

IT cost survey for Swiss banks 2017

Evaluation report (based on 2016 effective data and 2017 budget data)

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Introduction

- itopia

 - Small independent Swiss consulting company with 15 professionals
 - Specialized in IT governance, project services and risk management

- IT cost survey

 - Performed on a yearly basis since 2000 with more than 12'000 data points
 - Participants are small and medium-sized retail and private banks
 - Pragmatic approach: questionnaire with nine raw data and profile for bank complexity

- participants
2016/2017

 - 33 banks: 21 (rather) retail banks, 12 (rather) private banks
 - High constancy and comparability: $\frac{3}{4}$ of year 2000 participants are still participating today

- iR = itopia Ratio

 - Main coefficient used in the IT cost survey
 - Based on IT costs, balance assets and assets under management
 - We consider this coefficient to be better than volatile earning-based ratios (e.g. cost-income-ratio)

- Cost for data feed

We consider cost for data feed as “business costs” and therefore these costs are not included in the IT costs all over the presentation.

- iR_{raw}

$$iR_{raw} = \frac{\text{IT costs excl. data feed}}{1.1 \times (\text{balance_assets}) + 0.3 \times (\text{assets_under_management})}$$

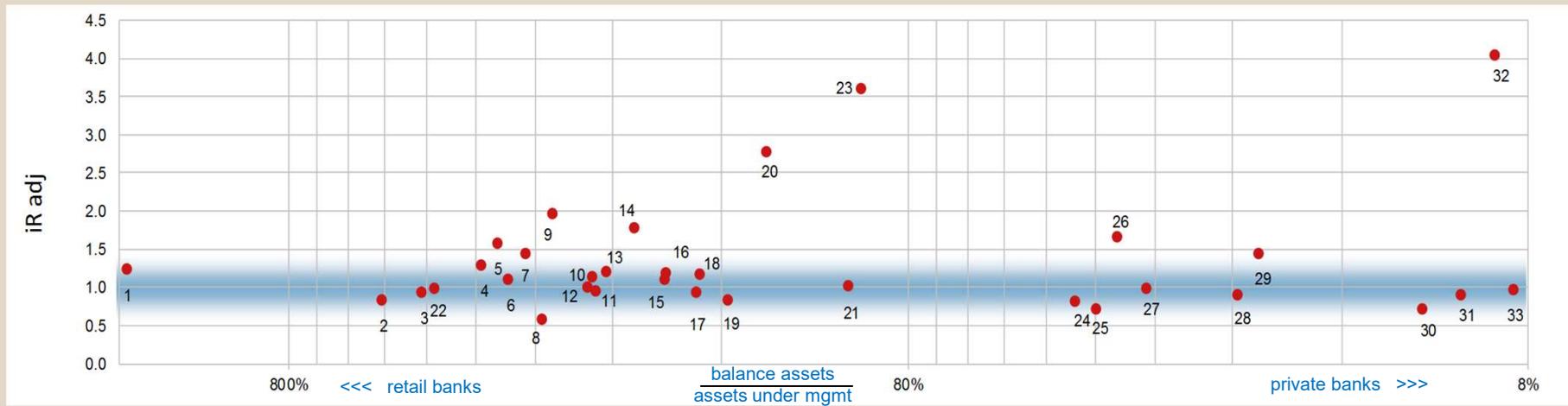
- iR_{adj}

 - To allow comparability of banks, the bank complexity (f_{Bank}) has to be considered in the formula
 - Bank complexity is derived from a profile assessed by the bank itself

$$iR_{adj} = \frac{\text{IT costs excl. data feed}}{1.1 \times (\text{balance_assets}) + 0.3 \times (\text{assets_under_management})} \times \frac{1}{f_{Bank}}$$

Year 2016

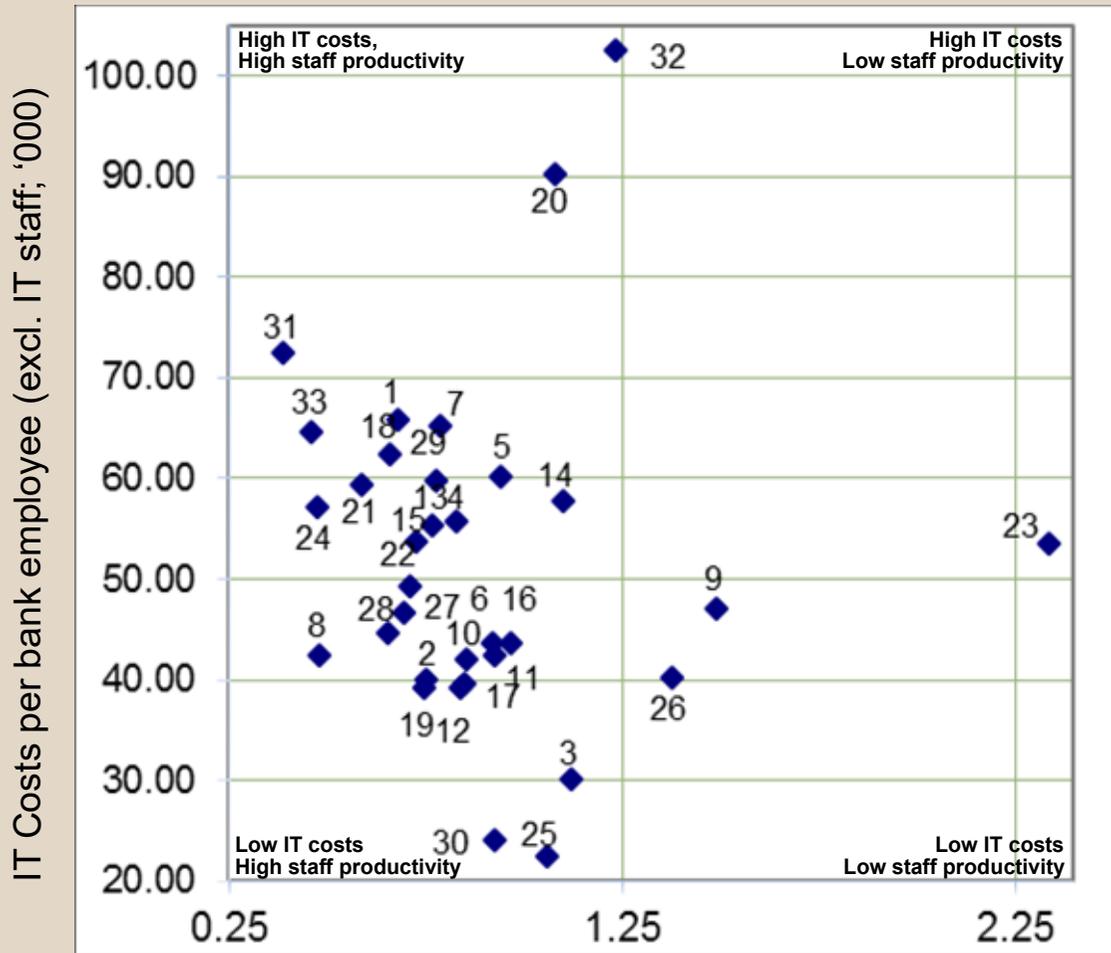
IT cost coefficient iR adj (grouped along business model)



