

Revised: 28 December 2006

**Economics 301Y**

**The Economic History of Medieval and Early Modern Europe**

**Topic No. 9 [22].**

**The 'Proto-Industrialization' Debate:**

**Agriculture, Rural Handicraft Industries in Early Modern Europe,  
and the Transition to Modern Urban Industrialization**

**READINGS:**

Within each of the following sections, readings are listed in the chronological order of original publication, when that can be ascertained, except for some collections of reprinted essays and articles. The asterisks (\*) indicate the more important readings.

**A. The Proto-Industrialization Debate:**

**I. The Elaboration of the Mendels Thesis:**

with contributions also by Tilly, Medick, Kriedte, and Schlumbohm, in chronological order of original publication.

- \* 1. Charles Tilly and Richard Tilly, 'Agenda for Modern European Economic History in the 1970's', Journal of Economic History, 31 (1971), 184-98. According to Clarkson, this article was 'responsible for the first use of the word 'proto-industrialization' in print and anticipates ideas developed in' Mendels, below.
- \*\* 2. Franklin F. Mendels, 'Proto-Industrialization: The First Phase of the Industrialization Process', The Journal of Economic History, 32:1 (March 1972), 241-61.
- \* 3. Franklin Mendels, 'Agriculture and Peasant Industry in Eighteenth-Century Flanders', in W.N. Parker and E.L. Jones, eds., European Peasants and Their Markets: Essays in Agrarian Economic History (Princeton, 1975). Re-issued in Kriedte, Medick, and Schlumbohm, eds., Industrialization before Industrialization (1981), pp. 161-77.
- 4. Hans Medick, 'The Proto-Industrial Family Economy: The Structural Formation of Household and Family during the Transition from Peasant Society to Industrial Capitalism', Social History, 1 (1976), 291-315. Re-issued in Kriedte, Medick, and Schlumbohm, eds., Industrialization before Industrialization (1981), pp. 161-77.
- \* 5. Peter Kriedte, Hans Medick, and Jurgen Schlumbohm, Industrialisierung vor

Industrialisierung (1977). Translated by Beate Schempp and republished as: Industrialization before Industrialization: Rural Industry in the Genesis of Capitalism (Cambridge, 1981).

- (a) Peter Kriedte, 'The Origins, the Agrarian Context, and the Conditions in the World Market', pp. 12 - 37.
- (b) Hans Medick, 'The Proto-Industrial Family Economy', pp. 38-73.
- (c) Hans Medick, 'The Structures and Function of Population-Development under the Proto-Industrial System', pp. 74-93.
- (d) Jürgen Schlumbohm, 'The Relations of Production -- Production Forces -- Crises in Proto-Industrialization', pp. 94 - 125.
- (e) Jürgen Schlumbohm, 'Excursus: the Political Institutional Framework of Proto-Industrialization', pp. 126-34.
- (f) Peter Kriedte, 'Proto-industrialization between industrialization and de-industrialization', pp. 135 - 60.
- (g) Franklin Mendels, 'Agriculture and Peasant Industry in Eighteenth-Century Flanders', pp. 161 - 77.
- (h) Herbert Kisch, 'The Textile Industries in Silesia and the Rhineland: A Comparative Study in Industrialization (with a Postscriptum)', pp. 178 - 200. See C.1, below.

To date, the major and most controversial study, or collection of essays, on proto-industrialization.

- 6. L. K. Berkner and F. F. Mendels, 'Inheritance Systems, Family Structure, and Demographic Patterns in Western Europe, 1700 - 1900', in Charles Tilly, ed., Historical Studies of Changing Fertility (Princeton, 1978).
- 7. Franklin Mendels, 'Seasons and Regions in Agriculture and Industry during the Process of Industrialization', in Sidney Pollard, ed., Region und Industrialisierung (Gottingen, 1980), 177-89. On Flanders and France, principally.
- 8. Pierre Deyon and Franklin Mendels, 'Proto-industrialisation: théorie et réalité', Revue du Nord, 63 (1981), 11-19.
- 9. Franklin Mendels, 'Les temps de l'industrie et les temps de l'agriculture: logique d'une analyse regionale de la proto- industrialisation', Revue de Nord, 63 (1981), 21-23. This whole issue of Revue du Nord is devoted to the proto-industrialization theme.
- 10. Franklin Mendels, 'Des industries rurales à la protoindustrialisation: histoire d'un changement de perspective', Annales: économies, sociétés, civilisations, 39 (Sept.-Oct. 1984), 977-1008.

- \* 11. Sheilagh C. Ogilvie and Markus Cerman, eds., European Proto-Industrialization (Cambridge and New York: Cambridge University Press, 1996).
- a) Sheilagh Ogilvie and Markus Cerman, 'The Theories of Proto-Industrialization', pp. 1-11.
  - b) Jürgen Schlumbohm, 'Proto-Industrialization' as a Research Strategy and a Historical Period: A Balance Sheet', pp. 12-22.
  - c) Sheilagh Ogilvie, 'Social Institutions and Proto-Industrialization', pp. 23-37.
  - d) Pierre Deyon, 'Proto-Industrialization in France', pp. 38-48.
  - e) Pat Hudson, 'Proto-Industrialization in England', pp. 49-66.
  - f) L.A. Clarkson, 'Ireland, 1841: Pre-Industrial or Proto-Industrial; Industrializing or De-Industrializing', pp. 67-84.
  - g) J.K.J. Thomson, 'Proto-Industrialization in Spain', pp. 85-101.
  - h) Christiaan Vandenbroeke, 'Proto-Industry in Flanders: A Critical Review', pp. 102-16.
  - i) Sheilagh Ogilvie, 'Proto-Industrialization in Germany', pp. 118-36.
  - j) Ulrich Pfister, 'Proto-Industrialization in Switzerland', pp. 137-54.
  - k) Carlo Marco Belfanti, 'The Proto-Industrial Heritage: Forms of Rural Proto-Industry in Northern Italy in the Eighteenth and Nineteenth Centuries', pp. 155-70.
  - l) Markus Cerman, 'Proto-Industrial Development in Austria', pp. 171-87.
  - m) Milan Myska, 'Proto-Industrialization in Bohemia, Moravia, and Silesia', pp. 188-207.
  - n) Lars Magnusson, 'Proto-Industrialization in Sweden', pp. 208-26.
  - o) Sheilagh Ogilvie and Markus Cerman, 'Proto-Industrialization, Economic Development, and Social Change in Early Modern Europe', pp 227-39.
- \*\* 12. René Leboutte, ed., Proto-industrialisation: recherches récentes et nouvelles perspectives: mélanges en souvenir de Franklin Mendels/Proto-Industrialization: Recent Research and New Perspectives: In Memory of Franklin Mendels (Geneva: Librairie Droz, 1996).

