3. **1610-1650: Unlocking Potential**

The market for books around 1650 was very different from the one Cornelis Claesz knew around 1600. Population had increased dramatically, testifying to the tremendous growth the Dutch economy experienced during this time. By the middle of the seventeenth century, the number of booksellers active in the Dutch Republic had increased almost fourfold, and Dutch publishers had become top players in the international book trade. The Republic was not the largest producer in Europe, nor was it the only country in which volume of production increased. What set the book trade in the Republic apart were its growth rates, its scale and scope relative to population size, and the quality of its printing. Dutch books, neither particularly costly nor luxurious, became renowned for their high-quality paper, simple and neat printing, and attractive typography.

Explanations for the expansion and improvement of Dutch printing and publishing are not hard to come by. All accounts of Dutch book production have stressed the combination of economic expansion, trade infrastructure, relative tolerance, high and sophisticated domestic demand, plus adverse circumstances in other countries. Thirty years ago, for instance, book historian Herman de la Fontaine Verwey offered the following account: ‘[...] Being the centre of international trade, the tolerant climate due to the absence of a strong central government and church, and publishers’ courage and energy.’ More recently, book historian Paul Hoftijzer underscored the importance of favourable economic and cultural circumstances, whilst also emphasizing the skills of individual entrepreneurs.

These explanations neatly sum up a set of necessary conditions for healthy book production and trade, but cluster theory suggests that there may have been more to the rapid expansion and high quality of Dutch book production. Clustering of related economic activities can boost growth rates and innovative capacities and thereby strengthen an industry’s competitive position. Did this also happen to book production in the Dutch Republic? Were local specializations reinforced, routines and skills reproduced, and relationships between the pillars of Michael Porter’s diamond intensified? These questions are answered in two stages. In this chapter, the development of the demand side and of related and supporting industries are discussed in order to explain increasing product differentiation and innovation. The next chapter zooms in on the organization of Amsterdam book production in order to establish how it evolved from a loose set of firms clustered around Cornelis Claesz into the most important book production centre of Europe.
Differentiation of demand

The expansion of book production during the Golden Age is often presented as a continuous trend, but Figure 3.1 shows that growth rates were not static throughout the period 1610-1650. Following the initial rise during the emergence phase, the number of active publishers in the Republic stagnated, and the number of titles produced annually actually declined. From c.1630 onwards, and especially after 1640, growth resumed. This raises questions about the relative importance of variables on the demand and supply sides. Did demand for books stagnate and then re-establish itself, or was the new growth a consequence of successful responses to stagnating demand and therefore essentially supply driven?

Demand for books is influenced by a number of factors including price, purchasing power, literacy rates, and socio-cultural preferences, as well as supply and distribution factors that invariably affect the availability of books. As with today’s market, changes in both price and income were of crucial importance to the size of the early modern book market. Comparisons between early modern probate inventories and wealth estimates based on, for example, tax or burial registers, have also shown that there is a significant relationship between the consumption of books and the economic situations of households. Furthermore, Engel’s Law predicts that as disposable income rises, the proportion of that income spent on essentials such as food tends to drop, leaving more room for non-essentials such as books and other cultural products.
Unfortunately, due to limitations of source material, it is difficult to establish whether or not an increasing number of people bought books or if existing readers started buying more books. Consumption history of the early modern period is largely based on probate inventories, which can provide a detailed insight into material possessions of the deceased but which come with their limitations. Many households did not possess enough valuables to warrant any administration of their estates. And even if they did, clerks drawing up the inventories usually only recorded books that were considered valuable, and they often did not describe the exact type of the listed books.

With this caveat in mind, it should be noted that more general inventory research for the Dutch Republic does suggest that the share of households possessing books and the number of books per household did increase during the seventeenth century. Moreover, tentative comparisons between the Republic and England based on inventory research also suggest that the share of Dutch households in which books were recorded was relatively high. In the Frisian town of Leeuwarden the number of households owning books increased significantly between 1584 and 1655. For rural Frisia, Jan de Vries observed far-reaching penetration of urban culture between 1550 and 1750, which was, in his opinion, most evident in the possession of books. In the area of Krimpenerwaard, just east of Rotterdam, between 1630 and 1670, c.45 per cent of the sample population listed books in their inventories. Around the same time, 55 per cent of the rich urban class, 38 per cent of the middle class, and 25 per cent of farmers owned books in the town of Weesp in the province of Holland.

Still, while relatively large segments of Dutch society appear to have owned books, and there were no dramatic differences between rural and urban areas, the number of books per household seems to have been relatively low. Even for relatively prosperous eighteenth-century The Hague, José de Kruif found that almost 40 per cent of the population did not have a single book in the house, apart from pamphlets, and that only a quarter of the population owned more than ten books. In order to estimate the expansion in the publishing industry in relation to the demand side in more detail, we will take a closer look at production data rather than consumption data.

**Per capita production**

Calculations on production figures by Eltjo Buringh and Jan Luiten van Zanden suggest that after 1600 the Dutch Republic had the highest per capita consumption of books throughout Europe. These figures can be further adjusted for
age, language, and literacy rates in order to arrive at estimates of per capita title production in the vernacular language per literate adult. No corrections are made for purchasing power, but by taking literacy rates into account, the segment of the population that could not afford books is to a large extent also excluded. It is further assumed that all Dutch language titles were primarily intended for the domestic market. Although Dutch was read in the Southern Netherlands and was also widely known in Germany and Scandinavia, this is not a significant problem, because even if these books were also exported, it is likely that Dutch consumers would still have read these titles.