- The sorting criteria on this slide is balance assets / assets under management. The horizontal distance is measured in percentage. Thus the closer two banks are, the more similar is their ratio of balance assets / assets under management, and consequently their business model.
- The red dots represent the adjusted IT cost coefficient iR adj. The blue band represents the target zone for iR adj: an ideal-typical bank would have an iR adj = 1.0. A bank with an iR adj of 2.0 spends +100% more in IT costs than an ideal-typical bank with iR adj = 1.0.
- 16 banks (8 retail, 8 private banks) have an iR adj of at or below 1. Last year, only 13 banks (7 retail, 6 private banks) had this value. This indicates that iR adj is still on a downwards trend.
- 4 banks have an iR adj of 2 or above (2 retail, 2 private banks). Compared to last year, this represents a slight improvement on the upper end (in 2015 5 banks were above an iR adj of 2: 2 retail, 3 private banks).

Year 2016

IT costs per bank employee (excl. IT staff) in relation to pR adj



This chart sets the **IT costs per bank employee** (excl. IT staff) in relation to the **staff productivity pR adj** of the bank.

Those banks have room for strategic and/or tactical improvements, that have

- **High IT costs** and a **low staff productivity**. Effective operations might not be well supported by IT.
- **Low IT costs** and **low staff productivity**. The number of employees might not be adequate (too high) and therefore, the IT's capabilities to support operational excellence not given.

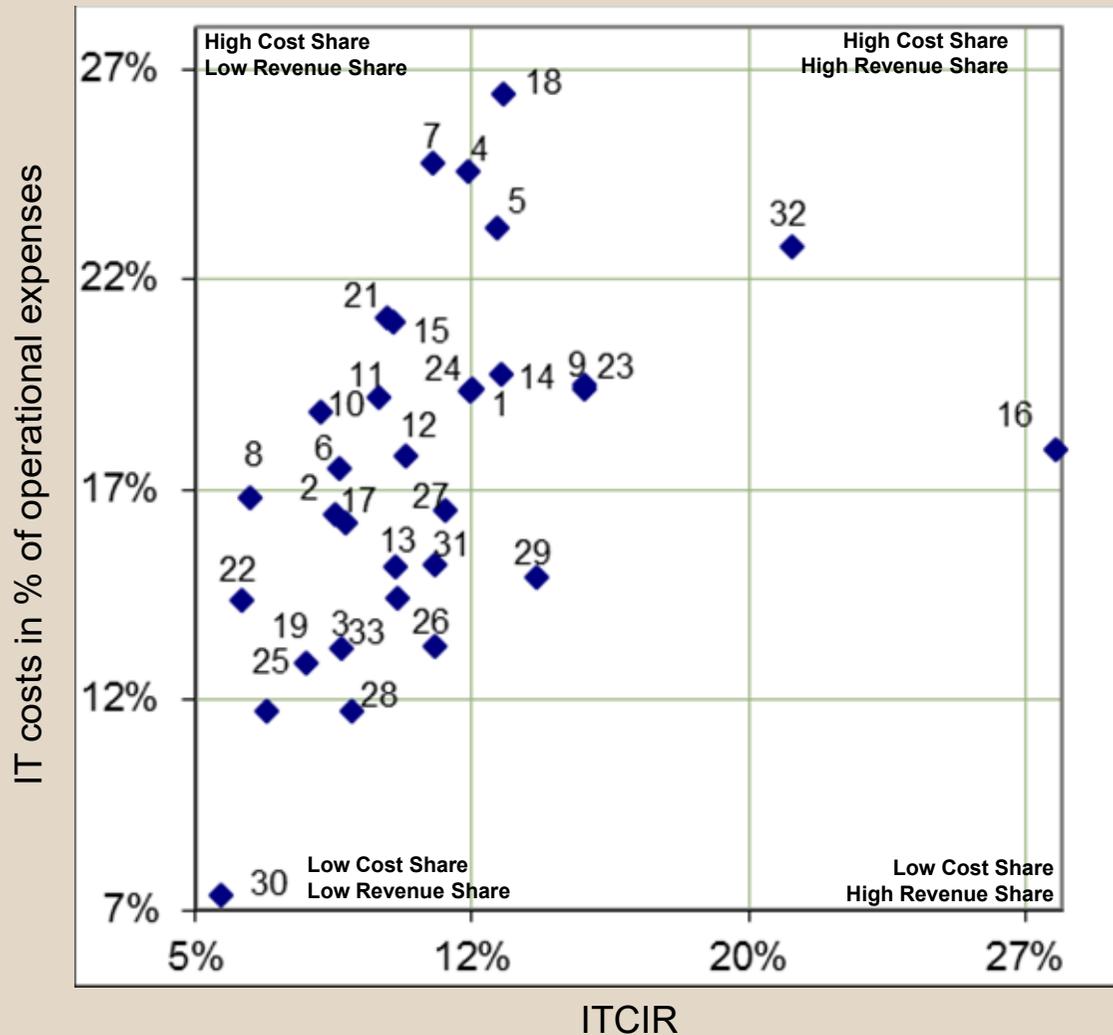
Some banks invest in their IT above-average and have therefore **high IT costs**. At the same time, they are also experiencing **high staff productivity**. There might be potential in adjusting the degree of quality [installed vs. desired] and discovering unwanted redundancy.

Some banks have **low IT costs** and at the same time a **high staff productivity**. That seems to be the silver bullet. However, banks should not get too comfortable in this position and keep an eye on potential operational risks, as well as market trends.

$$pR_{adj} = \frac{\# \text{ bank employees excl. ITstaff}}{30 \times (\text{balance_assets}) + 10 \times (\text{assets_under_management})} \times \frac{1}{f_{Bank}}$$

Year 2016

IT costs in % of operational expenses in relation to ITCIR



This chart sets the **IT costs in percentage of operational expenses OPEX** in relation to the **IT cost income ratio ITCIR** (IT costs in % of operating income) of the bank.

Those banks have room for strategical and/or tactical improvements, that have IT costs taking up a

- **High share of both, OPEX and net revenues** (due to, for example, a lack of automatization and therefore a low profitability).
- **Low cost share and a high revenue share** (IT might not fulfil its role as an enabler for new revenues adequately).

