Below sea level: a second merger wave in the Netherlands?

Bram Bouwens

Research Institute for History and Culture

Utrecht University

Kromme Nieuwegracht 66

3512 HL Utrecht

Telephone 0031-30-2536473

e-mail: bram.bouwens@let.uu.nl

Abstract

Mergers and acquisitions tend to come in waves. Since the late 19th century five periods of increased activity in changing corporate ownership can be classified. The homogeneity of the concentration process has been proven for many countries. In all these countries big business instigated merger waves. This article examines the existence of the second merger wave in the Netherlands during the interwar period. The Netherlands with its predominance of small and medium sized enterprises will be a case to test these assumptions. With the use of comparable sets of data that focus on big business we can prove a modest merger wave. New time series data demonstrate however a very intense use of mergers and acquisitions in Dutch business. While big corporations had a propensity to merge at the same time, small and medium sized companies made use of this strategic instrument much more often and under very different circumstances.

Keywords: merger, acquisition, merger wave, business, Netherlands

Introduction

Mergers and acquisitions are among the most important phenomena shaping market structures. They were a common feature during the 20th century and a widespread alternative to internal expansion of the firm. One of the most striking characteristics in the concentration process is the occurrence of merger waves. Merger activity can be seen as 'episodic'. Since the late 19th century five merger waves can be classified, five periods with an increased number of changes in corporate ownership. This article deals with the so-called second merger wave of the 1920s. In contrast to the first, third, fourth and fifth period of increasing business activity academics gave only marginal attention to the mergers and acquisitions of the interwar period.

This article challenges the general theory on mergers and acquisitions and the existence of merger waves. Different theories of merger motives emphasize the almost exclusive role of big business in this field.[1] Empiricism and theory focus on big corporations with stock market quotations. Most scientist took the development of share prices and price/earning ratios as point of departure. In this way economists and historians demonstrated the second merger wave for countries like the United States, UK and Germany. The existence of a merger wave in the Netherlands has not been proved yet. One could argue - as an assumption - that the Dutch industry did not expand externally on a large scale because of its structure in which small and medium sized family firms played a key role. Or, is this assumption misleading and part of the limited set of data theories on merger waves are based on? The main question is whether there was a merger wave in the Netherlands during the interwar years or not? Can we detect a *hausse* and a *baisse* in the number of mergers and acquisitions during the 1920s and 1930s? In this article we will look not only at the big corporations with stock market quotations, but also at smaller and medium sized firms. Can we identify a same pattern of mergers and acquisitions for small and medium sized firms or is the common characterization of the merger activity deceiving?

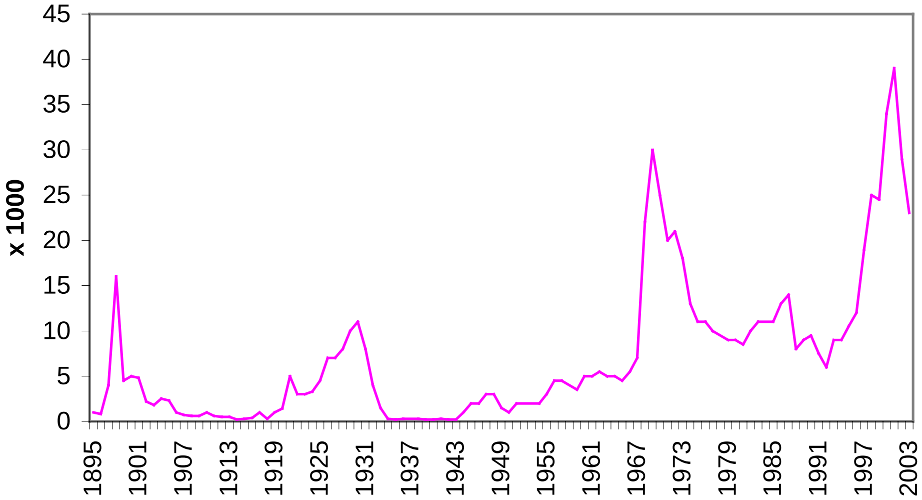
The structure of this article is as follows. The first paragraph gives a brief theoretical overview of the evidence and explanations on the existence of merger waves. This part brings together some theoretical evidence from the extensive literature on mergers and acquisitions, but will also make clear that the existing framework of theories is not sufficient to understand the phenomenon of merger waves completely. New empirical research based on time series data on mergers and acquisitions is required. Section 2 will test the existence of a merger wave in the Netherlands according the typical methodology in which big business is the focal point. In this way, we can make a comparison with developments in the US and some other European countries. The next section deals with the structure of the Dutch industry during the interwar period. This paragraph, in which popular growth strategies of Dutch firms will be presented, is an introduction to the final section. In this finishing part we will – with the use of new empirical material - test the theories on merger activity and merger waves at small and medium sized enterprises. Were mergers and acquisitions only a matter of big business?

1. Mergers and merger waves: evidence and explanations

Since the mid 1960s, when the concentration process reached a new climax and the trade in firms became very vivid, many studies have been written on mergers and acquisitions. Economists and other social scientists, managers and business consultants took an interest in the phenomenon of changing corporate ownership. Most studies focused on the efficiency of amalgamation, post-merger integration or formal strategies of external expansion. It is only for the last decade that the existence of merger waves turned out to be a subject of fascination. Why do they tend to come in bunches?