According to these variables, an average of 35 per cent of the total number of titles produced in the seventeenth-century Republic was directed towards the international market. This is certainly too high an estimate, as Latin titles – the bulk of this share – also found a ready market in the Republic. If anything, these are conservative estimates. The calculations also distinguish between ephemeral and non-ephemeral titles in order to account for changes in the composition of the corpus of printed works. After all, not all titles were of comparable size and form. Estimates of print runs could not be included because too little is known about their development during this period. Conservative estimates for the early modern period are 500 to 600, but print runs could range from a few dozen in the case of academic works to thousands of copies per run for bestsellers.21

Fig. 3.2 Title production in Dutch per 100,000 literate adults, 1580-1700

Source: STCN, accessed 21-09-2010 (5-year moving average; semi-log scale)
Figure 3.2 presents the number of Dutch language titles produced in the Republic per literate adult. Accordingly, the estimates in Figure 3.2 are based on three assumptions: of the titles published per year in the Republic, 70 per cent until 1620, and 60 per cent between 1620 and 1690 were in Dutch and therefore intended for the Dutch market; literacy rates increased from 45 per cent in 1585 to 61 per cent in 1700; and 40 per cent of the population comprised children who presumably did not buy books.

The trend in Figure 3.2 differs from the one in Figure 3.1 demonstrating as it does how the growth in Dutch titles per literate adult surged after 1580 but more or less stagnated after 1620. This suggests that there had been much to gain for book producers in the first thirty years after the Revolt, and especially in the 1600s. For the most part, the early growth was the result of a process of catching up. In view of the Republic’s pre-Revolt demand conditions discussed in the previous chapter, domestic book production had been surprisingly underdeveloped. During the emergence phase, the simultaneous changes on the supply and demand sides stimulated the development of a local publishing and printing industry. By 1620 the effects of these changes seem to have diminished. Production figures, at least in terms of the number of different Dutch language titles per literate adult, had stabilized and, possibly in the absence of new stimuli in the demand for books, further growth potential was relatively limited compared to the first tumultuous decades of growth. Although real wages continued to increase up to at least 1650 and were relatively high compared to those in other countries, most of the growth had already occurred in the period 1580-1620.

Dutch publishers reacted to these changing market conditions by unlocking new market segments. In the previous phase, publishers targeted a new group of customers with, for example, lavishly illustrated travelogues and songbooks. During the growth phase they once again changed their strategies to include other segments of demand. The share of cheap books entering the market increased significantly, bringing down the average price of books in general, thereby opening up new markets.

**Book sizes and prices**

Demand for books was not only income-sensitive but price-sensitive. It has been estimated that during the early modern period, book prices in other countries were on average 50 per cent higher than in the Republic. In this calculation, prices for the Republic were derived from a register of books on offer in the Dutch Republic between 1760 and 1788 drawn up by
Dutch bookseller Johannes van Abkoude and extended and revised by his colleague Reinier Arrenberg. The median price of books on sale during the last quarter of the eighteenth century – at least in the shops of booksellers who sent their information to Abkoude – was around f1.20; the average was f1.60. The list includes books published between 1643 and 1783, but by and large most of these were issued in the eighteenth century. As such they neither reflect what was for sale in a seventeenth-century bookshop nor how the average price of books developed throughout the century.

Fortunately, a number of booksellers’ stock inventories and publishers’ lists have survived to provide us with more estimates of book prices for this period. Bert van Selm has, for instance, published printed prices recorded in a 1628 publishers’ list by Amsterdam publisher Hendrick Laurensz. At the time, Laurensz was among the top five publishers active in Amsterdam. Excluding the production of ephemeral titles, he was even the second-largest producer (after the Blaeu firm), surpassing Jan Evertsz Cloppenburgh and Paulus Aertsz van Ravesteyn. His publisher’s list from 1628 contains 506 priced entries for a little under 500 titles. Almost three quarters of the books featured in the 1628 catalogue cost less than 33 stuivers, and as many as half cost 11 stuivers or less. Van Selm has identified 139 of the 506 titles and used these to calculate the price per sheet. This calculation shows that, in 1628, the average price per sheet was 0.6 stuivers. Because more expensive books had better chances of survival than cheaper books, the average price is probably biased in favour of a higher figure. Later sources also indicate that books on offer in Dutch shops varied from very expensive to very cheap. The *Lexicon Arabico-Latinum* in folio (1653) by Jacob van Gool cost as much as f25, an illustrated emblem book by Johan de Brunes cost no more than f3, whereas a *Reynaert de Vos* in octavo was priced at just 2 stuivers. In 1647, P.C. Hooft’s *Neederlandsche Histooreien* (1642) cost about f10. A translation of the *Amadis de Gaule*, a 21-volume Spanish knight-errant tale – often viewed as the first European bestseller – was priced at 8 or 9 stuivers per volume.

Although prices varied and costly books were not within the grasp of the average journeyman earning a guilder a day, printed titles seem to have been generally affordable. But did they also become more affordable? The price of an early modern book depended mainly on the amount of paper used, the quality of the paper, and the amount of labour required, for example, in composition and engraving. According to Van Selm, the price of books when calculated per sheet more than doubled during the seventeenth century, from c.f 0.60 to f1.25. But even if the price per sheet increased, this does not necessarily mean that the average price of books also increased, as the following discussion of book sizes will show.
Size and format: From deluxe editions to carry-ons

The seventeenth century has been portrayed as the century of the quarto: ‘a strong book with pages wide enough to offer enough space for the somewhat plump, Baroque book decoration which was so characteristic of Dutch book production in the Golden Age’. A characterization as the century of the pocket-sized book, however, seems just as valid. During the second quarter of the seventeenth century, smaller editions began replacing the ‘deluxe’ versions of songbooks. New sizes, even smaller than octavo or duodecimo, were introduced that could be taken everywhere and even carried in girls’ aprons. Sedecimo oblong (16°) and the so-called mopsjes (an even smaller 32° format) were advertised as easy to carry, easy to hide, and difficult to read for one’s visually impaired mother or grandmother.

