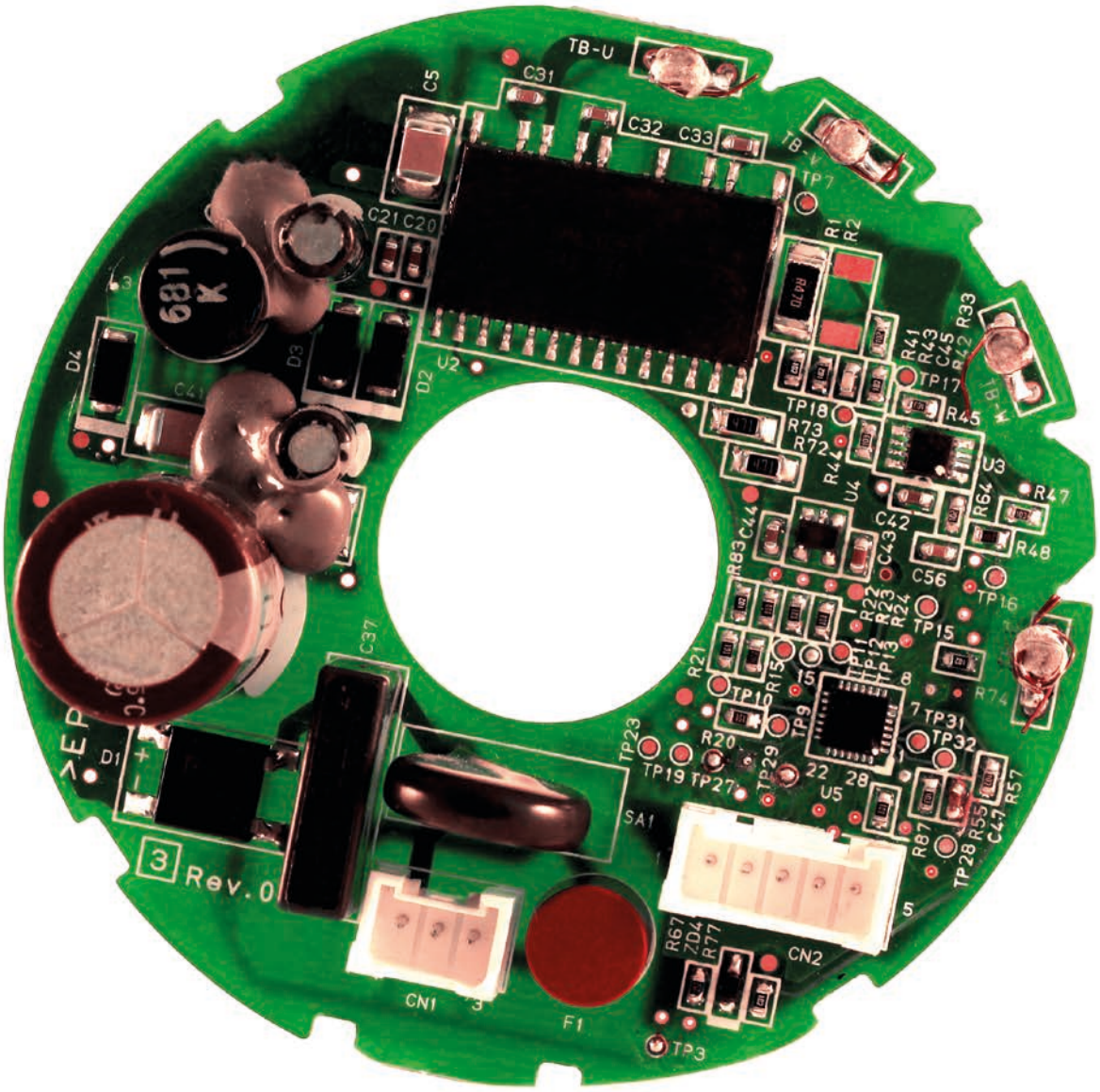
Deloitte.




**Manufacturing Trends Quarterly**

Q1 2017

# Executive summary

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**Economic outlook**
Swiss CFOs' expectations for economic growth in Switzerland have further improved, and the confidence of manufacturing sector CFOs is similar to the high levels shown by CFOs in other sectors.