Many economists proved the existence of merger waves. Especially for the United States empirical studies offer a clear evidence of this phenomenon. Figure 1 shows the merger waves of the 20th century in the United States. Similar graphs could be drawn for the United Kingdom. Bishop and Kay noted in 1993 that Britain faced three merger waves, during the 1920s, the 1960s and 1980s.[2] Germany and several other European countries also knew periods of considerable merger activity during these years, although the characteristic labels differed. Most scientists agree that there were five periods of extensive trading among firms during the 20th century.[3] Though empiricism support the idea that merger activity has occurred in waves, the explanation of this phenomenon is still one of the big issues in economics. Brealey, Myers and many others even count the lack of explanation among the ten important unsolved problems.[4] The number of unsettled issues still exceeds the number of settled ones.

Figure 1: Merger waves in the US, 1895-2000[5]



One of the difficulties in explaining the occurrence of merger waves is the distinct feature of the separated periods. Every period had its own characteristics. Every merger wave took place within a market system that was completely different from the preceding and following period of increasing merger activity.[6]

The first merger wave took place from 1897 to 1904. It basically reflected the industrial revolution, which enabled production systems of high scale economies. It led to the establishment of large industrial trusts. In those days merger activities were mainly horizontal ones.[7] During the 1920s, when the second merger wave came about, horizontal oriented transactions dominated the market of corporate control, but also vertical and conglomerate focused mergers and acquisitions took place. Developments in transport, communication and distribution can be seen as catalysing factors. The third merger wave can be identified for the period from 1965 to 1975. Again, it was dominated by the strive for economies of scale, the diversification of products and by acquiring firms from other markets. The fourth wave, which occurred from 1984 to 1988 was les distinct in the United States than in Europe where firms tried to prepare for the completion of the single market by converting national champions into international or at least European ones. The catch-word of this merger wave were the synergies which were expected from melting production activities with related technologies. Finally, the fifth merger wave started in 1995 and ended in the first years of the new millennium. Globalization lead to an extension of markets and firm sized tended to follow this trend. Deregulation opened former national monopolies and offered international competitors the possibility to penetrate foreign markets by cross-border mergers and acquisitions.[8]

Among social scientist there is hardly any discussion on the existence of merger waves. Direct econometrics tests offered consistent sets of data that proved such a trend. However, all these sets of data take firms with a stock market quotation as point of departure and ignore for example private limited companies. Most studies on merger waves concentrate on the development of share prices and price/earning ratios. Studying the impact of merger announcements on share prices of acquiring and target firms through event studies is one of the most popular surveys in this field.[9] The focus is rather narrow. Merger motives have triggered far less theoretical efforts than the merger consequences. Nevertheless several theories can be distinguished, ranging from efficiency theory and monopoly theory to raider theory, empire-building theory and valuation theory. All these theories focus on shareholder's value and the transfer of wealth.[10] In our opinion this is just one side of the medal.

In addition to these financial explanations for the occurrence of merger waves at least two other determinants can be distinguished. Economic entities, however great their influence, were not in themselves responsible for the synchronicity of strategy during these periods of increased merger activity. Institutional economy provide a second set of explanations. Formal and informal business rules and agreements, as well as available technologies, greatly affected the actions of the firms. Legislation, codes of behavior, contract and conventions were shared among businessmen and created what Douglass North called isomorphism. Firms acting in the same environment are more or less forced to adjust their strategies in the same or similar direction.[11] A significant example of this, is the merger wave of the banking sector in the Netherlands after 1991 when new legislation made concentration between banks and insurance companies possible.[12] A third explanation for the analogy of strategies that lead to a merger wave would be the application of bandwagon theories and the concepts of defensive imitation and path dependency. With regard to concentration companies would follow a first mover for purely strategic rather than wealth-creating reasons. According to Schenk, DiMaggio and Powell, uncertainty and a lack of understanding with respect to technology and corporate strategy are powerful forces that encourage imitation in strategy and therefore initiate merger waves.[13]

As mentioned above, the understanding of merger waves can be explained by several (overlapping) theories. The existing literature doesn't however provide direct evidence concerning the whole spectrum of industry and the cohesion of the different interpretations.

2. A second merger wave: big business

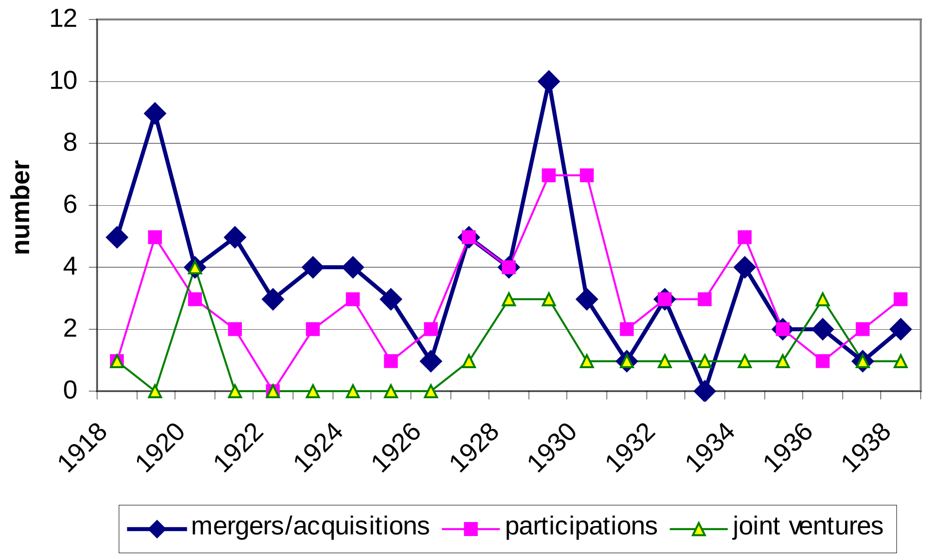
As mentioned in the first section of this article, mergers and acquisitions are above all a matter of big business. The partial knowledge of the concentration process during the interwar years in the Netherlands seems to underline this. The amalgamation of the Van den Bergh and Jurgens family firms into *Margarine Unie* in 1927 and the merger with the British Lever Brothers in 1929 fits impeccably in the theoretical concepts referred to in the first section. Both mergers took place between major players in the market of soaps and margarines - with the logic of the shared use of animal fats as raw material - and during the impressive economic upswing of the 1920s.[14] In the same year Vereinigte Glanzstoff Fabriken and Enka amalgamated to form Algemene Kunstzijde Unie (AKU). Both corporations were leading players on the market of technical rayon fibres and had several subsidiaries and participations in various countries. Nevertheless, the strive after economies of scale and the elimination of a major competitor were among the most important reasons for the alliance.[15]

