

Online Appendix: Data Sources

For each market, the entry first gives a description of the data and period coverage, followed by printed and/or archival sources.

Aachen: 20 interest rates on life annuities yielding six yearly means (1385–1439).

Kraus, T.R. (ed.) (2004): *Die Aachener Stadtrechnungen des 15. Jahrhunderts*, Düsseldorf, pp. 42, 57, 93, 168.

Laurent, Josef (ed.) (1866): *Aachener Stadtrechnungen aus dem XIV. Jahrhundert nach den Stadtarchiv-Urkunden mit Einleitung, Registern und Glossar*, Aachen, pp. 295, 369.

Amiens: three (four) interest rates on heritable annuities yielding two yearly means (1316 and 1494) and one interest rate on a life annuity yielding one yearly mean (1388). One heritable annuity was excluded from the yearly means computations as it referred to a forced loan.

Espinass, G. (1902): *Les finances de la commune de Douai, des origines au XVI^e siècle*, Paris, pp. 321, 328.

Maugis, M. E. (1899): *Essai sur le Regime Financier de la Ville d'Amiens du a la fin du XVI^e siècle (1356-1588)*, in: *Memoires de la Societe des Antiquaires de Picardie*, Quatrieme Serie, Tome III, pp. 133–656, here pp. 563, 566.

Amsterdam: 844 interest rates on heritable annuities yielding 36 yearly means (1515–1795) and 1301 (2183) interest rates on life annuities yielding 36 yearly means (1543–1651). Life annuities are excluded from mean calculations when they are on two lives and when they are redeemable (since this implies a lower illiquidity premium and hence rate of return than the standard, irredeemable, life annuities). In the combined data, the yearly means on life annuities are divided by 1.89 (the average rate in years when both life and heritable annuities were issued; the rate is somewhat variable, but stationary).

Fritschy, W. (2003a): *Three centuries of urban and provincial public debt: Amsterdam and*

Holland, in: M. Boone / K. Davids / P. Janssens (eds.): *Urban Public Debts: Urban Government and the Market for Annuities in Western Europe (14th–18th Centuries)*, Turnhout, pp. 75–92, here pp. 79, 83.

Tracy, J. D. (1985): *A Financial Revolution in the Habsburg Netherlands: Renten and Renteniers in the County of Holland, 1515–1565*. Berkeley, Los Angeles and London, here pp. 45, 60, 133.

Van der Burg, M. / Hart, M. (2003): Renteniers and the recovery of Amsterdam's credit (1578–1605), in: M. Boone / K. Davids / P. Janssens (eds.): *Urban Public Debts: Urban Government and the Market for Annuities in Western Europe (14th–18th Centuries)*, Turnhout, pp. 197–218, here pp. 200, 204.

Stadsarchief Amsterdam [Amsterdam City Archives]: No. 5014: Stadsrekeningen. Vol. 12, fol. 38v; Vol. 19, fol. 32r; Vol. 21, fol. 38v; Vol. 22, fol. 40v; Vol. 27, fol. 42v–43r; Vol. 33, fol. 54v; Vol. 34, fol. 52r; Vol. 36, fol. 55v–56r; Vol. 39, fol. 88r–89v; Vol. 40, fol. 55v–57v; Vol. 41, fol. 55v–57v; Vol. 42, fol. 62v–63v; Vol. 43, fol. 64v–66v; Vol. 44, fol. 61r–62v; Vol. 46, fol. 89r–90v; Vol. 47, fol. 60r–61v; Vol. 48, fol. 59r–61v; Vol. 50, fol. 70r–73r; Vol. 51, fol. 71r–74r; Vol. 52, fol. 72v–74r; Vol. 53, fol. 75v–77v; Vol. 54, fol. 68r–69v; Vol. 56, fol. 45v–46r; Vol. 59, fol. 35v; Vol. 61, fol. 35r–36v; Vol. 62, fol. 35v–37r; Vol. 63, fol. 32v–33r; Vol. 65, fol. 29v; Vol. 68; Vol. 69; Vol. 71 No. 5025: Vroedschapsresoluties. Vol. 1: 16.1.1536–7.5.1565, fol. 113v, 123v; Vol. 2: 28.5.1565–11.1.1575, fol. 33r, 56v; Vol. 3: 16.1.1575–23.5.1578, fol. 19r–v; Vol. 6: 6.5.1588–1.5.1592, pp. 265, 436–7; Vol. 8: 14.5.1594–7.10.1603, pp. 13–14, 21–23, 25–26, 106–7, 858; Vol. 9: 13.10.1603–5.7.1610, p. 285; Vol. 10: 12.7.1610–28.1.1617, p. 224, 338–40; Vol. 19: 1649 januari 12–1652 augustus 29, fol. 158v. No. 5044: Reekeningen van overgeleverde losrenten, lijfrenten op eene lijve ende lijfrentenop twee lijven bij de stad Amstelredamme verkocht. Vol. 461: Ingediend bij het kantoor der Staten van Holland, 1588 maart 10, fol. 2r, 3r, 12r; Vol. 462: Ingediend bij het kantoor der Staten van Holland, 1588 aug.3, nr. 4, fol. 2r, 3r, 31r; Vol. 463: Ingediend bij het kantoor der Staten van Holland, 1599 feb.17, nr. 7, fol. 1r, 2r, 5v, 9v, 11r, 12r. No. 5044: Register van vercooping van Renten. Vol. 464: 1588 5e register gemerkt G, fol. 1r–24v; Vol. 465: 1589 5e register gemerkt F, fol. 1r–10v; Vol. 466: 1590 6e register gemerkt H, fol. 1r–10v; Vol. 467: 1591 6e register gemerkt I, fol. 2r–3r; Vol. 468: –1598, fol. 1r–12v; Vol. 469: 1603 6e register gemerkt M, fol. 1r–3r.

Ancona: one interest rate on one heritable annuity yielding one yearly mean (1454).

Palermo, L. (2007): Finanza, indebitamento e sviluppo economico a Roma nel Rinascimento, in: G. De Luca / A. Moioli (eds.): *Debito Pubblico e Mercati Finanziari in Italia. Secoli XIII–XX*. Roma, here p. 95–96.

Antwerp: 205 interest rates on heritable annuities yielding 32 yearly means (1472–1775) and 145 interest rates on life annuities yielding 17 yearly means (1639–1778). In the combined data, the yearly means on life annuities are divided by 2 in 1641–1650 (as the ratio in 1640) and by 1.8 in 1651 to 1658 (as the ratio in 1656).

Stadsarchief Antwerpen [Antwerpen City Archives]: [Registratie van erf- en lijrenten Reductiekas, renten op de Aluinen (1640–1642).] R280: 1640–1642, rentmeester Jan van Weerden; [Registratie van erf- en lijrenten Reductiekas, renten op de Corpus (1748–1750).] R364: 1748–1750, erfrenten; [Jaarlijkse rekeningen van de Reductiekas (1582).] R500: 1e rekening, alle cijzen en erfrenten; [Erf- en lijfrenten van de consumptiekas (1646–1793).] R1513: 1646–1648, erf- en lijfrenten, rentmeester Jan Janssens; R1516: 1655–1657, erf- en lijfrenten, rentmeester Thomas de Potter; R1525: 1670–1672, erfrenten, rentmeester Jan Bruyninx; R1526: 1670–1672, lijfrenten, rentmeester Jan Bruyninx; R1527: 1673–1675, lijfrenten, rentmeester Jan Baptist Huart; R1528: 1676–1678, erfrenten, rentmeester Jan Baptist Poesson; R1533: 1685–1687, erfrenten, rentmeester Norbertus van Mockenborch; R1544: 1703–1705, erfrenten, rentmeester Jan van Miert; R1553: 1718–1720, erfrenten, rentmeester Ignatius Clouwet; R1581: 1775–1777, erf- en lijfrenten, rentmeester Jan Baptist de Wolf; R1582: 1778–1780, erf- en lijfrenten, rentmeester Jacques Jos de Moor; [Erf- en lijfrenten op de lepel.] R1586: 1678–1681.

Arras: One interest rate on a heritable annuity yielding one yearly mean (1392) and six interest rates on life annuities yielding five yearly means (1241–1300).

Bougard, P. (1988): L'apogee de la ville (1191–1340), in: P. Bougard / Y. Hilaire / A. Nolibos (eds.): *Histoire d'Arras*. France: Editions des Beffrois, pp. 53–76, here pp. 63–4.

Munro, J. H. (2003): The Medieval origin of the financial revolution: Usury, rentes, and negotiability, in: *International History Review* 25:3, 505–62, here p. 525.

Munro, J. H. (2007): *The Usury Doctrine and Urban Public Finances in Late-Medieval Flanders (1220–1550): Rentes, Excise Taxes, and Income Transfers from the Poor to the Rich*. Paper to be presented to the Washington Area Economic History Seminar at the University of Maryland Baltimore County on Friday, 11 May 2007, p. 10.

Richard, J. (1880): Une conversion de rentes à Arras en 1392, in: *Bibliothèque de l'école des chartes* 41, pp. 518–536, here p. 523.

