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Swiss Companies in World War One (Switzerland)

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This article describes the business development and the opportunities and risks that Swiss companies faced during the First World War. Although the export industries that supplied essential products to the warring nations for the most part reported high profits, the war posed a major challenge for the domestic economy and companies whose services or products were not essential for the conflict. The wide-scale export of war materials and, in some cases, the substantial profits that this business generated were curtailed by extensive control measures and a gradual loss of economic freedom. In Switzerland, the increasingly aggressive economic war triggered price increases and rising hardship across society. In the second half of the war, the number of strike days rose sharply, and there was widespread anger at the war profiteers, usurers and speculators. In November 1918, the Swiss national strike sparked the most serious social and domestic political crisis since the confederation was founded in 1848.

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Introduction

The First World War was not only a fierce battle of attrition that cost millions of soldiers their lives, it was also an increasingly brutal economic war. The warring nations needed vast quantities of weapons and ammunition to prevail in the "material battles" and the key to survival in these battles was the availability, tight control and optimum exploitation of economic resources. Even before the First World War, Switzerland was one of the most highly industrialised countries in the world; it had a strong export industry, globally operating trading companies and close economic ties with the warring nations. During the war, the Swiss economy profited from the great demand for products and in some branches also from the "competition holidays"^[1] caused by the lack of rivals on the international markets. In the warring nations the war was detrimental for many businesses because it was often "waged against their own customer base."^[2] In contrast, the Neue Zürcher Zeitung (NZZ), writing about Swiss neutrality in February 1915, noted: "The one advantage of neutrality, namely that of being no-one's enemy, is one that the Swiss industry should be able to exploit."^[3]

There are a number of papers that examine various aspects of the business and economic history of Switzerland during the First World War, providing a good insight into economic organisation during the war, foreign economic controls, Swiss foreign policy during the economic war, and how companies and industries conducted business during this period. In the following, the focus is not on overall economic growth but on the challenges, opportunities and risks that Swiss companies faced during the First World War.^[4] This article will start by examining business development and the growth of dividends in different industries, and the introduction of a war profits tax in the autumn of 1916. It then looks at the highly complex interpretation of (nominal or real) company figures, and describes the scope and development of the Swiss trade in war materials during the First World War. The article concludes with some remarks on the rising inflation and the Swiss national strike of November 1918 and summarizes the key results in a brief conclusion.

Course of business and development of individual sectors during the war years

Although the start of the war caused shockwaves, by spring 1915 the Swiss economy was experiencing a true boom, despite the increasingly wide-ranging control measures and the establishment of surveillance companies by both sides of the conflict. The Factory Act was significantly loosened at the beginning of the war and the canton governments were allowed to issue labour permits to individual factories that did not comply with the Act. Not least due to the efforts of the industry, the number of men mobilised had dropped by more than half by the end of 1914, and for Traugott Geering (1859-1932), secretary of the Basel Chamber of Commerce, "an incalculably large and rich field of business successes"^[5] was opening up for the Swiss economy. In particular the internationally operating banks and insurance companies were able to strengthen their position substantially in the wartime years. In the banking sector the demand for credit from the countries at war, the flow of foreign assets to Switzerland and the collapse of foreign currencies served to greatly

accelerate Switzerland's position as an international finance centre. In many cases, the export industries that were crucial for the warring countries, such as the watchmaking, the metal and machine industries, the chemicals sector or the food and luxury food industries, made high profits and were able to accumulate considerable reserves for the post-war period. [6] The excellent business growth was accompanied by a "flood" of newly-founded companies, with a particularly large number of "munitions workshops" working for "foreign demand". [8] In July 1916, the NZZ reported on the "almost frightening phenomenon" of the so-called "war foundations" – public limited companies with a share capital of "a few tens of thousands of francs" – which would "spring up like mushrooms after a rainfall" and were often of "foreign origin." Although many companies pursued a consistent dividend policy to signal stability during these years, the average dividends of over 200 industrial joint-stock companies (excluding trade, banks and insurance companies) rose from 6-8 percent in the pre-war years to 11.75 percent in 1918. After that, they slumped to about one-third (or 3.57 percent) by 1922 and settled back at pre-war levels in the second half of the 1920s. [10] After 1917, "one capital increase followed another", often performed "underhand, without public subscription" and with the help of deferred profits.

