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New Stock Issues in Germany, 1882-1892
A Comment to Professor Fohlin

Carsten Burhop*

Abstract:

In a recent paper published in the Journal of Economic History, Professor Caroline Fohlin investigates the spread earned by underwriters in conducting IPOs at the Berlin Stock Exchange between 1882 and 1892. According to Professor Fohlin, underwriters acquired new shares at par value from issuers and sold off at much higher prices to investors, earning on average 32 percent. I provide evidence on the basis of archival material that Professor Fohlin overestimates the underwriters' return, since the spread was more or less equally shared between underwriter and issuer. Moreover, my findings suggest that the spread varied over time due to changes in corporate law.

JEL-Classification:

N 23, G 14, D 82

Keywords:

Initial public offerings; banks; stock markets; Germany

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In a recent paper, Professor Caroline Fohlin investigates the underpricing of initial public offerings (IPOs) and seasoned equity offerings (SEOs) at the Berlin Stock Exchange between 1882 and 1892.¹ One of her key conclusion is that “underwriters directly reaped profits from pricing their purchase of new issues below market value”.² According to Professor Fohlin, German underwriters could profit from asymmetric information among issuers, underwriters, and investors by taking the spread between the price the underwriter paid to issuers and the price at which they sold off to investors.³ This price difference is called ‘underwriter premium’. The proxy used to measure the underwriter premium is the percentage difference between the offering price and the par value of a share.⁴ Professor Fohlin calculates from a large sample of IPOs that the average underwriter premium was 32.46 percent.

In contrast to substantial returns for underwriters, initial returns for first investors were, compared to modern data, very low and averaged only 7.23 percent. This finding of low initial returns for first investors confirms the established view from the literature: Anja Weigt and Carsten Burhop already calculate initial returns of about five percent for the period 1882 to 1913.⁵ Moreover, Burhop computes initial returns of 0.5 percent for the period 1870 to 1884 and 4.4 percent for the period 1884 to 1896.⁶

Thus, the distribution of the money left on the table between underwriters and investors was different in Germany between 1882 and 1892 – underwriters (i.e., banks) were the winners instead of first investors, whereas nothing changed for issuers. I argue from case studies documented in the files of various banks that issuers received a substantial fraction of the underwriter spread. Therefore, banks were not the only winners. Moreover, I argue that Professor Fohlin misses a lot of dynamics, since the legal framework for the valuation of issues changed substantially due to the 1884 corporate law reform.

The typical IPO at the late 19th century German stock market involved several steps. In most of the cases, an already existing firm changed its legal form to become a joint-stock company – usually to allow former owners to diversify their investment, to retire due to old age, or to raise additional funds for investment.⁷ To incorporate, the owner of an existing firm transfers all assets (buildings, machinery etc.) to the newly founded joint-stock company and he receives shares at face value⁸ in return. In addition to

¹ Fohlin, „Asymmetric information“.

² Fohlin, „Asymmetric information“, p. 653.

³ Fohlin, „Asymmetric information“, pp. 638-639.

⁴ Fohlin, „Asymmetric information“, p. 642. Professor Fohlin admits that this is not necessarily the profit of the underwriter since the underwriter may pay more than the par value of a share to the issuer. Nonetheless, she uses this variable in her regression analysis and her conclusions are drawn from the regressions, see Fohlin “Asymmetric information”, p. 642-643 and footnote 27 on page 647.

⁵ Weigt, *Der deutsche Kapitalmarkt* and Burhop, „Die Technik“.

⁶ Burhop, „The underpricing“.

⁷ See Lotz, *Die Technik des Emissionsgeschäfts*, Obst, *Das Bankgeschäft*, p. 322-330 and p. 339-350, and Riesser, *Großbanken*, pp. 280-295 for contemporary textbooks treatments of IPOs.

⁸ The face value of a share was usually 1,000 marks (about \$240). Shares were quoted in percent of face value.

the assets of the former company, other incorporators – the minimum number of incorporators according corporate law was five – can put new money (usually in cash) into the new joint-stock company and receive shares at face value in return. Typically, these ‘cash-incorporators’ were banks (i.e., the underwriters). The shares of the new joint-stock company are now all owned by the incorporators (the former owner and cash-incorporators). In a next step, the incorporators sell all or – in most of the cases – some of the shares to an underwriting syndicate. The underwriter syndicate subsequently offers the shares to first (outside) investors at the stock market, often at a fixed offering price.