**II. The Debate Between Supporters and Critics of the Mendels Thesis, including the Main Precursors of the Debate**: in chronological order of publication.

1. J.D. Chambers, 'The Rural Domestic Industries during the Period of Transition to the Factory System, with Special Reference to the Midland Counties of England', in Deuxième conférence internationale d'histoire économique/Second International Conference of Economic History, Aix-en-Provence 1962, École pratique des hautes études - Sorbonne, Sixième Section: Sciences économiques et sociales, Congrès et Colloques, tome VIII (Mouton and Co: Paris-The Hague, 1965), pp. 429-56.
2. Hisao Otsuka, 'The Market Structure of Rural Industry in the Early Stages of the Development of Modern Capitalism', in Deuxième conférence internationale d'histoire économique/Second International Conference of Economic History, Aix-en-Provence 1962, École pratique des hautes études - Sorbonne, Sixième Section: Sciences économiques et sociales, Congrès et Colloques, tome VIII (Mouton and Co: Paris-The Hague, 1965), pp. 457-72.
3. Arnošt Klíma, 'The Domestic Industry and the Putting-Out System (Verlags-system) in the Period of Transition from Feudalism to Capitalism', in Deuxième conférence internationale d'histoire économique/Second International Conference of Economic History, Aix-en-Provence 1962, École pratique des hautes études - Sorbonne, Sixième Section: Sciences économiques et sociales, Congrès et Colloques, tome VIII (Mouton and Co: Paris-The Hague, 1965), pp. 477-82.
4. Bert F. Hoselitz, 'Rural Industries in Developing Countries: Contrasts and Similarities with the West: A résumé', in Deuxième conférence internationale d'histoire économique/Second International Conference of Economic History, Aix-en-Provence 1962, École pratique des hautes études - Sorbonne, Sixième Section: Sciences économiques et sociales, Congrès et Colloques, tome VIII (Mouton and Co: Paris-The Hague, 1965), pp. 483-86.
5. Rudolf Braun, 'Proto-industrialization and Demographic Changes in the Canton of Zurich', in Charles Tilly, ed., Historical Studies of Changing Fertility (Princeton, 1978), pp. 289-334.
6. Eric L. Almquist, 'Pre-Famine Ireland and the Theory of European Proto-industrialization: Evidence from the 1841 Census', Journal of Economic History, 39 (Sept. 1979), 699-718.
7. Richard Rudolph, 'Family Structure and Proto-Industrialization in Russia', Journal of Economic History, 40 (1980), 111-18.
- \* 8. Pat Hudson, 'Proto-industrialization: the Case of the West Riding Wool Textile Industry in the Eighteenth and Early Nineteenth Centuries', History Workshop Journal, 12 (1981).
- \* 9. Eckart Schremmer, 'Proto-Industrialisation: A Step Towards Industrialisation?' Journal of European Economic History, 10 (1981), 653-70.

10. Lars Jorberg, 'Proto-Industrialization: An Economic Historical Figment', and 'Proto-industrialization in Scandinavia', both in Scandinavian Economic History Review, 30 (1982). This entire issue, in fact, pp. 1-99, is devoted to this debate, particularly as related to Scandinavian industries.
- \* 11. B. Collins, 'Proto-industrialization and Pre-Famine Emigration', Social History, 7 (1982). On the Ulster linen-industry in the early 19th century.
12. Esther N. Goody, ed., From Craft to Industry: the Ethnography of Proto-Industrial Cloth Production Cambridge Papers in Social Anthropology (Cambridge and New York, 1982).
- \*\* 13. Donald C. Coleman, 'Proto-Industrialization: A Concept Too Many', Economic History Review, 2nd ser., 36:3 (Aug. 1983), 435-48.
- \* 14. Gay Gullickson, 'Agriculture and Cottage Industry: Redefining the Causes of Proto-industrialization', Journal of Economic History, 43 (1983), 831-50.
15. Duncan Bythell, 'Cottage Industry and the Factory System', History Today, 33 (April 1983), 17-23.
- \* 16. Rab Houston and Keith D. M. Snell, 'Proto-industrialization? Cottage Industry, Social Change, and Industrial Revolution', Historical Journal, 27 (1984), 473-92. A review article concerning the foregoing volume by Kriedte, Medick, and Schlumbohm.
- \* 17. Maxine Berg, Pat Hudson, and Michael Sonenscher, eds., Manufacture in Town and Country Before the Factory (Cambridge, 1984). 'These essays dissent from the recently elaborated theory of proto-industrialisation and stress instead the alternative forms of manufacture which existed before industrialisation.' (CUP publicity).
18. William M. Reddy, The Rise of Market Culture: The Textile Trade and French Society, 1750-1900 (Cambridge, 1984).
19. Richard Rudolph, 'Agricultural Structure and Proto-Industrialization in Russia: Economic Development with Unfree Labor', The Journal of Economic History, 45 (March 1985), 47-70.
20. Maxine Berg, The Age of Manufactures: Industry, Innovation, and Work in Britain, 1700 - 1820 (London, 1985).
- \*\* 21. L. A. Clarkson, Proto-Industrialization: The First Phase of Industrialization? Studies in Economic and Social History series (London: MacMillan, 1985). Excellent summary in 60 pp.
22. Edgar Melton, 'Proto-Industrialization, Serf Agriculture, and Agrarian Social Structure: Two Estates in Nineteenth-Century Russia', Past and Present, no. 115 (May 1987), 69 - 106.