To allow the government to participate in the profits, which had risen since 1915 and were well above the average of the pre-war years, a war profits tax was introduced in autumn 1916. By this time, a number of foreign countries had already introduced similar taxes. The new tax was applied to all war profits – declared on the balance sheets – that had been made since 1 January 1915. Deductions could be made for "donations for charitable purposes" [12], which were precisely defined by the federal government and which by the end of the war totalled CHF 242 million. Overall, the war profits tax (excluding the donations for charitable purposes) generated around CHF 760 million for the Confederation and the cantons, of which CHF 555 million was used to pay the costs of mobilisation and CHF 110 million was allocated to cover unemployment benefits.

However, the war profits – some of which were quite substantial – the good business growth and the development of individual industries need to be viewed in context. First: the war posed a major challenge for the domestic economy and non-war-related industries such as construction and tourism. The "hotel industry" in particular, which numbered around 3,500 businesses and 168,000 beds at the beginning of the war, was "robbed of practically its entire turnover by the almost complete absence of tourists."[13] Providing accommodation for more than 67,000 internees over the course of the war had brought some relief since 1916 but was no substitute for the lack of guests. Second: the loss of economic freedom over the course of the war was accompanied by an increasing loss of planning security, making it more difficult to calculate economic activities. The control measures exercised by the warring nations became more and more extensive, deliveries of raw materials were delayed or halted altogether, and bureaucracy increased. For large export-oriented companies the high profits often came with major risks or a high probability of losses, depending on how the combat was progressing. While the export-oriented companies were able to profit from the absence of foreign competitors on international markets during the war, after the war the rapid expansion of

production capacity could lead to overcapacity, high costs and losses. The transition to a peace economy took several years and dismantling the federal emergency legislation was a slow and gradual process. Some companies that had done well from 1914 to 1918 suffered considerable losses during the post-war crisis of 1921 to 1923 and had to use at least part of the reserves they had accumulated during the war to handle the post-war crisis.^[14]

In order to realistically evaluate the business growth of Swiss companies during the First World War it is also important to differentiate between the internal figures and those that were actually published. Assuming that in those days it was still common practice to prepare a "dividend justification balance sheet" [15] in order to pay out dividends that were as consistent as possible, thus signalling stability, and to align the balance sheet with a previously fixed dividend, these figures should be taken with caution, particularly those published in the war years. High write-offs, hidden reserves, bonuses and gratuities, often hidden as "general expenses", as well as payments to relief, health and pension funds grew in importance during the war years, possibly increasing even more due to rising public pressure. Statutory maximum values for reserves and dividends were circumvented by "special reserves" and "super dividends", and in those days the legal regulations on the formation of reserves or the valuation and depreciation of buildings and machinery still afforded companies considerable scope. In his 1918 dissertation on the development of war profits in an internationally comparative perspective, Rudolf Fuchs already spoke of a "demoralisation of the balance sheet system" and stated that at least some annual reports would now "directly show the character of tax evasion and complete disorganisation." [16] Not least in order to avoid the war profits tax, it can be assumed that most companies did not fully report their profits.

Finally, the sharp rise in inflation also makes it difficult to give a realistic assessment of internal company figures. Depending on the orientation and internationality of the business, inflation hit companies in different ways; the use of nominal or real figures leads to different valuations, and how the period under investigation is selected can also have a big influence on how the data is interpreted. Taking all of the above into consideration, it is important when assessing the business performance of Swiss companies during the First World War to take a situational and context-sensitive approach by comparing different indicators such as internal and published data, nominal or real figures, and also including the minutes of the management and board of directors, newspaper reports and public opinion.

In great demand: exports of war materials by the Swiss watchmaking, metal and machine industries

One of the most important factors that drove the considerable profits generated in individual sectors was the supply of war materials to both sides of the conflict.^[17] Although the *Bundesrat* had banned "the export of weapons, munitions and war materials to the neighbouring warring states"^[18] as early as 4 August 1914, the export of munitions components was not prohibited and as a result exports speedily picked up. These components passed through customs as "brass pieces, castings, \$Swiss Companies in World War One (Switzerland) - 1914-1918-Online