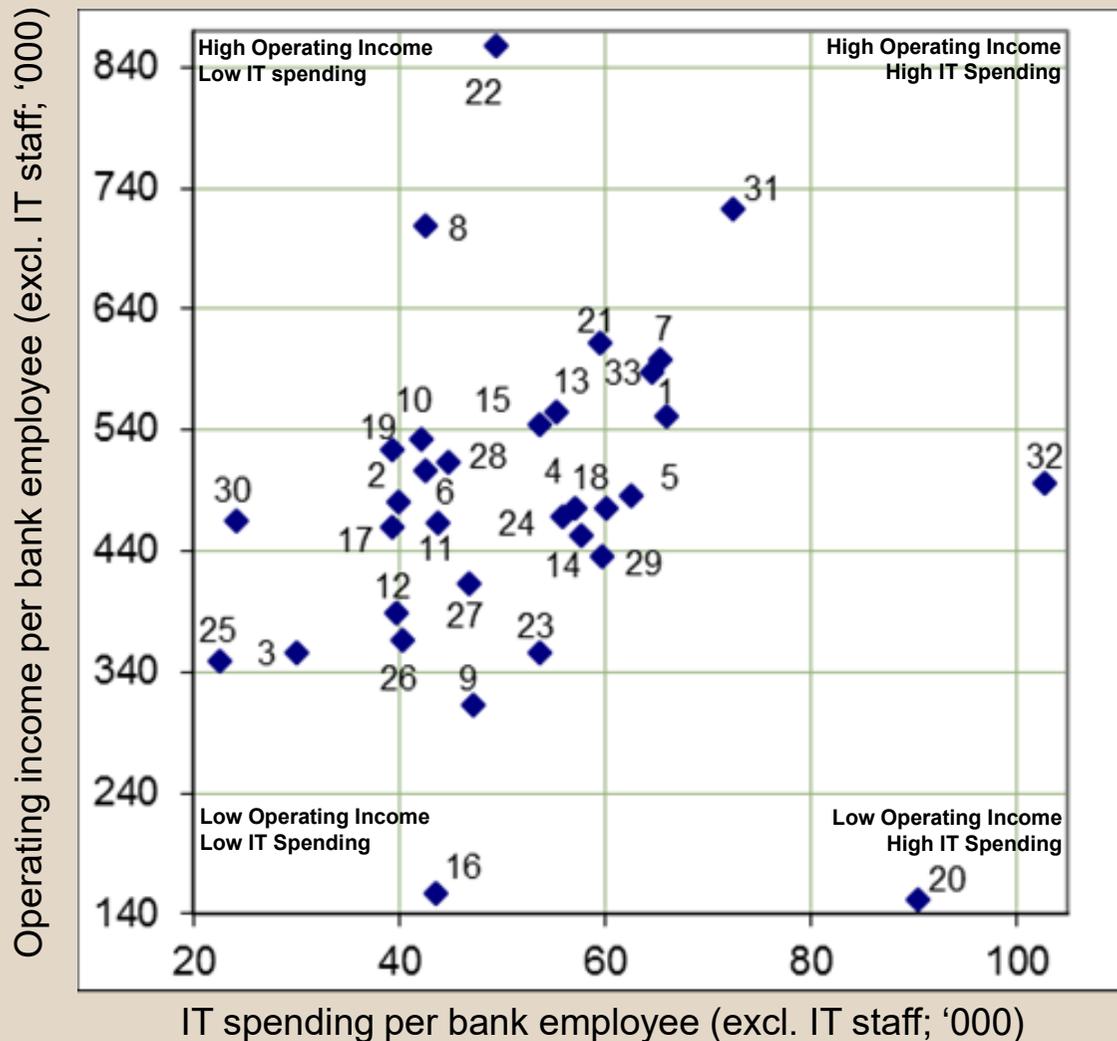
Banks that invest profitably in their IT have a **high share of costs**, but a **low share of revenues**.

Banks that have a **low share of both, OPEX and net revenues**, have the best opportunities to allocate more resources for additional investments.

*) Bank ID 20 is positioned outside of the chart with a value of 35% (IT costs in % of operational expenses)//60% (ITCIR).

Year 2016

Operating income / IT costs - per bank employee (excl. IT staff)



This chart presents a more detailed correlation analysis of **IT spending and business-value generation** (both income and cost efficiency).

Ideally, a bank can transform its IT expenditure into an at least proportional increase in business value.

The differences in business-value generation are considerable among the banks.

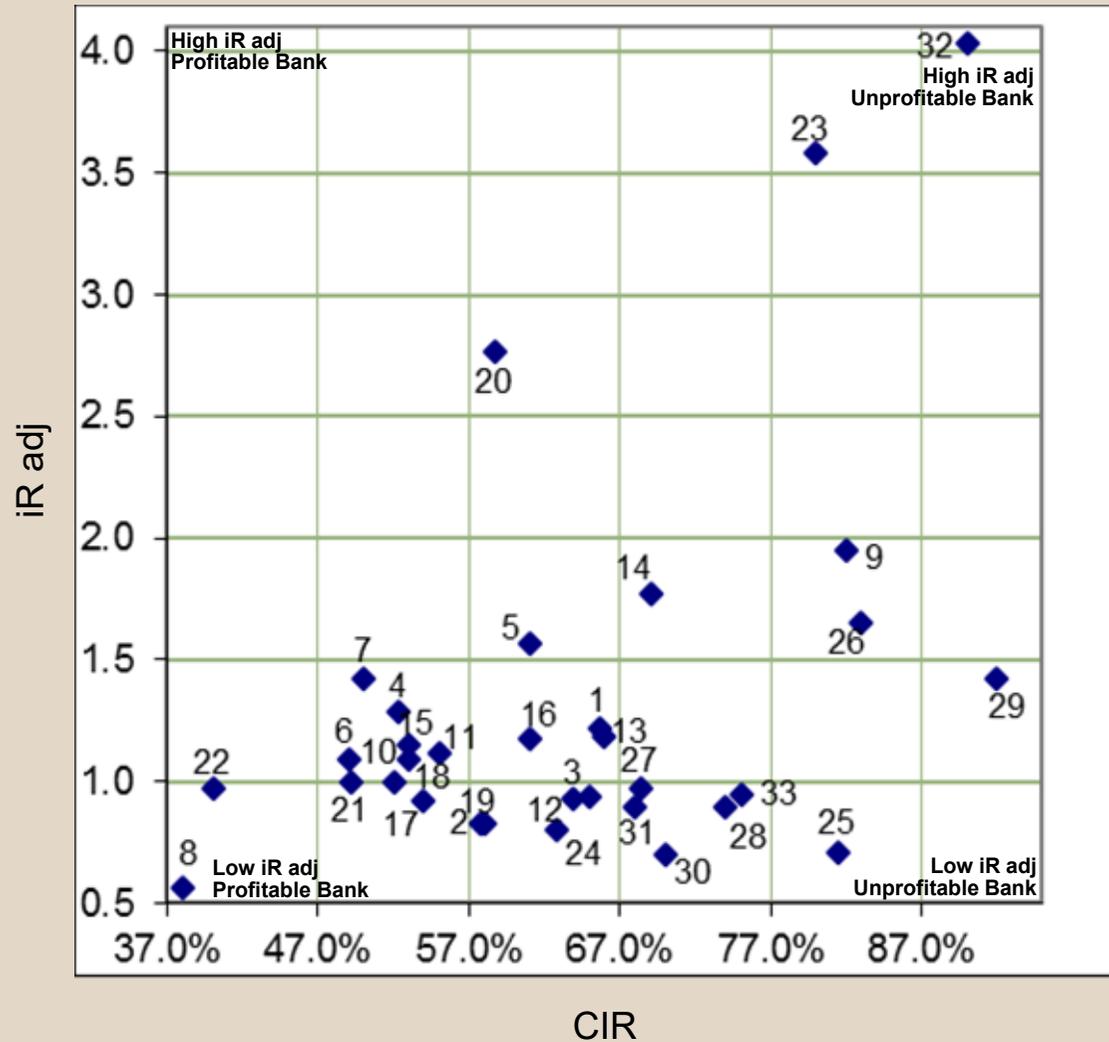
For example: For every 1 CHF spent in IT per bank employee, bank #30 manages to generate operating income of 19'000 CHF. Bank #20 however, manages to generate less than 2'000 CHF.