Assen: 54 interest rate on a heritable annuities yielding 54 yearly mean (1640–1781) and 63 interest rates on life annuities yielding 63 yearly means (1700–1795). In the combined dataset, yearly mean rates on life annuities were divided by 2 until 1713 and by 2.67 henceforth (prevailing ratios in the two periods).

van der Ent, L. / Fritschy, W. (1998): *Gewestelijke financiën ten tijde van de Republiek der Verenigde Nederlanden. Deel 2: Drenthe (1602–1795)*. Rijks Geschiedskundige Publicatiën uitgegeven door het Instituut voor Nederlandse Geschiedenis. Kleine Serie, Vol. 91, Den Haag, Table III.5.20, p. 210.

Assisi: Five interest rates on heritable annuities yielding five yearly means (1598–1689).

Girelli, A. M. (1992): *La Finanza Comunale nello Stato Pontificio del Seicento. Il Caso di Assisi*, Padova, pp. 65, 69–70, appendix.

Augsburg: 84 interest rates on heritable annuities yielding 24 yearly means (1433–1501) and 6 interest rates on life annuities yielding 4 yearly means (1391–1447).

Espinas, G. (1902): *Les Finances de la Commune de Douai, des Origines au XV^e siècle*, Paris, p. 328.

Stadtarchiv Augsburg [Augsburg City Archives]: S169 (1400–1437): Baumeisterbuch 14, 37; S170 (1437–1461): Baumeisterbuch 44–47, 50; S171 (1463–1477): Baumeisterbuch 60, 65–66, 70; S172 (1477–1491): Baumeisterbuch 73, 82; S173 (1491–1501): Baumeisterbuch 87; S174 (1501–1515): Baumeisterbuch 98.

Bar-sur-Aube: One interest rate on a life annuity yielding one yearly mean (1240).

Desportes, P. (1979): *Reims et les Rémois au XIII^e et XIV^e siècles*, Paris, p. 129.

Basel: 1129 interest rates on heritable annuities yielding 159 yearly means (1383–1601) and 686 (783) interest rates on life annuities yielding 165 yearly means (1384–1601), in: the combined data, the yearly means on life annuities are divided by 2 from 1559 (before the ratio between the two rates are too idiosyncratic for normalization).

Harms, B. (ed.) (1909): *Der Stadthaushalt Basels im Ausgehenden Mittelalter. Quellen und Studien zur Basler Finanzgeschichte. Abt. 1: Die Jahresrechnungen 1360–1535. Vol. 1. Die Einnahmen*, Tübingen, passim.

Staatsarchiv Basel-Stadt [Basel State Archives]: AHA Missiven A 1: Missiven, Konzepte 1409 Oktober 12 – 1413 Dezember 18, pag. 82, 85; AHA Ratsbücher D 1: Abscheibbuch (1526–1542), fol. 135; D 2. Abscheibbuch (1541–1556), fol. 25v; AHA Städtische Urkunden (1180–1798): Nos. 1280, 2502, 2503, 2505, 2947, 2950, 2952, 3000, 3021; AHA Städtische Urkunden (Regesten) (0423–18. Jh.): Urkundenbuch VIII. fol. 95; Umschlag des Öffnungsbuches IV; Umschlag von E 45, no. 1; AHA Finanz H: Jahresrechnungen der Stadt Basel von 1444–1611, Fronfastenrechnungen von 1444–1700. Vols. 1535/36–1601/02.

Bergamo: One interest rate on a heritable annuity yielding one yearly mean (1622).

Pulin, F. (1985): *Il Monte di Pietà di Bassano (1492–1797)*, Vicenza, p. 122.

Berlin: 11 interest rates on heritable annuities yielding seven yearly means (1588–1698).

Landesarchiv Berlin [State Archives Berlin]: Rat zu Berlin. A Rep. 500 Berlinische Kämmereirechnungen: 1693–1694, alte Signatur R IV/3; 1697–1698, alte Signatur R IV/4); Rat zu Berlin. A Rep. 510 Coellnische Kämmereirechnungen: 1589–1590, alte Signatur R I/1; 1596–1597, alte Signatur R I/2; 1598–1599, alte Signatur R I/3.

Bologna: 94 interest rates on heritable annuities yielding 67 yearly means (1434–1754).

Carboni, M. (1995): *Il Debito della Città. Mercato del Credito, Fisco e Società a Bologna fra Cinque e Seicento*, Bologna, p. 86.

Felloni, G. (1971): *Gli Investimenti Finanziari Genovesi in Europa tra il Seicento e la Restaurazione*, Milano, pp. 181–182.

Nanni, F. (1968): Erektionen de' Monti della città di Bologna e loro capitali e rendite, in: G. Orlandelli (ed.): *Due Relazioni sulla Erektion dei Monti di Pubbliche Prestanze in Bologna (1655–1744)*, Milan, pp. 1–22, here pp. 6–21.

Pradelli, G. (1968): Relazione delle erektionen de Monti o siano luoghi de Monti di Bologna (1744–1762), in: G. Orlandelli (ed.) *Due Relazioni sulla Erektion dei Monti di Pubbliche Prestanze in Bologna (1655–1744)*, Milan, pp. 23–117, here pp. 39, 51, 58–9, 61, 63, 65–7, 70–2, 76, 85–7, 89, 92–3, 95–7, 99, 104–6, 108–11, 113.

Vietti, A. (1884): *Il Debito Pubblico nelle Provincie che hanno formato il Primo Regno d'Italia Secondo i Documenti del R. Archivio di Stato Lombardo*, Milano, p. 137.

Bonn: 26 interest rates on heritable annuities yielding 20 yearly means (1550–1780).

Stadtarchiv Bonn [Bonn City Archives]: Ku 80/3 Schuldurkunden, Städtische Schulden. Teil 1: 1550–1780; Teil 2: 1550 – 1783; Ku 80/4 Maaß'sches Kapital, 1578–1777 (Städtische Schulden); Ku 80/9 Schuldbrief der Stadt Bonn vom 1. Juni 1761 und darauf sich beziehende Dokumente, 1761 (Städtische Schulden).

Bremen: 1419 interest rates on heritable annuities yielding 233 yearly means (1357–1802).

Albers, H. (1930): Die Anleihen der Stadt Bremen vom 14. bis zum 18. Jahrhundert, in: *Veröffentlichungen aus dem Staatsarchiv der freien Hansestadt Bremen* 3, pp. 1–163, here pp. 109–152.

Staatsarchiv Bremen [Bremen State Archives]: 1-Bs Städtische Urkunden: Schuldverschreibungen. Nos. 52a, 54a, 77a, 86a, 103–4, 118a*, 118a.1–b, 126–7a, 131–3a.3.I, 135, 138, 147–8, 153, 155, 158, 166–71, 184–9, 193, 195–6, 198, 201, 203–4, 215, 217–8, 221–2, 224, 241–3, 248–9, 252–4, 258, 268–9, 274–5, 277–9, 281, 283–5, 287, 293–6, 298–300, 302, 304–5, 308–17, 319a, 320, 323–32, 334–41, 343–45, 348, 350, 352, 356–7, 360, 361a, 362–3, 379, 390, 395, 397, 399–400, 410, 419, 422–4, 426–7, 432–3, 437–8, 442, 486a, 567–9, 570–1, 616, 647–8, 680, 762, 772, 786, 791, 805b–805m, 806, 807, 808, 810, 811–811g5, 813–813d, 814–814b, 815–815i, 815l, 816, 816a; 2 Ratsarchiv-R.1.A. Finanzwesen im Allgemeinen: 2-adR.1.A.3.b.1.b. Rhederrechnungen: Verschiedene städtische Ausgaben, Anleihen, Abrechnungen usw. 1462–1496, pp. 9–10; 2-R.1.A.5.b.1.a. Rhederhauptbuch (Butenrenteboek) für auswärtige Gläubiger, 1556–1591, *passim*; 2-R.1.A.5.b.1.b. Rhederhauptbuch (Binnenrenteboek) für einheimische

Gläubiger, 1556–1596, *passim*; 2-R.1.A.5.b.2. Rhederhauptbuch (Binnenrentebuch) für einheimische Gläubiger (1586–1615), *passim*; 2-R.1.A.6.b.1.-4. Kopiebücher der städtischen Schuldverschreibungen, 1437–1597. Vols. 1–4, *passim*.

Brescia: One interest rate on a heritable annuity yielding one yearly mean (1587).

Montanari, D. (2001): *Il Credito e la Carità. Volume I: Monti di Pietà delle Città Lombarde in Età Moderna*, Milano, p. 103.

Bruges: 84 interest rates on heritable annuities yielding 39 yearly means (1464–1645) and 27 interest rates on life annuities yielding 9 yearly means (1294–1632). In the combined data, in 1504 the mean on life annuity is divided by 1.5, as in 1501 and 1506.

Stadsarchief Brugge [Bruges City Archives]: Beden, Renteniers (betalingen van de renten op de Middelen tot de Beden(1): Register 1, vol. 1, 1626; Register 3, vol. 1, 1697; Kladrekening ontvangsten: 09.10.1294–02.09.1295 (W18); Rekeningen Rentenieren: 02.09.1496–02.09.1497; 02.09.1507–02.09.1508; 02.09.1509–02.09.1510; 02.09.1511–02.09.1512; 02.09.1513–02.09.1514; 02.09.1549–02.09.1550; 02.09.1551–02.09.1552; 02.09.1603–02.09.1604; 02.09.1699–02.09.1700; Memoriaal 1496–1497; Register '1471' (Hanboek 1596–1577); Rentieren dubbles: R.R. 01.09.1631–02.09.1632; Stadsrekeningen: 02.09.1501–02.09.1502; 02.09.1503–02.09.1504.

