companies.

### Crypto Valley Zug: encryption technology takes off

At the end of 2016, there were 174 FinTech firms in Switzerland, around 60% of which were based in the greater Zurich area.<sup>7</sup> While Zurich hosts various types of FinTech companies, most of those in the City of Zug are specialized in encryption technology. This is why, in a play on words on "Silicon Valley," Zug is sometimes called "Crypto Valley." An important foundation stone was laid with the arrival of Monetas in 2013. This international FinTech company seeks to use blockchain technology (see box) and a digital contract platform to simplify global access to financial services and increase their efficiency. Since then, more FinTech heavyweights, such as Ethereum and Xapo, have moved to Zug. Ethereum offers a type of contract platform with its own digital currency (Ether), while Xapo specializes in the secure storage of bitcoins.

<sup>5</sup> Unless otherwise stated, we use a narrow definition of IT services (provision of information technology services). The broader definition of the IT sector would include even more jobs (e.g. in banks, insurance companies and telecommunications companies): the authorities in Zug allocate nearly 9% of all full-time equivalent jobs to the ICT cluster.

<sup>6</sup> See "Sector Handbook 2017 – Improving outlook in most industrial sectors", Credit Suisse 2017

<sup>7</sup> See Swisscom: Swiss FinTech Start-up Map



## Economy | Office market

## New tenants needed

Despite the high locational quality for companies, Zug's office market faces a challenging demand situation. As a result, investors are being more cautious.

### Barely any increase in demand in 2017

In terms of square meters, the Lorzenebene/Ennetsee region is one of the Switzerland's ten largest office markets. The concentration of office space is relatively high in the region, corresponding to around 12.5m<sup>2</sup> per capita. This gives the Lorzenebene/Ennetsee region a higher amount of office space per capita than in the centers of Basel, Bern and Geneva, putting it in second place behind the city of Zurich. There was a disproportionate increase of 4.1% in office jobs in the region from 2011 to 2014 (CH: 3.0%). Areas with the highest job creation were Rotkreuz, Steinhausen and the central business district (CBD) of the city of Zug (cf. Fig.). The latter, however, also contained areas where office employment fell sharply. According to our opportunity/risk valuation, the Canton of Zug's sector structure displays above-average medium-term growth potential. Due to the business cycle, however, the sectors with the highest shares of jobs are not currently generating any measurable additional demand for office space. There are new potential consumers in the market, but these are not in a position to offset the weakening absorption of the traditional office users. These, in turn, are making efforts to optimize – and reduce – their use of floor space. We therefore expect the Lorzenebene/Ennetsee region to report only meager organic growth in office space in 2017.

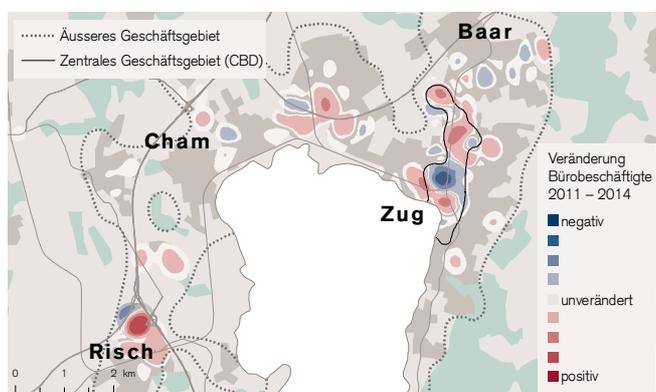
### Supply likely to remain high

The high locational attractiveness of the Lorzenebene/Ennetsee region has not only stimulated demand, but also encouraged expansion in supply in recent years. However, the supply rate of 3.6% remains below the Swiss average of 4.2%. Central regions along Lake Geneva and in Zurich, in particular, display higher values. Currently, around 45,000 m<sup>2</sup> of office space is available for rent, about a quarter more than a year earlier. In the city of Zug itself, over 10,000 m<sup>2</sup> of office space is vacant. Given the volume of planned construction projects, the regional supply is highly likely to increase further in the years ahead. Planned investment volumes reached a total of CHF 57 million over the last 12 months, just slightly less than the long-term average (cf. Fig.). Much of this amount stems from the Suurstoffi project in Rotkreuz. There has been very little investment in office space in the city of Zug since the end of 2014. Although there is no shortage of project ideas, the uncertain demand trend has made investors more cautious. Over a medium to long-term horizon, though, there are major office projects in Zug in the planning stage.