23. Ulrich Pfister, 'Proto-industrialization and Demographic Change: The Canton of Zürich Revisited', Journal of European Economic History, 18 (Winter 1989), 629-62.
24. Mariusz Kulczykowski, 'Proto-industrialisation et désindustrialisation - dilemmes de recherche: La Galicie du XVIIIe siècle à 1918', Revue du Nord, 72 no. 285 (avril-juin 1990), 193 - 206.
25. S. D. Petmezas, 'Patterns of Protoindustrialisation in the Ottoman Empire: the Case of Eastern Thessaly, c. 1750 - 1860', Journal of European Economic History, 19 (Winter 1990), 575 - 603.
26. Marianne Assenmacher, 'Family Division of Labour in the Process of Industrialisation: Historical Experiences and Present Situation in the Third World', Journal of European Economic History, 19 (Winter 1990), 687 - 96.
27. Katrina Honeyman and Jordan Goodman, 'Women's Work, Gender Conflict, and Labour Markets in Europe, 1500 - 1900', Economic History Review, 2nd ser., 44 (November 1991), 608-28.
28. Marci Sortor, 'Saint-Omer and Its Textile Trades in the Late Middle Ages: A Contribution to the Proto-industrialization Debate', *The American Historical Review*, 98:4 (October 1993), 1475-99.
- \* 29. Gwynne Lewis, 'Proto-industrialization in France', Economic History Review, 2nd ser., 47:1 (February 1994), 150-65. A review article.
30. F.M.N. Hendrickx, 'In Order Not to Fall into Poverty': Production and Reproduction in the Transition from Proto-Industry to Factory Industry in Borne and Wierden (the Netherlands), 1800 - 1900 (Amsterdam: IISG, 1997).
31. Cor Trompeter, Agriculture, Proto-Industry, and Mennonite Entrepreneurship: a History of the Textile Industries in Twente, 1600 - 1815 (Amsterdam: NEHA, 1997).
32. Roger Burt, 'Proto-industrialisation and 'Stages of Growth' in the Metal Mining Industries', The Journal of European Economic History, 27:1 (Spring 1998), 85-104.
33. Frank Geary, 'Deindustrialization in Ireland to 1851: Some Evidence from the Census', The Economic History Review, 2nd ser., 51:3 (August 1998), 512-41.
- \* 34. John Theibault, 'Town, Countryside, and Proto-Industrialization in Early Modern Europe', Journal of Interdisciplinary History, 29:2 (Autumn 1998), 263-72. A review article based upon Terence McIntosh, *Urban Decline in Early Modern Germany: Schwäbisch Hall and Its Regions* (Chapel Hill, 1997) and Sheilagh Ogilvie, *State Corporation and Proto-Industry: the Württemberg Black Forest, 1580 - 1797* (Cambridge, 1997).
35. John Munro, 'The Symbiosis of Towns and Textiles: Urban Institutions and the Changing Fortunes of Cloth Manufacturing in the Low Countries and England, 1270 -1570',

The Journal of Early Modern History: Contacts, Comparisons, Contrasts, 3:1 (February: 1999): 1-74. A contribution to the proto-industrialization debate: on urban vs. rural locations for textile production

36. José A. Nieto Sánchez and Victoria López Barahona, 'Women's Work and Proto-Industrialisation: Madrid and New Castile (1750-1850)', in Bruno Blondé, Eric Hanhaute, and Michèle Galand, eds., Labour and Labour Markets between Town and Countryside (Middle Ages - 19<sup>th</sup> Century), CORN Publication Series 6: Comparative Rural History of the North Sea Area (Turnhout: Brepols, 2001), pp. 254-65.
- \* 37. Jan Luiten van Zanden, 'A Third Road to Capitalism: Proto-Industrialization and the Moderate Nature of the Late Medieval Crisis in Flanders and Holland, 1350 - 1550', in Peter Hoppenbrouwers and Jan Luiten van Zanden, eds., Peasants into Farmers? The Transformation of Rural Economy and Society in the Low Countries (Middle Ages - 19<sup>th</sup> Century) in Light of the Brenner Debate, CORN Publication Series 4: Comparative Rural History of the North Sea Area (Turnhout: Brepols, 2001), pp. 85-101.
- \* 38. B.J.P. (Bas) Van Bavel, 'Early Proto-Industrialization in the Low Countries? The Importance and Nature of Market-Oriented Non-Agricultural Activities in the Countryside in Flanders and Holland, c. 1250 - 1570', Belgisch tijdschrift voor filologie en geschiedenis/ Revue belge de philologie et d'histoire, 81 (2003), 1109-65.
- \*\* 39. Patricia Hudson, 'Land Markets, Credit and Proto-Industrialisation in Britain and Europe', in Simonetta Cavaciocchi, ed., Il mercato della terra, secoli XIII - XVIII, Istituto internazionale di storia economica "F. Datini" Prato, Serie II: Atti delle 'Settimane di Studi' et altri convegno no. 35 (Florence: Le Monnier, 2004), pp. 721-42.
- \* 40. Sheilagh Ogilvie, 'Guilds, Efficiency, and Social Capital: Evidence from German Proto-Industry', The Economic History Review, 2<sup>nd</sup> ser., 57:2 (May 2004), 286-333.