Brunswick: Three conversion rates on heritable annuities (1396–1416) and 2722 heritable annuities (1360–1659) together yielding 109 yearly means and 756 (3387) interest rates on life annuities yielding 190 yearly means (1392–1664). In the combined data, the mean rate on life annuity is divided by 1.82 until 1504 (average ratio in that period) and from 1505 by 2.36 (average ratio in that period).

Espinass, G. (1902): *Les finances de la commune de Douai, des origines au XV^e siècle*, Paris, pp. 320–21, 328.

Stadtarchiv Braunschweig [Brunswick City Archives]: B I 11 Leibgedingebücher [6 vols.]. Vols. 1–6, *passim*; B I 12 Weddeschatbücher [12 vols.]. Vol. 1, fol. 1r–2r, 7v, 8r–10v (of 120); Vol. 2, fol. 4r–50r (of 169); Vol. 3, *passim*; Vol. 4, fol. 9r–53r (of 355); Vol. 5, *passim*; Vol. 6, fol. 1r–76r; Vol. 7, *passim*; Vol. 8, fol. 1r–126r (of 398); Vol. 9, fol. 1r–

93r (of 500); Vol. 12, fol. 1r–101r (of 461).

Chambery: Two interest rates on heritable annuities yielding two yearly means (1570–1735).

Duboin, C. (ed.) (1818–1868): *Raccolta per ordine di materie delle leggi, provvidenze, editti, manifesti ecc. pubblicati (negli Stati di Terraferma) dal principio dell'anno 1681 sino agli 8 Dicembre 1798, sotto il felicissimo dominio della Real Casa di Savoia, per servire di continuazione a quella del Senatore Borelli*, Torino, Tomo 7, Vol. 9, pp. 292–301; Tomo 20, Vol. 22, p. 1335.

Chambly: Three interest rates on on life annuities yielding three yearly means (1260–1262).

Desportes, P. (1979): *Reims et les Rémois au XIIIe et XIVe siècles*, Paris, p. 130.

Colmar: 141 interest rates on heritable annuities yielding 55 yearly means (1408–1741) and 2 interest rates on life annuities yielding 2 yearly means (1441–1508). In the combined data, the mean rate on life annuity is divided by 2.21, as in neighbouring Freiburg.

Archives municipales de la Ville de Colmar [Colmar City Archives]: CC 12: 1-12 Registres de cens; CC 13: Registres aux capiteaux engages par Colmar et revenus patrimoniaux; CC 14: Echange de titres avec Zorn von Bulach; CC 15: Capiteaux et cens dus par le gouvernement autrichien a Colmar; CC 16: Obligations, engagements, decompes; CC 17: Reclamations de la ville a differents bourgeois, quittances, decompes, lettres de cens, correspondance (1402–1741); CC 18: Listes des cens payes; CC 27: Decomptes, echanges, actes d'achat, heritages, partages (1654–1699); CC 30: Decomptes (1678–1700); CC 31-32: Liquidation de dettes; CC 35: Lettres de cens, releves de fortune, fondations pour de tierces personnes (1393–1693); CC 38: Nombreaux actes.

Cologne: 104 interest rates on heritable annuities yielding 36 yearly means (1370–1476) and 38 interest rates on life annuities yielding 36 yearly means (1350–1476). In the combined dataset, the yearly mean rates on life annuities have been divided by 2 until 1421 and by 2.08 henceforth (modal ratios in those years).

Espinass, G. (1902): *Les finances de la commune de Douai, des origines au XVe siècle*, Paris, pp. 321, 328.

Knipping, R. (ed.) (1897): *Die Kölner Stadtrechnungen des Mittelalters mit einer Darstellung der Finanzverwaltung. Vol. 1: Die Einnahmen und die Entwicklung der Staatsschuld*, Publikationen der Gesellschaft für Rheinische Geschichtskunde 15, Bonn, p. 212.

Cremona: 29 interest rates on heritable annuities yielding 12 yearly means (1550–1628).

Jacopetti, N. I. (1961): *Le finanze del comune di Cremona durante la dominazione spagnola. Annali della Biblioteca Governativa e Libreria Civica di Cremona XIV*, Cremona, pp. 44–6.

Montanari, D. (2001): *Il Credito e la Carità. Volume I: Monti di Pietà delle Città Lombarde in Età Moderna*, Milano, p. 103.

Cuneo: Three interest rates on heritable annuities yielding three yearly means (1706–1764) and 2 interest rates on life annuities yielding 2 yearly means (1706–1745).

Duboin, C. (ed.) (1818–1868): *Raccolta per ordine di materie delle leggi, provvidenze, editti, manifesti ecc. pubblicati (negli Stati di Terraferma) dal principio dell'anno 1681 sino agli 8 Dicembre 1798, sotto il felicissimo dominio della Real Casa di Savoia, per servire di continuazione a quella del Senatore Borelli*, Torino, Tomo 23, Vol. 25, pp. 404–407, 531, 557.

Einaudi, L. (1908): *La Finanza Sabauda all'Aprirsi del Secolo XVIII e Durante la Guerra di Successione Spagnola*, Torino, p. 201.

Delft: One interest rate on a life annuity yielding one yearly mean (1577).

Fritschy, W. (2003b): A financial revolution reconsidered: public finances in Holland during the Dutch revolt, 1568–1648, in: *Economic History Review* 56:1, 57–89, here p. 64.

Dijon: One interest rate on a heritable annuity yielding one yearly mean (1475).

Humbert, F. (1961): *Les Finances Municipales de Dijon du Milieu du XIV Siècle à 1477*, Paris, p. 168.

Dordrecht: 27 interest rates on heritable annuities yielding seven yearly means (1422–1607) and 50 (71) interest rates on life annuities yielding 6 yearly means (1422–1696).

Tracy, J. D. (1985): *A Financial Revolution in the Habsburg Netherlands: Renten and Renteniers in the County of Holland, 1515–1565*, Berkeley, Los Angeles and London, p. 45.

Van der Heijden, M. (2003): Renteniers and the public debt of Dordrecht (1555–1572), in: M. Boone / K. Davids / P. Janssens (eds.): *Urban Public Debts: Urban Government and the Market for Annuities in Western Europe (14th–18th Centuries)*, Turnhout, pp. 183–196, here pp. 186–7, 443.

Regionaal Archief Dordrecht (formerly 'Gemeente Archief Dordrecht')/DiEP (GAD) [Dordrecht City Archives]: De grafelijke tijd, 1200–1572. Inv.nr. 433: Rekeningen en verantwoording door de thesauriers: Thesaurier van het groot comptoir, reparaties etc., 1429, fol. 31v, 32r, 33v, 38v, 39r–v, 41r, 45v.

Douai: Three interest rates on heritable annuities yielding three yearly means (1390–1403)

and 7 (9) interest rates on life annuities yielding 7 yearly means (1327–1398).

Espinas, G. (1902): *Les finances de la commune de Douai, des origines au XVe siècle*, Paris, pp. 319–20, 325–8, 344.

Erfurt: 270 interest rates on heritable annuities yielding 55 yearly means (1419–1634) and 22 (68)

interest rates on life annuities yielding 23 yearly means (1451–1509). In the combined dataset the mean rates on life annuities are divided by 2.5 in 1451 (as in 1480) and by 1.70 in 1509 (average ratio in 1483–1506, stationary).

Stadtarchiv Erfurt [Erfurt City Archives]: 0-0/A 41 B Städtische Urkunden: Nos. 1, 3–4, 6–7, 10, 15–16a, 18–19, 73, 80, 83–85; 0-1/4 Städtische Urkunden: Nos. 3, 7, 9(1), 10–9, 15a, 16a(1), 19a(1), 19b(1), 19c(1), 20(1), 20a, 20b(1), 20c(1), 21, 21a–b, 21c(1), 21d(1), 22(1), 22a(1), 22c(1), 25(1), 25a(1), 26–9, 30a, 30b(1), 31, 31a–b, 31c(1), 32(1), 32a(1), 32b, 33–5, 36(1), 36a–b, 37(1), 37a–b, 37c(1), 37d, 38a, 38c–d, 39a–c, 41–41e, 41f(1), 42a–b, 42d(1), 43(1), 43a–c, 45(1), 45a(1), 45b(1), 46(1), 46a(1), 47(1), 47a–b, 48, 48a(1), 48b, 49(1), 49a–c, 50–50c, 51, 51a, 52(1), 63–8, 69(1), 70–1, 73, 74(1), 75(1), 78–80, 81(1), 82, 83(1), 84(1), 85(1), 86(1), 87(1), 88, 91–2, 93(1), 95–6, 99, 100, 101(1), 101(4), 102, 103(1), 104(1), 106, 108(1), 109, 110(1), 111(1), 114(1), 115(1), 116(1), 117(1), 118(1), 119(1), 120, 121(1), 123–4, 125(1), 126–8, 129(1), 130, 131(1), 132, 133(1), 134, 142(1),

143, 146–7, 151, 153(2), 156, 220r(2), 268(2), 284, 314(2), 322(1), 323(1), 370–4, 375(1), 377, 378(1), 379, 380–7, 388(1), 389, 390(1), 391(1), 392–3, 394(1), 395, 397(1), 398–9, 400(1), 401, 402(1), 403(1), 404(1), 405–6, 407(1), 408, 409(1), 410–2, 413(1), 462 (2), 541(2), 927(2–3); 1-0/B 8 Finanzwesen: Aktiv- und Passivschulden, Nr. 43, 45; 1-1/21 10 Libri ordinationum: Vol. 1, fol. 1v–2r, 5r–8r, 41v; 1–1/22, 2 Hauptrechnungen: No. 1, fol. 22r–23r; No. 12, fol. 26v; No. 14, fol. 26v; No. 16, fol. 26v; No. 27, fol. 26v; 1-1/21-12 Obligationen: Vol. 1, pp. 5–10, 70–2, 75–7, 147–9, 279–81, 289–91; Vol. 2, p. 7–8; Vol. 4, fol. 33v–36r.