wrought iron tubes, screws, in short, under any designation that sounded harmless."^[19] They were manufactured both in traditional companies such as Zénith (in Le Locle) or Piccard-Pictet & Cie (in Geneva) and in smaller enterprises scattered throughout the country. In the warring nations there was a serious shortage of time detonators and precision detonators for shrapnel grenades. Producing these components was a technically demanding process for which the watchmaking industry had the necessary skills. Even a brief look at the export figures shows that these were major deliveries which were quite significant for the warring nations. Unlike the export of civil goods, where the wartime peak was reached in 1916, the export of essential war goods lasted until 1918.^[20] In February 1917, the *Bundesrat* determined that "gradually a large part of the Swiss engineering industry had become a war industry in its own right" and that currently both groups were "placing enormous orders in Switzerland". While the export volumes of forged iron products quadrupled and machine tools increased sevenfold, volumes of copper products rose more than twelvefold. With regard to the number of people employed in the watchmaking, metal and machine industries, the *Bundesrat* stated in February 1917: "If previously at least 30,000 Swiss workers were employed in the manufacture of munitions, this number has now risen considerably." ^[21]

Criticism of the munitions supplies only became louder after 1917, when exports reached their peak. Disapproval was not only directed at the high war profits made by the manufacturers, but also at the contradiction between the munitions deliveries condoned by the state and the country's humanitarian tradition, which was repeatedly emphasised by the *Bundesrat*. In 1917, the International Committee of the Red Cross (ICRC) had received the only Nobel Peace Prize awarded during the war. Although the export of war material was legal under international law, if neutrality is understood as an "option against war" and an "ethically superior attitude" which was already associated with the country's humanitarian missions during the war years, it became increasingly difficult to justify these deliveries. Finally, in mid-November 1917, the pacifists Max Daetwyler (1886-1976) and Max Rotter (1881-1964) called on the workers to participate in a large-scale demonstration "against the production of munitions" [23] in Zurich. The march resulted in serious riots, leaving three workers dead and a city policeman shot "in an ambush." [24]

War profits, inflation demonstrations and the national strike

By 1916/17 at the latest, the general population was starting to feel the effect of the increasingly bitter economic war and the continually sinking imports of raw materials and <u>food</u>. With rising inflation and steadily increasing hardship affecting not only the <u>urban</u> working population but also white-collar workers, the sizeable war profits became the subject of a controversial debate. In addition to higher prices for food, rising rent, heating and clothing expenses also ate into the budgets of both blue and white-collar workers. From the summer of 1916 onwards, Social Democrat workers' associations organised protests and demonstrations against rising hunger and inflation in a number of cities. The general price index had roughly doubled by 1918, and in June of that year there were 692,000 so-called contingency beneficiaries, who were entitled to receive cheap food and everyday supplies

(such as petrol, wood or coal). As inflation rose and wages in many sectors remained stagnant or decreased, the population increasingly started addressing criticism at the war profiteers, usurers and speculators, some of which was also underpinned by anti-Semitic stereotypes. The social democrat newspaper Berner Tagwacht published an article in August 1917 titled "As we starve", stating that the profits of the companies were "outrageous". In the past few years, the article continued, a "system of concealment" had developed with the aim of hiding the "shamelessly extortionate profits" [25] from the general public. While the number of strike days had initially dropped in 1914/15, they rose again sharply in the second half of the war. Calls for inflation-linked wages became louder and towards the end of the war criticism of corporate behaviour increased even in the traditionally bourgeois media. At the end of April 1918, the author Karl Frey (1880–1942), writing under the *nom de plume* Konrad Falke, penned a much-regarded article in the NZZ in which he was highly critical of the high war profits made by many companies. Titled "A sense of social shame", the son of Julius Frey (1855–1925) – the chairman of the board of directors of Schweizerische Kreditanstalt between 1911 and 1925 – demanded that the entrepreneurs should show more solidarity with the workforce with the following forceful words:

Everything is constantly becoming more expensive. [...] But worse than all actual inflation is the ruthless corporate greed, which knows there is good fishing in the murky waters and that the war can be blamed for everything [...]. It is no longer too early for the shareholders to develop a sense of social shame and stop always thinking solely of their personal gain [...]. If renewal does not come through insight from within [...] then it will come through violence from below. [...] it is despicable that individuals should rack up continuously increasing war profits while the general population suffers continually increasing hardship and need!^[26]