With the exception of a few well-documented cases, it is unclear how common mergers and acquisitions were as a vehicle for big business to expand the capacity of the firm or as an instrument to cope with various strategic uncertainties. The *Van Oss' effectenboeken*, that registered all listed securities, can give us a closer look at the concentration process in the Netherlands. However, as a source for historical analysis these files of all registered firms do have some limitations. Unfortunately, it is impossible to construct a comprehensive set of facts concerning mergers and acquisitions. The annually published *Van Oss' effectenboeken* are primarily a collection of financial data derived from the annual reports of the listed firms. Balance-sheets, profit and loss statements and dividends are the focal points of these annual time series data.[16] The performance of firms in terms of production, distribution, expansion or contraction and other strategic challenges are documented less consistently. Mergers and acquisitions are mentioned, but the reason behind the strategies of the firms or the impact of the concentration processes on production, productivity, integration, the number of employees etc. is seldom mentioned. The source reflects the modest legal requirements for reporting and, as a consequence, the poor quality of the annual reports. A very important advantage of this collection of data is the opportunity to make a comparison with studies of the second merger wave in other countries. As said and without exception, all these studies demonstrate the existence of merger waves by counting the transactions from companies with a stock market quotation. So, taking the *Van Oss'effectenboeken* into consideration is necessary to measure the development in the Netherlands by the same standard.

During the interwar years the Amsterdam Stock Exchange contained about 150 industrial corporations. These were the major corporations of the country, with a prominence of metal, chemical and food industry. Figure 2 illustrates the mergers and acquisitions of these corporations during the interwar years. During the interwar years mergers and acquisitions seemed to be an attractive vehicle to expand the capacity of the firm rapidly. On the stock exchange in Amsterdam mergers and acquisitions were not uncommon, though a hype as could be noticed at Wall Street in 1928 and 1929 did not take place.[17] The concentration process was irregular in time, but something that looked like a wave could not be identified at the end of the 1920s.

In 1930 and 1939 about 75 transactions were documented in a retro perspective way.[18]

Figure 2: Concentration in Dutch big business (corporations with stock market quotation), 1918-1938[19]



The graph underlines the assumptions of earlier work that mergers and acquisitions, as well as participations and joint ventures took place at periods of economic upswing. On an average the modest level of concentration during the 1930s was 0,4 compared to the previous decade. Most mergers and acquisition took place during the years of expansion.[20] It is interesting to see that the number of participations did not decline after 1929 and even demonstrated a relative high intensity during the years of the Great Depression. Apparently, firms cut their coat according to their cloth and were much more cautious with their liquidity.

The mergers and acquisitions of Dutch firms were mainly national. Only a few foreign companies amalgamated with a Dutch firm. Cross-border mergers – both the Unilever and Enka case - were clearly an exception. Most corporations acquired a national competitor. Activities in the Dutch East Indies were incorporated, that is, put in the form of a NV (limited liability company).[21] Sluyterman assumes that the reasons for this might be the long distance between the Indonesian archipelago and the motherland, the risky character of the activities and the impossibility to find financial resources in Indonesia.[22] The influence of foreign competitors was less impressive. This is remarkable. As a small country surrounded by powerful industrial economies the Dutch industry had always been susceptible to foreign competitors.

Their influence on the Dutch market of corporate control was however marginal and exceptional. The striving after autonomy of the family firm with tight control over strategy and performance might explain this idiosyncratic development. On the other hand, the institutional context of the Dutch legislation on corporate governance and behaviour on the stock exchange should be taken into consideration as well. Many Dutch corporations were protected against hostile takeovers. Company's statutes often included clauses that gave part of the control of the firm to others than to the shareholders (for example priority shares).[23]

Most mergers and acquisitions had a horizontal character in which the combined firms produced the same or related products for the same market. These kinds of transactions dominated the market of corporate control. The motivation was to reduce, eliminate or regularize competition. To deal with a growing competition and to increase their market volume and market shares firms tried to control a larger part of the production process. As mentioned before, the true motivation for the amalgamation might be delusive, because the merger makers always attempted to rationalize their actions. Reasons that could be explained by bandwagon theories will not come to the fore through the official communication of the firm. Vertical integration was also apparent during the interwar years. The producer of bandages and sticking plasters NV Koninklijke Pharmaceutische Fabrieken v/h Brocades-Stheeman en Pharmacia merged in 1927 with the sales organization Koninklijke Pharmaceutische Handelsvereeniging. Brewer 'De Zwarte Ruiter' acquired NV Mpij tot Exploitatie van Heck's Lunchrooms and NV Nederlandsch-Indische Portland Cement Maatschappij acquired in a producer of sacks that were used for packaging.[24] In most cases firms acquired smaller companies to complete their production facilities and to assure them - to a certain extent - against unexpected strategies of suppliers, competitors or customers. A few firms tried to spread the risks of entrepreneurship and invested in what could be seen as eccentric escapades. For example, Van Berkel, a well known producer of slicing machines and balances started the construction of airplanes and the production of high-pressure machines. Four years after the start in 1917 the airplane department went into liquidation, followed by the department for high pressure machines, a year later.[25]