Ferrara: 16 interest rates on heritable annuities yielding four yearly means (1630–1753).

Felloni, G. (1971): *Gli Investimenti Finanziari Genovesi in Europa tra il Seicento e la Restaurazione*, Milano, p. 194–5.

Vietti, A. (1884): *Il Debito Pubblico nelle Provincie che hanno formato il Primo Regno d'Italia Secondo i Documenti del R. Archivio di Stato Lombardo*, Milano, pp. 143, 149.

Finale Emilia: 12 interest rates on heritable annuities yielding 12 yearly means (1617–1667).

Cattini, M. (1988): Congiuntura economica e pressione fiscale in una comunità del basso modenese, in: A. Guarducci (ed.): *Prodotto Lordo e Finanza Pubblica. Secoli XIII–XIX*, Firenze, pp. 200, 204.

Florence: 137 (171) interest rates on heritable annuities (which include 83 secondary market and 1 primary yields (1345) computed with price data) yielding 98 yearly means (1345–1806) and eight interest rates on life annuities yielding eight yearly means (1591–1710)

Barducci, R. (1979): Politica e speculazione finanziaria a Firenze dopo la crisi del primo Trecento (1343–1358), in: *Archivio Storico Italiano* 137, p. 188.

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Vol. 15 (1804), p. 28; Vol. 16 (1805), p. 247; Vol. 17 (1805), p. 215; Vol. 20 (1805), p. 272; Vol. 22 (1806), p. 174; Vol. 23 (1806), p. 21; Vol. 24 (1806), pp. 146, 227, 262; Vol. 29 (1807), p. 352; Vol. 30 (1807), pp. 7, 53, 113, 144.

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Felloni, G. (1971): *Gli Investimenti Finanziari Genovesi in Europa tra il Seicento e la Restaurazione*, Milano, p. 284.

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Archivio di Stato di Firenze [Florence State Archive]: Monte Comune o delle Graticole, Parte I: Pezzo 3, p. 260; Pezzo 4, p. 20; Monte del Sale: Pezzo 1; Pezzo 2, pp. 7, 15, 19, 21, 24; Monte di Pietà: Pezzo 3; Monte di Sussidio Vacabile e Non Vacabile: Pezzo 1; Pezzo 2; Pezzo 3; Pezzo 142, pp. 359–361; Pezzo 143, p. 2–3; Nuovo Monte Comune: Pezzo 383.

Frankfurt am Main: 714 interest rates on heritable annuities yielding 110 yearly means (1546–1766) and 31 interest rates on life annuities yielding 14 yearly means (1561–1599).

Institut für Stadtgeschichte Frankfurt am Main [City Archives Frankfurt am Main]: Rechneiamt Bücher (1341–1889): Nos. 715–6, 830–51.

Freiburg (Breisgau): 105 interest rates on heritable annuities yielding 44 yearly means (1441–1633) and 26 interest rates on life annuities yielding 13 yearly means (1561–1568). Four rates on annuities on two lives have been used to compute the yearly means on life annuities as they pay-out on the second life was lower than on the first life and the rates were close to other rates paid on life annuities at the same time. In the combined dataset the mean rates on life annuities are

divided by 2.06 (average ratio).

Stadtarchiv Freiburg [Freiburg City Archives]: C1 Akten der städtischen Hauptverwaltung (bis ca. 1860): Gemeindevermögen, vols. 12, 14, 22; E1 Städtische Rechnungen, A I b Städtisches Rentamt, Separat-Rechnung: AI b.1 Einnahmbücher 1538/39, 1541–1545, 1548–1550, 1552, 1554, 1558–1561, 1568, 1633; AI b.2 Ausgabebücher 1520, 1566, 1569/70, 1572/73, 1575/76, 1597, 1600, 1602, 1604.

Genoa: 550 (881) interest rates on heritable annuities (which include 30 (273) secondary market yields computed with price data) yielding 175 yearly means (1263–1784) and four interest rates on life annuities yielding four yearly means (1630–1683).

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Heers, J. (1961): *Gênes au XV^e Siècle*, Paris, p. 630.

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Archivio di Stato di Genova [State Archive of Genova]: Antica Finanza: Pandetta 38, numero 322, 344; Archivio Segreto: 9/1026; Banco di S. Giorgio: Pandetta 17, numero 3081–95, 3111–16, 3135, 3137–8, 3140, 3142, 3144, 3177, 3181–2, 3184; Pandetta 18, numero 610/2464, 2471–7, 2479–80; Camera Finanze: 1093.

Ghent: 298 interest rates on heritable annuities yielding 39 yearly means (1521–1748) and 120 (129) interest rates on life annuities yielding 16 yearly means (1513–1715). In the combined dataset the mean rates on life annuities are divided by 2.06 (modal ratio).

Stadsarchief Gent [Ghent City Archives]: Leningen an Renten: Vol. 2 (Reeks 404 bis); Losrenten and Lijfrenten (405 bis): Vol. 11 Rentebrieven Projekten stadsrente-brieven; Vol. 12 Rentebrieven; Vol. 15 Listes et declarations au sujet des entes; Rekeningen Tresorier Verkoopung Los en Lyfrenten (405 bis): vol.4; Stadsrekeningen (400): Vols. 41, 44, 48–50, 52–3, 60–1, 64–5, 83–4, 86; Stadsrekeningen, Kladboeken van de stedelijke ontvangsten (401 bis): Vol. 1; Stadsrekeningen, Ontvangsten: Vols. 1, 3–4, 8, 10.

Groningen: Four interest rates on heritable annuities yielding three yearly means (1706–1790) and five interest rates on life annuities yielding five yearly means (1666–1669). The data for the province of Groningen was treated as the market of Groningen. Intervals given for the published data (i.e. 1666–1669) were assumed to refer to constant interest rates. In the combined dataset, the mean rates on life annuities were divided by 2, as implied by data in years when both life and heritable annuities were issued in Groningen and neighbouring provinces.

van der Ent, L. / Enthoven, V. (2001): *Gewestelijke financiën ten tijde van de Republiek der Verenigde Nederlanden. Deel 3: Groningen (1594–1795)*. Rijks Geschiedskundige Publicatiën uitgegeven door het Instituut voor Nederlandse Geschiedenis. Kleine Serie, Vol. 94, Den Haag, Table III.5.42, pp. 285–6.

Göttingen: 114 interest rates on heritable annuities yielding 40 yearly means (1328–1650) and 64 interest rates on life annuities yielding 28 yearly means (1320–1440). To calculate the meanrate for life annuities the rate on two or three lives was multiplied by 1.24 (average, used only when 1 life is missing; there didn't seem to be a difference between rates for 2 or 3 lives). In the combined data-set, mean rates on life annuities were divided by 1.59 (average ratio, pretty stable).

Espinas, G. (1902): *Les finances de la commune de Douai, des origines au XVe siècle*, Paris, p. 329.

Stadtarchiv Göttingen [Göttingen City Archives]: AA Kämmerei Kapitalien: No. 3/ 4518 Kämmerei Kapitalien, 1608–1700 (überwiegend Quittungen), fol. 2r; No. 4/4524 Quittungen und eingelöste Obligationen über für die schwedische Satisfaktion geborgten Geldes, 1648–1655, fol. 6r, 8r, 10r, 13r, 15r, 17r, 19r, 31r; B 7 II Amtsbücher, Kopialbücher: No. 1 Liber parvus copiarum, fol. 5r–36v; No. 2 Liber magnus copiarum (1296–1505), fol. 1r–15v, 17r–22r; No. 3 Novus Liber Papyraceus (1439–1583), fol. 1r–5v.

Halle (Saale): 644 interest rates on heritable annuities yielding 58 yearly means (1459–1621).

Klinger, J. (ed.) (2011): *Das Dresdener Stadtbuch 1477–1495. Edition und Forschung*, Inaugural-Dissertation zur Erlangung der Doktorwürde der Philosophie, Kunst- und Gesellschaftswissenschaften der Universität Regensburg, Regensburg, pp. 336–8.

Stadtarchiv Halle [Halle City Archives]: Urkundenbestand 567.