Falke's article in spring 1918 describes with uncanny precision the mood that led only a few months later, in November 1918, to the Swiss general strike, the worst social and domestic political crisis since the confederation was founded in 1848. [27] Many entrepreneurs saw the war and the demands of the workers triggered by the war as a temporary anomaly that did not fundamentally question the largely paternalistic structures, which included company welfare policies. The response to rising inflation and increasing social hardship was to build canteens, grant cost-of-living allowances, special payments or wage increases, which however (inevitably) lagged behind overall developments. At the same time, various companies also responded to the general strike by financing (paramilitary) citizens', city and municipal armed forces. From 1919 onwards, the bourgeois reformers formed and joined the "Wirtschaftliche Studienreisegesellschaften nach Nordamerika" (Economic Study Travel Associations to North America) and from 1920 onwards the "Swiss Friends of the United States of America" (SFUSA). The aim of these associations was to establish a stronger focus on economic rationalisation and scientific management, and to implement Tayloristic principles on the European continent. [28] At the same time, a debate unfolded – initially driven by reformist bourgeois circles – about the participation of the workforce in company profits and management. However, this debate, which was and still is conducted under the name "Wirtschaftsdemokratie" (economic democracy), gradually ground to a standstill in the 1920s.[29]

Conclusion

In 1919, commenting on the growth of the Swiss economy during the First World War, the "Zentralverband Schweizerischer Arbeitgeber-Organisationen" (ZSAO, Central Association of Swiss Employers' Organizations) stated: "Swiss industry can be credited with being able to adapt very quickly and excellently to the war economy. In the years 1915-1917, most of our industry enjoyed excellent business growth." [30] Although both sides of the conflict attempted to block deliveries to the opponent, they were interested in doing business with Switzerland and wanted to prevent the country joining the war and siding with the enemy. However, over the course of the war, the good business and substantial war profits – particularly in the sectors that focussed on exports and the economically important sectors of the war economy – were countered by rising prices and increasing interference in the country's economic freedom to act. The loss of "economic freedom" was in sharp contrast to the country's decidedly liberal economic tradition and quickly highlighted the great dependence and vulnerability of the Swiss economy.

Switzerland's experiences during the war decisively shaped the following decades: maintaining good relations with public authorities and a strong position within the associations and cartels had become more important. The response to the shortage of coal during the war years was to expand hydropower and electrify the SBB in the 1920s. Relations with other countries and "defence against the danger of foreign infiltration"[31] became central topics in the public debate. Corporate management had already during the war years become increasingly renationalised (also due to pressure from outside the country) and this was followed in the post-war years by a range of policies aimed at combating economic "foreign infiltration." This term referred not only to the "increasing economic dependence on foreign countries", but also the establishment of foreign companies or "cover companies" in Switzerland and their efforts to operate on the world market with the help of a "policy of concealment [...] under a neutral flag." [32] The controversial revision of the Swiss Stock Corporation Law and Code of Obligations, which increasingly protected companies from the influence of external shareholders, took several years, however, so that the new regulations did not come into force until 1936 and 1937 respectively. [33] Internally, the so-called "Friedensabkommen" (Peace Agreement) in the watchmaking and metal industry of 1937 or the "Alters- und Hinterlassenenversicherung" (AHV, Old Age and Survivors' Insurance), which was one of the demands during the general strike but was not actually implemented until 1947/48, paved the way to a new social partnership that was less shaped by confrontation.