These pocket songbooks gained immense popularity, as did another pocket subgenre, the Republieken, sized 24°. This series Republieken included surveys of topography, history, politics, and courts of various countries and regions, published by the Leiden Elzeviers between 1625 and 1649. The Republieken achieved European-wide fame and the books became collector’s items, not only at European courts, but also among the lesser-endowed local Leiden students. The 24° size was by no means new, but the Elzeviers were the first to print these books in such a way that buyers could actually read them without the need of a magnifying glass. Figure 3.3 clearly shows how the Leiden Elzeviers first shifted from the production of books in quarto and duodecimo, to producing the 24° size, and then back to the octavo and duodecimo. In the publishers’ list of the Amsterdam branch, run by Louis II Elzevier, small-sized books also dominated: over 65 per cent of the 235 titles published between 1638 and 1655 were printed in 12° or smaller.

The shift to small-sized editions was not limited to songbooks, or the genres the Elzeviers specialized in, but can be observed industry wide. Figure 3.4 presents titles produced in Amsterdam between 1590 and 1670, showing that in quantitative terms, the share of the traditionally common quarto format indeed increased at first, only to decrease over the course of the seventeenth century. In the 1630s there is a significant increase in duodecimo (12°), and by the end of the growth phase this made up the largest category. In absolute terms, these smaller formats did not replace their larger counterparts: the number of titles in 4° or 8° increased along the same trajectory as those in 12°. If anything, they formed an additional category within existing genres. Even though we cannot conclusively show that the average book price declined, these findings suggest that, as new categories of relatively affordable books entered the market, a variety of
Fig. 3.3 Distribution of titles according to size, Abraham I Elzevier, 1625-1650

Fig. 3.4 Distribution of titles produced in Amsterdam according to size, 1590-1670

Source: STCN, accessed 4 October 2011. N=10,014
genres came within reach of a relatively untapped market – even if the price per sheet increased.

Publishers also developed a distinct tactic of product differentiation within single titles, starting with expensive first editions and then gradually issuing cheaper versions. For instance, in a 1647 stock catalogue of Amsterdam publisher Hendrick Laurensz featuring printed prices, *Houwelijck* by the popular author Jacob Cats was listed in the luxurious quarto format for £5, but also in duodecimo for £1.20. The early editions were often more luxurious. Cheaper reissues or pirated editions in smaller formats and with fewer illustrations entered the market later. For example, Cats’s bestselling debut *Sinne- en minnebeelden* (1618) was first published using high-quality paper, different fonts, and many beautiful engravings. As Cats recounts in his *Ad lectorum*, booksellers complained to him that buyers were put off by the high price and so a new cheaper version was published in the same year omitting the repetitive use of engravings. Later still, versions published between about 1630 and 1650 were even cheaper and often of lesser quality.

The fact that Dutch publishers intensified strategies of differentiation and scaled down the format of their products is not an entirely new observation, but book-historical literature does not explicitly address why this happened. In the introductory pages of a songbook published in 1654, the bookseller explicitly states that the small format was not chosen to save on printing costs but to facilitate the readers in carrying the book in their pockets. However, a statement by Leiden/Amsterdam-based Louis Elzevier leaves little doubt that the use of smaller formats was a business strategy devised to reduce production costs. In 1635, three years before Elzevier’s departure for Amsterdam, he explained how the use of small-sized editions had saved the firm, by reducing its paper expenditure by as much as 75 per cent. A few decades later, a letter by the famous Amsterdam publishing house Wetstein to French scholar Giles Ménage on the subject of the preparation of the second edition of the latter’s *Diogenes Laertius* also neatly summarizes the advantages of choosing a smaller format: the book would be cheaper to produce and would generate higher sales. Quantitative data also confirm that the Elzeviers used less paper. Even though they issued more titles, they used fewer sheets.

Why did publishers like Elzevier feel the need to cut costs by limiting the format of their books? We can find a possible explanation in the supposed increase in the price per paper sheet as a consequence of rising paper prices, and it is conceivable that, had a strong increase in paper prices indeed occurred, this may have prompted reductions in the use of paper. How much paper was needed depended on the format, the number of pages, and the number of copies. In early modern book production, costs were determined
by labour and paper and on average, paper accounted for about half of the production costs of books. A steady supply of affordable paper was crucial to booksellers’ businesses, and a closer look at developments in the supply of paper is necessary to ascertain if the observed cutbacks on paper and the accompanying changes in the size of books may have been a response to paper scarcity. Not only would rising paper prices have increased the production cost and thereby selling price of books, but they would have also amplified the already high upfront investments required of book producers.

Considering the timing of the widespread use of smaller book formats and the developments in paper prices, it is conceivable that downsizing the format of books, and thereby cutting down on paper costs, was a response to problems stemming from the supply of paper in the 1610s. Still, this may not have been the only factor in changing publishers’ business strategies. Art-historical literature provided us with an additional hypothesis. In recent decades, the stylistic changes in Dutch painting in the 1620s have been increasingly interpreted as a response to changing market conditions rather than to changes in taste. The use of a limited palette, simplified forms, and smaller formats reduced the amount of time needed to finish a painting and, because labour was the largest part of the cost, production costs could drop significantly. Moreover, these innovations in both product and process did not result in a loss of quality. Likewise, the introduction of small-sized books can be interpreted as an innovative market strategy that broadened and democratized the Dutch book market by lowering the cost of the finished product. This suggests that there may have been more structural factors involved in encouraging Dutch publishers to adapt the form and content of books than only cutting back on the price of paper.