Although this large difference cannot be explained by only looking at the clever use of technology, it is a clear indication of the significant potential of IT as a business enabler.

This observation is not specific to a business model. Among the best banks on this chart, we see retail banks as well as private banks. It seems rather that the ability of a bank to utilize IT to gain a competitive advantage in the market that makes the difference.

Year 2016

iR adj in relation to cost income ratio CIR



This chart sets the IT efficiency **iR adj** in relation to the **cost-income ratio** of the bank.

Those banks have room for strategical and/or tactical improvements, that have a

- **High iR adj** and a **high CIR** (due to, for example, missing IT projects which contribute to an increase in effectiveness and efficiency),
- **Low iR adj** and a **high CIR** (although IT is efficient in itself, it might not fulfil its role as an enabler for new revenues adequately).

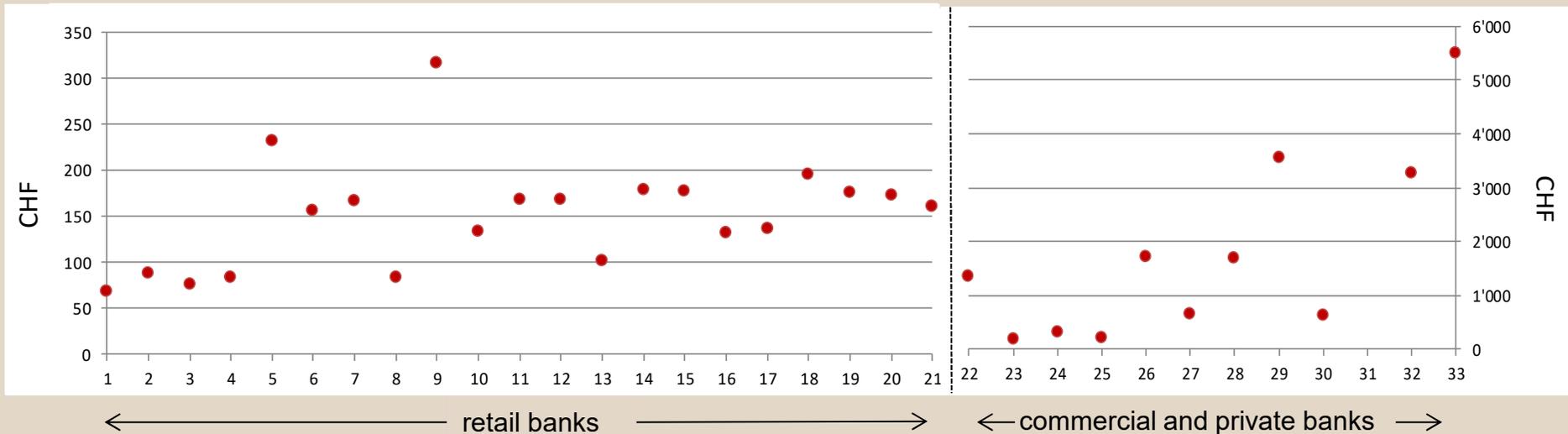
Banks that know how to use IT as an enabler for new opportunities on the market might have high IT costs, but are profitable at the same time.

Banks that balance all costs well with a high profitability at the same time are among the best in class.

However, the comfortable financial situation may hide potential operational risks or the bank may neglect to proactively monitor the trends of the market for new opportunities.

Year 2016

IT costs per customer - retail banks vs. private banks

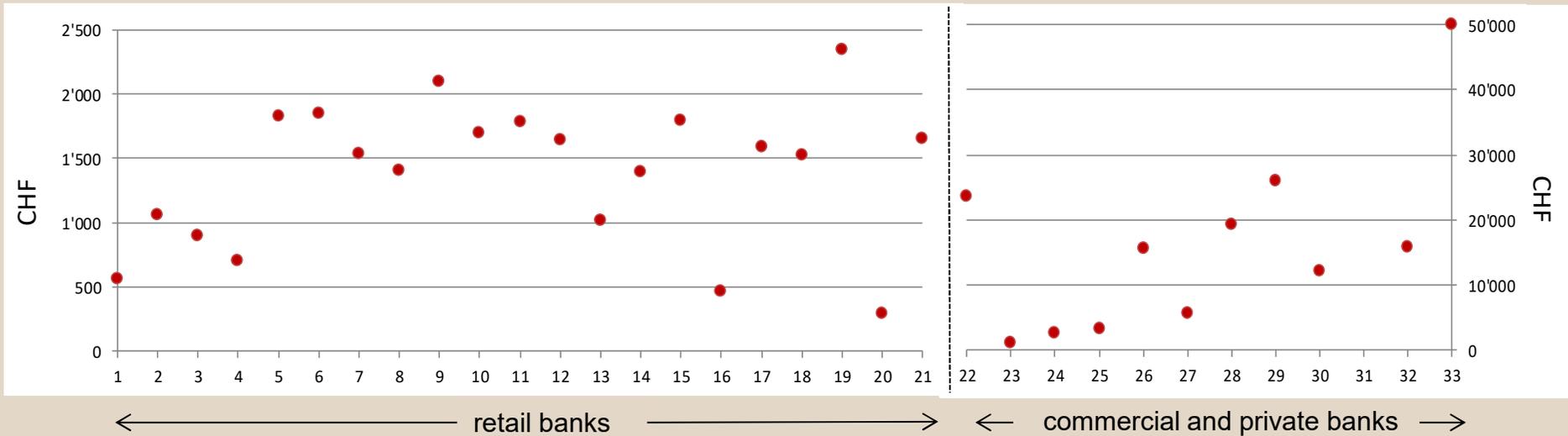


- IT costs per active customer are considerably lower at retail banks, compared to private banks.
- Among retail banks the IT costs per active customer vary between almost CHF 70 and approx. CHF 320. Most retail banks spend around CHF 150 on IT per year and active customer.
- Among private banks the IT costs per active customer vary between under CHF 200 and over CHF 5'500. The spread is huge. However, almost half of the private banks spend under CHF 1'000 on IT per year and active customer.
- This huge difference between retail and private banks needs to be understood by looking at the revenues per active customer on the next slide.