2

**Company prospects**
Manufacturing sector CFOs are slightly more positive about their company's financial prospects over the next 12 months than CFOs in other sectors.

3

**Growth prospects**
Revenue expectations of manufacturing sector CFOs for the next 12 months have decreased slightly but remain positive, while expectations for operating margins and capital expenditure decreased and are now negative.

4

**Business risks**
The strength of the Swiss Franc, geopolitical risks and weaker domestic demand remain the biggest threats, followed by price and margin pressure, and increased competition.

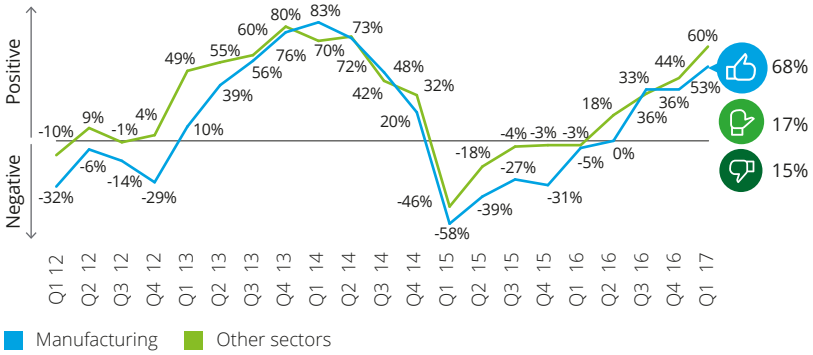
5

**Focus on technology**
Business-specific applications and cloud computing are seen as the most relevant for the digitalisation of the finance function, followed by robotic process automation, in-memory computing, cognitive computing and the blockchain.

# 1. Economic outlook

## Swiss CFOs' expectations for economic growth in Switzerland have further improved, and the confidence of manufacturing sector CFOs is similar to the high levels shown by CFOs in other sectors.

**Economic outlook (net balance) (Q1 2012 – Q1 2017)**
Question: How do you judge the economic outlook for Switzerland over the next 12 months?

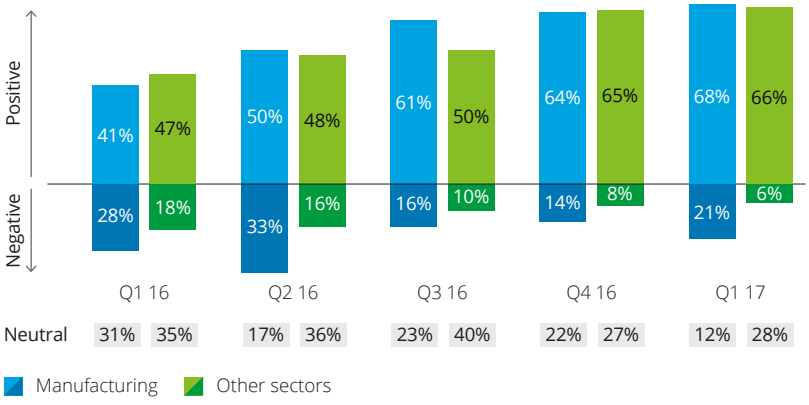



- The expectations of Swiss CFOs about the **economic outlook** have improved further in Q1 2017.
- The confidence of manufacturing sector CFOs has improved with the net balance at 53%, compared to 36% in Q4 2016. The net balance of CFOs in other sectors moved from 44% in the previous quarter to 60%.
- More than two-thirds of manufacturing sector CFOs (68%) are optimistic (previous quarter 45%). Only 15% of manufacturing sector CFOs remain pessimistic (previously 9%). The number of manufacturing sector CFOs that are neutral decreased from 46% in Q4 2016 to 17% in Q1 2017.
- Answers to a separate question show that only 9% of manufacturing sector CFOs and 5% of CFOs of other sectors expect a recession in Switzerland in the next two years.

# 2. Company prospects

## Manufacturing sector CFOs are slightly more positive about their company's financial prospects over the next 12 months than CFOs in other sectors.

**Companies' financial prospects (Q1 2016 – Q1 2017)**
Question: How do you rate your company's financial prospects over the next 12 months?