Related and supporting industries

While the perceived image of Dutch books may be one of great beauty, exceptional works such as the Blaeu atlases are not representative of the average quality. Most books were no works of art, and even Blaeu’s early editions of Pieter Cornelisz Hooft were published with a fairly simple and even unattractive layout, lacking in decoration. It was only in the growth phase that the aesthetics of Dutch books improved significantly and that Dutch books became renowned for beautiful typography, decorations, and the high quality of the paper. Each aspect of the process of book production could be a means of competitive differentiation in an increasingly maturing market, be it by novel use of paper, copy, book illustrations, or type.
Paper prices and supply

Henk Voorn, expert on Dutch paper production, suspected that paper prices increased between 1654 and 1671 and declined thereafter.55 Let us put his suggestion to the test and extend the time frame. Figure 3.5 presents estimates of Dutch paper prices, recorded by N.W. Posthumus.56 Paper quantity was expressed in reams (one ream was c. 500 sheets), subdivided into 20 ‘ mains ’ (quires) of 25 sheets each.57 We see that paper prices tripled between about 1580 and 1620, but thereafter they remained relatively stable. When these are deflated with the Consumer Price Index (CPI) which measures developments in the value of an overall basket of goods, a somewhat different trend is revealed.58 Real prices of paper seem to have been relatively stable throughout the seventeenth century, and even declined after c. 1615, to rise only slightly in the third quarter of the century.59 These figures do not readily confirm the assumption that the rise in price per sheet or the cutbacks on production costs can be explained by soaring paper prices.

Fig. 3.5 Paper prices per ream in guilders in Amsterdam, 1570-1699

Source: Posthumus, Nederlandsche prijsgeschiedenis, no. 133, 330, 314, 227. Prices in n. 314 and n. 227 were given per quire, estimated at 20 quire per ream.
In the previous chapter we saw how demand for paper increased rapidly around the turn of the century. At a time when traditional trade routes were inaccessible and new ones yet to be firmly established, merchants like Cornelis van Lockhorst appreciated the opportunity. Yet by the early 1610s, there were already problems between Van Lockhorst’s partnership and paper producers, as the paper they delivered proved hard to sell. The quality of the German paper was relatively low and with the onset of the Thirty Years War (1618-1648), fought in Central Europe, more problems were inevitable. Transport options became limited, and there were issues about exchange rates.

The competitive pressure of paper imports from France intensified the problems of the Compagnie, leaving Van Lockhorst with an immovable stock of expensive yet inferior paper. Following these difficulties, the partnership was suspended, but Van Lockhorst immediately managed to revive it by attracting new investors. As before, most new financiers were merchants, but the widow van Wouw, printer of States General and one of the largest clients of the Compagnie, also contributed as much as f100,000. Even so, the new company did not fare well, and it collapsed after van Lockhorst’s death in 1629 when it became clear that the individual associates had been dealing on their own. A fierce court case between Van Lockhorst’s widow and the associates heralded the end of the partnership.

The problems encountered by Van Lockhorst’s companies are recalled here because of their suggestion of initial difficulties in the successful administration of a paper supply. This changed from the 1620s onwards, right around the time the real prices for paper started to decline (Figure 3.5). From around 1620, other merchants started to take control of paper production in France. Around the same time, paper prices stagnated and even fell, whereas the quality of the paper improved. Coinciding with the decline of German imports, Dutch merchants came to control a large amount of French paper production by financing or even buying mills. Dutch watermarks, bearing the shield with the arms of Amsterdam, first began to appear on paper produced in the mills of the Angoumois region. One of the key players was Amsterdam merchant Christoffel van Gangelt whose imports were sold to Dutch and foreign booksellers through the ports of Amsterdam and Rotterdam. Presumably, this new structure of supply was a significant improvement on the previous mode of paper supply, as is evident by the success of Dutch paper merchants in the international paper trade.

The Republic was not the only country to lack a domestic paper industry and depend on imports. After Dutch merchants increased their involvement in French mills, and the Peace of Westphalia improved trade
between France and the Republic, Amsterdam arose as an international paper distribution centre. According to documents in the Amsterdam guild archive, popular destinations included Muscovy, Denmark, Sweden, the Baltic regions, and, particularly after the middle of the century, England. Booksellers in other parts of the Republic, as well as Antwerp, also came to obtain most of their paper from Amsterdam. Correspondence from the Antwerp publishing house Verdussen, for instance, shows how the Verdussen brothers obtained price and quality information from several of the most important Amsterdam paper traders. The involvement of a number of Dutch merchants in the production of French paper bolstered the position of Amsterdam in the international paper trade and coincided with the stabilization or even decline of paper prices and improved paper quality. It also stimulated the involvement of merchants in financing other export products that were distributed along Dutch trade routes, a development that will be addressed later in this chapter.

Type

By the end of the growth phase, Dutch typographers had acquired international fame, and their type was exported throughout Europe. In 1683, Joseph Moxon wrote: 'Since the late made Dutch Letters are so generally, and indeed most deservedly, accounted the best, as for their Shape, consisting so exactly of Mathematical Regular Figures [...] I think we may account the Rules they were made by, to be the Rules of true shap’d Letters'. As an English printer, publisher, maker of globes and mathematical instruments, and author of the famous handbook of printing *Mechanic Exercises on the Whole Art of Printing* (London 1683), Moxon had an intimate knowledge of Dutch printing practices. His father, a Puritan refugee, had worked as a printer in Delft and Rotterdam, and Moxon himself had visited the Republic on several occasions.

In hindsight, it may not come as a surprise that Dutch typography was foremost in European printing given the important role Dutch printers came to play in the European book trade, but in 1610 this was not self-evident. It was only from the 1620s onwards that the quality of Dutch typography improved as printing and composition became neater, new types were ordered, and typographic design became standardized. A style emerged that was to be eventually known as the ‘Dutch taste’; not radically innovative, but of high quality and with a distinct look. Series of roman type were developed that would determine the appearance of publications from many important seventeenth-century Dutch publishers, not least those by
Willem Jansz Blaeu and Paulus Aertsz van Ravesteyn, and new Hebrew type would change the look of Hebrew books. The improvements in type design and typecutting reached great heights in the 1650s, not least in the work of Christoffel van Dijck, a German-born journeymen-goldsmith who set up a type foundry in Amsterdam in the later 1640s.72

According to book historian Paul Dijstelberge, the reason the quality of printing improved in the 1620s is unknown.73 He suggests that it may have been driven by the increasing internationalization of Dutch book production, but, as he readily admits, this is not compatible with the apparent overall decline in quality throughout the rest of Europe.74 He also puts forward that competition amongst printers or publishers may have played a role. In other words, it may not have been international rivalry that fuelled Dutch typographic innovation but domestic competition. During the expansion of Dutch book production, the number of printers indeed increased, fuelling a need for more type. But this alone cannot explain the observed changes in typography. During the phase of emergence, Dutch printers had relied on Flemish type and typemakers. Matrices and punches were durable tools and, as long as there was a sufficient pool of available type, there was little need to order new ones.75 During the growth phase, increased demand could still have been met by type cast from existing matrices. The observed expansion into the production of smaller-sized books may also have encouraged demand for newly produced smaller type, but there was more to it than that. So, if it were not strictly necessary to have new matrices made, why would Dutch printers order their own typefaces? To obtain a better understanding of why improvements were made in the 1620s, it is worth considering the consequences of ordering new type and new matrices, and having a closer look at how the typefounding and punchcutting industries were organized.