During the process of incorporation, the opening balance sheet of the new corporation is set up. According to the German corporate law in force from June 1870 until July 1884, all assets have to be valued according the current market value. Since most assets do not have a market (e.g., existing buildings, old machinery etc.) the value typically was the best guess of the incorporator. The only restriction contained in the law referred to securities. For securities, the current market price was the maximum book value.⁹ In practice, the former owners of a firm sold the assets of the firm at a very favourable price to the new joint stock company and the underwriters acquired the shares at par value from the joint stock company.¹⁰

According to Walther Lotz, author of the standard textbook on the underwriting business, this practice changed in 1884 due to the new corporate law.¹¹ The new law specified that all securities and other assets having an exchange price (e.g., securities, metals, grain etc.) have to be valued to the market price but not higher than the historic purchase price. In addition, all other assets have to be valued not higher than the historic purchase price. Furthermore, depreciations have to be booked for all plant and equipment to reflect reductions in value due to use since the assets have been bought.¹² Thus, the 1884 corporate law reform marked the move from the mark-to-market accounting principle to the lowest value

⁹ See §§ 31 and 229a of the 1870 ADHGB.

¹⁰ Riesser, *Großbanken*, p. 283-284 („Eine materielle Nachprüfung der für die Einbringung von Sacheinlagen (Apports) festgesetzten Preise, ferner der für die Gründung und deren Vorbereitung gewährten Vorteile und der erzielten Zwischengewinne bestand eben nicht, das Agio aber der von der Gesellschaft ausgegebenen Aktien floß nicht, wie heute, dem Reservefonds der Gesellschaften, sondern den Vorbesitzern zu, welche es in Anrechnung für ihre Sacheinlagen (Apports) erhielten.“).

¹¹ „Seit dem neuen Aktiengesetz vom 18. Juli 1884 hat sich dies wesentlich geändert. Daß bloß aus gemeinnütziger Absicht Gründungen unternommen werden, darf man auch jetzt nicht verlangen und erwarten. Was jedoch die Übernahme der bisherigen Werte, der sogenannten Illaten, anbetrifft, so ist es seitdem wesentlich erschwert, ja fast unmöglich geworden, durch zu hohe Taxierungen derselben einen Gewinn zu erlangen.“ (Lotz, *Die Technik des Emissionsgeschäfts*, p. 42).

¹² See §§ 185a and 239b of the 1884 HGB.

accounting principle.¹³ Furthermore, from 1884 onwards, external auditors appointed by the local chamber of commerce audited the first balance sheet of the new corporation.¹⁴

To put a long story short: before 1884, incorporators sold assets at inflated prices to the new joint stock company and they then sold the shares at par value to the underwriters. After 1884, incorporators sold assets at comparatively low prices to the new joint stock company and then sold the shares above par value to the underwriters.

According to the calculations presented by Professor Fohlin, the incorporators sell all shares at face value to the underwriting syndicate. Therefore, the difference between the offering price and face value is considered to reflect the spread earned by the banks. One major advantage of this approach is the fact that both, the face value and the offering price, are easily observable, whereas the price actually paid by the underwriting syndicate to the incorporator is only stated in a contract between the parties involved. Unfortunately, these contracts are only – and in practice rarely – available in archives. I claim, in accordance with 19th century experts, that incorporators sold off to underwriters at par until 1884 and above par from 1884 onwards. The empirical content of this hypothesis shall be substantiated by archival evidence.