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### Spatial trend in office employment

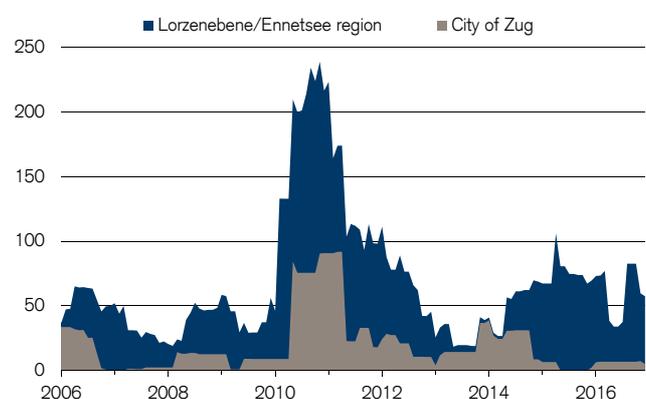
Change in office employment, absolute per ha, 2011–2014



Source: Meta-Sys AG, Credit Suisse

### Planned office construction volumes

12-month sum in CHF m; % for large and mid-sized centers



Source: Baublatt, Credit Suisse

## Living | Financial residential attractiveness

# Low charges, high prices

No other Swiss canton has lower mandatory charges than Zug, and despite the fact that the general cost of living is high, for several years now, more people are again migrating to Zug from other cantons than in the opposite direction.

### Migration from other cantons

The Canton of Zug is a good place to live, and the surge in population growth in the last few years proves it. Only in Fribourg and Vaud has the population risen higher since 2000. Until a few years ago, it was mainly immigration from abroad that drove strong population growth in Zug; Swiss residents, on the other hand, were leaving Zug for neighboring cantons. This trend has reversed. Since 2014, significantly more people are again moving to Zug from other cantons than in the opposite direction. Immigration from abroad has stabilized at a high level over the same period.

### Mediocre financial residential attractiveness

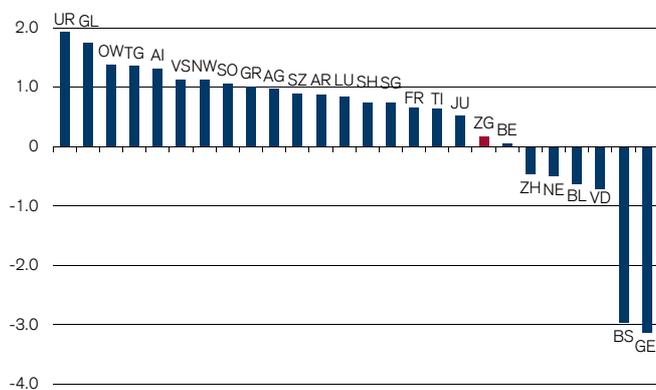
One critical factor in the choice of a residence is the region's financial attractiveness – specifically: how much income is left over after deducting all expenses, such as housing, taxes, health insurance premiums, and commuting costs? For a broadly-defined middle class, freely-disposable income in the Canton of Zug is slightly higher than the Swiss average. This only allows Zug to reach 19<sup>th</sup> place among the cantons in our RDI (regional disposable income) indicator<sup>8</sup>, but nevertheless, residents of Zug have more income left over at the end of the month than those of Zurich, Basel and Geneva.

### Menzingen cheapest, Zug most expensive

Within the Canton of Zug, the municipality of Menzingen has the cheapest cost of living. Here, a family with two children and an income of CHF 150,000 has around CHF 76,400 of disposable income, after deducting all mandatory charges and costs. This sample family lives in a single-family dwelling, equipped to a medium standard, and the employed parent commutes to work in Zurich by car. The lowest residual income would be available to the same family in the city of Zug, with CHF 47,800 – around CHF 28,600 less than in Menzingen. The reason for this discrepancy is the price of real estate: housing costs for the sample family would be a good 60% higher in the city of Zug. If, instead of the sample family, we consider an average of all household types, the lowest amount of disposable income is in Walchwil.