**Typefounding and punchcutting**

The timing and the early documentation on orders for new type are particularly enlightening. The tipping point in the production of new type came with the arrival of typecutter Nicolaes Briot. Originally from the Southern Netherlands, Briot was trained as a silversmith in the Dutch town of Gouda and active in Amsterdam from the 1620s onwards.76 He supplied important printing firms such as Willem Jansz Blaeu and the leading Hebrew printer, Menasseh ben Israel. The Blaeus had their own type foundry, but they ordered their matrices from Briot and later from the famous Luther foundry in Frankfurt. The first evidence of cutting new common type dates from
1615, when Amsterdam bookseller Dirck Pietersz Voskuyl ordered type from Briot, presumably for Paulus Aertsz van Ravesteyn.\textsuperscript{77} The notarized contract between Voskuyl and Briot stipulated that the latter was not allowed to cut similar type for any other printer. In an argument between Blaeu and Briot’s widow, Blaeu accused her late husband of having cast type for others from matrices he had made exclusively for Blaeu.\textsuperscript{78} Such exclusivity seems to have been an important issue for Blaeu. English scholar Thomas Marshall even complained to his patron, the dean of Christ Church College in Oxford, about Blaeu’s refusal to sell type to other printers or typefounders.\textsuperscript{79}

The ordering and purchase of new material appear to have been largely undertaken to secure a monopoly on certain typefaces, and even though the investment in new matrices was not very large, its returns were strongly valued. Typeface exclusivity was important, as it produced a unique look on the printed page. The initiative for the development of new type came from Dutch printers, in particular those active in Amsterdam. Lettercutting only developed in areas with a critical mass of firms that had something to gain from ordering new matrices. In the early years, Amsterdam had relatively few print shops of significance.\textsuperscript{80} According to J.W. Enschedé, the 1632 establishment of the \textit{Athenaeum Illustre} in Amsterdam served as a stimulant to printing, and in turn to punchcutting and typefounding, in much the same way the university had a few decades earlier in Leiden.\textsuperscript{81} The overall expansion of printing in Amsterdam, in which the establishment of the \textit{Atheneaum} was of course but one factor, may have indeed fostered a critical mass of printers, not only in terms of quantity but also in terms of competitive pressure. The development of unique type by Dutch printers can therefore be interpreted as one of the tools available for product differentiation.

In this light, it is interesting that not everyone appreciated Dutch letters. Whilst the artistic skills of Dutch typecutters were widely acknowledged, their designs were also associated with commercial motives. Dutch fonts, even Elzevier’s, have been described as dull and unoriginally derived from the French, yet more practical, and lacking the artistic qualities of earlier typecutters.\textsuperscript{82} For the same reason, not everyone appreciated the small format of Dutch books. In 1651 Dutch classical scholar Nicolaas Heinsius wrote to fellow scholar Jan Frederik Gronovius that the French brothers Jacques and Pierre Dupuy wished that Gronovius’ \textit{Livy} would have been printed in a larger format, the small types being a recurring subject of complaint for Paris scholars.\textsuperscript{83} Gronovius responded: ‘I have already received a similar opinion [...] but try to make men listen to reason who have nothing in their heads but the love of gain.’\textsuperscript{84} Eighteenth-century typecutter Pierre-Simon
Fournier, moreover, claimed that Dutch printers deliberately used ‘types of a cramped, starved look, so that they may get more words to the line and more lines to the page. They are not troubled by their ugliness, provided they are profitable.’

A recurring theme in the criticism is the commercial outlook of the book producers. According to one historian of typography, ‘printing fell into the hands of a class of masters and men less able, enterprising, and socially important, who looked at it solely from the commercial side.’ The businesslike attitude of Dutch printers may have resulted in a reputation as profit seekers but, more importantly, it stimulated the cutting of new type, elevating the diversity, quality, and recognizability of Dutch books. A similar development took place in a third important element of book production: illustrations.

**Book illustrations**

During the first decades of the seventeenth century, the number of illustrated publications expanded rapidly. After 1610 especially, new and original book illustrations flourished on the pages of atlases, travelogues, emblem books, and songbooks, and also in (natural) histories and pamphlets. How can we explain this ‘Golden Age of book illustration’? Since the profusion of novel designs coincided with the Golden Age of engraving and painting, it is reasonable to search for clues in the expanding art market. A distinction should be made between the design and engraving or etching of plates, and the use of plates to print illustrated sheets.