#### Notes:

- (1) Important, but not readily available, is:

Franklin Mendels, 'Protoindustrialization: Theory and Reality -- General Report', in 'A' Themes of the Eighth International Economic History Congress at Budapest, 1982 (Akademiai Kiado: Budapest, 1982), pp. 69-107. This book (photo-reproduction of typed ms.) was issued to all delegates at this Congress, in which the proto-industrialization debate constituted A. Theme No. 2.

- (2) A major intellectual source for the proto-industrialization thesis, especially in Marxian form, can be found in:

Eric Hobsbawm, 'The Crisis of the Seventeenth Century', Past and Present, Nos. 5 and 6 (1954), reprinted in Trevor Aston, ed., Crisis in Europe, 1560-1660: Essays from Past and Present (London, 1965), pp. 5-58, with an important, updated 'Postscript' on pp. 54-58. See in particular pp. 37-39. This essay is the foundation for the related on the 'General Crisis of the Seventeenth Century.'

- (3) Fundamentally important for the proto-industrialization debate is nature of demographic and agrarian change from the 16th century (and family structures), handled in tutorial topics Nos. 3, 13, and 14. Some of the more relevant studies are listed in the following section B.

### **B. Agriculture, Demography, Family Structures, and Industrialization:**

Essays written independently of the proto-industrialization debate, but very relevant to it: in chronological order of publication.

- \* 1. Rudolf Braun, 'The Impact of Cottage Industry on an Agricultural Population', in David Landes, ed., The Rise of Capitalism (New York, 1966), pp. 53-64. A translation of excerpts of Industrialisierung und Volksleben: die Veränderungen der Lebensformen in einem ländlichen Industriegebiet vor 1800 (Zurich and Stuttgart, 1960). A classic study on 18th century Switzerland, close in theme to the following essay by Thirsk.
- \* 2. Joan Thirsk, 'Industries in the Countryside', in F.J. Fisher, ed., Essays in the Economic and Social History of Tudor and Stuart England (Cambridge, 1961), pp. 70-88. An even more important, classic study, with very considerable relevance to the subsequent proto-industrialization debate.
- \* 3. S. Hymer and S. Resnick, 'A Model of an Agrarian Economy with Non-agricultural Activities', American Economic Review, 59 (1961): should be read in conjunction with Jones (1968).
- 4. Rudolf Braun, 'The Rise of a Rural Class of Entrepreneurs', Journal of World History, 10 (1967), 551-66.
- \*\* 5. Eric Jones, 'The Agricultural Origins of Industry', Past and Present, No. 40 (1968), 58-71; reprinted in E. J. Jones, Agriculture and the Industrial Revolution (London, 1974). An excellent seminal article that was in many respects decisively influential in constructing the subsequent proto-industrialization thesis.
- 6. H. J. Habbakuk, Population Growth and Economic Development Since 1750 (Leicester, 1971; reissued 1981): especially chapter 1, 'Pre-industrial population change', and chapter 2, 'The Demographic Revolution.'
- 7. Peter Laslett and R. Wall, eds., Household and Family in Past Time (London, 1972).
- 8. W. Robert Lee, Population Growth, Economic Development, and Social Change in Bavaria, 1750-1850 (New York, 1977).



9. David Levine, Family Formation in an Age of Nascent Capitalism (New York, 1977).
10. David Grigg, Population Growth and Agrarian Change: An Historical Perspective (Cambridge, 1980).
11. M. Anderson, Approaches to the History of the Western Family, 1500 - 1914 (London, 1980).
12. Richard Smith, 'Three Centuries of Fertility, Economy, and Household Formation in England', Population and Development Review, 7 (1981), 595-622.
13. Robert Millward, 'The Emergence of Wage Labor in Early Modern England', Explorations in Economic History, 8 (1981).
14. R. Wall, J. Robin, and Peter Laslet, eds., Family Forms in Historic Europe (London, 1983).
15. Robert Millward, 'The Early Stages of European Industrialization: Economic Organization Under Serfdom', Explorations in Economic History, 21 (Oct. 1984), 406-28.
16. Raymond A. Jonas, 'Peasants, Population, and Industry in France', Journal of Interdisciplinary History, 22 (Autumn 1991), 177-200.
17. Cor Trompeter, Agriculture, Proto-Industry, and Mennonite Entrepreneurship: a History of the Textile Industries in Twente, 1600 - 1815 (Amsterdam: NEHA, 1997).
18. Margaret Yates, 'Change and Continuities in Rural Society from the Later Middle Ages to the Sixteenth Century: the Contribution of West Berkshire', The Economic History Review, 2<sup>nd</sup> ser., 52:4 (November 1999), 617-37.
19. Derek Brumhead, 'New Mills in Bowden Middlecale: Domestic Textiles in the Rural Economy Before the Industrial Revolution and the Change to Factory Cotton', Textile History, 33:2 (November 2002), 195-218.