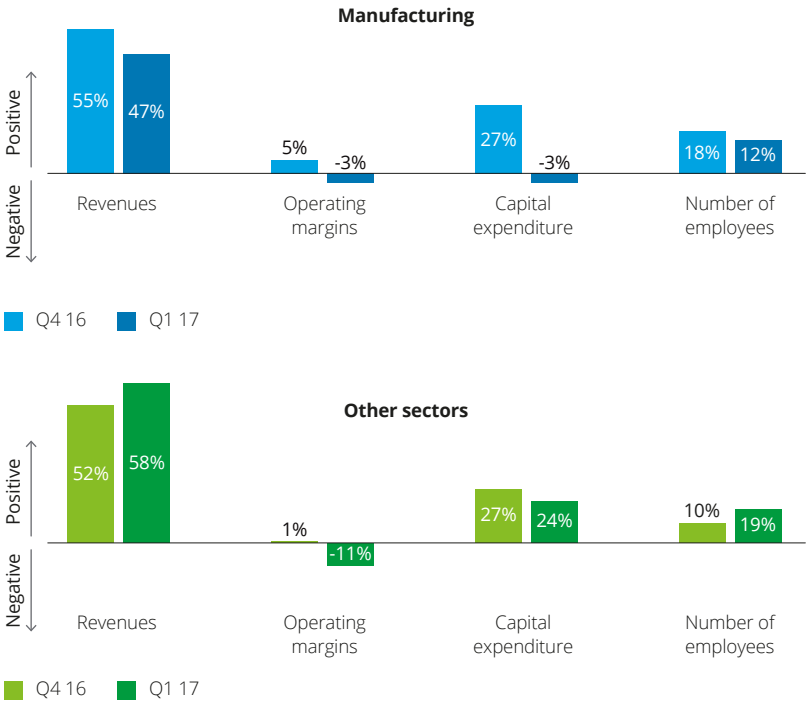

- In Q1 2017 Swiss CFOs are also more optimistic about their company's **financial prospects** over the next 12 months compared with every quarter in 2016.
- 68% of manufacturing sector CFOs view their company's financial prospects in Q1 2017 as positive, slightly more than in the previous quarter (64%).
- However, 21% of manufacturing sector CFOs rate them as negative, much more than in Q4 2016 (14%). The number of manufacturing sector CFOs who judge the financial prospects as neither positive nor negative decreased from 22% to 12%.
- The number of CFOs in other sectors that are optimistic remained practically unchanged (66%). Slightly fewer CFOs in other sectors judge the financial prospects as negative (6% compared to 8% the previous quarter).

Notes: The net balance is the balance of positive (increase) and negative (decrease) assessments of the respondents.
Source: Deloitte CFO Survey

# 3. Growth prospects

## Revenue expectations of manufacturing sector CFOs for the next 12 months have decreased slightly but remain positive, while expectations for operating margins and capital expenditure decreased and are now negative.

**Key metrics (net balance) (Q4 2016 vs Q1 2017)**
Question: In your view, how are the following key metrics for Swiss corporates likely to change over the next 12 months?







- **Revenue** expectations of manufacturing sector CFOs have decreased in Q1 2017 to a net balance of 47% (previous quarter 55%). 68% expect an increase in revenue over the next 12 months and only 21% a decrease. Revenue expectations of CFOs in other sectors have increased (from a net balance of 52% to 58%).

- Expectations for **operating margins** among manufacturing sector CFOs have decreased, with the net balance moving from 5% to minus 3%. 26% of manufacturing sector CFOs expect margin increases, with 29% expecting decreases. Margin expectations of CFOs in other sectors decreased from the previous quarter, with the net balance now at minus 11%.

- **Capital expenditure** expectations of manufacturing sector CFOs have decreased from a net balance of 27% to minus 3%. CFOs in other sectors expect almost the same capital expenditure as in the previous quarter (24%).

- The expected **number of employees** has decreased in manufacturing and increased in all other sectors compared to the previous quarter.

Notes: The net balance is the balance of positive (increase) and negative (decrease) assessments of the respondents.
Source: Deloitte CFO Survey

# 4. Business risks

## The strength of the Swiss Franc, geopolitical risks and weaker domestic demand remain the biggest threats, followed by price and margin pressure, and increased competition.