As in painting and text publishing, the rapid increase in demand for images was met largely by immigrant engravers and artists. David Vinckboons, for instance, also known for his paintings and drawings, was one of the most popular designers, especially in the phase of emergence, but, compared to his successors, he was no radical innovator. In the first quarter of the seventeenth century, there were more and more prints of original designs by, and in the style of, artists who had been trained in the Dutch Republic, most notably Willem Buytewech, Jan II van de Velde, and especially Adriaen van de Venne. Haarlem in particular was a centre of engraving, with Hendrick Goltzius’s son-in-law Jacob Matham, an important print-publisher, at its centre. Not coincidentally, Haarlem was also the first town to take off artistically. Increasingly, Dutch publishers could take their pick from a significant number of engravers, and the number of artists was increasing rapidly. As with the artistic novelties in paintings and the changes in book formats, there may have been commercial motives behind the development
of new prints and new book illustrations. Tellingly, in 1613, Jacob Matham's pupil Jan II van de Velde received a concerned letter from his father, who urged him to work as much as possible from his own designs, for this would bring him greater financial rewards.89

As demand for plates increased, so did competition for them. Second-hand plates were mainly acquired through auctions. The first significant auction of books and plates was that of Cornelis Claesz in 1610, and many publishers, most notably Blaeu, Hondius, and Janssonius seized this opportunity.90 Fierce competition could indeed arise over plates. After the auction of map decorator and seller David de Meyne in 1620, a dispute arose between the group of Jan Evertsz Cloppenburgh, Pieter van den Keere, Frans van den Hoeye, and Johannes Janssonius on the one hand, and Willem Jansz Blaeu on the other. The former had bought two thirds of the copperplates for a large world globe, but Blaeu possessed the remaining plates. Soon Blaeu tried to obtain the plates from the others, for example, by having publisher Dirck Pietersz Pers and platecutters Josua van den Ende, Robbert de Baudous, and Claes Jansz Visscher act as witnesses.91 Cloppenburgh and his associates do not appear to have been very impressed, and they declared that they could easily have the plates that were in Blaeu's possession reproduced in France, and that, seeing as they were the owners, it would always be possible for them to take an axe to the plates that Blaeu had set his sights on.

Within such a competitive market, ordering new illustrations was an effective means of differentiation. As a result of increased competitive pressure, Dutch publishers and printers started to invest in new print designs, and as a result an increasing number of original plates were ordered and designed in the first quarter of the seventeenth century.92

Copy production

Around the turn of the seventeenth century, the mainstays of copy production in the early modern Dutch Republic (science and scholarship, commerce, religious and political involvement, and literature) expanded significantly. As the infrastructure for higher learning expanded dramatically after the Dutch Revolt, the number of academic authors swelled.93 An academic infrastructure developed from scratch, competitive and unburdened by tradition. By 1650, the grid of higher learning consisted of five provincial universities – Leiden (1575), Franeker (1585), Groningen (1614), Utrecht (1636), and Harderwijk (1648) – and so-called ‘illustrious schools’, established mainly in the 1630s in a number of towns including Amsterdam, Middelburg, Deventer, Dordrecht, and Rotterdam. These schools
were municipal rather than provincial enterprises that provided a form of undergraduate education.\textsuperscript{94}

Dutch universities and scholars soon acquired international reputations, attracting large numbers of foreign students and professors.\textsuperscript{95} Records show that in 1649 almost half of all students enrolled in Dutch universities came from abroad, with more than a quarter from German lands alone.\textsuperscript{96} The influx of foreign students reflects the high quality of academic teaching in the Republic and the excellent reputation the universities had abroad. The position of Dutch scholarly publications was strengthened by relative freedom of the press which attracted important dissidents of the seventeenth century.\textsuperscript{97} René Descartes and Baruch Spinoza lived in the Republic, and although Dutch jurist Hugo Grotius was himself exiled, his writings were also published in the Dutch Republic.

Academics were not the only ones interested in science. Information also came pouring in through port towns, as the booming economy drove the increasing demand for applied and descriptive knowledge. In his famous 1632 speech at the opening of the Amsterdam Athenaeum Illustre, Dutch humanist Caspar Barlaeus presented his vision of the learned merchant: the mercator sapiens.\textsuperscript{98} Even though this concept was more of an ideal than a reality, the link between commerce and science was indeed omnipresent.\textsuperscript{99} Moreover, in the Dutch Republic scholarly, religious, and political debates were not limited to intellectual circles. The Dutch Republic’s so-called ‘discussion culture’ is a recognized marker of its modernity, and it is often repeated that even philosophical debates reached those lacking an academic background.\textsuperscript{100} Relative freedom of press and mind, a broad-based reading culture, and an efficient distribution network allowed news and events, as well as political and religious stances, to be discussed throughout the country and society.\textsuperscript{101} These characteristics also increased the scale of copy production because the public debate involved large segments of society and took place through prints and pamphlets – new media avant la lettre.

The Golden Age of Dutch literature truly gained momentum under the influence of the generation of writers that began publishing in the 1610s: Joost van den Vondel, Pieter Corneliszoon Hooft, Gerbrand Adriaensz Bredero, Constantijn Huygens, Anna and Maria Tesselschade Visscher, and Jacob Cats.\textsuperscript{102} In the same decade, a group of prominent members, led by Samuel Coster, Bredero, and Hooft, broke with the Amsterdam Chamber d’Eglentier, organizing themselves into the Nederduytsche Academie for sciences and arts, with Dutch as the official language. This demonstrates how the literary field was in flux, and although the conflict in the chamber was partly the
result of personality clashes, it was essentially a parting of ways between the old and the new literary guard. The Athenaeum Illustre was established in 1632, and six years later the first municipal theatre in the Republic replaced the two Amsterdam chambers. The group of outstanding poetry and prose writers who made their debut in these years was surrounded by an abundance of amateur poets. An expanding well-educated middle class, with time for leisurely activities, was writing poems. From 1625, students of the Latin schools were formally required to produce a variety of occasional poems.

During the growth phase, Dutch literature developed through a combination of local and foreign stimuli. The STCN shows that in the 1630s, there were only 300 translations from Latin and French to Dutch, half as many as in the 1610s and 1650s. This indicates a significant decline in the share of translations in the total number of Dutch titles published between 1610s and 1630s, and an expansion of novel Dutch titles. New and original work was produced in a variety of genres, as a glimpse into the work of the most famous poets demonstrates. While producing numerous original works, Vondel, amongst others, also translated from other languages as a source of inspiration. Conversely, due to the language barrier, Dutch literature had little international impact. For those who used Latin, more international recognition was possible as was the case for neo-Latinists Daniel Heinsius, professor of Greek and History at the University of Leiden, and Hugo Grotius, lawyer, poet, and dramatist.