*) Bank ID 31 has not provided number of customers

Year 2016

Operating income per customer - retail banks vs. private banks

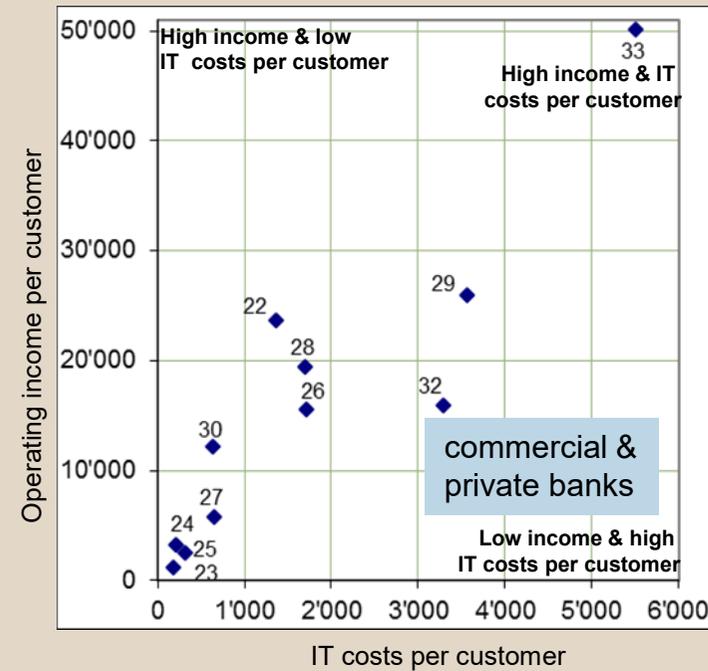
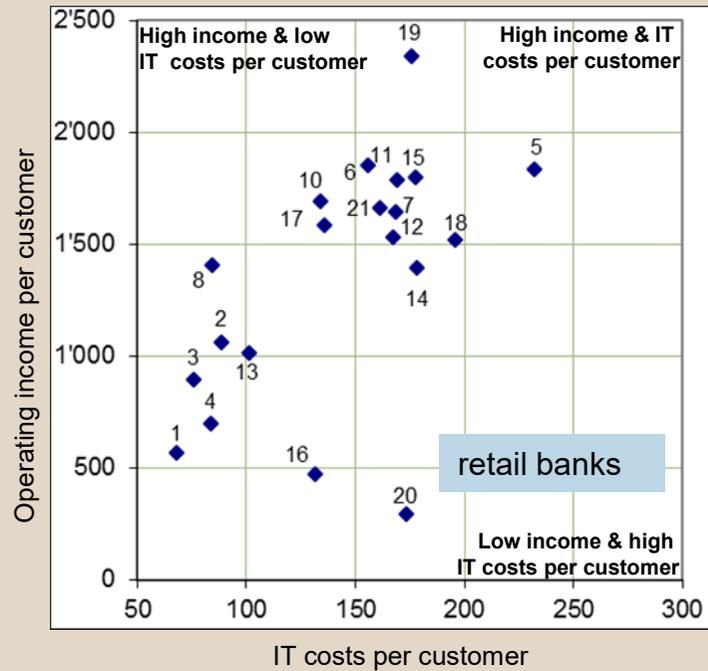


- Referred to previous slide, we have here a very similar picture, but regarding the operating income per active customer.
- Operating income per active customer are considerably lower at retail banks, compared to private banks.
- Among retail banks the operating income per active customer vary between under CHF 300 and under CHF 2'500. Most retail banks earned around CHF 1'500-2'000 per year and active customer.
- Among private banks the operating income per active customer vary between CHF 1'200 and CHF 50'000. The spread is huge as well. But half of the private banks earn below or slightly above CHF 10'000 per year and active customer.
- The last 2 slides will be merged into one chart each on the next slide.

*) Bank ID 31 has not provided number of customers

Year 2016

Operating income in relation to IT costs per customer

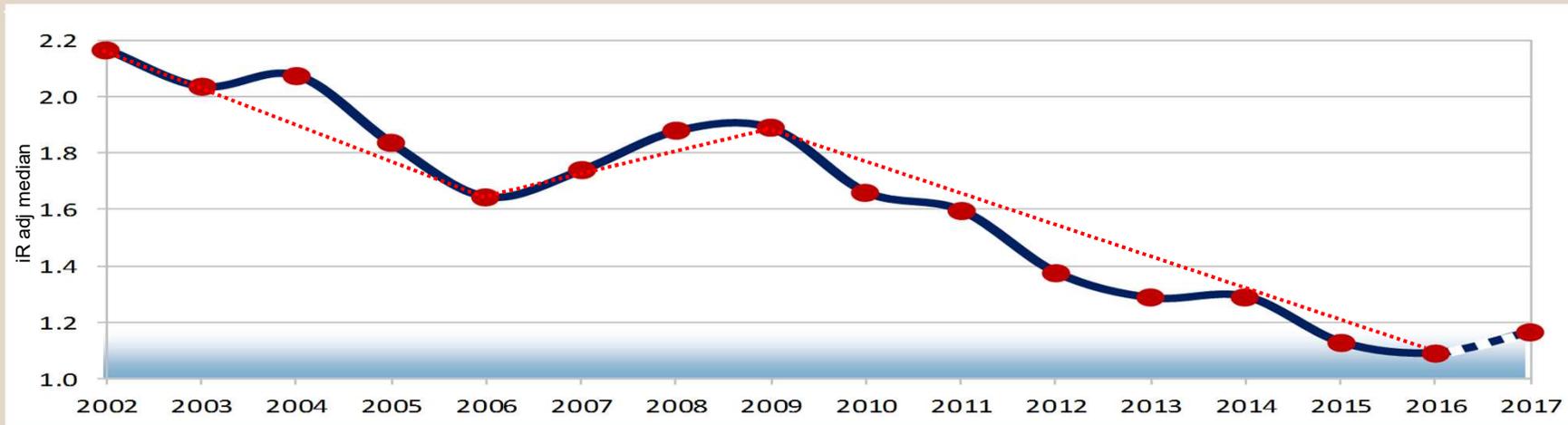


These charts set the **operating income** in relation to the **IT costs** of the bank, both **per active customer**.

Those banks have room for strategical and/or tactical improvements, that have a **low income** and **high IT costs per active customer** (due to, for example, missing IT initiatives which focus mainly on product and customer profitability).

Banks that have a **high income** and at the same time **high IT costs per active customer** are doing well. However, actively managing the IT costs may contribute to an even higher overall profitability.