Landeshauptarchiv Magdeburg [Provincial Archives Magdeburg]: Cop. Kopiare und andere Amtsbücher (0936–1844), Stadt Halle: no. 395a Kopiar der Obligationen der Stadt Halle (1568–1590), passim; no. 396 Copiarium der Obligationen der Stadt Halle (1591–1620), passim; no. 397 Copiarium der Obligationen der Stadt Halle (1605–1616), passim.

Hamburg: 1984 interest rates on heritable annuities yielding 271 yearly means (1344–1809) and 120 interest rates on life annuities yielding 50 yearly means (1361–1530). The mean rates for life annuities have been calculated using the following ratios: rate on 2 lives in 1435–1436 & 1452–1453 = rate on 1 life/1.20 as mode in 1375–1471; rate on 2 lives in 1478, 1501–1502 = rate on 1 life as mode in 1473–1485; rate on 2 lives in 1527, 1529–1530 = rate on 1 life/1.15 as in 1488. In the combined data-set, mean rates on life annuities in 1361, 1368, 1375 and 1390 were divided by 1.56 (average ratio in 1373–1441). The mean in 1449 was divided by 1.22 (average ratio in 1448–1502).

Koppmann, K. (ed.) (1869–1894): *Kämmereirechnungen der Stadt Hamburg*. 7 vols. Hamburg, passim.

Voigt, J. (ed.) (1912): Die Anleihen der Stadt Hamburg Während der Jahre 1601 bis 1650, in: *Zeitschrift des Vereins für Hamburgische Geschichte* 17, pp. 129–233, here pp. 134–56, 158–9, 161–70, 173, 175–88, 190–4, 197, 199, 202–4, 206, 221.

Staatsarchiv Hamburg [Hamburg State Archives]: 111-1 Senat. Cl. VII Lit. L/a no. 2. Vol. 1b. Rotes Stadtbuch, pp. 299–309, 311–39; 311-1 I Kämmerei I. Vol. 2: Urkunden 1496–1866 (Unbefristete Kammerbriefe), *passim*; 741–2 Genealogische Sammlungen 53. Kasten 91, Juristische Personen 1331–1370; Kasten 141, Juristische Personen 1426–1454; Kasten 165, Juristische Personen 1455–1470; Kasten 187, Juristische Personen 1471–1490.

Hanover: 1063 interest rates on heritable annuities yielding 302 yearly means (1315–1723) and 569 interest rates on life annuities yielding 121 yearly means (1355–1606). Rates on multiple lives have been included as in this case they were very similar to rates on on life annuities. In the combined data-set, the yearly means on life annuities were divided by 1.72 in 1427–1468 (average in those years; before too idyosincratic), by 2.08 in 1469–1532 (average in those years), by 2 in 1543–1545 (as in 1540).

Stadtarchiv Hannover [Hanover City Archives]: Urkunden-Abteilung 1: Allgemeine Urkundensammlung (14.–18. Jh.). Nos. 184, 207, 463, 465, 481, 525, 537, 542, 553, 559–60, 565, 570, 587, 599, 614, 618–9, 622–3, 668–9, 685, 689, 701, 707, 737, 741, 745, 753, 835, 846–7, 935, 942, 989, 1103, 1161, 1207, 1268, 1272–3, 1355, 1373, 1461, 1598, 1774, 1806, 1811, 1815, 1828; Urkunden Abteilung 3: Schuldurkunden des Rates (1351–1716). Nos. 1, 9, 12, 14, 18, 25–6, 39, 41–7, 50–2, 54–7, 59–60, 62, 64, 73, 76–7, 83, 86–90, 96, 93–101, 103–8, 111–3, 115–20, 122–4, 128, 130, 132–4, 136–9, 141–8, 150–64, 166, 168–73, 175–6, 178–83, 185–6, 189, 191–6, 198–206, 208–18, 220–36, 238–41, 248, 251–4, 257–66, 268–78, 280–9, 291–301, 304–38, 340–3, 345–51, 354–64, 366–412, 414–25, 428–42, 444–70, 473–5, 477–9, 482–3, 486–8, 490–1, 493–6, 498–503, 505–29, 531–2, 536–58, 561–646, 648–60, 662–3, 667, 669, 671–90, 692–3, 695, 698–718, 720–57, 759, 761–87, 789–93, 798–822; Neue Abteilung Bücher 7227–7230: Kämmereibücher. No. 7227, pp. 110–1, 187, 195–6, 232–3, 312–3, 349, 386, 387, 442–3, 486, 524–5, 564, 566, 606, 646, 732–3, 766, 802, 836, 876, 912, 956, 998, 1116; no. 7228, pp. 2, 38–9, 78, 165–6, 278, 308, 340–1, 396–7, 430, 434–5, 471, 514, 603, 646, 688, 737, 1233; no. 7229, pp. 2, 27, 381, 383; no. 7230, fol. 30r–v; Neue Abteilung Bücher, 8242 Stadtobligationsbuch 1387–1533, *passim*; Neue Abteilung Bücher, 8043 Stadtobligationsbuch I, *passim*; Neue Abteilung Bücher, 8044 Stadtobligationsbuch II, *passim*; Neue Abteilung Bücher, 8060 Schuldbuch betreffend die angeliehenen Kapitalien, fol. 4r–v, 5v, 6r, 8r–v.

Hildesheim: 559 interest rates on heritable annuities yielding 72 yearly means (1333–1600) and 246 (248) interest rates on life annuities yielding 54 yearly means (1328–1564). Rates on multiple lives were used to extrapolate the rates for life annuities (differences negligible in overlapping years, less than 0.25 in overlapping years and mostly much less). In the combined dataset, yearly means on life annuities were divided by 1.81 (average, stationary from 1333).

Stadtarchiv Hildesheim [Hildesheim City Archives]: Bestand 1 Nr. 1275: Schuldverschreibungen. Nos. 1275a-zzzz; Bestand 50 Nr. 159: Kämmererechnungen. Vols. 1417, fol. 2r; 1419, fol. 1v; 1420, fol. 1v; 1421, fol. 1v; 1422, fol. 1v; 1425, fol. 1v; 1427, fol. 1v; 1428, fol. 1v; 1429, fol. 1v; 1437, fol. 1v; 1440, fol. 1v; 1441, fol. 1v; 1442, fol. 130v–131r; 1443, fol. 208v–209r; 1444, fol. 308r; 1445, fol. 2r; 1446, fol. 2r; 1447, fol. 2r; 1448, fol. 2r; 1449, fol. 2r; 1451, fol. 2r; 1452, fol. 2r; 1453, fol. 2r; 1454, fol. 2r; 1455, fol. 2r; 1456, fol. 2r; 1457, fol. 2r; 1458, fol. 2r; 1459, fol. 2r; 1461, fol. 2r; 1462, fol. 2r; 1464, fol. 2r; 1465, fol. 2r; 1469, fol. 2r; 1490, fol. 2r; 1491, fol. 2r; 1492, fol. 2r; 1494, fol. 2r; 1496, fol. 2r–v; 1497, fol. 2r–v; 1498, fol. 2r–v; 1499, fol. 2r–v; 1500, fol. 2r–v; 1501, fol. 2r–v; 1502, fol. 2v; 1503, fol. 2v; 1506, fol. 2r; 1508, fol. 2r; 1509, fol. 2r; 1510, fol. 2r–v; 1511, fol. 4r–v; 1512, fol. 81r, 82r–v; 1514, fol. 2r–v; 1519, fol. 90r–92r; 1520, fol. 4r–5r; 1521, fol. 80r–v; 1522, fol. 159r–v; 1523, fol. 2r–3r, 4r; 1524, fol. 80r–81v; 1525, fol. 149r–150r; 1526, fol. 2v–3v; 1527, fol. 67r–v; 1528, fol. 134r–v.

Hoorn: One interest rate on a heritable annuity yielding one yearly mean (1522).

Tracy, J. D. (1985): *A Financial Revolution in the Habsburg Netherlands: Renten and Renteniers in the County of Holland, 1515–1565*, Berkeley, Los Angeles and London, p. 45.

Huy: 11 interest rates on heritable annuities yielding 10 yearly means (1649–1675).

Morsa, D. (2003): La dette de la ville de Huy au 17^e siècle, in: M. Boone / K. Davids / P. Janssens (eds.): *Urban Public Debts: Urban Government and the Market for Annuities in Western Europe (14th–18th Centuries)*, Turnhout, pp. 149–162, here p. 157.

Koblenz: 52 interest rates on heritable annuities yielding 26 yearly means (1610–1797).

Stadtarchiv Koblenz [Koblenz Town Archives]: Bestand 623 Stadt Koblenz: No. 2884 Städtische Schulden (1611–1791), vols/fol. 1, 3, 7, 11, 16, 18, 28, 31, 38, 42, 45, 49, 53,

55, 62, 65, 67; no. 2893 Die Stadtschulden (1794–1811), vol/fol/pp. 15, 18.

Leeuwarden: 145 interest rates on heritable annuities yielding 49 yearly means (1693–1770) and 54 interest rates on life annuities yielding 28 yearly means (1617–1758). In the combined dataset, yearly mean rates on life annuities were divided by 2 (modal value).