The increase in potential copy, whether in the form of news, knowledge, or cultural expressions, did not have direct consequences only on the scale of book production, but it also reinforced its geographic distribution. The Hague became synonymous with political news, Amsterdam with commerce and literary life, and Leiden with academic printing. More scholars and students resulted in more copy, while the university occasionally also commissioned large and costly projects. Consequently, scholarly work published in Leiden increased from just over 400 titles between 1575 and 1600 to around 1,000 between 1626 and 1650. Likewise, the flourishing Chambers of Rhetoric boosted the number of literary publications, especially in Amsterdam, and the presence of government institutions supported printers in The Hague such as the widow van Wouw, who alone had thousands of titles to her name. Still, these strong pulls from the demand side and pushes from the supply side alone cannot account for the variety, scale, and quality of Dutch Golden Age book production. Potential copy was increasing rapidly, and while publishers certainly drew on these sources of copy, they also reinforced their production.
From potential to real copy

The extensive and varied Dutch book production was not only the result of artistic, literary, or scholarly talent, but also of strong commercial propulsion. The songbook can once again illustrate this point. Poets wrote the songs, but often it was the publishers ‘who decided when the market was ripe [...]’, not only with regards to anthologies, but also concerning individual songbooks. As publishers started vying for copy, they turned authors into marketing assets, and from the 1610s the names of individual authors began appearing more frequently on title pages. Prior to this, collections of poems distributed in private networks were often published without authors’ names or consent. When in 1599 Leiden publisher Jan Orlers published eighty-seven poems by Roemer Visscher, he almost certainly did so without Visscher’s knowledge. Thirteen years later, Jan Jacobsz Paets published Visscher’s poems in a deluxe version, still without explicitly printing his name, but by then the origins should have been evident to all and the preface suggests the author’s involvement. In 1614, Willem Jansz Blaeu published Visscher’s new collection *Sinnepoppen* in a deluxe version and in a cheaper duodecimo, together with a revised and authorized sextodecimo version of the collection published by Paets two years earlier. The title page held the phrase ‘revised by Visscher himself and enlarged by half as much again’, as well as a reference to the ‘incorrect Leiden copy’.

While the original creative impulse for copy production may have come from the authors, from the moment a manuscript was picked up by publishers, it was fair game. Reprints, adaptations, and piracy were the order of the day, as complaints by authors and printed warnings show: ‘Book printers who so hastily gather this and that together [...] Do not touch my songbook’. Famous author Gerbrand Adriaensz Bredero was particularly offended because the publisher had printed his work without consent and added a number of songs written by another poet. When in 1636 P.C. Hooft wanted to have his collection of poems and songs published in the style of the lavishly illustrated songbooks from the first quarter of the century, his publisher, Jacob van der Burgh, rejected the idea, arguing for a cheaper variant. Apparently Hooft allowed himself to be persuaded, as the anthology was published without illustrations and musical notation. Publishers also selected the content, and in the prefaces the publisher sometimes made a direct appeal to the public to send in anything of interest for possible inclusion in future editions.

Like songbooks, other genres such as political texts could also be the subject of fierce competition between publishers. Research on the dynamic
between publishers, authors, and the government suggests that during the seventeenth century, pamphlets were also increasingly appropriated as commercial products. Although it is hard to make a general statement on the relationship between authors and publishers in a period without formal copyrights, the available evidence suggests that relations were reciprocal and reinforcing. With the expansion of scholarly, cultural, and commercial life, more and more knowledge, information, and texts were created (and desired), and Dutch publishers were ideally positioned to convert this pool of potential copy into commercial profit. In turn, publications by booksellers and the presence of bookshops also functioned as stimuli for cultural and intellectual life.

Conclusion

In view of the Republic’s economic and demographic boom, it may not be very surprising that the Dutch book trade expanded during the Golden Age, nor that the quality of the produced books increased. Conditions were favourable, related and supporting industries flourished, and the number of publishers increased. Unfavourable circumstances in other countries such as war, economic difficulties, and censorship hampered the development of serious foreign competition and boosted local production. Yet, with the advantage of hindsight, it is easy to mistake the eventual success of the Republic as a European publishing centre as inevitable. The necessary seeds had been planted in the early years of the Dutch book trade, but growth needed to be sustained and improved upon. By the 1620s, the volume of book production was still relatively modest, the quality of books was not very impressive, and growth rates even started to drop.

Around the same time, significant changes in format, content, and quality of books took place. Developments in related and supporting industries such as typefounding and copy production alone cannot fully account for the observed qualitative shifts. The introduction of smaller formats can, for instance, also be interpreted as part of a package of publishers’ strategies that developed in response to stagnating domestic demand and increasing competition. The package further included investment in new type, improvements in the quality of printing, and cost-cutting in the use of engravings. Changing market conditions thus shaped the form and content of the books as publishers turned copy, illustrations, type, and paper into commercial assets. Through this series of process and process innovations, high potential demand was converted into real consumption.
Publishers were able to both trigger and exploit opportunities in related and supporting industries, which resulted in significant changes in, as well as improvements to, the appearance and character of Dutch books. In the following chapter the analysis of the spatial distribution of Dutch book production and the organization of the Amsterdam production system further supports this argument.

Notes

2. Buringh and Van Zanden, ‘Charting the “Rise of the West”’.
4. As summarized in Hofwijzer, ‘Metropolis’.
18. De Kruif, *Liefhebbers*, p. 111; See also De Kruif, ‘Classes of Readers’.
22. Van Zanden, ‘Common Workmen’. Except in England, where average book prices were 35 per cent higher than in the Republic.
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26. Van Selm, ‘De Nederlandse boekprijs’, p. 105. When the engraved books in Laurensz’ catalogue are omitted, the average price per sheet is 0.492 stuiver.