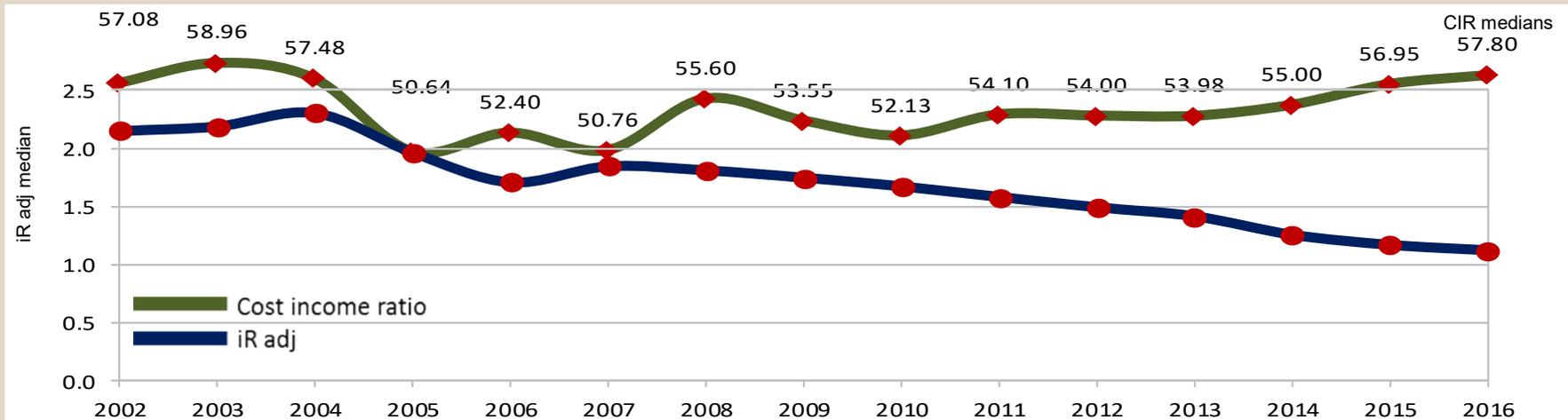
Time series IT cost coefficient iR adj



- Red dots: adjusted IT cost coefficient iR adj calculated as medians for all participating banks, with an outlook into 2017 based on available budget figures.
- 2002 to 2006 and 2009 to 2016 were time periods with accelerated improvement of the iR adj at an average of approx. 6% p.a.
Between 2007 and 2009 the downward trend was interrupted, and the IT cost efficiency iR adj increased.
- Even though the iR adj value for 2016 decreased again from 1.13 in 2015 to 1.09, the trend for 2017 is increasing to an iR adj of 1.17, based on available 2017 budget figures. However, this was also observable last year and at the end we had a decreasing iR adj in 2016.
- 7 retail banks and 6 private banks have still a rising iR adj value compared to 2015. The majority of the participating banks have managed to lower again their iR adj in 2016 or stayed at same levels.

Time series

IT cost coefficient & cost income ratio – retail banks

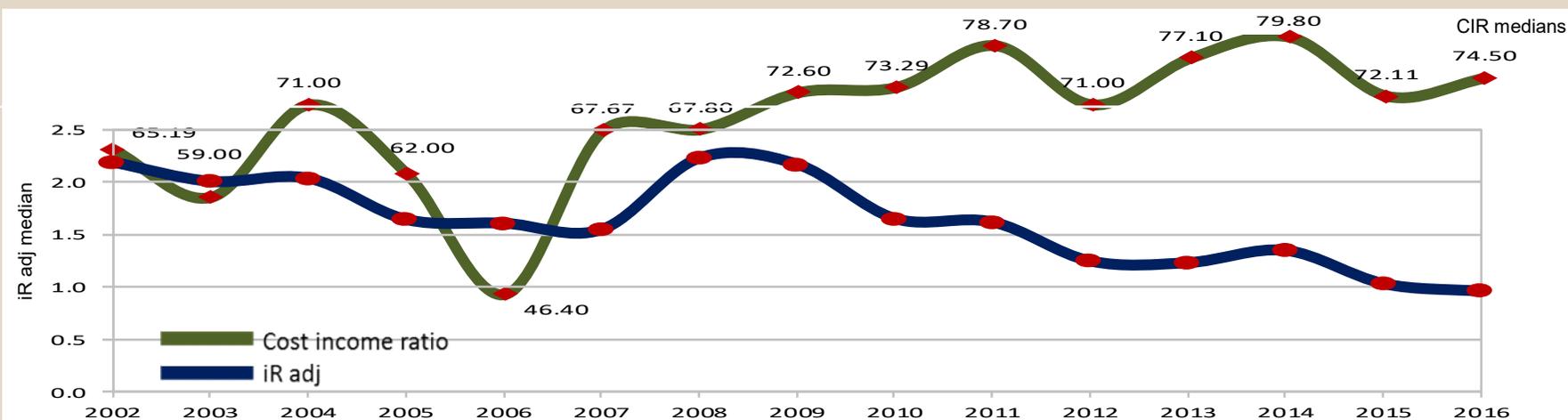


- For retail banks the IT cost coefficient iR adj and the cost income ratio CIR were positively correlated (with 0.70) until 2009. That suggests: “well managed IT costs^{*)} implies well managed overall operational costs and positively influences the bottom line of the bank’s financial results”.
- After 2009 until 2015 the median of retail banks’ CIR rose from 52% to almost 57%. In 2016 this trend continues with a CIR median of 57.8%, similar to private banks’ CIR development (see next slide).
- As the cost income ratio CIR is also about income, the deteriorating margins in almost all banking products and services seem to have a more dominant impact than the efforts for effective IT governance.
- As this seems to be continuously true for retail banks (at a slower pace and lower CIR levels), retail banks might need to consider to increase their investments in IT initiatives that may help lower the overall CIR – by boosting business and/or strengthen operational excellence.

^{*)} an IT governance is implemented that satisfies business demand in an economical way