### Cost of living weighs on financial residential attractiveness

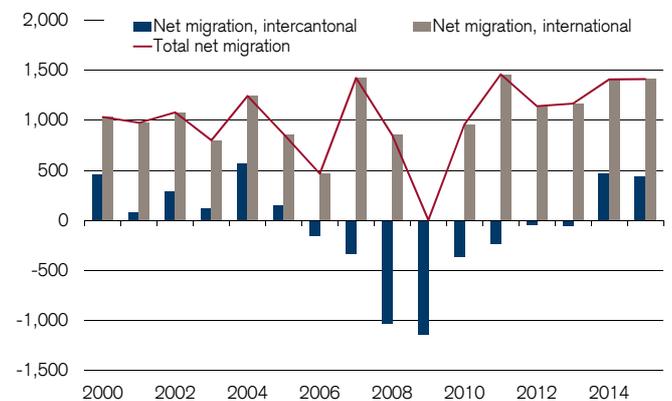
Freely Disposable Income (RDI indicator) 2016, CH = 0



Source: Credit Suisse

### Back to net migration from other cantons

Net migration, Canton of Zug



Source: SFSO, Credit Suisse

<sup>8</sup> "Living, Commuting, Childcare: Where's the Least Expensive Place to Live?" Credit Suisse, 2016

**Low tax burden, high cost of living**

The previous example highlights the composition of household costs in Zug: in no other canton are taxes lower than in Zug, and health insurance premiums are also low compared to other cantons. At the same time, in few other cantons are real estate prices, and thus housing costs, higher (see p. 23). As a result, Zug – from a purely financial perspective – is attractive particularly for households with high incomes, since the tax burden is a weightier consideration for them than housing costs. For households with medium to low incomes, on the other hand, housing costs are decisive, and Zug's disadvantages here outweigh the fiscal advantages for many of these households.

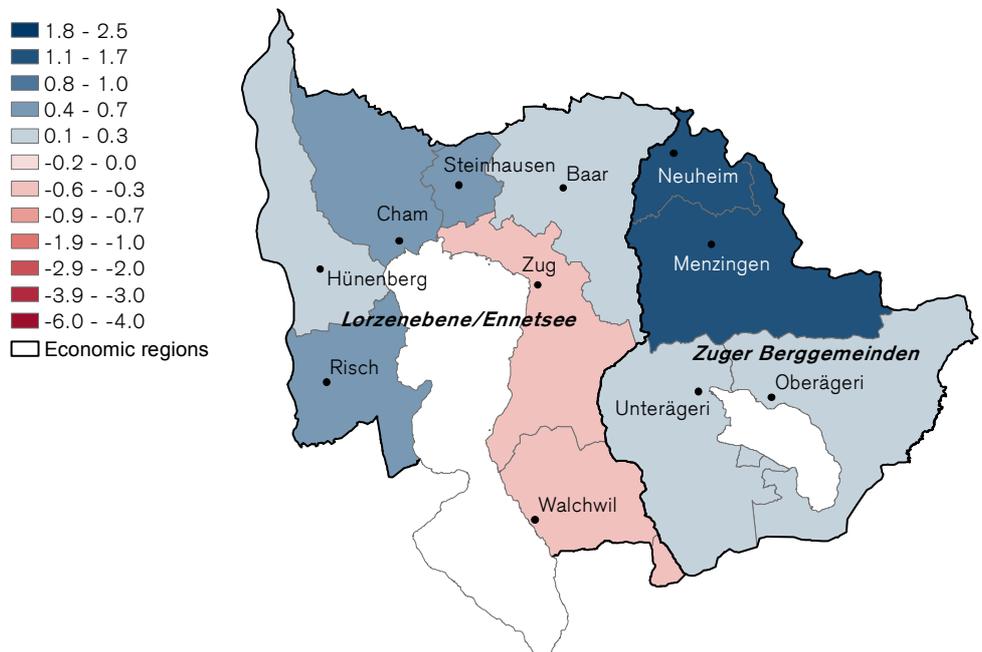
**No exodus of families**

So is the Canton of Zug unattractive for families with children? Since such households are typically found in the middle of the income distribution, housing costs take up a higher percentage of their budgets than is the case for higher-income households. The structural survey of the Swiss census suggests that families with children are not leaving the canton in unusual numbers. Between 2009 and 2014, around 3,100 singles and childless couples moved to the Canton of Zug from other parts of Switzerland, while only 1,200 households with children did so. However, once those who moved away are subtracted from these numbers, a similarly negative net result is found in both household categories. Childless households are more flexible, and thus more likely to move. The picture is different in the city of Zug: there, a balance of around 530 childless households moved in between 2009 and 2014, while the net migration of households of children was –130. Many of these families stayed in the canton, though, moving to suburbs such as Cham, Steinhausen and Hünenberg.