The majority of the transactions involved two firms. The so-called multi-firm consolidation, which was so important during the first merger wave at the turn of the 19th and 20th century, had only some appeal during the first months after the First

World War. For example NV Centrale Suiker Maatschappij (CSM) that was established in 1919 combined the assets of seven firms - two refineries and five raw sugar producing corporations. Moreover, CSM participated in six other companies, combining almost all private factory owners. This consolidation was not only an answer to the fashionable business strategy of these days, but above all the result of a path dependency that brought together institutional, economic and bandwagon elements.[26] NV Koninklijke Nederlandsche Edelmetaalbedrijven van Kempen, Begeer & Vos, a manufacturer and dealer of precious metals and stones was another example of this multi-firm consolidation. The firm was the incorporation of the three major players in the field in 1919. The combination of manufacturers and traders, large-scale operations and retailing caused, however, many problems and reorganization was necessary to restructure the assets of the three companies in five separate firms. In the same year five firms were united in the NV Vereenigde Touwfabrieken, producing several qualities of rope and cables. [27]

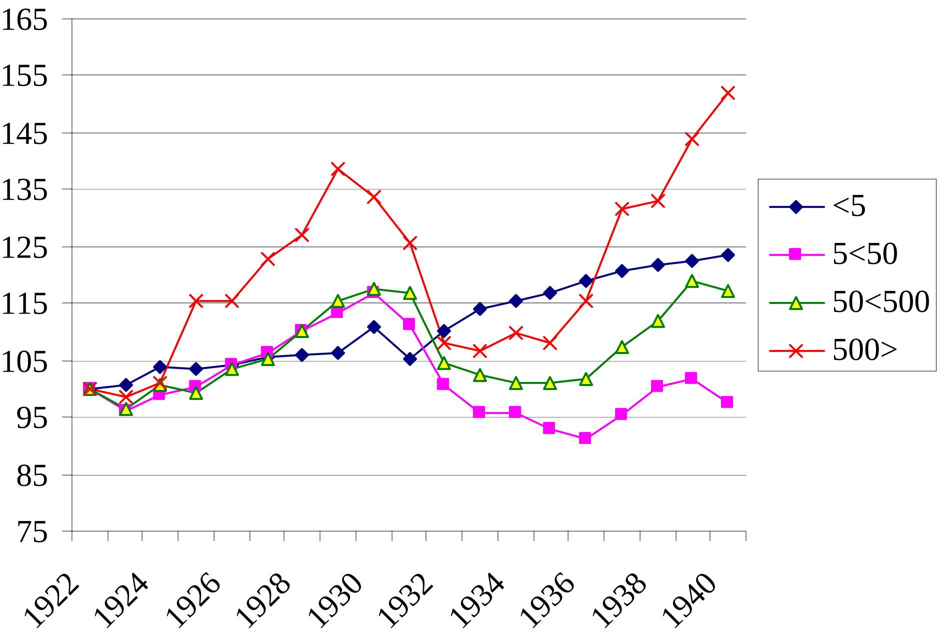
The *Van Oss'effectenboeken* endorse the connection of big business and the concentration process. Firms with a stock market quotation were apparently subject to changes in the financial markets. The relation between mergers and acquisitions on the one side and the fluctuations of the business cycle on the other hand are obvious. An interesting issue is whether this is also the matter for small and medium sized companies without a stock market quotation. Can we see a similar development? To come back with a satisfying answer it is necessary to look first at the structure of Dutch business during the interwar period.

3. Scale and expansion in Dutch industry

During the interwar period the Dutch industrial sector developed into a more important component of the national economy. Between 1913 and 1938 the growth rates of industry were substantially higher than the general growth rates of GDP.[28] This was mainly due to the growth of a few industries. Metal (especially shipbuilding), paper and food industries were among the strongest branches of industry in the Netherlands.[29] In these years chemical industries and utilities also came to the fore. These branches of industry expanded their production enormously during the 1920s with annual growth rates of more than 10 percent. The government played a crucial and stimulating role in constructing a Dutch industrial basis and the proliferation of large basic industries. The participation in the *Koninklijke Nederlandse Hoogovens en Staalfabrieken* (Royal Dutch Steel Industries) is probably the most significant case of the interfering state.[30]