## C. **Industry and Industrial Growth in Early-Modern Europe: General Studies:**

### I. **Europe in General: Chiefly Continental Europe**

1. Herbert Kisch, 'The Textile Industries in Silesia and the Rhineland: A Comparative Study in Industrialization', Journal of Economic History, 19 (1959), 541-64.
2. R. Ludloff, 'Industrial Development in Sixteenth and Seventeenth-Century Germany', Past and Present, No. 12 (1961), 58-75.
3. Hermann Kellenbenz, 'Industries rurales en Occident de la fin du moyen âge au XVIII<sup>e</sup> siècle', Annales: Économies, sociétés, civilisations, 18 (1963), 833 - 82. Republished in English translation as 'Rural Industries in the West from the End of

- the Middle Ages to the Eighteenth Century', in Peter Earle, ed., Essays in European Economic History, 1500-1800 (Oxford, 1974), pp. 45-88.
4. Herbert Kisch, 'Growth Deterrants of a Medieval Heritage: The Aachen Area Woolen Trades Before 1790', Journal of Economic History, 24 (1964). Republished in Peter Kriedte, Hans Medick, Jürgen Schlumbohm, Industrialization before Industrialization: Rural Industry in the Genesis of Capitalism (Cambridge University Press, 1981), pp. 178-200, with a postscriptum (pp. 194-200).
  5. Hermann Freudenberger and Fritz Redlich, 'The Industrial Development of Europe: Reality, Symbols, Images', Kyklos, 17 (1964), 372-402.
  6. François Crouzet, W.H. Chaloner, and W.M. Stern, eds., Essays in European Economic History, 1789-1914 (London, 1969).
    - (a) Jan Dhondt, 'The Cotton Industry at Ghent during the French Regime', pp. 15-52. [Original French version published in Revue d'histoire moderne et contemporaine, 2 (Oct-Dec. 1955)].
    - (b) Gerhard Adelman, 'Structural Change in the Rhenish Linen and Cotton Trades at the Outset of Industrialization', pp. 82-97. [Original German version published in Vierteljahrschrift für Sozial- und Wirtschaftsgeschichte, 53 (July 1956)].
  - \* 7. Domenico Sella, 'European Industries, 1500-1700', in Carlo Cipolla, ed., The Fontana Economic History of Europe, Vol. II: The Sixteenth and Seventeenth Centuries (London, 1974), pp. 354-426.
  8. Aloys Klima, 'The Role of Rural Domestic Industry in Bohemia in the Eighteenth Century', Economic History Review, 2nd ser. 17 (1974), 48-56.
  9. W. Robert Lee, Population Growth, Economic Development, and Social Change in Bavaria, 1750-1850 (New York, 1977).
  10. Milan Mijska, 'Pre-Industrial Iron-Making in the Czech Lands: The Labour Force in Production Relations, ca. 1350-ca. 1840', Past and Present, No. 82 (Feb. 1979), 44-72.
  - \* 11. Myron P. Guttman, Toward the Modern Economy: Early Industry in Europe, 1500 - 1800 (Philadelphia, 1988).
  12. Jordan Goodman and Katrina Honeyman, Gainful Pursuits: The Making of Industrial Europe, 1600 - 1914 (London, 1988).
  - \*\* 13. Herman Van der Wee, ed., The Rise and Decline of Urban Industries in Italy and in the Low Countries: Late Middle Ages - Early Modern Times (Leuven: Leuven University Press, 1988).

See especially chapter 15: Herman Van der Wee, 'Industrial Dynamics and the Process of

Urbanization and De-Urbanization in the Low Countries from the Late Middle Ages to the Eighteenth Century: A Synthesis', pp. 307 - 81.

14. Herbert Kisch, From Domestic Manufacture to Industrial Revolution: The Case of the Rhineland Textile Districts, London: Oxford University Press, 1989.
15. Hilton L. Root, 'Privilege and the Regulation of the Eighteenth-Century French Trades', Journal of European Economic History, 20 (Fall 1991), 301 - 48.
16. Sheilagh Ogilvie, 'The Beginnings of Industrialization', in Sheilagh Ogilvie, ed., Germany: A New Social and Economic History, Vol. 2: 1630 - 1900 (London and New York: Arnold, 1996), pp. 263-308.
17. Terence McIntosh, Urban Decline in Early Modern Germany: Schwäbisch Hall and Its Region, 1650 - 1750 (Chapel Hill: University of North Carolina Press, 1996).
- \* 18. Sheilagh C. Ogilvie, State Corporatism and Proto-Industry: The Württemberg Black Forest, 1580 - 1797, Cambridge Studies in Population, Economy and Society in Past Time no. 33 (Cambridge and New York: Cambridge University Press, 1997). On the worsted textile industry of SW Germany.
19. James R. Farr, 'On the Shop Floor: Guilds, Artisans, and the European Market Economy, 1350 - 1750', Journal of Early Modern History: Contacts, Comparisons, Contrasts, 1:1 (February 1997), 24-54.
- \* 20. John Theibault, 'Town, Countryside, and Proto-Industrialization in Early Modern Europe', Journal of Interdisciplinary History, 29:2 (Autumn 1998), 263-72. A review article based upon Terence McIntosh, *Urban Decline in Early Modern Germany: Schwäbisch Hall and Its Regions* (Chapel Hill, 1997) and Sheilagh Ogilvie, *State Corporation and Proto-Industry: the Württemberg Black Forest, 1580 - 1797* (Cambridge, 1997).
21. Tom Scott, Regional Identity and Economic Change: The Upper Rhine, 1450 - 1600 (Oxford and New York: Clarendon Press, 1997).
22. Stephan R. Epstein, 'Craft Guilds, Apprenticeship, and Technological Change in Preindustrial Europe', Journal of Economic History, 58:3 (September 1998), 684-713.
23. John Munro, 'The Symbiosis of Towns and Textiles: Urban Institutions and the Changing Fortunes of Cloth Manufacturing in the Low Countries and England, 1270 -1570', The Journal of Early Modern History: Contacts, Comparisons, Contrasts, 3:1 (February: 1999): 1-74.
24. James R. Farr, Artisans in Europe, 1300 - 1914, New Approaches to European History no. 19 (Cambridge and New York: Cambridge University Press, 2000).
25. Pierre Claude Reynard, 'Manufacturing Quality in the Pre-Industrial Age: Finding Value in

Diversity', The Economic History Review, 2<sup>nd</sup> ser., 53:3 (August 2000), 493-516.