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**Residual income is lowest in the city of Zug and in Walchwil**

Freely Disposable Income (RDI indicator) 2016, CH = 0



Source: Credit Suisse

## Living | Residential real estate

## Correction in the luxury segment

In contrast to other regions of Switzerland, there is no oversupply in Zug's housing market, and vacancies remain at a very low level. However, the upper price segment of owner-occupied housing has seen a considerable decline in prices, and more marketing effort is required to sell properties.

## Construction activity in a multi-year decline

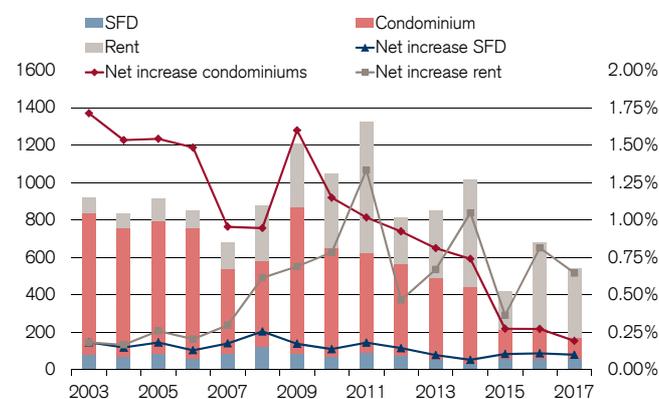
Unlike most other regions of Switzerland, where the net increase in housing units is still at a very high level, construction activity in the Canton of Zug has been declining for several years. Over the past 12 months, building permits have been issued for a total of 540 housing units, around 37% less than the average for the last ten years. More than two-thirds of the approved housing units, which should come onto the market in one-to-two years, are rental apartments. The figure below shows the dwindling net increase for various housing types. Despite low interest rates, which have played a key role in the extensive increase in rental apartments throughout Switzerland, the output of apartments in Zug has fallen by around one-third since 2011. Within the canton, however, there are significant regional differences. For example, the planned increase in housing in the Zuger Berggemeinden of 1.52% of the housing inventory is higher than the Swiss average (1.17%), while the Lorzenebene/Ennetsee region was lower at 0.83%.

## Planned increase falls short of absorption potential

The planned increase for the entire Canton of Zug amounts to 0.95%, well below the average absorption over the last five years of 1.86%. The low number of planned apartments should thus be absorbed without major problems. In contrast to the trend in Switzerland as a whole, the Canton of Zug is in the comfortable position of having no oversupply in the rental apartment segment. The current vacancy rate of 0.35% is substantially lower than the national average of 1.3%. Since the planned increase in housing units is relatively modest, vacancies in the Canton of Zug should barely rise this year, and remain at a very low level. In the Zuger Berggemeinden, the vacancy rate actually plunged from 0.76% to 0.37% in 2016, and is now nearly at the level of the Lorzenebene/Ennetsee region (cf. Fig.). Taking a long-term view, several major projects are in the planning stage: in the Unterfeld zone, at the border of Baar and Zug, for example, 700 apartments are slated for construction.

## Falling net increase

LHS: net increase in housing units based on building permits in the previous year.  
RHS: increase as % of existing home inventory (2017 = forecast)

