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and the Transition from  
Feudalism to Capitalism**

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# Rodney Hilton, Marxism, and the Transition from Feudalism to Capitalism\*

Stephan R. Epstein

## Abstract

An eminent medievalist and one of the most influential of the small band of Marxist historians working in the UK before 1968, Rodney Hilton's work on the development of the English feudal system into industrial capitalism was, despite its renown, ultimately mistaken. The problems with Hilton's account were largely inherited from Maurice Dobb, whose interpretation of Marxist theory led him to exaggerate the role of class struggle to the exclusion of other factors. These assumptions about the importance of class struggle in the transition from feudalism to capitalism were carried over from Dobb's early work to the work of Hilton and the Marxist historians who followed him. Dobb's account was predicated upon the inevitable failure of feudalism – an assumption that failed to explain the preceding five-hundred years of success and expansion. This paper looks at how Dobb's revised understanding of the role of markets in socialist economies subsequently filtered through to Hilton's reassessment of markets under feudalism, identifies the flaws in the analysis Dobb offered, and traces how these assumptions were carried through to the work of Hilton, before finally offering an alternate diagnosis of the “feudal crises” of the Marxist canon in terms of technical innovation.”

## Introduction

A founding member of the Historians' Group of the Communist Party, of the journal *Past and Present*, and of a distinctive and distinguished School of History at the University of Birmingham, Rodney Hilton was among the most notable medieval historians of the latter half of the twentieth century. He was also the most influential of a small number of Marxist medievalists in Britain and Continental Europe who practised their craft before the renaissance of Marxist and left-wing history after 1968. Surprisingly, therefore, his work's historiographical and theoretical significance has not attracted much

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\* In C. Dyer, P. Coss, C. Wickham eds. *Rodney Hilton's Middle Ages 400-1600*, Cambridge UP 2007. This chapter has benefited from Chris Dyer's and Chris Wickham's comments. All remaining errors of commission and omission are my responsibility alone.

attention.<sup>1</sup>

Although Hilton was, first and foremost, a “historian’s historian,” and made his most lasting contributions to the fields of English social, agrarian, and urban history, his engagement with Marxist historical debates cannot be lightly dismissed.<sup>2</sup> Hilton’s Marxism, a central feature of his self-understanding as a historian, reflects both strengths and weaknesses of British Marxist historiography in its heyday, and his interpretation of a *locus classicus* of Marxist debate, the transition from feudal to capitalist modes of production, still carries considerable weight among like-minded historians.

This brief essay proposes to identify the salient features of Hilton’s contribution to the “transition debate”; examine his move in the early 1970s to address certain problems he identified with that debate, and his renewed concern with the question of the “prime mover”; suggest reasons why this theoretical move was only partly successful; and, by way of conclusion, set out briefly some lines of future empirical and theoretical engagement.

### **Dobb’s Model Of Feudalism**

A crucial influence on Hilton and most other British Communist historians formed during the 1940s and 1950s came from Maurice Dobb’s *Studies in the Development of Capitalism*, first published in 1946, which proposed a model of the feudal mode of production that became the theoretical benchmark for all subsequent debates over the transition from feudalism to capitalism. Dobb followed Marx’s *Capital* in explaining England’s “truly revolutionary path” to capitalism through class struggle—the “prime mover”—and class differentiation in terms of property rights to land, and

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<sup>1</sup> H.J. Kaye, *The British Marxist Historians. An Introductory Analysis* (Basingstoke, 1995), ch.3, entitled “Rodney Hilton on Feudalism and the English Peasantry,” is the shortest biographical chapter in the book (the others discuss Maurice Dobb, Christopher Hill, Eric Hobsbawm and E.P. Thompson). See also T. J. Byres, “Rodney Hilton (1916–2002): In Memoriam,” *Journal of Agrarian Change* 6 (2006), 1-16.

<sup>2</sup> See E. Hobsbawm, “The Historians’ Group of the Communist Party,” in M. Cornforth (ed.) *Rebels and their causes. Essays in honour of A.L. Morton* (London, 1978), pp. 21-47, at p. 21: “For reasons that are even now difficult to understand, the bulk of British Marxist theoretical effort was directed into historical work.” Kaye, *British Marxist Historians*, explores the charge of atheoreticism further.

defined the historical and theoretical problems with which Hilton grappled throughout his life as a historian.<sup>3</sup>

Marx's theory of history rests on three pillars: a theory of class determination and class struggle; a theory of technological development; and a theory of the state, which—since the state requires a surplus to operate effectively—must include a political economy of markets.<sup>4</sup> However, for complex political and historiographical reasons that cannot be explored here, Dobb based his model on class struggle alone. This gave rise to two serious weaknesses in his and his followers' approach to the transition from feudalism to capitalism.