28. The following prices are derived from the 1647 catalogue of Laurensz, as cited in Van Selm, ‘De Nederlandse boekprijs’, pp. 99-100.


30. STCN, accessed 04-10-2011. Dijstelberge, ‘De vorm: typografie in de Renaissance’, p. 284. On the *Republieken* see Gruys, ‘De reeks ‘Republieken’’. In the Southern Netherlands Plantin had also printed in 24°. Several years before Abraham and Boneventura introduced their *Republieken*, Raphelengius in Leiden had annually published one or a few pocketbooks and in 1619 Willem Jansz Blaeu was the first in Amsterdam to take up this niche.

31. STCN, accessed 04-10-2011; Under Boneventura and Abraham I Elzevier the Leiden firm produced 20 titles per year on average between 1625 and 1650, excluding academic texts and 35 including academic texts.


33. Ibid., note 279, accessed 21-12-2011. ‘Meteen na de uitgave van dit werkje, welwillende lezer, kwamen de boekhandelaren bij mij klagen dat de kosten van de boeken door het driemaal afdrukken van de afbeeldingen in de drie afdelingen, buiten proportie stegen en dat de kopers de onnodig hoge prijs bezwaarlijk vonden [...]:’

34. The book is *Scoperos Satyra ofte Thyrsis Minne-wit* (s.l. 1654) and the original text: ‘Welcke niet ghedaen is om dat de kosten des Druckers mochten zijn
gespaert; maer achtende het selve het bequaemst ende het ghevoeghyckst te wesen om in de sack hier en daer mede te draghen'.

44. Bots, ‘De Elzeviers’, p. 16.
49. Based on ibid., p. 380. Van Zanden based book prices on the following cost distribution: 60 per cent paper costs and 40 per cent wages of craftsmen:
Van Zanden, The Long Road, p. 182.
50. This has been suggested by De la Fontaine Verwey in ‘Het Hollandse wonder’, p. 55.
53. Ibid., pp. 49-50.
56. Posthumus, Nederlandse prijsgeschiedenis, no. 133, 330, 314, 227. Prices in n. 314 and n. 227 were given per quire, estimated at 20 quire per ream. Van Zanden used the same source and noted a general increase in paper prices between 1550 and 1650. Van Zanden, ‘What Happened to the Standard of Living?’. Data available at: http://www.iisg.nl/hpw/brew.php. My dataset differs slightly from Van Zanden’s as he did not include n. 314 and n. 227 and provided references for pepper instead of paper.
57. There were minor differences between countries.
58. CPI from Van Zanden, ‘What Happened to the Standard of Living?’.
60. The following is based on Voorn, Uit de oudste geschiedenis and Voorn, ‘Lombards’. Van Eeghen, De Amsterdamse boekhandel, vol. IV, pp. 195-272 deals with paperdealers, factors, and sellers, but she only starts around 1680.
61. Voorn, Uit de oudste geschiedenis, pp. 23-26; Nationaal Archief (NA); Hof van Holland: Civiele Sententies, inv. 704, sententie 137/1633, 29/7/1633. In 1633 the court ruled in favour of the widow, ordering the associates to pay her the colossal sum of f227,000. In a tentative list of debtors, dated 1635, some 80 names are recorded, including almost every important Amsterdam bookseller, some printers in the rest of the Republic, and in foreign towns, such as Hamburg, Danzig and London.

65. The correspondence of the Nijmegen bookseller Abraham Leyniers shows that almost all Leyniers paper came from Amsterdam: Begheyn, *Abraham Leyniers*; Between 1673 and 1700 Plantin-Moretus bought paper for f20,000 to f40,000 from the Amsterdam merchants Ysbrant and Levinus Vincent. The second most important bookshop in Antwerp, Verdussen, almost exclusively bought its paper in the Republic and only sporadically directly from mills close to Liege or Namur: Sabbe, ed., *Briefwisseling*.

66. Sabbe, ed., *Briefwisseling*, Letters IX and X.


70. Dijstelberge, ‘De vorm: typografie in de Renaissance’, p. 120.


72. John A. Lane, a specialist in the history of printing types and typefounding, is working on a study of Christoffel van Dijck. See also Caflisch, ‘Christoffel van Dijck’, p. 7.

73. Dijstelberge, ‘De vorm: typografie in de Renaissance’.


76. On Briot see Lane, ‘Nicolaes Briot’; Enschedé, ‘Nicolaes Briot’.


78. Ibid., pp. 153-154.

79. Ibid., p. 153.


92. De la Fontaine Verwey, ‘Gouden Eeuw’. The ‘Golden Age’ of Dutch book illustration would not last; there was a hiatus between ca. 1635 and the 1670s/1680s, the era of prolific and innovative illustrators Romeyn de Hooghe and Jan Luyken.
94. See Van Miert, *Humanism in an Age of Science*, pp. 21-43; Van Miert, ‘Where Centres of Learning and Centres of Culture meet’ on a discussion of the definition of illustrious schools. In legal terms, the illustrious school can be distinguished from a university in its inability to grant doctorates.
96. Frijhoff and Spies, *Dutch Culture*, p. 255.
97. On this see for instance Groenveld, ‘Mecca of Authors?’
98. See for example Van Berkel, ‘Rediscovering Clusius’.
100. Frijhoff and Spies, *Dutch Culture*, pp. 220-226 on discussion culture.
102. Frijhoff and Spies, *Dutch Culture*, p. 545.
104. Frijhoff and Spies, *Dutch Culture*, p. 532. The definition of literature is problematic, see ibid., p. 538.
The number of translations from English and Greek in the Republic remained the same in the 1610s, 1630s, and 1650s (circa 75 and 17 respectively). STCN, accessed 14-10-2011.


Few Dutch-language literary works were translated, although publishers issued books bilingually or trilingually, for example some of Jacob Cats emblems at the end of the 1620s.

Bouwman et al., eds., *Stad van boeken*, p 191.


Ibid., p. 243.

Ibid., p. 241.

Ibid., p. 242.