Trompetter, C. (2007): *Gewestelijke financiën ten tijde van de Republiek der Verenigde Nederlanden. Deel 6: Friesland (1587–1795)*. Rijks Geschiedskundige Publicatiën uitgegeven door het Instituut voor Nederlandse Geschiedenis. Kleine Serie, Vol. 106, Den Haag, Table III.5.44, pp. 185–91.

Leiden: 423 interest rates on heritable annuities yielding 31 yearly means (1439–1530) and 65 (78) interest rates on life annuities yielding 16 yearly means (1455–1780). In the combined dataset, yearly means on life annuities were divided by 1.89 (as in Amsterdam; too little overlap in Leiden).

Munro, J. H. (2007): *The Usury Doctrine and Urban Public Finances in Late-Medieval Flanders (1220–1550): Rentes, Excise Taxes, and Income Transfers from the Poor to the Rich*. Paper to be presented to the Washington Area Economic History Seminar at the University of Maryland Baltimore County on Friday, 11 May 2007, p. 34.

Regionaal Archief Leiden [Leiden Provincial Archives]: SA I (1290–1575): Inv.nrs. 817, 838, 841: Rentebriefe, 1485, 1514, 1527; Inv.nrs. 818–835: Register van lijf- en losrenten ten laste van de stad, 1473–1552. Inv.nr. 818, fol. 3v, 8v, 17v; inv.nr. 819, 1r, 2v, 4v–8v, 16r, 17v, 18r, 21r–22r, 24r–25r, 28r, 29r–v, 31v, 33v, 37r–v, 42r–v, 43r, 44r–45r, 46v, 47r–v, 48r–v, 49v, 54r, 55r, 57v, 58r, 59v–60r, 61r, 62v–63v, 68r, 69r, 70v–71r, 73r–v, 76v–77r, 78r, 79v, 80v, 81v, 83r, 83v, 84v, 87r, 88r, 89r–90r, 91r, 92r–93v, 94v, 95r, 98r–v, 100r, 101v, 102v, 103v, 104r–105r, 106r, 107v, 109r–v, 110r–v, 111v, 114v, 117v, 125r, 131r–v, 132r–v, 133v, 134r, 136r–v, 137r–v, 138r, 139r–140v, 141v, 142r–v; inv.nr. 820, fol. 12r, 14r, 18r–v, 20r, 22r, 23r, 24v–25v, 27r–v, 28v; inv.nr. 825, fol. 2r–3r, 4v, 8r, 9r–v, 11v, 14r–v, 15v–16r, 17r, 18r–v, 19v, 20r, 27v, 28v, 30r–32r, 33r–v, 34r, 37r–v, 38r–v, 40r–42v, 47r–48r, 49v–50r, 51r–52r, 53r, 54r, 55v, 59v, 61r–64r, 65r–v, 66v–67v, 68v, 69r, 70r, 71r–72r, 74v–75r, 76r–v, 77v–78r, 79r–81r, 82r–83r, 84v–85r, 86r–89v, 90r, 92r–93r, 94r–95r, 96r, 97r–v, 99r, 100v–103r, 107v, 112r, 114r, 122r–v, 124r, 125v, 126r, 127v–130r, 131v, 132v, 133r–v; inv.nr. 833a, fol. 43v, 51r–53r, 54v, 55v–56r, 60v–61v, 62v, 63v–64v, 65v–67v, 77r, 78r, 79v, 83r; Inv.nr. 843: Register van de ontvangst uit

verkochte lijf- en losrenten, 1528, fol. 5r–6r; Inv.nr. 852: Kwitanties van de koopsom van door de stad verkochte lijfrentebrieven, 1555–1568, nrs. 1–24; Inv.nr. 853: Register van lijfrenten verkocht van 1556 tot 1559. 1556–1559, fol. 1v, 2v–8r; Inv.nr. 856: Stukken betreffende de aankoop van een lijfrente van 24 gulden ten laste van de stad Leiden, voor elk van zijn kinderen gekocht door jonkheer Jacob van der Does, 1565; SA II (1574–1816): Inv.nr. 10161: Los- en lijfrentebrieven ten laste van de stad, uitgegeven in 1600, 1604, 1672, 1674, 1681, 1684, 1780, 1789. Met enkele bijlagen, 1614, 1654, 1796, 1600–1796.

Leipzig: 181 interest rates on heritable annuities yielding 14 yearly means (1475–1625).

Stadtarchiv Leipzig [Leipzig City Archives]: JHR 1473–1475 (Bd. 2), fol.00175; Titel V 17: Acta des Ratheszu Leipzig Schuld-Wesen betretig de Anno 1625–1642, fol. 168–9, 171–5, 177, 180, 208, 210–1; Title VI 1a: Depostenbuch, fol. 22r; Verzeichnunge der verpferding Jar 1517 (v.2).

Liège: Three interest rates on heritable annuities yielding three yearly means (1722–1724).

Henry, D. (1975): Les finances de la cité de Liège au XVIIIe siècle, in: *Finances Publiques d'Ancien Régime. Finances Publiques Contemporaines en Belgique de 1740 à 1860. Processus de Mutation Continuités et Ruptures. Colloque international, Spa, 19–22 December 1972, Bruxelles*, pp. 193–218, here pp. 206–207.

Lille: 552 interest rates on heritable annuities yielding 128 yearly means (1511–1791) and 665 (668) interest rates on life annuities yielding 86 yearly means (1301–1790). In the combined dataset, yearly mean rates on life annuities were divided by 2 (modal value).

DuPlessis, R. (1991): *Lille and the Dutch Revolt: Urban Stability in an Era of Revolution, 1500–1582*, Cambridge, pp. 76, 260, 264.

Espinas, G. (1902): *Les finances de la commune de Douai, des origines au XVe siècle*, Paris, p. 328.

Richebé, A. (1894): *Compte de recettes et dépenses de la ville de Lille. 1301–1302*, Lille, p. 24–5.

Sivéry, G. (1970): Histoire économique et sociale, in: L. Trenard (ed.): *Histoire de Lille. Tome I: Des Origines à l'avènement de Charles Quint*, Lille, pp. 111–270, here p. 204.

Archives municipales de Lille [Lille City Archives]: AG 40; Reg. 2526; Reg. 2527, fol. 2–5, 7–9, 11, 14, 17, 20, 22, 33–4, 37, 40, 42, 52, 56, 63, 66–7, 73, 93, 98, 116, 118–20, 122, 133, 136, 166–7, 169–72, 176–7, 183–5, 190–3, 195, 198, 200–1, 206–8, 210–2, 215–20, 223–4, 232; Reg. 2528, fol. 1–9, 12–3, 15, 17–8, 20, 26–8, 34–8, 40–2, 44, 47–9, 51–3, 55–6, 58–9, 61–4, 66–8, 70, 72–6, 78–80, 82, 87, 90–2, 94, 96–7, 100–3, 105–7, 109–11, 113, 115, 119–22, 125, 128–34, 137–40, 142, 144–5, 147–8, 150, 153–4, 157, 159, 161–4, 167–9, 172–3, 175, 177, 179–80, 182–3, 185–6, 189, 191, 194–201, 203–4, 227–9, 231, 233–9, 241–2, 244–5, 247–8, 250–2, 255, 257–8, 262, 273, 275–6; Reg. 2529; Reg. 2530; Reg. 2531; Reg. 2898, fol. 14, 17, 29, 41; Reg. 2899; Reg. 2900, fol. 9–10; Reg. 2946; Reg. 16012, fol. 11–12; Reg. 16014, fol. 10–1; Reg. 16030, fol. 9; Reg. 16031, fol. 9; Reg. 16032, fol. 9; Reg. 16033, fol. 9; Reg. 16035, fol. 8; Reg. 16036, fol. 9; Reg. 16037, fol. 7–8; Reg. 16039, fol. 7; Reg. 16040, fol. 7; Reg. 16042, fol. 7; Reg. 16043, fol. 6–7; Reg. 16045, fol. 8; Reg. 16046, fol. 8; Reg. 16048, fol. 9; Reg. 16050, fol. 8; Reg. 16051, fol. 8; Reg. 16052, fol. 9; Reg. 16053, fol. 9; Reg. 16054, fol. 8; Reg. 16055, fol. 8–9; Reg. 16063, fol. 6; Reg. 16067, fol. 7; Reg. 16069, fol. 7; Reg. 16070, fol. 7–8; Reg. 16071, fol. 7; Reg. 16072, fol. 7; Reg. 16073, fol. 6; Reg. 16074, fol. 6; Reg. 16075, fol. 6; Reg. 16076, fol. 7–8; Reg. 16077, fol. 7; Reg. 16078, fol. 7; Reg. 16080, fol. 6; Reg. 16084, fol. 7; Reg. 16085, fol. 6; Reg. 16088, fol. 5–6; Reg. 16092, fol. 6; Reg. 16093, fol. 6–7; Reg. 16096, fol. 5; Reg. 16098, fol. 5; Reg. 16265, fol. 47; Reg. 16723; Reg. 16729; Reg. 16730; Reg. 16731; Reg. 16732; Reg. 16733; Reg. 16734; Reg. 16736; Reg. 16737; Reg. 16771; Reg. 16783; Reg. 16785, fol. 177, 181–2; Reg. 16786.