**Top 10 risks (Q1 2017)**
Question: What do you see as the greatest internal and/or external risks for your company over the next 12 months? Please list up to three risks

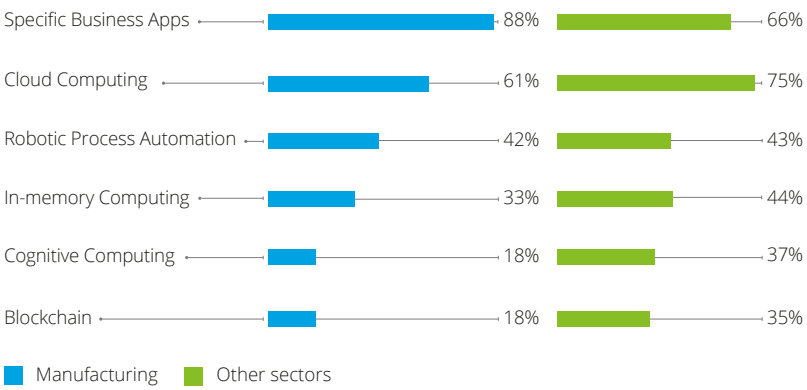
| Rank Q1 17 | Rank Q4 16 | Risk factor |
|---|---|---|
| 1 ▲ | 3 | Strong Swiss Franc |
| 2 ▼ | 1 | Geopolitical risks |
| 3 ▲ | 4 | Domestic demand |
| 4 ▲ | 5 | Pressure on prices and margins |
| 5 ▲ | 8 | Pressure from competitors |
| 6 ▼ | 2 | Skills shortage |
| 7 ▼ | 6 | Internal company problems |
| 8 ▼ | 7 | Foreign demand |
| 9 ▲ | 10 | Cost of raw materials |
| 10 ▼ | 9 | Barriers to trade |

- The strength of the Swiss Franc is seen as the most significant risk factor in Q1 2017 for Swiss manufacturers over the next 12 months, followed by geopolitical risks.
- Weaker domestic demand, price and margin pressure, and increased competition are now seen as higher risks for the next 12 months compared to the previous quarter
- In addition, the shortage of skilled professionals and internal company problems remain issues for many Swiss manufacturers.

# 5. Focus on technology

## Business-specific applications and cloud computing are seen as the most relevant for the digitalisation of the finance function, followed by robotic process automation, in-memory computing, cognitive computing and the blockchain.

**Digital technologies (high relevance) (Q1 2017)**
Question: How do you evaluate the future relevance of the following technologies enabling the digitalisation of the finance function?




- Swiss CFOs consider different **digital technologies** as essential for the future digitalisation of the finance function.
- Applications that address specific business requirements are viewed as the most relevant for the future (especially by manufacturing sector CFOs), while cloud computing is viewed as highly relevant by CFOs in other sectors.
- CFOs in all sectors consider robotic process automation (RPA) and in-memory computing as highly relevant in the future.
- While CFOs in other sectors consider cognitive computing and blockchain applications as highly relevant, only 18% of manufacturing sector CFOs view them as relevant technologies enabling the digitalisation of the finance function.

Notes: The arrows in the top 10 risks table indicate the change in perception of individual challenges/risks compared with the previous quarter. The figures for digital technologies are the percentage figures of the answer category 'high relevance'.
Source: Deloitte CFO Survey

# Interview with Yessin Schiegg

## Creator of 'Blockchain Switzerland' and former Adviser to the Ethereum Foundation

**Deloitte:** What do you see as the main barriers to why blockchain technology has not yet been more widely adopted by the manufacturing industry, unlike the financial services industry for example?

**Yessin Schiegg:** Several developments and experiments in cryptography led to the invention of Bitcoin eight years ago. Bitcoin was the first application of blockchain technology. It enables financial transactions without having to rely on a central party like a bank or other remittance service for execution. Blockchain technology is a brilliant solution for how to share and use data by removing the need for intermediaries and trust among interacting parties. Financial services are in the business of sharing and working with data based on trust. Therefore, the adoption of blockchain technology is more intuitive in the financial services industry. And indeed, there are more blockchain start-ups focusing on financial services than on manufacturing. However, it is still too early to declare blockchain technology as widely adopted in any industry.