26. 'Industrial Energy from Water-Mills in the European Economy, 5<sup>th</sup> to 18<sup>th</sup> Centuries: the Limitations of Power', in Simonetta Cavaciocchi, ed., *Economia ed energia, secoli XIII - XVIII*, Atti delle 'Settimane di Studi' e altre Convegni, Istituto Internazionale di Storia Economica, 'Francesco Datini da Prato', vol. 34 (Florence, Le Monnier: 2003), pp. 1-47.

## II. England

1. W.R. Scott, The Constitution and Finance of English, Scottish, and Irish Joint-Stock Companies to 1720, 3 vols. (Cambridge, 1910-12). An important study on business organization in the British Isles in the 16th, 17th, and early 18th centuries.
2. George Unwin, Industrial Organization in the Sixteenth and Seventeenth Centuries (London, 1914; reissued 1957).
3. A.P. Usher, The Industrial History of England (Boston, 1920).
4. Ephraim Lipson, The Economic History of England, Vols. II - III: The Age of Mercantilism (London, 1931; 6th edition, 1956; reprinted 1961). See in particular:
  - Vol. II, Chapter I, 'Industry', pp. 1 - 183 (on textiles, coal and iron);
  - Vol. III, Chapter V: 'Control of Industry', pp. 207-409.
5. J. D. Chambers, Nottinghamshire in the Eighteenth Century (London, 1932). A regional study of industrialization.
6. W.H.B. Court, The Rise of the Midland Industries, 1600-1800 (Oxford, 1938; reissued 1953, 1965).
7. John Nef, Industry and Government in France and England, 1540-1640 (1940): deals with industrial organization, government regulation, and taxation -- but not with the so-called 'Nef Thesis' listed below in Section C.
- \* 8. J.D. Chambers, The Vale of Trent, 1660-1800 (Cambridge, 1957). A classic study of economic development and industrial growth in one an English Midlands region.
9. Donald C. Coleman, 'Technology and Economic History, 1500-1750', Economic History Review, 2nd ser. 11 (1959): a review of Charles Singer, et al., eds., A History of Technology, Vol. III: 1500-1750 (Oxford, 1953).
- \* 10. Joan Thirsk, 'Industries in the Countryside', in F.J. Fisher, ed., Essays in the Economic and Social History of Tudor and Stuart England (Cambridge, 1961), pp. 70-88. A classic study.

- \* 11. Peter Ramsey, Tudor Economic Problems (London, 1965), Chapter III: 'Industry and the Towns', pp. 82-112.
12. Charles Wilson, England's Apprenticeship, 1603-1763 (London, 1965), Chapters 4 and 9, pp. 66-88 and 185-205.
- \* 13. L.A. Clarkson, The Pre-Industrial Economy in England, 1500-1750 (London, 1971), Chapter 4: 'Industry', pp. 75-116.
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  22. Sidney Pollard, 'A New Estimate of British Coal Production, 1750-1850', Economic History Review, 2nd ser. 33 (1980), 212-35.
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- \* 2. R.H. Tawney and Eileen Power, eds., Tudor Economic Documents, 3 vols. (London, 1924).  
 Vol. I, Section ii, 'Towns and Crafts', pp. 91-139; and Section iv, 'Textile Industries', pp. 169-228; Section v, 'Mining and Metallurgy', pp. 229-92; Section vii, 'Statue of Artificers', pp. 325 - 83;  
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6. Ronald Zupko, British Weights and Measures: A History from Antiquity to the Seventeenth Century (Madison, Wisc., 1977).

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**QUESTIONS for reading, discussion, and essays.**

1. What does the term 'proto-industrialization' mean -- particularly in relation to the post-1750 'Industrial Revolution', and to the processes of modern urban industrialization? Is the term an apt one, in referring to rural handicraft industries in the 17th and 18th centuries; or does it unfairly neglect the significance of prior industrial developments, both urban and rural?
2. What do the proto-industrialization thesis and debate focus upon? Who are the chief proponents and critics of this thesis -- and what are their principal arguments pro and con? Discuss and debate the views, in particular, of Franklin Mendels and Donald Coleman.
3. What is the significance of the proto-industrialization debate in the context of Marxian theses and debates about the 'transition from feudalism to capitalism.' In particular, why did the Marxist economic historian Eric Hobsbawm argue that rural 'putting-out' industries were 'a most effective dissolver of the traditional [feudal] agrarian structure'?
4. In terms of the proto-industrialization debate, discuss and debate the role of rural, market-oriented handicraft manufacturing industries in:
  - (a) the economic development of early-modern Europe, and
  - (b) the transition to modern urban industrialization.
5. Discuss the nature, organization, and markets for these rural handicraft industries. What was the nature and organization of the 'putting-out' system of production; and to how many of these industries did that system pertain? To what extent did textile manufacturing (woollens, worsteds, linens, fustians, etc.) dominate rural -- and urban -- industry in early-modern Europe? Why did the modern Industrial Revolution in fact begin with textiles?
6. To what extent were rural industries in early-modern Europe genuinely peasant handicraft industries; and to what extent were such industries really more a part of the traditional agricultural sector than of a separate industrial sector? In your answer distinguish between and among various industries found in the countryside.
7. What were the principal determinants of industrial location in early-modern Europe, in terms principally of urban vs. rural locations? Discuss in terms of raw material locations (including fuels), labour supplies, markets, transportation, etc. To what extent was the location and distribution of industrial centres in early-modern Europe more the result of 'regional economics' than of national or political considerations?
8. What role did population growth and inheritance patterns/family structures (partible vs. impartible inheritance) play in the development of rural industries in early-modern Europe? Discuss how the proto-industrialization debate has considered such demographic factors.
9. In what areas and regions of Europe did rural industries develop or evolve into modern forms of urban industrialization -- and in what areas did they fail to do so?
10. What industries, urban and rural, had become essentially capitalistic in structure before the 18th century, and why? See the 'Nef Thesis'.