Time series

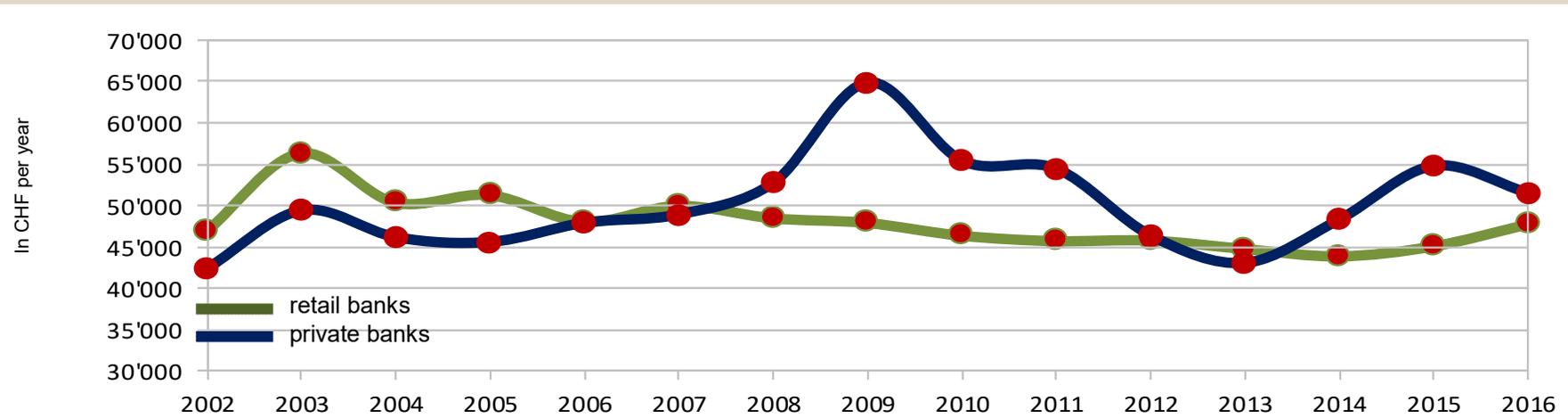
IT cost coefficient & cost income ratio – private banks



- For private banks the IT cost coefficient iR adj and the cost income ratio CIR were loosely correlated over the whole observation period. However, it is clearly visible, that from 2008 on iR adj and CIR development took opposite directions.
- From time to time, private banks manage to decrease their CIR considerable. This was the case in the years 2006, 2012 and 2015. However, after each decline of the CIR, accompanied by modest declines in iR adj, the private banks' CIR rose again to new highs.
- 2016 figures show that the CIR is again on the rise from 72.11 to 74.50%, while the IT cost coefficient iR adj declines continuously since 2010 – with an exception in 2014 - from 1.65 to 0.96 (-41.8%).

Time series

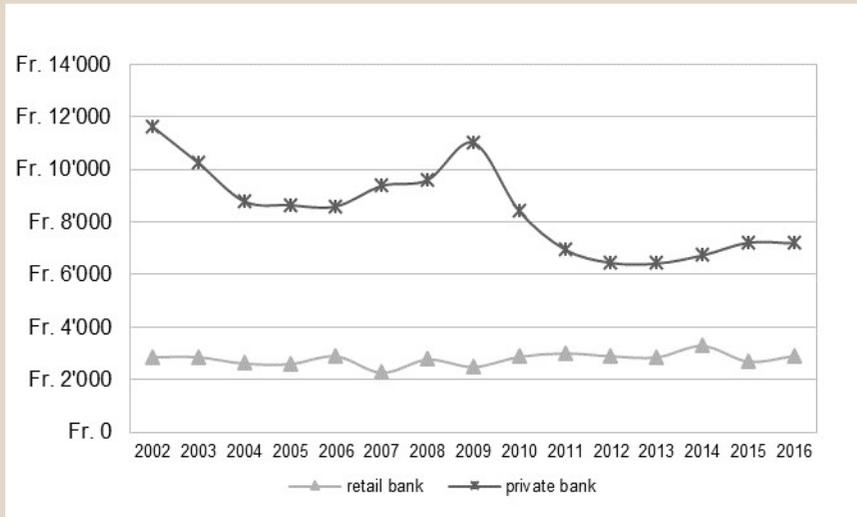
IT costs per bank employee – retail banks vs. private banks



- Until 2006 IT costs per bank employee were considerably higher at retail banks than at private banks (up to 10%).
- After 2007 this trend reversed dramatically, when private banks spent up to 30+% more for IT per bank employee than retail banks.
- In 2012 both bank types had roughly the same value of IT costs per bank employee, but almost 10% lower than in 2007. 2012 and 2013 were the years when IT costs per bank employee started to rise at a faster pace at private banks.
- 2016 figures show a convergence trend of IT costs per bank employee for both bank types. The level of IT costs per bank employee is and will probably be in 2017 again in year 2007 levels.

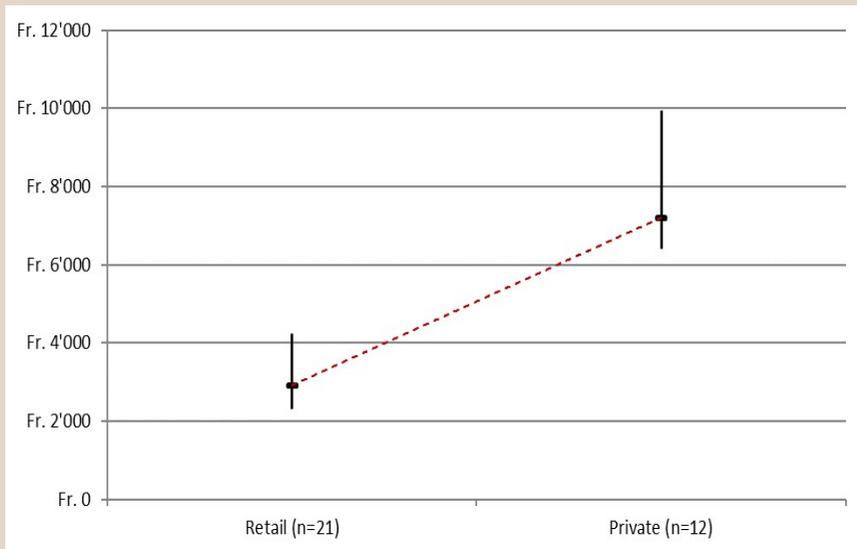
Time series

Costs for data feed per bank employee in relation to bank type



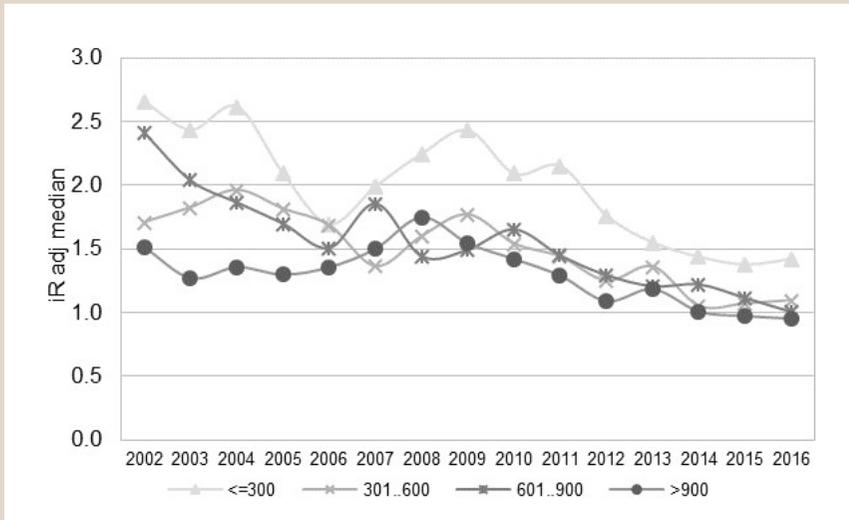
We consider cost for data feed as “business costs”.