First example: The Accumulatoren-Fabrik AG was established as a joint stock company with a capital of 4.5 million marks in July 1890, based on the private firm (Offene Handelsgesellschaft) Accumulatorenfabrik Tudor'schen Systems Müller & Einbeck, which was established in 1887. The joint-stock company went public on 8 November 1894 in Berlin and Frankfurt. The issue was underwritten by Deutsche Bank, Berliner Handelsgesellschaft, Nationalbank für Deutschland, Gebr. Delbrück, Jacob Landau, Gebr. Sulzach, and Ernst Osthaus. The issue price was 140 percent, the full share capital of 4.5 million marks was admitted to the stock exchange, but only 3.026.000 marks were offered to the public.¹⁵ According to Professor Fohlin, the underwriter spread was 40 percent – the difference between the offering price and the par value. The files of the lead underwriter Deutsche Bank show that the

¹³ Lotz, *Die Technik des Emissionsgeschäfts*, p. 48 figured out that the difference between offering price and par value gives first investors a fair picture about the joint profit of incorporator, issuer, and underwriter. („Wenn gegenwärtig nicht mehr im Verkaufspreise der vom Vorbesitzer eingebrachten Gegenstände und der Beteiligung der Gründer an diesem Gewinn, sondern im Verkaufspreise der Aktien der Vorteil gesucht wird, so ist die Folge, daß bei der heutigen Sachlage jeder einzelne Käufer sich ziffermäßig klar machen kann, wieviel er dem Vorbesitzer und dem Konsortium durch Aufgeld zu verdienen gibt, während bei der früheren Praxis der Käufer, falls er überhaupt Grund zu Mißtrauen hatte, gar nicht kontrollieren konnte, um wieviel die eingebrachten Gegenstände zu hoch bewertet waren.“)

¹⁴ Riesser, *Großbanken*, p. 287 („Es kam hinzu, daß von 1884 ab die absichtliche oder grob fahrlässige Überbewertung von Apports sehr erschwert, jedes Verstecken der Namen der Gründer oder Gründergenossen aber und jedes Verheimlichen von Gründer- oder Zwischengewinnen schon nach Lage der Gesetzgebung so gut wie ausgeschlossen war und daß die Feststellung der Höhe der für die eingebrachten oder übernommenen Vermögenswerte gewährten Aktien oder Vergütungen einer dreifachen materiellen Nachprüfung zivil- und strafrechtlich in strengster Weise verantwortlicher Personen unterlag.“).

¹⁵ Prospectus of Accumulatoren-Fabrik AG, Historical Archive Deutsche Bank, file no. SG 32/1.

banks did not acquire the shares at par value and that different banks paid different prices. The lead underwriter Deutsche Bank acquired the shares at an average price of 109.31, the Berliner Handelsgesellschaft paid 112.5, and the private banks included in the syndicate paid an average price of 108.65.¹⁶

Second example: Anglo-Continentale-Guanowerke AG Hamburg. The firm was incorporated as a joint stock company during October 1883, based on the established private firm Ohlendorff'sche Guanowerke. The joint-stock company had a capital of 16 million marks, divided into 16,000 shares with a par value of 1,000 marks each. The owner of the private firm, Ohlendorff, received 5,248 shares for his old company and paid up the remaining share capital in cash. During the same month, Ohlendorff sold 10,000 shares to a banking syndicate at a price of 125 percent. Members of the syndicate were the Norddeutsche Bank, a large provincial bank based in Hamburg, and the Berlin based banking house Bleichröder. During August 1888, 12,500 shares were admitted to the stock exchanges in Berlin and Hamburg and they were offered to investors at a price of 125 by a syndicate composed of Bleichröder, Norddeutsche Bank, L. Behrens (a private bank from Hamburg), and Darmstädter Bank für Handel und Industrie. For their service, the banks received a fee of 125,000 marks from the issuer.¹⁷ Thus, the underwriter spread was close to zero.

Third example: Sürther Maschinenfabrik AG, a mechanical engineering company based in Cologne. Lead underwriter was the Cologne banking house Oppenheim, co-underwriters were the private banking houses Bethmann and Kahn. The Sürther Maschinenfabrik had a capital of 1.6 million marks divided into 1,600 shares. The former owner of the Maschinenfabrik kept 500 shares and he sold 1,100 shares at a price of 125 percent to the syndicate. In May 1889, the syndicate offered the shares at a price of 140 percent to the public.¹⁸

The three examples, all taken from the period covered by Professor Fohlin, illustrate that banks paid more than face value to the issuer. To assess if this is a general pattern, the archival records of Deutsche Bank, Dresdner Bank, Commerzbank, Berliner Handelsgesellschaft, Bethmann, and Sal. Oppenheim jun. & Cie. have been screened. Unfortunately, the number of surviving underwriter contracts for IPOs is pretty small: 22 contracts covering the period 1872 to 1914 have been discovered (see Table 1). Nonetheless, the contracts show a pattern consistent with the narrative of 19th century experts: During the pre-1884 period, all issues were sold at par value to the underwriting syndicate,

¹⁶ Letters Deutsche Bank to Berliner Handelsgesellschaft, 22 July 1890 and 26 July 1890. Historical Archive Deutsche Bank, file no. S 0042.