**Table 1:**

**Price-Relatives of Charcoal, Timber, Industrial Products,  
Grains, and the Phelps-Brown & Hopkins 'Basket of  
Consumables', in Decennial Averages, 1530-9 to 1640-9**

**Mean value of 1530-9 = base 100**

<b>Decade</b>	<b>Charcoal (Cambridge)</b>	<b>Timber (National)</b>	<b>Industrial Products (Average)</b>	<b>Grains (Wheat, Rye, Oats, Barley)</b>	<b>Basket of Consumables Index</b>
1530-9	100	100	100	100	100
1540-9	122	115	115	116	124
1550-9	203	174	169	216	186
1560-9	217	178	198	196	180
1570-9	230	206	203	230	203
1580-9	270	247	209	282	230
1590-9	287	289	216	366	305
1600-9	320	335	233	348	306
1610-9	359	397	249	407	341
1620-9	345	450	240	399	333
1630-9	378	475	255	491	397
1640-9	535	524	278	488	398

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**Sources:**

- (a) charcoal: J.E. Thorold Rogers, History of Agriculture and Prices in England, Vol. IV (1401-1582), 383-7; Vol. V (1583-1702), 398-402.
- (b) timber, industrial products, grains: Peter Bowden, 'Agricultural Prices: Statistical Appendix', in Joan Thirsk, ed., Agrarian History of England and Wales, Vol. IV: 1500-1640 (1967), Table XIII, p. 862.

- (c) 'Basket of Consumables': E.H. Phelps Brown and Sheila Hopkins, 'Seven Centuries of the Prices of Consumables', in E.M. Carus-Wilson, ed., Essays in Economic History, Vol. II, pp. 194-95.

**Table 2:**

**Prices and Price-Relatives of Wood-Charcoal and Coal  
at Cambridge, and the Phelps-Brown & Hopkins 'Basket  
of Consumables' Price Index, 1580-9 to 1690-9**

**Index Base: Average of 1580-9 = 100**

<b>Decade</b>	<b>Charcoal: Shillings per Load</b>	<b>Index</b>	<b>Coal: Shillings per Chaldron of 36 bushels</b>	<b>Index</b>	<b>Basket of Consumables Price Index</b>
1580-9	19.52s.	100.0	13.22s.	100.0	100.0
1590-9	20.79	106.5	13.41	101.4	132.2
1600-9	23.18	118.8	15.19	114.9	133.0
1610-9	25.96	133.0	13.88	105.0	148.0
1620-9	24.97	127.9	15.82	119.7	144.5
1630-9	27.38	140.3	16.78	126.9	172.5
1640-9	38.70	198.3	23.71	179.3	172.9
1650-9	38.40	196.7	20.76	157.0	178.2
1660-9	38.64	198.0	19.65	148.6	181.1
1670-9	43.50	222.8	21.48	162.5	172.2
1680-9	n.a.	--	19.28	145.8	161.6
1690-9	n.a.	--	24.07	182.1	181.2

**Sources:** Calculated from James E. Thorold Rogers, History of Agriculture and Prices in England, Vol. IV, 385-7; Vol. V, 398-402; and E.H. Phelps-Brown and Sheila Hopkins, 'Seven Centuries of the Prices of Consumables, Compared with Builders' Wage-Rates', in E.M. Carus-Wilson, ed., Essays in Economic History, Vol. II (1962), 195.

**Table 3:**  
**The Early Modern English Iron Industry:**  
**Charcoal Prices, Pig Iron Output, and Bar Iron Imports**  
**Selected Decades, 1580 - 1740**

<b>DECADE</b>	<b>CHARCOAL PRICE at Westminster  £ per load</b>	<b>PIG IRON OUTPUTS  tons</b>	<b>BAR IRON IMPORTS  tons</b>	<b>PRICE INDEX  1451 - 75 = 100</b>
1580-9	£1.00	15,200	1,700	357
1630-9	£1.40	20,000	3,700	616
1680-9	£2.60	21,000	23,000	577
1730-9	£3.00	27,500	34,600	553

**Source:** Brinley Thomas, 'Was There an Energy Crisis in Great Britain in the 17th Century?' Explorations in Economic History, 23 (April 1986), 124 - 52.



**Table 4:****OCCUPIED BLAST FURNACE SITES, BY DECADES**

<b>Decade</b>	<b>Total Furnace Sites</b>	<b>Index 1600-09 = 100</b>	<b>Weald Furnace Sites</b>	<b>Index 1600-09 = 100</b>
1530-9	6	6.7	6	11.5
1540-9	22	24.7	22	42.3
1550-9	26	29.2	26	50.0
1560-9	44	49.4	36	69.2
1570-9	67	75.3	52	<b>100.0</b>
1580-9	76	85.4	54	103.8
1590-9	82	92.0	50	96.2
1600-9	89	<b>100.0</b>	52	100.0
1610-9	79	88.8	47	90.4
1620-9	82	92.1	46	88.5
1630-9	79	88.8	41	78.8
1640-9	82	92.1	43	82.7
1650-9	86	96.6	42	80.8
1660-9	81	91.0	37	71.2
1670-9	71	79.8	24	46.2
1680-9	68	76.4	22	42.3
1690-9	78	87.6	23	44.2
1700-9	76	85.4	23	44.2
1710-9	82	92.1	21	40.4
1720-9	60	67.4	13	25.0
1730-9	55	61.8	12	23.1
1740-9	49	55.1	12	23.1

\* Data on total furnace site do not necessarily mean that all of these furnaces were in operation, or full time operation, over the entire decade indicated.