In these years of economic upswing and depression the industry was characterized by a few large multinationals and thousands of small and medium sized family firms. The family firm was the predominant form of business in the Netherlands.[31] It should however be noted that regarding the family firm as small and without the legal form of a limited liability company is a fallacy.[32] Unfortunately there are no reliable figures about the quantitative significance of the family firm. Only for the top-100 we do have data. These figures illustrate the influence of the family firm. About 61 percent of the selected corporations were owned, managed or emanated from a family.[33] A set of data that was collected to record the number of accidents in firms according the *Wet op de Ongevallenverzekering* of 1901 (Industrial Injuries Law) also suggest a high importance of the family firm.[34] At the beginning of the 1920s the Netherlands counted over 130,000 small firms with less than 5 employees. These were mainly shopkeepers and craftsmen. The overwhelming number of these owner-run companies only had - on an average - 1.4 employees. Interesting is the balanced growth of this category of personal enterprises during the 1930s. The firms that counted 5 to 50 employees were – at least in numbers - the core of Dutch industry. In these years about 30.000 small and medium sized firms were effective. Most firms of this category were run by the owner(s) and turned out to be very sensitive for the business cycle. Their number rose during the 1920s, decreased shortly after the Wall Street crash and climbed up again after the relative late devaluation of the Dutch guilder in 1936. Big business was also apparent in the Netherlands during the interwar years. In 1922 117 firms with 500 to 1000 employees could be counted and 79 firms had a workforce of more than 1000 men and women. Most of these firms belonged to textile, shipbuilding, constructing or food processing industries. Compared to the small and medium sized companies the numbers of these big corporations grew relatively strong during the antebellum (see figure 3). On the whole, the average number of employees working at a Dutch firm increased from 6.65 in 1922 to 7.89 in 1929 and declined afterwards to 6.37 in 1936, when the depression reached its all-time low. The figures will be considerably different if we exclude the category of smallest firms. Between 1922 and 1940 the average workforce at a Dutch firm increased from 27,9 to 34,9, without a significant decline of the growth rate during the years of the Great Depression. Obviously, the problems during the first half of the 1930s when about 7000 firms disappeared stimulated a process of scaling up and rationalization of the existing firms.

Figure 3: Development in number of firms: categories in personal employed, 1922-1940 (1922=100)[35]



Growth and decline in the different categories of figure 3 turned out to be the result of several strategies. Mainly, growth of the firms appeared to be autonomous, by internal expansion. Especially during the 1920s internal expansion was very attractive for most of the larger firms. Firms were attracted by the benefits of economies of scale. Where these economies were present, growing firms reaped greater profits and commanded the resources needed for further growth. For example, the total width of the paper and board making machines increased with about 35 percent between 1925 and 1933.[36] Growth of production was however not only a matter of building new machines or expanding existing facilities. Mechanisation and rationalization of the production processes gained momentum during the interwar period.[37] High costs for labour and increasing regulation on working hours stimulated this process that ultimately resulted in higher levels of productivity.[38] The relation between fluctuations in working force, economies of scale and rationalization is an interesting subject for further research.

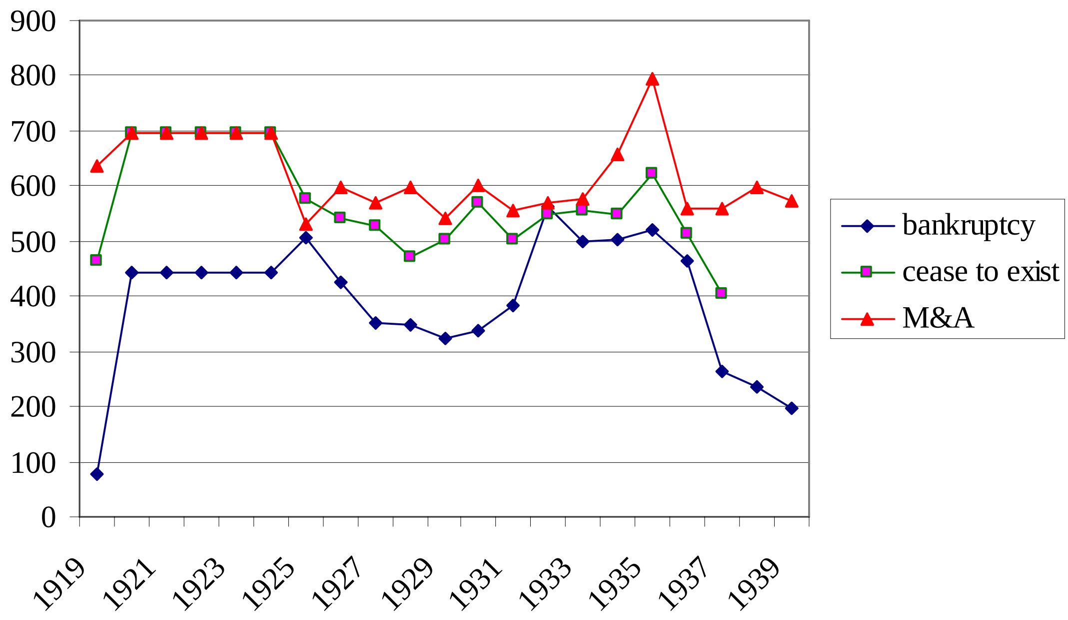
The final section of this article will focus on the strategic alternative of autonomous growth. Instead of building new capacity or acquiring new markets firms could also co-operate to reach the same goals. Within the wide array of collusive practices mergers and acquisitions can be seen as the ultimate instrument that influence corporate ownership. Although many non-economic motives can be listed, mergers and acquisitions were mostly justified by the speed economies of scale and scope were obtained. It should be noted that at the same time mergers and acquisition often reduced or eliminated the risks of internal expansion to create overcapacity and increase competition.[39]

4. beyond the wave; small and medium sized companies

The existing literature on mergers and acquisitions in the Netherlands during the interwar years is very fragmented. Some individual cases are very well described, but a general and profound overview of the concentration process that includes the broad spectrum of Dutch business is non existent. Growth and decline of Dutch business seems above all a matter of internal expansion and contraction. The structure of the industry with the significant position of small and medium sized family firms might be the reason for this development. But does this distinctive feature of Dutch business mean that concentration was absent?