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Notes

- † Geering, Traugott: Handel und Industrie der Schweiz unter dem Einfluss des Weltkriegs.
 Monographien zur Darstellung der schweizerischen Kriegswirtschaft, volume 3, Basel 1928, p.
 62. I am grateful to Fiona Sangster for translating this article into English.
- 2. † Plumpe, Werner: Die Logik des modernen Krieges und die Unternehmen. Überlegungen zum Ersten Weltkrieg, in: Jahrbuch für Wirtschaftsgeschichte / Economic History Yearbook 56/2, 2015, p. 332.
- 3. ↑ Der Krieg und die schweizerische Industrie, in: NZZ, No. 184, 16 February 1915. See also Luciri, Pierre: Le Prix de la Neutralité, Geneva 1976, p. 281f.
- 4. † Especially the volume published in 2008 by Roman Rossfeld and Tobias Straumann "Der vergessene Wirtschaftskrieg", a volume published in 2015 as part of the Jahrbuch für Wirtschaftsgeschichte on "Kriegswirtschaft im Ersten Weltkrieg" (with several papers about Switzerland), the dissertation by Florian Weber on Swiss foreign policy in the 1917/18 economic war and the papers published by Roman Rossfeld about the war material exports of the watchmaking, metal and machine industries in the First World War.
- 5. † Geering, Handel und Industrie der Schweiz 1928, p. 5.
- 6. ¹ See also the case studies covering various sectors in Straumann, Tobias/Rossfeld, Roman (eds.): Der vergessene Wirtschaftskrieg. Schweizer Unternehmen im Ersten Weltkrieg, Zurich 2008. For the commercial enterprises, see the recent papers of Haller, Lea: Transithandel: Geld- und Warenströme im globalen Kapitalismus, Berlin 2019 and Dejung, Christof: Die Fäden des globalen Marktes. Eine Sozial- und Kulturgeschichte des Welthandels am Beispiel der Handelsfirma Gebrüder Volkart 1851–1999, Cologne 2013, pp. 153–170.
- 7. ↑ Geering, Handel und Industrie der Schweiz 1928, p. 67.
- 8. † See also Berichte der schweizerischen Fabrikinspektoren über ihre Amtstätigkeit in den Jahren 1916 und 1917, Aarau 1918, p. 51f. and p. 109f.
- 9. ↑ NZZ, No. 1127, 14 July 1916. See also the article "Firmen-Missbräuche", in: NZZ, No. 1464, 15 September 1916.
- 10. ↑ Statistisches Jahrbuch der Schweiz 28 (1919), p. 76 and 29 (1920), p. 86. However, the dividend statistics published regularly by the Swiss Federal Statistical Office since 1917 covered only a small proportion of industrial public limited companies. Cf. in more detail Rossfeld, Zwischen den Fronten 2008, p. 52.
- 11. ↑ Stucki, Henri: Rückschau über Handel und Industrie der Schweiz 1914–1918. Herausgegeben vom Schweizerischen Bankverein, Basel 1919, p. 60f.
- 12. † See also Eidgenössische Kriegsgewinnsteuer. Verfügung des eidgenössischen Finanzdepartementes vom 3. Juli 1918, in: Baer, F.: Die schweizerischen Kriegsverordnungen, volume 4, Zurich 1919, pp. 346f. With reference to war profits see also Fuchs, Rudolf: Die Kriegsgewinne der verschiedenen Wirtschaftszweige in den einzelnen Staaten anhand statistischer Daten dargestellt, Zurich 1918.
- 13. † NZZ, No. 733, 12 June 1915.
- 14. ↑ A similarly differentiated assessment with regard to Germany is reached by Plumpe, Die Logik des modernen Krieges 2015.
- 15. ↑ Spoerer Mark: "Wahre Bilanzen!" Die Steuerbilanz als unternehmenshistorische Quelle, in: Zeitschrift für Unternehmensgeschichte 40 (1995), pp. 158–179, here p. 177.
- 16. ↑ Fuchs, Die Kriegsgewinne 1918, p. 38.