Lübeck: 463 interest rates on heritable annuities yielding 93 yearly means (1320–1750) and seven interest rates on life annuities yielding five yearly means (1286–1545). For the conversion of the life annuity rates, in 1526 it is assumed that $\text{rate per/rate life} = 5/10$ as made in 1516.

Archiv der Hansestadt Lübeck [Lübeck City Archives]: 03.04-01.44.1. Kämmerei, Rentebücher: Nos. 1916 (1516–1530), 1917 (1545–1582), 1918 (1582–1612), 1919 (1612–1661); 03.04-02.9.3. Stadt-Cassa: No. 1402, Jährliche Rentebücher Nr. 2 (1667–1669); no. 1403, Jährliche Rentebücher Nr. 3 (1670–1671); no. 1404, Jährliche Rentebücher Nr. 4 (1672–1673); no. 1405, Jährliche Rentebücher Nr. 5 (1674–1675); 1406, Jährliche Rentebücher Nr. 6 (1676–1677); no. 1413, Jährliche Rentebücher Nr. 13 (1689–1690); no. 1423, Jährliche Rentebücher Nr. 23 (1708–1709); no. 1433, Jährliche Rentebücher Nr. 33 (1719); no. 1437, Jährliche Rentebücher Nr. 37 (1723); no. 1447,

Jährliche Rentebücher Nr. 47 (1733); no. 1457, *Jährliche Rentebücher* Nr. 57 (1743); no. 1464, *Jährliche Rentebücher* Nr. 64 (1750); 08.01-5.1.02. *Wissenschaftliche Handschriften*, Brandt, Ahasver von: No. 1054, *Auszüge der Renteneinträge aus dem Oberstadtbuch 1320–1350* von A. v. Brandt; 08.01-5.2.1. *Bearbeitung der Urkunden und Testamente im AHL*: No. 1046, *Materialien u. Vorarbeiten zum Lübecker Urkundenbuch*, besonders für Band VI–XI. *Kämmereibücher*: *Mappe 2–4*.

Lüneburg: 2016 interest rates on heritable annuities yielding 242 yearly means (1363–1718) and 55 interest rates on life annuities yielding 14 yearly means (1386–1563).

Stadtarchiv Lüneburg [Lüneburg City Archives]: UA (Urkunden-Abteilung). C: 1363 August 14; c: 1368 Oktober 18 I; b: 1370 November 6; c: 1372 Januar 13; c: 1372 April 5; c: 1374 April 25; a: 1375 Juli 22; b: 1376 Mai 15; c: 1377 Februar 14 II; c: 1386 September 16; c: 1389 August 9; c: 1421 November 10; c: 1422 September 28 II; b: 1423 Juli 28; c: 1426 September 28; b: 1428 März 14; c: 1428 April 27; c: 1428 Mai 21; c: 1428 Juni 11; b: 1428 Oktober 30; ; c: 1429 April 3 II; c: 1429 April 10; b: 1429 April 26 I; b: 1430 September 20 I; c: 1430 September 20 II; b: 1431 April 9 I; c: 1431 April 9 II; b: 1431 Juni 28; c: 1431 September 29; c: 1432 April 9; c: 1433 Juli 13; c: 1434 April 4; c: 1434 Juni 23; c: 1437 Dezember 27 II; b: 1431 Dezember 31; b: 1439 April 4 II; c: 1439 April 9; c: 1439 September 28 I; c: 1439 Oktober 4; c: 1439 Oktober 18; c: 1439 Oktober 27; c: 1440 Juni 23 I; c: 1440 September 28; c: 1440 Oktober 18; c: 1441 April 10 I; c: 1441 April 10 II; c: 1441 April 10 III; c: 1441 April 18 I; c: 1441 April 18 II; c: 1441 Juni 3; c: 1443 Juni 23 II; AB 51: *Darlehensregister (1368–1416)*, *passim*; AB 55: *Kopie von Rentenbriefen (1441–1492)*, *passim*; AB 60: *Abschriften von Schuldverschreibungen des Rates zu Lüneburg*, *passim*; AB 65: *Schuldurkunden des Rates mit alphabetischem Inhaltsverzeichnis (1492–1516)*, *passim*; AB 68: *Registrum der Renthe bynnen unde buthen Lüneburg, de me hyr bynnen betaeth (15. & 1. Drittel 16. Jh.)*, *passim*; AB 69: *Einnahmen und Ausgaben sowie Rentenbriefe (1534/1565, 1566, 1586)*, *passim*; AB 71: *Kopien von Verschreibungen des Rates aus der Zeit von 1566 bis 1616*, *passim*; AB 80: *Schuldbuch mit Ratsrenteverreibungen*, *passim*.

Lyon: Eight (nine) interest rates on heritable annuities yielding five yearly means (1536–1724).

Doucet, R. (1937): *Finances municipales et crédit public à Lyon au XVIe siècle*, Paris, pp. 11–12, 49–50, 66.

Gascon, R. (1971): *Grand Commerce et Vie Urbaine au XVIe Siècle. Lyon et ses Marchands*, Paris, p. 256.

Paillard, P. (2012): *La Cour des Monnaies de Lyon*, Lyon, p. 27.

Mainz: Nine interest rates on heritable annuities yielding 2 yearly means (1410–1436) and 25 interest rates on life annuities yielding 2 yearly means (1410–1436).

Bayerisches Staatsarchiv Würzburg [Würzburg State Archives]: Rechnung 50576, 12–16.

Mantua: 38 interest rates on heritable annuities yielding 38 yearly means (1655–1787)

Montanari, D. (2001): *Il Credito e la Carità. Volume I: Monti di Pietà delle Città Lombarde in Età Moderna*, Milano, pp. 50–1, 68–9, 78–9, 243.

Meaux: One interest rate on a life annuity yielding one yearly mean (1274).

Desportes, P. (1979): *Reims et les Rémois au XIIIe et XIVe siècles*, Paris, p. 130.

Memmingen: 674 interest rates on heritable annuities yielding 97 yearly means (1694–1805).

Stadtarchiv Memmingen [Memmingen City Archives]: Bestand A Reichsstadt. Vol. 429F: Journal Lit. F (Zinseinnahmen, chronologisch), 1770–1787; Bestand A Reichsstadt. Vol. 430C: Zinsbuch Lit. C (mit Zinseinträgen bis ca. 1747), 1694 – 1720; Bestand A Reichsstadt. Vol. 430D: Zinsbuch Lit. D (mit Zinseinträgen bis ca. 1780), 1720–1747; Bestand A Reichsstadt. Vol. 430E: Zinsbuch Lit. E (mit Zinseinträgen bis ca. 1800), 1747–1765; Bestand A Reichsstadt. Vol. 430F: Zinsbuch Lit. F (mit Zinseinträgen bis 1808), 1766–1791.

Milan: 143 interest rates on heritable annuities yielding 134 yearly means (1535–1796) (there is also one rate on a tontine, not included in the computations of the yearly means).

Caizzi, B. (1968): *Industria, Commercio e Banca nella Lombardia del XVIII secolo*, Milano, pp. 153, 169, 191–2.

Cova, A. (1970): Il Banco di S. Ambrogio e l'impiego mobiliare dei redditi nell'economia milanese del Settecento, in: *Archivio Storico Lombardo IX*, pp. 7–26, here p. 15.

Cova, A. (1972): *Il Banco di S. Ambrogio nell'Economia Milanese dei Secoli XVII e XVIII*,

Milano, p. 331.

De Luca, G. (2003): Debito pubblico, sistema fiscale ed economia reale nella Lombardia spagnola: l'alienazione delle entrate. Prime direzioni di ricerca, in: M. Rizzo / J. J. Ruiz Ibanez / G. Sabatini (eds.): *Le forze del principe. Recursos, instrumentos lymítés en la práctica del poder soberano en los territorios de la Monarquía Hispánica*, Murcia, Vol. I, pp. 179–210, here pp. 185–6.

De Luca, G. (2007): Debito pubblico, mercato finanziario ed economia reale nel Ducato di Milano e nella Repubblica di Venezia tra XVI e XVII secolo, in: G. De Luca / A. Moioli (eds.): *Debito pubblico e mercati finanziari in Italia. Secoli XIII–XX*, Roma, pp. 119–146, here p. 127.

De Luca, G. (2008): Government debt and financial markets: exploring pro-cycle effects in northern Italy during the sixteenth and seventeenth centuries, in: F. Piola Caselli (ed.): *Government Debts and Financial markets in Europe*, London, pp. 45–66, here p. 49, 51.

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Treccani (1959): *Storia di Milano, Vol. 12, L'Età delle Riforme (1706–1796)*, Milan, p. 153.

Vietti, A. (1884): *Il Debito Pubblico nelle Provincie che hanno formato il Primo Regno d'Italia Secondo i Documenti del R. Archivio di Stato Lombardo*. Milano, pp. 87–88, 91–2, 99, 102, 104–6.

Pugliese, S. (1924): Condizione economiche e finanziarie delle Lombardia nella prima metà del secolo XVIII, in: *Miscellanea di Storia Italiana, Terza Serie*, Tomo XXI, pp. 1–495, pp. 360–3, 365, 367, 374.

Moncalieri: Six interest rates on heritable annuities yielding five yearly means (1611–1624).