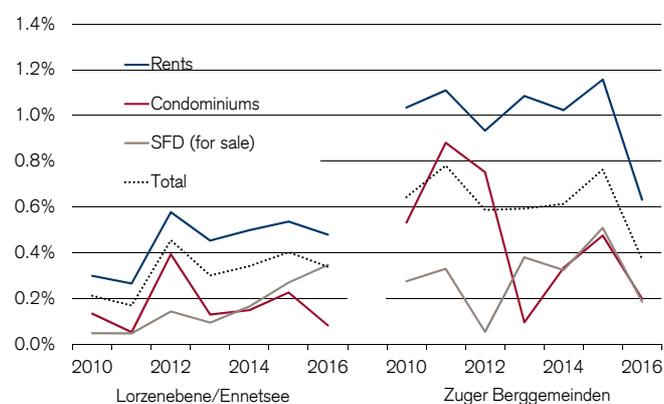


SFD: single-family dwellings (for sale); condominiums

Source: Baublatt, Credit Suisse

## Low vacancies

Vacancy rates by segment and economic region, in %



Source: SFSO, Credit Suisse

### Affordability the biggest hurdle for homeowners

The sharp decline in production of owner-occupied housing is a reaction by project developers to dwindling demand. The dream of homeownership is still vivid for many households, thanks to the persistently low level of mortgage interest rates. However, real estate has reached a prohibitive price level, and financing requirements are so strict that increasingly fewer households can realize that dream. Potential homeowners can compromise on the standard, the size or the location in order to lower their housing costs. A new condominium equipped to average standards costs around CHF 1,434,000 in the City of Zug, for example, but only around CHF 939,000 in Menzingen (cf. Fig.).

### Prices falling in luxury segment

In addition to regional diversification, affordability challenges also help to shift demand for owner-occupied housing into lower price segments. The shift is clearly evident in the price growth of individual segments (cf. Fig.): prices for objects in the upper segment fell by 4.2% from 2015 to 2016. Price growth for medium objects has weakened noticeably, but is still positive at 1.7%. In contrast, prices for simple objects shot up by 9.4%. It is increasingly difficult to sell houses in the high-price segment, and this is reflected in the length of time these objects are advertised. There are substantial regional differences here, with the Zuger Berggemeinden affected to a far greater extent than municipalities around Lake Zug. Condominiums in the Zuger Berggemeinden were advertised for a median of 120 days in 2016 (2015: 100 days), while the figure for the Lorzenebene/Ennetsee region was just 97 days (2015: 68 days). The longer advertising period is probably a direct result of the high price level, and the associated decline in demand in the upper price segment. Many sellers have not yet taken this demand shift sufficiently into consideration in their asking prices.

### Market for owner-occupied housing continues to settle

We expect price growth in the medium housing segment in the Canton of Zug to weaken further in 2017, after the rate more than halved in 2016 compared to the previous year. Further price declines must be expected in the luxury segment again this year. In light of the discrepancy between growth rates for owner-occupied housing prices and incomes in the Canton of Zug, this is a welcome correction that contributes to longer-term market stability.

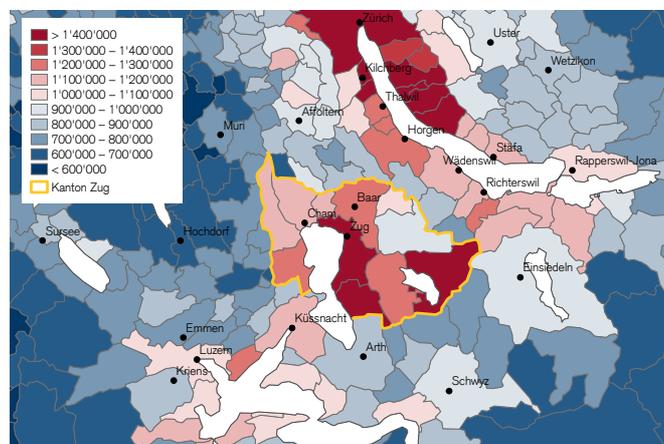
### Greater marketing effort also required for rental apartments

Marketing rental apartments in the upper price segments is also becoming more difficult. Since the highs at the end of 2014, advertised rents for the most expensive 10% of all rental objects have dropped by more than 6%. The advertising period is also rising throughout the canton. On average, rental apartments in the Lorzenebene/Ennetsee region were advertised for 40 days in 2016 (2015: 32), and in the Zuger Berggemeinden for 45 days (2015: 40), which is in line with the Swiss average of 43 days. Despite the relative scarcity of housing in the canton, apartment leasing – particularly in the high price segment – is no longer a business that runs itself.