- 17. † The following observations are based on Rossfeld, Roman: "Abgedrehte Kupferwaren". Kriegsmaterialexporte der schweizerischen Uhren-, Metall- und Maschinenindustrie im Ersten Weltkrieg, in: Jahrbuch für Wirtschaftsgeschichte 2 (2015), pp. 515–551 and Rossfeld, Roman: "Schweigen ist Gold". Kriegsmaterialexporte der schweizerischen Uhren-, Metall- und Maschinenindustrie im Ersten Weltkrieg, in: Jaun, Rudolf et al. (eds.): An der Front und hinter der Front. Der Erste Weltkrieg und seine Gefechtsfelder, Baden 2015, pp. 292–313.
- 18. ↑ Verordnung betreffend Handhabung der Neutralität der Schweiz vom 4. August 1914, cited in Kurz, Hans Rudolf: Dokumente der Grenzbesetzung 1914–1918, Frauenfeld 1970, p. 31.
- 19. ↑ Schweizerisches Bundesarchiv (BAR), E 1004.1, Protokoll über die Verhandlungen des schweizerischen Bundesrates, 22. Sitzung, Freitag, 5. März 1915, No. 519.
- 20. † Geering, Handel und Industrie der Schweiz 1928, p. 48f. and p. 575f.
- 21. ↑ BAR, E 1004.1, Protokoll über die Verhandlungen des schweizerischen Bundesrates, 20. Sitzung, 20. Februar 1917, No. 410.
- 22. † Holenstein, André: Mitten in Europa. Verflechtung und Abgrenzung in der Schweizer Geschichte, Baden 2014, p. 252.
- 23. † Volksrecht, Sozialdemokratisches Tagblatt, No. 269, 16 November 1917.
- 24. ↑ See also NZZ, No. 2175 and 2182, 19 November 1917.
- 25. ↑ Berner Tagwacht, 6 August 1917.
- 26. † Falke, Konrad (alias Karl Frey): Vom sozialen Schamgefühl, in: NZZ, No. 558, 28 April 1918.
- 27. † See also Koller, Christian: Labour, Labour Movements, Trade Unions and Strikes (Switzerland), in: 1914-1918-online. International Encyclopedia of the First World War, ed. by Ute Daniel, Peter Gatrell, Oliver Janz, Heather Jones, Jennifer Keene, Alan Kramer, and Bill Nasson, issued by Freie Universität Berlin, Berlin 2015-10-29. DOI: 10.15463/ie1418.10754.
- 28. † For a more detailed discussion, see Leimgruber, Matthieu: Taylorisme et management en Suisse romande, 1917–1950, Lausanne 2001.
- 29. ↑ See also Koller, Christian: "Auf einem Schiffe regiert der Kapitän und kein Matrosenrat" Die Mitbestimmungsdebatte nach dem Schweizer Landesstreik, in: Schweizerische Zeitschrift für Geschichte 69 (2019), pp. 49–72 and Brie, Michael: Das ungelöste Jahrhundertproblem: die Demokratisierung der Wirtschaft, in: Jahrbuch für Forschungen zur Geschichte der Arbeiterbewegung 14 (2015), pp. 67–85.
- 30. † SWA, Berufsverbände D60, Zentralverband schweizerischer Arbeitgeber-Organisationen, Bericht des Zentralvorstandes an die Mitglieder über das Jahr 1919, Zürich 1920, p. 37.
- 31. † Wigger, Erich: Krieg und Krise in der politischen Kommunikation. Vom Burgfrieden zum Bürgerblock in der Schweiz, 1910–1922, Zurich 1997, p. 157.
- 32. † See also the article «Wirtschaftliche Überfremdung und Abwehrmassnahmen, in: NZZ, No. 534, 23 April 1918.
- 33. † See also Lüpold, Martin: Der Ausbau der "Festung Schweiz". Aktienrecht und Corporate Governance in der Schweiz, 1861–1961, Zurich 2008 and Kury, Patrick: Über Fremde reden. Überfremdungsdiskurs und Ausgrenzung in der Schweiz 1900–1945, Zurich 2003, pp. 89–168.

Selected Bibliography

Degen, Bernard: Abschied vom Klassenkampf. Die partielle Integration der schweizerischen Gewerkschaftsbewegung zwischen Landesstreik und Weltwirtschaftskrise (1918-1929), Basel 1991: Helbing & Lichtenhahn.

Dejung, Christof: Die Fäden des globalen Marktes. Eine Sozial- und Kulturgeschichte des Welthandels am Beispiel der Handelsfirma Gebrüder Volkart 1851-1999, Cologne 2013: Böhlau Verlag.

Dejung, Christof; Zangger, Andreas: **British wartime protectionism and Swiss trading companies in Asia during the First World War**, in: Past & Present 207/1, 2010, pp. 181-213, doi:10.1093/pastj/gtq004.

Fehr, Sandro: Energie für den Krieg. Schweizer Unternehmen als Zulieferer und Produzenten in der deutschen Stickstoffwirtschaft während des Ersten Weltkriegs, in: Jahrbuch für Wirtschaftsgeschichte 56, 2015, pp. 479-513.

Gautschi, Willi: Der Landesstreik 1918, Zurich 1968: Benziger.

Geering, Traugott: **Handel und Industrie der Schweiz unter dem Einfluss des Weltkriegs**, Basel 1928: Benno Schwabe & Co.

Haller, Lea: **Transithandel. Geld- und Warenströme im globalen Kapitalismus**, Berlin 2019: Suhrkamp Verlag.

Huber, Anja: Fremdsein im Krieg. Die Schweiz als Ausgangs- und Zielort von Migration, 1914-1918, Zurich 2017: Chronos.

Koller, Christian: 'Auf einem Schiffe regiert der Kapitän und kein Matrosenrat'. Die Mitbestimmungsdebatte nach dem Schweizer Landesstreik, in: Schweizerische Zeitschrift für Geschichte 69, 2019, pp. 49-72.