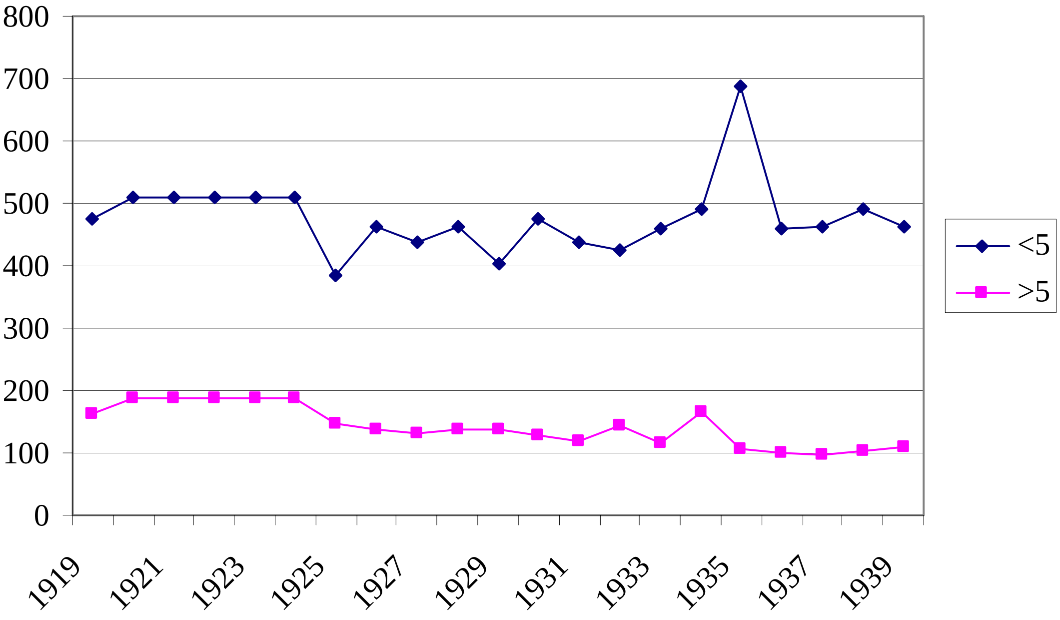
The dataset obtained from the records of the *Wet op de Ongevallenverzekering* of 1901 (Industrial Injuries Law) makes it possible to reconstruct mutations in the structure and composition of Dutch business. Not only the number of workmen and firms was registered. The changes in the structure also received attention. In addition to the number of accidents the government was interested in the way changes in the structure of business took place. Especially the question why firms ceased to exist turned out to be a fascinating issue. Figure 4 illustrates the mutations and the importance of mergers and acquisitions in this process.

Figure 4: Mutations in the structure of Dutch business, 1919-1939[40]



One of the striking features of figure 4 is the impressive number of mergers and acquisitions during the interwar years. With an average of almost 620 transactions a year mergers and acquisitions were the most important phenomenon in the concentration process. The effect of mergers and acquisitions should however not be overstated. Annually, about 0.3 percent of the firms was involved in a process of amalgamation. Most of the transactions took place within the category of small enterprises. Merger strategy was not only a matter of big corporations with a stock market quotation. Two-third of the mergers and acquisitions connected two small firms (see figure 5).

Figure 5: Mergers and acquisitions, categories in personal employed, 1919-1939[41]



The data make clear that care should be exercised to avoid exaggerating the effect of mergers and acquisitions on industrial concentration. The non-situation specificity of mergers and acquisitions is however obvious. Where the numbers of failures and liquidations increased during the first half of the 1930s – corresponding the years of the Great Depression in the Netherlands – mergers and acquisitions seemed to be a phenomenon of all days (see figure 5). There is no correspondence between the number of mergers and acquisitions and the economic prosperity of the 1920s and the downfall after the collapse of the stock markets in the autumn of 1929. A merger wave as mentioned in the section above can not be distinguished.

Another assumption that the concentration process was above all a matter of big business seems to be negative as well. In terms of numbers the largest category of firms even amalgamated less than the other two categories (see table 1). Whereas the average percentage of firms that had to do with mergers or acquisitions was about 0.3, companies with more than 50 personal employed only had an average of 0.15 percent.

Table 1: Mergers and acquisitions, categories in personal employed, 1925-1939[42]

	<5	5-<50	50>
1925	0.32	0.28	0.23
1930	0.33	0.32	0.14
1935	0.43	0.45	0.16
1939	0.29	0.29	0.16

Mergers and acquisitions were apparently instruments that could be used for a variety of strategies. Mergers and acquisitions could be realized because of firms saw opportunities to accomplish synergies, to achieve market power or simply to earn money by selling the firm.[43] The records of the *Wet op de Ongevallenverzekering* reveal almost nothing about real causes behind the transactions. Research in this field of small and medium sized companies is still behind and received not even the modest attention, although mergers and acquisitions were an important feature during the interwar years. One could – for example - argue that most amalgamations during the 1920s and 1930s had a very distinctive characteristic. Table 1 implies a very defensive cause to merge. The increase in the number of mergers during the first half of the 1930s and the reduction after 1935 might also suggest a defensive cause to merge and acquire: an urge to cooperate by the hope and desire to survive in a world in depression. This label can be applied to all categories. The broad definition of big business in the used records – all firms with 50 or more personal employed - might be the reason. Unfortunately the records of the *Wet op de Ongevallenverzekering* make a more insightful differentiation impossible.