Adoption in manufacturing can be reached by assessing how blockchain technology can add value by removing the trust element from the manufacturing business processes. Example target areas are supply chain management, counterfeit prevention, delivery and settlement assurance.

**Deloitte:** What do you see as the main benefits that blockchain technology can offer manufacturers?

**Yessin Schiegg:** Blockchain technology involves a paradigm shift in how data is shared and used. Many who study blockchain technology for their first time describe their respective initial reaction as "falling into the rabbit hole". The understanding that there is a way to make data temper-proof and trusted while broadly shared and distributed, opens up a new perspective on how to solve various challenges between interacting parties. Therefore, even a basic knowledge of blockchain technology can provide valuable insights.

In its application, blockchain technology can offer cost savings and efficiency increases in manufacturing by removing frictions and delays, providing for additional transparency among suppliers, optimising the bill of lading procedures, resolving insurance challenges, automating purchase price settlement and much more.

While manufactured products increase in complexity and follow the trend to greater internet connectivity, blockchain will also play a role as a technological base layer, for example in the context of the Internet of Things (IoT).

**Profile:** Yessin Schiegg has served as an adviser to the Ethereum Foundation in Switzerland and is now acting as an ambassador of the Foundation. Under the project name 'Blockchain Switzerland', Yessin is currently establishing a distributed autonomous organisation (DAO) which will serve as a governance and coordination tool to align all stakeholders in the blockchain ecosystem in Switzerland. His target is to foster the adoption and growth of blockchain technology in Switzerland. Moreover, he is the CFO of Alpha Associates AG, an independent private equity, private debt and infrastructure manager and adviser based in Zurich, Switzerland. Previously he worked for BlackRock, Swiss Reinsurance Company and PwC, serving banks as well as asset managers as an auditor. He holds a Master's degree in Finance from the University of St.Gallen. He is a Swiss Certified Public Accountant, holds the CFA and CAIA charter.

**Deloitte:** Many analysts predict that blockchain technology will offer better traceability, security and transparency of the supply chain, and will completely disrupt the way goods are produced, purchased and consumed in the future. What is your view on this?

**Yessin Schiegg:** Supply chain management is probably the most mentioned area for using blockchain technology in manufacturing. In a supply chain, products are handed off several times from the raw material to the finished goods stage. Every hand-off includes an element of trust with regard to the source, quality and timeliness of delivery of the goods. Moreover, stakeholders in goods processing are struggling with financial and administrative challenges including payment morale, delayed bank wires, compliance issues and FX exposure.

Blockchain technology provides an effective solution for addressing these challenges and for tracing products throughout the supply and value chain. Each item can be recorded and time-stamped onto a blockchain. Thereafter stakeholders can easily confirm the authenticity and history of the items at any time. Of course, tracking is already well established in the logistics industry. The innovative aspect of blockchain technology is that it provides a solution which is 100% tamper-proof and ensures the required level of trust which is required for a solution across whole industries and jurisdictions, not just within a single logistics firm or group.

Financial and administrative aspects of the supply chain can be simplified by automatic settlement of purchase prices and insurance claims, as well as provide for reputation systems, all based on blockchain technology.

Blockchain technology could foster integration of supply chains by coordinating all contributors without providing any central party with control over the whole manufacturing value creation process. From a philosophical standpoint one could argue that blockchain technology enhances the free market economy with positive planning elements.

**Deloitte:** Do you see any other disruptive digital technologies that could completely transform the finance functions and other areas of manufacturers?

**Yessin Schiegg:** Currently, I'm acting as the interim CFO of a mid-sized software house which is also developing planning tools for building industrial production facilities such as automotive manufacturing sites. While robots continue to replace manual labour, humans are shifting from production lines to computer screens for planning and monitoring. Daily work is shifted from the real world to virtual reality. Constructing manufacturing facilities in virtual and augmented reality first, before they are realised in the real world, is an ideal tool to manage the growing complexity of building industrial facilities. By visualising the future in 4D, errors can be spotted and resolved before construction starts. Therefore, I closely follow the developments that will improve the virtual reality experience and its applications.

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