¹⁷ Frankfurt City Record Office, files of Bethmann private bankers, file V 665. Historical Archive Deutsche Bank file K1/201. Historical Archive Deutsche Bank, file SG 2/32.

¹⁸ Frankfurt City Record Office, files of Bethmann private bankers, files V 568 and V 569.

whereas underwriters paid on average 119.6 percent of par value after 1884. During the pre-1884 period, underwriters offered shares – on average – at 111.8 percent of par value to investors. Thus, the underwriter spread was 11.8 percent. During the post-1884 period, underwriters offered the shares at an average price of 138.4 percent. Consequently, the underwriter spread was 15.7 percent. The averages over the entire period 1872 to 1914 were 113.4 (acquisition price) and 129.9 (offer price). Thus, the underwriter spread was 14.6 percent. Furthermore, I would like to point out that the difference between offering price and par value over the entire period was 29.9 percent in my sample – pretty close to Professor Fohlin's estimate of 32.46 percent. However, the spread was shared between issuer and underwriter. Thus, the picture of powerful banks exploiting issuers and first outside investors is not entirely correct. It seems that IPOs generated more or less equal returns for issuers, underwriters, and first investors.

TABLE 1: IPO CONTRACT DETAILS, 1872-1914

Name of issue	Year of issue	Acquisition price of underwriting syndicate	Offering price	Lead underwriter	Source ¹⁹
Waren-Credit Anstalt	1872	100	110	Norddeutsche Bank	HADB K1 850; HADB K1 851
Hanseatische Baugesellschaft	1872	100	108	Norddeutsche Bank	HADB K1 654
Dortmunder Union	1872	100	110	Discontogesellschaft	OA AXIV 205
Hamburger Bankverein	1872	100	105	Berliner Bankverein	BA V 168
Gelsenkirchener Bergwerk	1873	100	115	Discontogesellschaft	HADB K1 645
Hibernia & Shamrock	1873	100	115	Berliner Handelsgesellschaft	HADB K1 646
Deutsche Verlagsanstalt	1881	100	120	Bankhaus Bethmann	BA V 753
Anglo-Continentale Guanoerwerke	1888	125	125	Norddeutsche Bank	HADB K1 201; HADB SG 2/32; BA V 665
Straßburger Druckerei	1888	128	145	Bankhaus Bethmann	BA V 723
Sürther Maschinenfabrik	1889	125	140	Sal. Oppenheim	BA V 585; BA V 569
Allgemeine Elsässische Bankgesellschaft	1890	100	115	Bankhaus Bethmann	BA V 103
Accumulatorenfabrik	1894	109	140	Berliner Handelsgesellschaft	HADB S 0042; HADB S 0046
Elika Gesellschaft für elektrische Anlagen	1897	100	123	Sal. Oppenheim	OA
Deutsche Gesellschaft für elektrische Unternehmungen	1898	100	134	Erlanger & Söhne	BA V 221
Elektrische Licht- und Kraftanlagen	1898	100	115	Jacob S.H. Stern	BA V 916
Westfälische Eisen-und Drahtwerke	1904	100	105	Sal. Oppenheim	OA
Hubertus Braunkohlen	1905	139	155	Deutsche Bank	OA
Berg- und Metallbank	1907	110	127	Berliner Handelsgesellschaft	BA V 300
Harburger Ölfabriken Fr. Thörl	1908	120	170	Deutsche Bank	HADB K 16 123
Th. Goldschmidt	1911	125	127	Discontogesellschaft	OA
Farbwerke Rasquin	1912	197	200	Discontogesellschaft	OA
Amme, Gieseke & Konegen	1914	116	155	Deutsche Bank	HADB K 16 68

¹⁹ HADB = Historical Archive of Deutsche Bank. BA = Bethmann archive. OA = Oppenheim archive.

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