Conclusion

This article focused on the existence of a merger wave in the Netherlands during the interwar years. Whereas the occurrence of a merger wave has been proved for the US and some European countries, the existence of such a development in the Netherlands had not been demonstrated yet. Our main hypothesis was that the structure of Dutch business didn't bring about a merger wave. The absence or under representation of big business in the Netherlands can be considered as the theoretical motivation of this assumption. According the existing literature mergers and acquisitions are above all a matter of big business. Indeed, as section 3 made clear, small-sized family firms dominated business in the Netherlands. On the other hand, the dataset obtained from the records of the *Wet op de Ongevallenverzekering* (Industrial Injuries Laws) showed an impressive number of mergers and acquisitions during the 1920s and 1930s. Both small and medium sized enterprises and big business made use of the existing instruments to expand externally. The non-existence of a *hausse* in the number of amalgamations during the 1920s and a *baisse* in the following decade suggest however a non-specific strategic intention or objective in the use of mergers and acquisitions. Whereas the generic analysis of Dutch business could not affirm the existence of a merger wave, a more in depth exploration of big business showed a clear merger wave with a peak in 1929. At this year about 6 percent of the 150 industrial firms with a stock market quotation merged, mergers between two firms with a stock market quotation included. Firms with such a financial root were more sensible to international markets and the behaviour of financial institutions. Besides the traditional motives for mergers and acquisitions this also explains the correlation between share prices and merger activity. These findings correspond to the results of econometric tests of firms quoted on the stock exchange in the US and some European countries. Dutch business was not an exception. On the other hand the limited persuasiveness and significance of the existing theories explaining mergers and acquisition for the whole industry is salient.

NOTES

[1] See for example: H. Schenk, 'Fusies, omvang, reikwijdte en trends' in: J.C.K.W. Bartel a.o. (ed.) *Fusies en overnames* (Houten 1994) 1-33; H.W. de Jong 'Fusiegolven: theorie en praktijk' in: *Tijdschrift voor Bedrijfsadministratie* 102 (1998) 1218, 446-451; D.J. Ravenscraft and F.M. Scherer *Mergers, sell-offs and economic efficiency* (Washington 1987)

[2] M. Bishop and J. Kay, *European Mergers and Merger Policy* (Oxford: Oxford University Pres 1993)

[3] F.M. Scherer and D. Ross, *Industrial market structure and economic performance* (Boston: Houghton Mifflin[3] 1990) 153-159; H.W. de Jong, 'De concentratiebeweging in de Europese economie' in: *ESB*, 02-03-1988, 224-229; R. Tilly, 'Mergers, external growth and finance in the development of large scale enterprise in Germany 1880-1913' in: *The Journal of Economic History* 42 (1982) 3, 629-658

[4] Richard Brealey and Stewart Myers, *Principles of Corporate Finance* (New York: McGraw Hill[4] 1991) 923; D.L. Golbe and L.J. White, 'Catch a wave; the time series behaviour of mergers' in: *The Review of Economics and Statistics* 75 (1993) 3, 493-499

[5] R.L. Nelson, *Merger movements in American history 1895-1956* (Princeton: Princeton University Press 1959); US Federal Trade Commission, Bureau of Economics, *Statistical Report on mergers and*

acquisitions (Washington FTC 1981); *M & A*: See also: K. Gugler, D.C. Mueller and B. Burcin Yurtoglu, 'The determinants of merger waves' (manuscript, University of Vienna); D.L. Golbe and L.J. White, 'Catch a wave', 494

[6] This may be one of the main reasons why research on mergers and acquisitions habitually focused on the performances of securities.

[7] A.D. Chandler, *The visible hand; the managerial revoluton in American business* (Cambridge/Mass 1977) 331-336; N. Lamoreaux, *The great merger movement in American business, 1895-1904* (New York 1985); B. Bouwens and J. Dankers, 'Behind the clouds; co-operation in Dutch business around 1900' working paper ABH-conference Nottingham 2004

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[9] See for example: Ravenscraft and Scherer, *Mergers, sell-offs and economic efficiency;* J.D. Leeth and J.Rody Borg, 'The impact of takeovers on shareholder wealth during the 1920s merger wave' in: *The Journal of Financial and Quantative Analysis* 35 (2000) 2, 217-238; W.F. Shughart II and R.D. Tollison, 'The random character of merger activity' in: *The Rand Journal of* Economics 15 (1984) 4, 500-509; H. Donker, *Takeovers; an empirical study of ownership structure and the wealth to shareholders in Dutch takeovers* (Tilburg: Center 2001)

[10] For a brief overview of the most important theories, see: F. Trautwein, 'Merger motives and merger prescriptions' in: *Strategic Management Journal* 11 (1990) 4, 283-295

[11] D.C. North, *Institutions, institutional change and economic performance* (Cambridge: Cambridge University Press 1990)

[12] D.C.J. van der Werf, *Banken, bankiers en hun fusies* (Amsterdam: NIBE 1999); A. Vrionakis and E.Y. Vellema, 'Fusies en overnames 1983-1993' in: *ESB* 12-04-1995, 362-365

[13] H. Schenk, *Co-ordination benefits, lock-in and strategy bias towards a band wagon theory of the firm* (Rotterdam: EUR 220, 1995); P.J. DiMaggio and W.W. Powell, 'The iron case revisited; institutional and collective rationality in organizational fields' in: *American Sociological Review* 48 (1983) 147-160; B. Bouwens, *Focus op Formaat* 52-58

[14] Ch. Wilson, *The history of Unilever; a studying economic growth and social change*, 2 vols (London 1954)

[15] *Van Enka tot en met AKU; historische schets van de onderneming Algemene Kunstzijde Unie NV* (unpublished manucript 1955); *Van Oss' effectenboek 1939*, 429-436

[16] Already in 1909 the Amsterdam stock exchange regulation obliged all companies that wanted to have stocks or bonds to inform the public and make annual accounts available.