**Source:** George Hammersely, 'The Charcoal Iron Industry and Its Fuel, 1540 - 1750', Economic History Review, 2nd ser., 26 (1973), 595. Index numbers added.

**Table 5:****English Pig Iron Production, 1530-1750****Occupied Blast Furnaces (Smelters) Average Output per Furnace, and Estimated Annual Average Output in Tons, per Decade, 1530-9 to 1740-9**

<b>Decade</b>	<b>No. of Blast Furnaces Occupied</b>	<b>Average Output per Furnace - Smelter in tons</b>	<b>Average Annual iron output in tons</b>
1530-9	6	200	1,200
1540-9	22	200	4,400
1550-9	26	200	5,200
1560-9	44	200	8,800
1570-9	67	200	13,400
1580-9	76	200	15,200
1590-9	82	200	16,400
1600-9	89	200	17,800
1610-9	79	215	17,000
1620-9	82	230	19,000
1630-9	79	250	20,000
1640-9	82	260	21,000
1650-9	86	270	23,000
1660-9	81	270	22,000
1670-9	71	270	19,000
1680-9	68	300	21,000
1690-9	78	300	23,000
1700-9	76	315	24,000
1710-9	74	340	25,000
1720-9	80	350	28,000
1730-9	75	365	27,500
1740-9	71	375	26,500

**Sources:**

George Hammersley, 'The Charcoal Iron Industry and its Fuel, 1540-1750', Economic History Review, 2nd ser. 26 (1973), 595.

Charles Hyde, Technological Change and the British Iron Industry, 1700-1870 (Princeton, 1977); Philip Riden, 'The Output of the British Iron Industry before 1870', Economic History Review, 2nd ser. 30 (1977), 443, 448.

Table 6

## Charcoal-Smelted Pig Iron: Production Costs ca. 1720-21

## To Produce 360 Tons of Pig Iron per year

<b>Production Input</b>	<b>Total Costs per year</b>	<b>Percentage of Total Cost</b>
(1) Charcoal	£1,459	71.0%
(2) Iron Ore	313	15.2%
(3) Furnace Labour	61	3.0%
(4) Clerical salaries	40	1.9%
(5) Rent	40	1.9%
(6) Repairs and Maintenance	63	3.1%
(7) Other Costs	78	3.8%
<b>TOTAL COSTS</b>	<b>£2,054</b>	<b>100.0%</b>

Cost per ton of pig iron

= £5.70

**Table 7:**

**English Iron Production and Imports: Average Annual Estimates per  
Decade of Imports and Production of Bar Iron, 1720-9 to 1740-9**

<b>Decade</b>	<b>Bar Iron IMPORTS in tons</b>	<b>Bar Iron Domestic PRODUCTION in tons</b>	<b>Imports as Percentage of Total Consumption</b>
1720-9	19,650	19,700	50%
1730-9	25,650	19,350	57%
1740-9	22,500	18,650	55%

**Note:** 1 ton of bar (wrought) iron requires about 1.35 tons of pig iron; and about 5% of pig iron production was reserved for castings. Therefore bar production in England has been estimated as:  
 $0.95/1.35 = 0.7037$  tons of pig iron per ton of bar iron.

**Duties Paid on a Ton of Swedish Bar Iron (Fully Refined Wrought Iron)**

a) Swedish exports duties: £3.45 per ton

b) English import duties: £2.05 per ton

TOTAL DUTIES £5.50 per ton

**Source:** Hyde, The British Iron Industry (1977).

N.B. Brinley Thomas (1986), in Table 3, provides even larger estimates of bar iron imports for the decade 1730-9: in absolute amounts, and as a proportion of total consumption.

**Table 8**  
**Geographical Distribution of Early**  
**Eighteenth-Century Ironworks**

<b>Region</b>	<b>Number</b>	<b>Tons of Output</b>	<b>Share of National Output (%)</b>	<b>Tons Output Per Furnace</b>
<b>A. Furnaces (1720)</b>				
1. The Weald	15	2,000	11.5	133
2. Forest of Dean	9	4,250	24.4	472
3. South Wales	6	1,500	8.6	250
4. N. Wales-Cheshire	5	2,250	12.9	450
5. Shropshire	7	2,550	14.6	364
6. Staff.-Worcester.	6	2,400	13.8	400
7. S. Yorkshire-Derby	11	2,400	13.8	218
8. Lancashire-Cumberland	-	-	-	-
9. Scotland	-	-	-	-
Total/Average	59	17,350		297
<b>B. Forges (1717)</b>				
1. The Weald	15	920	6.9	61
2. Forest of Dean	20	1,840	13.8	92
3. South Wales	13	1,750	13.1	134
4. N. Wales-Cheshire	8	880	6.6	110
5. Shropshire	14	2,010	15.0	143
6. Staff.- Worcester.	28	3,920	29.4	140
7. S. Yorkshire-Derby.	16	1,690	12.6	105
8. Lancs.- Cumberland	2	320	2.4	160

9. Scotland	-	-	-	-
<b>Average or Total</b>	<b>116</b>	<b>13,330</b>		<b>115</b>

**Source:** Hyde, The British Iron Industry (1977).