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### High prices for condominiums

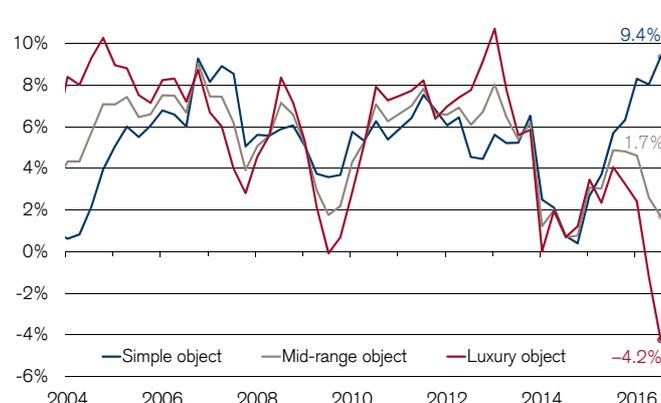
Transaction prices for a mid-sized condominium (110 m<sup>2</sup>), new build, in CHF



Source: Wüest & Partner, Credit Suisse, Geostat

### Prices declining in the luxury segment

Annual growth rates for owner-occupied housing by segment, MS Region Zug, in %



Source: Wüest & Partner, Credit Suisse

## Cantonal finances

# Tensions growing

**While the Canton of Zug occupies top spot in many areas, its budget displays a structural deficit, and voters have rejected an austerity program. How can the canton get its finances back in the black?**

### Austerity program rejected

The finances of the Canton of Zug have been in the red since 2013 (cf. Fig.), and according to the financial plan, this is not going to change any time soon. By 2020, the canton will be spending around CHF 100 million more than it takes in each year. The currently impressive equity of around CHF 900 million will shrink to CHF 200 million if no countermeasures are taken. Saving is urgently required, but the cantonal stimulus program has got stuck halfway: 53% of Zug's voters rejected a package of measures designed to trim CHF 40 million from the government budget each year. The next savings program, scheduled for 2019, will likely have even greater cuts.

### Victim of its own success

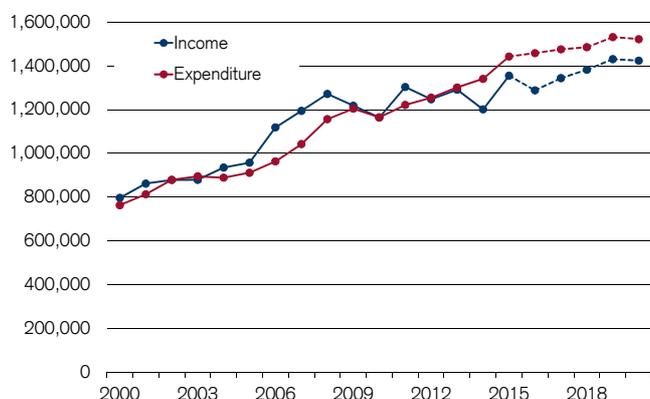
How did the otherwise so successful Central Swiss canton get into this sticky financial situation? One of the main culprits is success itself. With its low-tax strategy, Zug has attracted a great number of companies and affluent individuals over recent years. Tax revenues have flowed in, government services have been expanded, and the canton has invested. In the meantime, growth in tax receipts has flattened off, but spending has continued to increase. On top of that came record-high payments into the national fiscal equalization scheme (NFE). The payment of CHF 340 million (CHF 2,900 per inhabitant) due in 2017 sets a new record for the canton's contribution.

### Solidarity wearing thin

The fiscal equalization contribution now accounts for nearly a quarter of the canton's entire spending (cf. Fig.). This steep bill for the financial adjustment in 2017 is based on the years 2011–2013. Resource equalization – the most important element of the NFE – is based on theoretical taxable income, assets and corporate earnings. Since Zug collected extraordinarily high revenues in 2011, that figure also applied to cantonal resource potential in the corresponding year, resulting in a high fiscal equalization contribution. The canton has set up reserves for the anticipated high NFE payments, but these will be used up quickly if the budget deficit persists.