[17] See for example: J.K. Galbraight, *The great crash 1929* (Harmondsworth, Middlesex: Pelican Books 1961)

[18] This means that mergers and acquisitions from the past were mentioned. Acquisitions, participations and joint ventures on a short-time basis are excepted. Probably the set of data derived from the *Van Oss'effectenboeken* is not exhaustive. It's not implausible that smaller transactions were not mentioned. Probably most corporations only registered their main strategic actions in this field.

[19] *Van Oss'effectenboeken 1930-1939*

[20] See for example: Ch.P. Kindleberger, *The world in depression 1929-1939* (Berkeley/Los Angeles/London: University of California Press ; revised edition 1986) 42

[21] It was only in 1870 that the Dutch government allowed private corporations to invest in the colony. See: J.Th. Lindblad 'The economic relationship between the Netherlands and colonial Indonesia, 1870-1940' in: J.L. van Zanden (ed.) *The economic development of the Netherlands since 1870* (Cheltenham:Edward Elgar 1996) 109-119

[22] K.E. Sluyterman, *Dutch enterprise in the twentieth century; business strategies in a small open economy* (London/New York: Routledge 2005) 39-41

[23] P. Frentrop, *Ondernemingen en hun aandeelhouders sinds de VOC, corporate governance 1602-2002* (Amsterdam: Prometheus 2002); A. de Jong and A. Röell , 'Financing and control in the Netherlands; an historical perspective' paper prepared for NBER History of Corporate Ownership conference, june 2004

[24] *Van Oss'effectenboek 1939,* 575-577, 614-615, 665-666

[25] *Van Oss'effectenboek, 1939,* 461-464

[26] For a profound analysis of this case, see: *Van Oss'effectenboek 1921*; K.E. Sluyterman, *Driekwart eeuw CSM; cash flow, strategie en mensen* (Diemen: CSM 1994) 35-42; B. Bouwens, *Nedalco, Alcohol company on the move* (The Hague: Sdu 1999)
[27] *Van Oss'effectenboek 1939*, 562-563
[28] H.J. de Jong calculated for 1913-1929 an annual growth rate for GDP of 3,66. The industry grew on an average 4.68. For the 1930s these figures were respectively 0,33 and 1,60. The Dutch industry performed very well compared to UK, Germany and France. See: H.J. de Jong, *De Nederlandse industrie 1913-1965; een vergeljikende analyse op basis van de productiestatistieken* (Amsterdam: NEHA-series III 1999) 4-5
[29] H.J. de Jong, *De Nederlandse industrie 1913-1965*
[30] J.L. van Zanden and R.T. Griffiths, *Economische geschiedenis van Nederland in de 20e eeuw* (Utrecht: Het Spectrum 1989) 116- 119
[31] J.L. van Zanden, *Een klein land in de 20e eeuw; economische geschiedenis van Nederland 1914-1995* (Utrecht: Het Spectrum 1997) 46-47, 58-67; K.E. Sluyterman, *Dutch enterprise in the twentieth century*.
[32] *Van Oss'effectenboek 1920-1938* For discussion see: K.E. Sluyterman and H.J.M. Winkelman, 'The Dutch family firm confronted with Chandler's dynamics of industrial capitalism, 1890-1940' in: *Business History* 35 (1993) 4, 152-183; A.D. Chandler, *Scale and scope; The dynamics of industrial capitalism* (Cambridge/Mass.: Belknap Press 1990); D. Arnoldus, *Family, familiy firm and strategy; six Dutch family firms in the food industry, 1880-1970* (Amsterdam: Aksant 2002) 19-20
[33] K.E. Sluyterman and H.J.M. Winkelman, 'The Dutch family firm'
[34] Rijksverzekeringsbank, Ongevallenstatistiek, 1924-1942
[35] Rijksverzekeringsbank, Ongevallenstatistiek, 1924-1942 I should like to thank J. van Gerwen (NEHA) and F. de Goey (EUR) for the permission to use their database.
[36] B. Bouwens, *Op papier gesteld; de geschiedenis van de Nederlandse papier- en kartonindustrie in de twintigste eeuw* (Amsterdam: Boom 2004) 77-79
[37] See for example: J.W. Schot, H.W. Lintsen a.o. *Techniek in Nederland in de twintigste eeuw, deel VI; stad, bouw, industriële productie* (Zutphen: Walburg Pers 2003) 304-308
[38] H.J. de Jong calculated an average of 5,4 percent annual growth of productivity for the period 1925-1935. H.J. de Jong, *De Nederlandse industrie 1913-1965* 228-237; K.E. Sluyterman, *Dutch enterprise in the twentieth century* 107-108
[39] See for example: T. Burke, A. Genn-Bash and B. Haines, *Competition in theory and practice* (London/New York: Routledge 1991) 85-91; D.J. Ravenscraft and F.M. Scherer, *Mergers, sell-offs and economic efficiency* 2-5; B. Bouwens, *Focus op formaat* 44-45; J.Lipczynski and J. Wilson, *Industrial Organization; an analysis of competitive markets* (Harlow England: Pearson 2001) 124-126
[40] Rijksverzekeringsbank, Ongevallenstatistiek, 1924-1942: The category 'cease to exist' contains firms that closed down out of different reasons, for example because the owner retired or died and the activities were not continued by a successor.
[41] Rijksverzekeringsbank, Ongevallenstatistiek, 1924-1942: For 1921-1924 the data are an average
[42] Rijksverzekeringsbank, Ongevallenstatistiek, 1924-1942
[43] The process theory that has its background in the literature on the strategic decision process explains this feature by the scarcity of direct evidence, caused by merger makers' attempt to rationalize their actions. See for example: F. Trautwein, 'Merger motives and merger prescriptions' 288-289