- Retail banks spent approx. CHF 2'900 in 2016 (+ 8.1% versus 2015) per bank employee for data feed, whereas private banks spent approx. CHF 7'200 (- 0.4% compared to 2015, in contrast to retail banks).

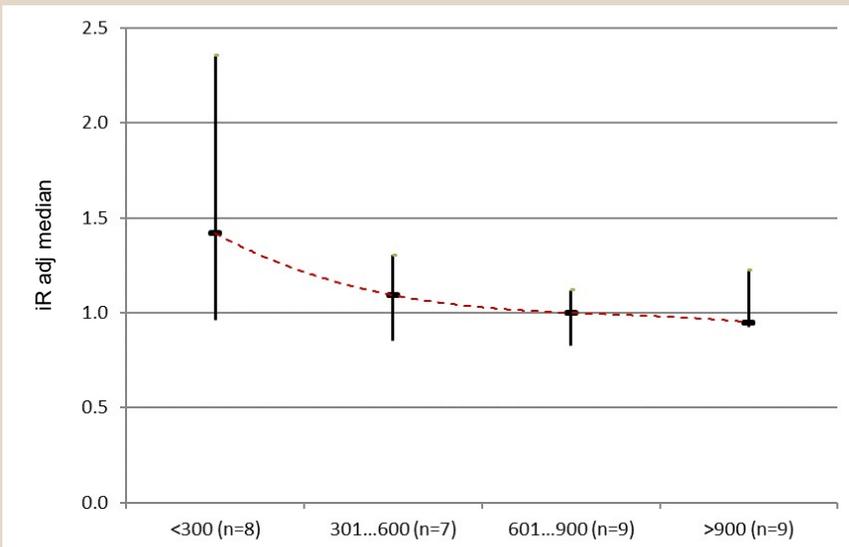


Time series

IT cost coefficient iR adj in relation to bank size



- In 2016 the development of the IT cost efficiency is different for bank sizes <600 and 600+ bank employees.
- At small banks (<300 bank employees/FTE) iR adj rose from 1.37 in 2015 to 1.42 in 2016, and at the 300-600 class from 1.07 in 2015 to 1.09 in 2016.
- The bigger banks have been able to lower their iR adj remarkably:
601-900 class from 1.11 in 2015 to 1.00 in 2016 and big banks (>900 bank employees/FTE) from 0.97 in 2015 to 0.95 in 2016.



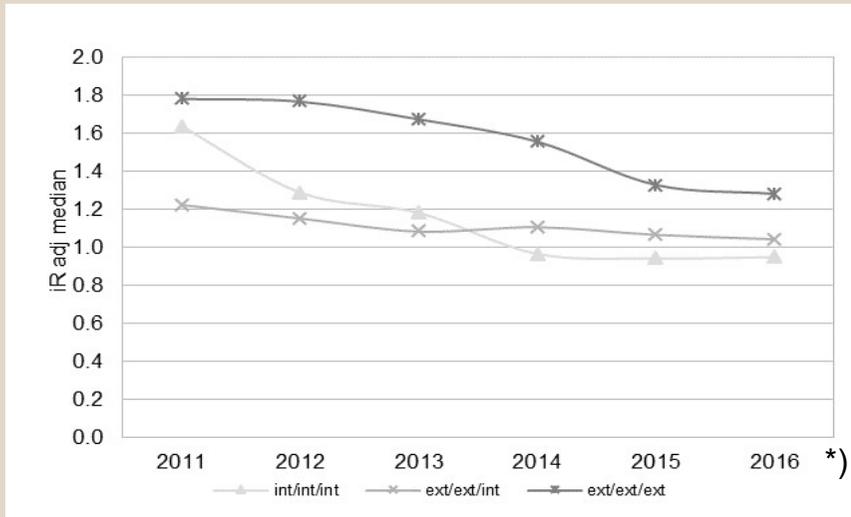
- Comparing all classes for the year 2016, the potential of the economies of scale seems to level off at iR adj = 1.00.
- The most IT cost efficient banks are still those in category >900, with an iR adj of 0.95.

Larger banks seem to be more effective at managing their rather complex structures and processes.

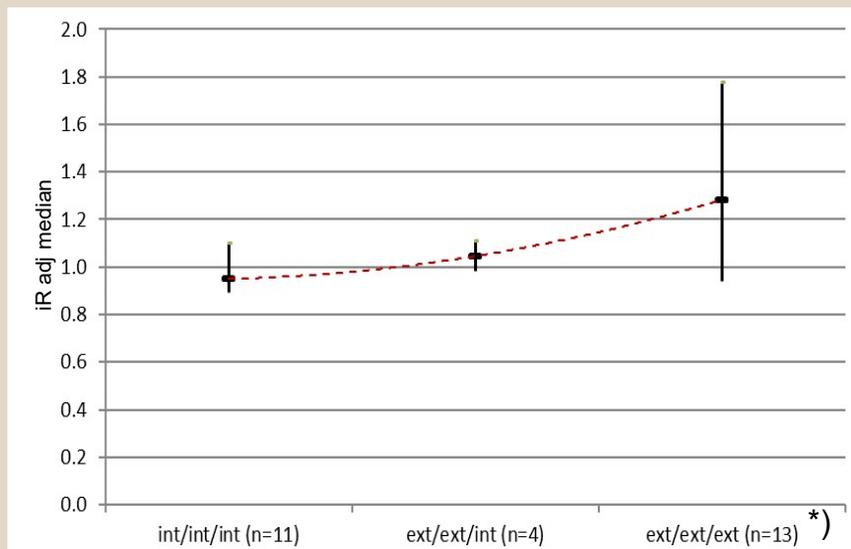
In addition, the variance has also come down from a 0.93–1.29 in 2015 to 0.92 – 1.22 in 2016.

Time series

IT cost coefficient iR adj in relation to IT policy



- Compared to 2015, in 2016 all**) classes managed to lower their iR adj, as follows:
 - “int/int/int” class: from 0.94 in 2015 to 0.95 in 2016
 - “ext/ext/int” class: from 1.07 in 2015 to 1.05 in 2016
 - “ext/ext/ext” class: from 1.33 in 2015 to 1.28 in 2016.



- “int/int/int” continues to lead in terms of lowest iR adj.
- Because both ends of the “int/int/int”’s variance came down considerably, both sourcing policies incl. “ext/ext/int” become now quite comparable in terms of iR adj.
- It is still remarkable that a “fully-fledged” outsourcing as IT operation sourcing policy seems not to be a favourable option, if a low iR adj is targeted.

*)

- 1st sourcing object: Infrastructure operations (ITO)
- 2nd sourcing object: Application operations (AO)
- 3rd sourcing object: Application management (AM)
- classes: int: internally managed, ext: outsourced

) 5 banks have **other IT policies with low occurrences, and are not included

Thank you