Krämer, Daniel / Pfister, Christian / Segesser, Daniel Marc (eds.): 'Woche für Woche neue Preisaufschläge'. Nahrungsmittel-, Energie- und Ressourcenkonflikte in der Schweiz des Ersten Weltkrieges, Basel 2016: Schwabe.

Kunz, Hans-Beat: Weltrevolution und Völkerbund. Die schweizerische Aussenpolitik unter dem Eindruck der bolschewistischen Bedrohung 1918-1923, Bern 1981: Stämpfli.

Kury, Patrick: Über Fremde reden. Überfremdungsdiskurs und Ausgrenzung in der Schweiz, 1900-1945, Zurich 2003: Chronos.

Leimgruber, Matthieu: **Taylorisme et management en Suisse romande (1917-1950)**, Lausanne 2001: Éditions Antipodes.

Lüpold, Martin: Der Ausbau der 'Festung Schweiz'. Aktienrecht und Corporate Governance in der Schweiz, 1881-1961, thesis, Zurich 2008: Universität Zürich.

Ochsenbein, Heinz: Die verlorene Wirtschaftsfreiheit 1914-1918, Bern 1971: Stämpfli.

Omachen, Peter: Das Ende der Fremdenindustrie. Der Erste Weltkrieg aus Sicht des Luzerner Tourismus, in: Geschichtsfreund 169, 2016, pp. 101-114.

Plumpe, Werner: **Die Logik des modernen Krieges und die Unternehmen. Überlegungen zum Ersten Weltkrieg**, in: Jahrbuch für Wirtschaftsgeschichte / Economic History Yearbook 56/2, 2015, pp. 325-358.

Rossfeld, Roman: **Zwischen den Fronten oder an allen Fronten? Eine Einführung**, in: Straumann, Tobias / Rossfeld, Roman (eds.): Der vergessene Wirtschaftskrieg. Schweizer Unternehmen im Ersten Weltkrieg, Zurich 2008: Chronos, pp. 11-59.

Rossfeld, Roman: 'Schweigen ist Gold'. Kriegsmaterialexporte der schweizerischen Uhren-, Metall- und Maschinenindustrie im Ersten Weltkrieg, in: Jaun, Rudolf / Olsansky, Michael M.; Picaud-Monnerat, Sandrine et al. (eds.): An der Front und hinter der Front. Der Erste Weltkrieg und seine Gefechtsfelder = Au front et à l'arrière. La Première Guerre mondiale et ses champs de bataille, Baden 2016: hier + jetzt, pp. 292-313.

Rossfeld, Roman: 'Rechte hat nur, wer Kraft hat'. Anmerkungen zur Schweizer Wirtschaft im Ersten Weltkrieg, in: Rossfeld, Roman / Buomberger, Thomas / Kury, Patrick (eds.): 14/18. Die Schweiz und der Grosse Krieg, Baden 2014: hier + jetzt, pp. 144–171.

Rossfeld, Roman: 'Abgedrehte Kupferwaren'. Kriegsmaterialexporte der schweizerischen Uhren-, Metall- und Maschinenindustrie im Ersten Weltkrieg, in: Jahrbuch für Wirtschaftsgeschichte / Economic History Yearbook 56/2, 2015, pp. 515–552.

Rossfeld, Roman / Koller, Christian / Studer, Brigitte (eds.): **Der Landesstreik. Die Schweiz im November 1918**, Baden 2018: hier + jetzt.

Schmid, Hanspeter: Wirtschaft, Staat und Macht. Die Politik der schweizerischen Exportindustrie im Zeichen von Staats- und Wirtschaftskrise 1918-1929, Zurich 1983: Limmat.

Schneider, Oliver: **Die Schweiz im Ausnahmezustand. Expansion und Grenzen von Staatlichkeit im Vollmachtenregime des Ersten Weltkriegs, 1914-1919**, Zurich 2019: Chronos.

Weber, Florian: Die amerikanische Verheissung. Schweizer Aussenpolitik im Wirtschaftskrieg 1917/18, Zurich 2016: Chronos.

Wild, Roman: Volksschuhe und Volkstücher zu Volkspreisen. Zur Bewirtschaftung lederner und textiler Bedarfsartikel im Ersten Weltkrieg in der Schweiz, in: Schweizerische Zeitschrift für Geschichte 63, 2013, pp. 428-452.

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