### Zug set to lose CHF 100 m p.a. after 2017

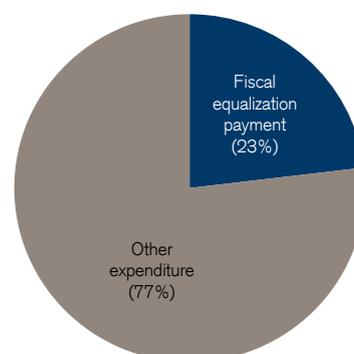
Income and expenditure in current accounts, in CHF, after 2016: budget/plan



Source: Federal Department of Finance, Zug Department of Finance, Credit Suisse

### Fiscal equalization is the biggest budget position

Fiscal equalization payment as a share of total expenditure, budget 2017



Source: Federal Department of Finance, Zug Department of Finance, Credit Suisse

### Cut spending or raise taxes?

How can the canton get its finances back in the black? As long as tax increases are taboo and the economy is only growing hesitantly, Zug will have to cut spending. With a hiring freeze and some 150 other measures, the canton was able to ease the budget by CHF 50 million in 2015. The above-mentioned package with another 50 measures, affecting all areas of government activity, was rejected in a 2016 referendum. Families, mothers, individuals in need of care and teachers, among others, would have been affected by the service cuts.

### Tax burden vs. service level

So where can Zug start trimming? In a first step, the canton will likely extract the less controversial measures to make a new package that is capable of gaining a majority. However, this will hardly be sufficient to offset the anticipated deficits. Moreover, high investments will continue to weigh on the budget in the years to come. If the population is not prepared to give up its current level of services, an increase in taxes is inevitable. In the 2017 reference year (based on 2011–2013 receipts), only the Canton of Schwyz is collecting a lower share of taxable income, assets and corporate earnings than the Canton of Zug (cf. Fig.). Schwyz has tested the limits of fiscal competition: after years of deficits, the canton had to raise taxes. Zug will also have to renegotiate the conflicting demands of a low tax burden and high levels of services, even though it enjoys far more economic potential than its neighboring canton.

### Tax reform: the real test

The next text for the future fiscal policy will likely be the cantonal implementation of Corporate Tax Reform III (see. p. 11). If the national reform is approved by voters in February 2017, Zug will tackle the implementation at cantonal level, which foresees a uniform corporate profit tax of around 12% for all types of firms. Although, according to the canton, reductions and increases in revenue balance each other out, and no charges must be transferred from companies to individual taxpayers, the conflict surrounding the reform is likely to be played out along the separate fronts of the cost-cutting debate.

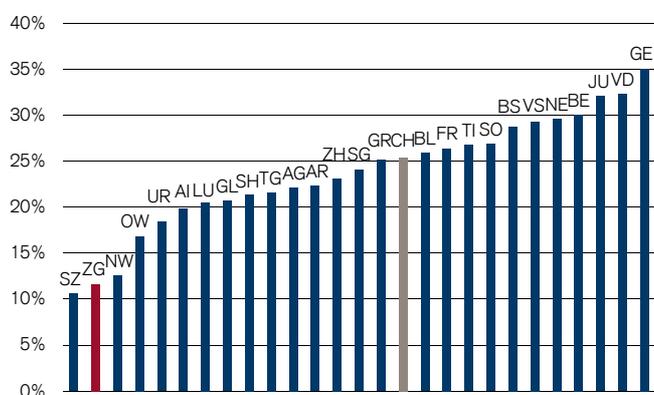
### Zug has reserves

Despite the dark clouds on the horizon, Zug's budget situation is not yet desperate. The canton has little debt – in fact, taking financial assets into account, it actually has impressive net assets. It has also set aside reserves to tide it over in the likely leaner years ahead (cf. Fig.). Still, time is pressing. Zug needs to draft a balanced financial and locational strategy for the years to come, in collaboration with its population and companies – a task that cannot be completed overnight.

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#### Zug not making the most of its potential

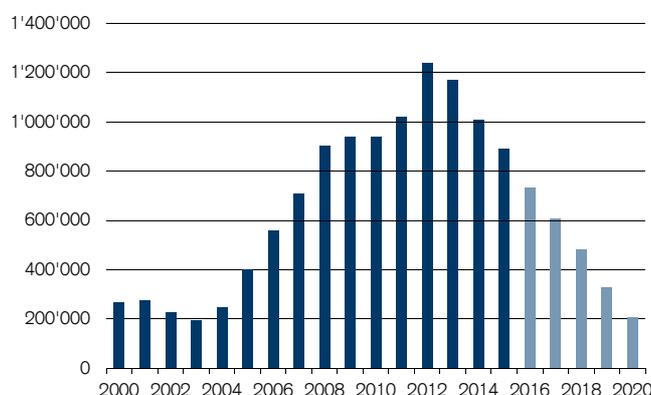
Actual tax receipts to theoretically taxable resources, reference year 2017