Caligaris, G. (1984): *Vita e lavoro in una comunità rurale piemontese: Pancalieri nei secc. XVII–XVIII*. Bollettino della Società per gli studi storici, archeologici ed artistici della Provincia di Cuneo, 90–91, Cuneo, pp. 187–8.

Monferrato: Two interest rates on heritable annuities yielding two yearly means (1730–1731).

Duboin, C. (ed.) (1818–1868), *Raccolta per ordine di materie delle leggi, provvidenze, editti, manifesti ecc. pubblicati (negli Stati di Terraferma) dal principio dell'anno 1681 sino agli 8 Dicembre 1798, sotto il felicissimo dominio della Real Casa di Savoia, per servire di continuazione a quella del Senatore Borelli*, Torino, Tomo 7, Vol. 9, p. 303.

Munich: 106 interest rates on heritable annuities yielding 28 yearly means (1382–1807) and 252 interest rates on life annuities yielding 100 yearly means (1372–1553). In the combined data-set the yearly mean of rates on life annuities were divided by 2.74 in 1387–1391 (stationary average ration in 1382–1386, 1392–1393); and by 2 in 1461–1553 (ratio prevailing in those years).

Stadtarchiv München [Munich City Archives]: Bestand Kämmerei, Gemeindevermögen, Passiven (Schulden): Nr. 63/1–3, Ewiggeld- und Leibgedingbücher: Verzeichnisse der Gläubiger von Gnadengeldern, Ewiggelder und Leibgedingen: Vol. 1, 1382–1427; vol. 2, 1385–1397; vol. 4, 1428–1558 (Zimelie 28); Bestand Kämmerei, Gemeindevermögen, Passiven (Schulden): Nr. 65, Ewiggeldbriefasbschriften, 1528–1601; Repertorium der Abgelösten Ewiggeldbriefe: Vol. 26; Repertorium der Passiv-Reichnisse, Aktiv-Kapitalien, Passiv-Kapitalien, Leibgeding: Vol. 28.

Münster: 613 interest rates on heritable annuities yielding 74 yearly means (1447–1685) and 9 (10) interest rates on life annuities yielding 8 yearly means (1447–1646). In the combined dataset, yearl mean rates on life annuities were divided by 2 (prevalent ratio).

Eberhardt, I. (2002): *Die Grutamtsrechnungen der Stadt Münster von 1480 und 1533: Edition und Interpretation*. Quellen und Forschungen zur Geschichte der Stadt Münster, 19. Münster, p. 188.

Stadtarchiv Münster [Munster City Archives]: A VIII 188a Gruetherrenregister (1536 – 1643). Nos. 5, 9, 13, 14; A VIII 277 Kämmereirechnungen (1447–1809). No. 1 (1447–49), fol. 1v, 16v, 17v, 31v, 32r, 43r; A IX Ratsarchiv Urkunden Stadtschulden. Nos. 27a&b, 28–37, 39, 41, 43–50, 52–54, 56–84, 86–92, 94–101, 103–7, 109–65, 167–71, 173–75, 177–83, 185–211, 213, 216–25, 227–44, 246–51, 253–56, 259–64, 267–8, 270, 272–3, 275–6, 278–83, 285–6, 288–90, 292–3, 295–98, 301–4, 306, 308–26, 328–35, 337–40, 342, 345–6, 348–53, 355–8, 360, 362, 364–66, 368, 370–7, 381–3, 387–91, 393–4, 396–8, 401–2, 404, 407–9, 411–2, 416, 418–25, 428–34, 436–41, 444–70, 472–74, 476–502, 504–35, 537–67, 570–642, 644–51, 653–72, 675–81, 683–6, 688, 691–2, 694, 697, 699–714, 727,

728, 729, 730.

Namur: One interest rate on a heritable annuity yielding one yearly mean (1472) and 4 interest rates on life annuities yielding 2 yearly means (1465–1467).

Borgnet, J. / Bormans, S. (eds.) (1876): *Cartulaire de la Commune de Namur, recueilli et annoté par J. Borgnet et S. Bormans*, Vol. I, Namur, p. 149.

Brouwers, P. P. (ed.) (1920): *Cartulaire de la Commune de Namur, tome quatrieme*, Namur, pp. 253–56, 260.

Naples: 200 interest rates on heritable annuities (which include 44 primary market yields computed with price data) yielding 139 yearly means (1498–1796) and seven interest rates on life annuities yielding seven yearly means (1554–1611).

Banco di Napoli (ed.) (1972): *L'Archivio Storico del Banco di Napoli. Una Fonte Preziosa per la Storia Economica Sociale e Artistica del Mezzogiorno d'Italia*, Napoli, pp. 69, 74, 95.

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Bulgarelli Lukacs, A. (1993): *L'Imposta Diretta nel Regno di Napoli in Età Moderna*, Roma, pp. 49–50, 53.

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Sezione Antica o Prima Serie dell'Archivio Municipale di Napoli (1387–1806), Napoli, pp. 69, 73, 75–8, 83, 85–6, 88–9, 91.

Coniglio, G. (1955): *Il Vicereame di Napoli nel sec. XVII. Notizie sulla Vita Commerciale e Finanziaria secondo Nuove Ricerche negli Archivi Italiani e Spagnoli*, Roma, pp. 65, 151, 199.

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Placanica, A. (1982): *Moneta, Prestiti e Usure nel Mezzogiorno Moderno*, Napoli, p. 231.

Romano, R. (1976): *Napoli: dal Vicereame al Regno*, Torino, p. 38.

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Nice: One interest rate on a heritable annuity yielding one yearly mean (1623).

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continuazione a quella del Senatore Borelli, Torino, Tomo 7, Vol. 9, p. 292.

Nuremberg: 1787 interest rates on heritable annuities yielding 125 yearly means (1388–1551) and 11 interest rates on life annuities yielding nine yearly means (1388–1446). In the computation of the yearly means, from 1451 taxed (or maybe taxed) assets were excluded, except for 1457 (when no tax is assumed), 1482 (when it is assumed that the tax can be neglected, in line with 1451–1486 data), 1493, 1494, 1496, 1498, 1500 (when rate on taxed heritable annuities is assumed to be 1.21 times the rate on not taxed heritable annuities, as implied by average 1487–1533) and 1544 (when it is assumed that the tax can be neglected, in line with 1535–1548 data).

Espinas, G. (1902): *Les finances de la commune de Douai, des origines au XVe siècle*, Paris, pp. 321, 329.

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Staatsarchiv Nürnberg [Nuremberg State Archives]: Losungamt, Ewiggeldbücher: Nos. 69 & 70, passim.

Osnabrück: 384 interest rates on heritable annuities yielding 135 yearly mean (1437–1767) and 40 (42) interest rates on life annuities yielding 22 yearly means (1403–1499).

Niedersächsisches Landesarchiv Osnabrück [Provincial Archives of Lower Saxony, Osnabrück]: Dep. 3 a 1 XI Urkunden, Schulden der Stadt, nos. 3, 5–9a, 10a, 11–20, 22, 24, 36, 39, 43–5, 48–60, 62–3, 65–70a, 73–84, 86–7a, 88a–96b, 99, 100–107a, 108b, 109–12, 114, 116–8, 125, 138–42, 144–5, 147–51, 153–4, 156–66, 170, 172–7; Dep. 3 a 1 XI Urkunden, Schulden der Neustadt, nos. 3, 15–7; Dep. 3 b II Städtische Rechnungen: Lohnrechnungen, no. 1, fol. 30r, 61r–v, 70v, 139v, 164r–v, 176r, 188r, 202v, 232r, 265r, 290r–v, 306r–v, 326v, 348v, 369v–370v, 391v–392v; no. 2, fol. 6r–v, 25r–v, 48v–49r, 79r, 104r, 128v, 151v, 173r, 219v, 243r, 266v, 311v, 359r, 452v, 487r–v, 488v, 508r; no. 3, fol. 7v; no. 5, fol. 148r, 176r, 259r–v; no. 6, fol. 35r, 132v; no. 10, fol. 40v; no. 11, fol. 92v,

270r; Dep. 3 b IV Stadtsachen: No. 372, Renten- und Einkünfteverzeichnis der Neustadt (1579–1621), fol. 17r–20v, 29r–31v; Dep. 3 b IV Stadtsachen: No. 5745, Copiarium der Obligationen der Stadt Osnabrück (1623–1719), fol. 1r–6v, 7v–9v, 11v–14v, 16r–20v, 22r–v, 24r–25v, 27r–v, 33r–34r, 38r–40r, 41r–43r, 44r–45r, 50r–52v, 57r, 58r–59r, 61r–65v, 72r–85v, 92v–94v, 98v–102r, 104r–105r, 106r–110v, 112r–120r, 121r–127r, 128r–v, 130v–131r, 132r, 134r, 135r, 136r, 137r, 138r–139r, 144r–146r, 147r–150r, 151r, 152v–154r, 155r–160r, 161v, 162r–v, 164r–166r, 167r, 170v–173r.

Palermo: 80 (85) interest rates on heritable annuities yielding 51 yearly mean (1512–1799).

Aymard, M. (1972): Bilancio di una lunga crisi finanziaria, in: *Rivista Storica Italiana* 84, pp. 989–1021, here pp. 997–8, 1002, 1011.

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