Source: Federal Department of Finance, Credit Suisse

#### Cantonal reserves dwindling

Equity in CHF, Canton of Zug (from 2016: budget/plan)



Source: Federal Department of Finance, Zug Department of Finance, Credit Suisse

## Cantonal finances

### After tax reform, Zug would have to pay more

Corporate Tax Reform III would also have an impact on the national fiscal equalization scheme (NFE). According to government estimates, the Canton of Zug would have to pay over CHF 300 more per person than it does today, pushing the payment over the CHF 3,000 per person threshold. The reason is the composition of the cantonal tax base used when calculating the NFE. In Zug, this includes a relatively high share of corporate earnings. The weighting for corporate earnings in the NFE would have to be adjusted to reflect the tax reform. This would change the resource potential throughout Switzerland, and with it, the cantonal payments.

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### Revenues increasing more slowly

Lower taxes and yet increases receipts – Zug showed that this could be achieved in the 2000s. As companies and residents moved to the canton, the tax base was enlarged to such an extent that tax revenues increased, despite the lower tax rate. In recent years, tax receipts have been stagnant, at a high level of just over CHF 600 million annually. The Department of Finance expects the figure to increase slightly by 2020. The figure shows the huge significance of corporate taxes for the canton: nearly 40% of revenues are collected from legal entities. This makes the verdict on Corporate Tax Reform III all the more critical for Zug.

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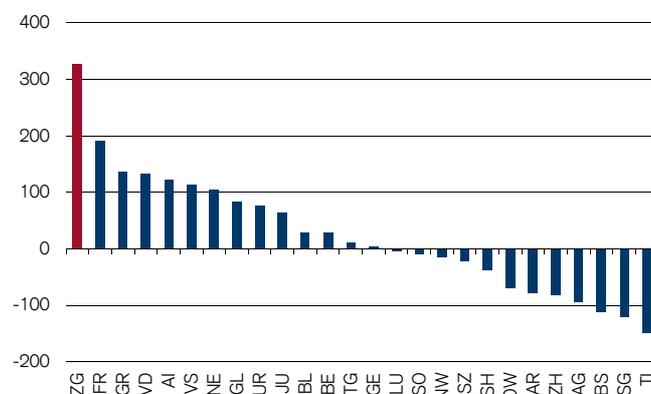
### The canton has some leeway

The surge in tax receipts after 2000 enabled the Canton of Zug not only to reduce its net debt, but indeed to amass net assets. Netting the canton's borrowed funds with its financial assets results in net assets of around CHF 3,500 per inhabitant. Thanks to these reserves, the Canton of Zug maintains a comfortable cushion, despite deteriorating financial conditions. Switzerland's highest net assets are reported by the Canton of Graubünden, and the highest net debt by the Canton of Geneva. The average for all cantons is a net debt of CHF 3,800.

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### CTR III and fiscal equalization

Change in payment in CHF/inhabitant, estimate, reference year 2015



Source: Federal Tax Authority, Credit Suisse

### Cantonal tax receipts

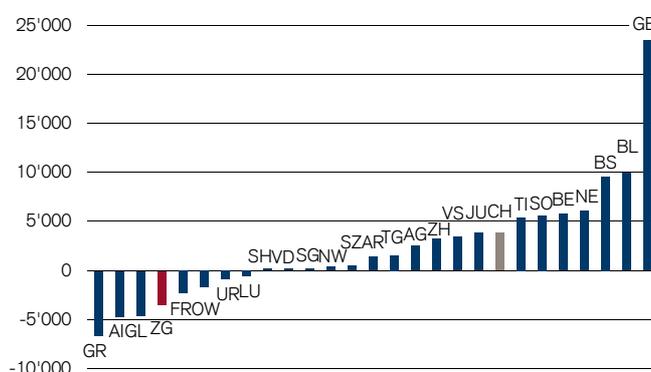
In CHF m



Source: Federal Department of Finance, Zug Department of Finance, Credit Suisse

### Net debt

In CHF per inhabitant, 2015



Source: Federal Department of Finance, Credit Suisse

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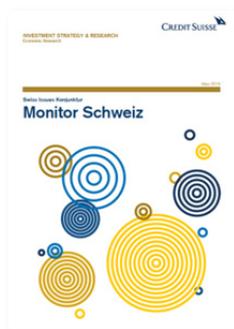
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