First, Dobb's model aimed in essence to explain the transition *to* capitalism, that is, to explain why the feudal mode of production was destined *to fail* in a "general crisis" vaguely dated between the fourteenth and the seventeenth century.<sup>5</sup> Dobb argued that this failure was caused by systemic disincentives to capital accumulation and innovation, including peasant over-exploitation; but he did not have a convincing explanation for why the feudal mode of production had been capable of *expanding*, territorially, economically and technologically, for more than half a millennium before the crisis. The absence of a positive theory of development—which is a central feature of the Marxist theory of history and which must, ultimately, be mediated by some kind of scarcity-based transactions—probably also expressed the "anti-market bias" that coloured Dobb's views of socialist planned economies when he wrote the *Studies* in the 1930s and 1940s. At that time, as he later recalled, he underestimated "the role of prices and economic incentives" in socialist

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<sup>3</sup> M.H. Dobb, *Studies in the Development of Capitalism* (London, 1946). For Dobb's influence on the entire Historians' Group of the Communist Party, see Hobsbawm, "The Historians' Group," p. 23. R. Brenner, "Dobb on the transition from feudalism to capitalism," *Cambridge Journal of Economics* 2 (1978), 121-40 summarizes Dobb's views in *Studies*.

<sup>4</sup> Chris Wickham has suggested that Marxism's fourth pillar is a "theory of the nature of property." But although property rights have a central explanatory function in Marx's theory of history, I'm not convinced that Marxism has yet produced a successful *theory* of how property rights emerge and get transformed. I agree however that such a "fourth pillar" needs to be established in order to complete the Marxian intellectual project.

<sup>5</sup> Dobb's ambiguity regarding the chronology of the "crisis" triggered Paul Sweezy's initial criticisms, and the subsequent debate; see below, n. 6.

economies, and his view of the feudal economy was clearly analogous.<sup>6</sup> That bias, and the subordination of positive incentives and markets in Dobb's scheme were reinforced by his subsequent debate with the American Marxist economist Paul Sweezy, a debate that canonised the misleading theoretical alternative among Marxists between long-distance trade as an exogenous, independent cause of change, or "prime mover," and petty commodity production as an endogenous source of historical evolution.<sup>7</sup>

The second weakness of Dobb's model was its overwhelming focus on English history. There were good reasons for this, including the paradigmatic nature of England in Marx's narrative of the transition to capitalism and the state of historical research at the time Dobb wrote. But the restriction of the transition debate to English history helped to mask the difficulties that a strictly class-based analysis faced regarding the Marxian problematic of *uneven development*. Two critical questions were never posed. First, why did the transition to capitalism occur first in Western Europe, even though parts of Asia were previously economically more advanced? And, second, why was the English economy between 1400 and 1700 able first to catch up with, and then to forge ahead of, previously more advanced Continental European regions? Paradoxically, therefore, Dobb's *Studies* offered a convincing demonstration that a strictly class-based analysis could *not* supply a satisfactory explanation for why the European feudal mode of production was superior to its rivals, and why, despite this, it did not develop at the same rate and in the same direction. To answer comparative historical questions of this kind, it would be necessary

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<sup>6</sup> M. Dobb, "Random biographical notes," *Cambridge Journal of Economics* 2 (1978), 115-20, at 120. Curiously, Karl Polanyi identified Dobb's "extension of the scope of market laws into nonmarket economies" in *Studies* as "drifting away from [Marxism's] fundamental insight into the historically limited nature of market organisation" and giving "aid and comfort ... to the enemy" (e.g. the Austrian economists Ludwig von Mises and Friedrich von Hayek). See K. Polanyi, "Review of M.H. Dobb, *Studies in the Development of Capitalism*, New York 1947," *Journal of Economic History* 8 (1948), 206-7. Polanyi's misidentification of the presence of price mechanisms based on scarcity with the prevalence of capitalist market institutions has plagued much neo-Marxist historiography to this day; see below, n. 41.

<sup>7</sup> The original debate, which appeared in the pages of *Science and Society*, was reprinted as P.M. Sweezy et al., *The transition from feudalism to capitalism. A symposium* (London, 1954). A much expanded collection of essays was published as R.H. Hilton (ed.) *The transition from feudalism to capitalism* (London, 1976), with an "Introduction" by Hilton.

to introduce the two pillars of Marxian analysis that were missing from Dobb's (and later Hilton's) account: a theory of technological development and a political economy of states and markets.

### **Class Struggle And Other “Prime Movers”**

Class struggle and self-determination through struggle were central to Hilton's Marxism, as reflected in at least two books and in the title to his collected essays.<sup>8</sup> His documentation of rural struggle and resistance against landlord exploitation was crucial in establishing feudalism not as a stable and static social order, but as a social system riven with contradiction, conflict and movement, and is still outstandingly important. There were two purposes in Hilton's wish to document class conflict so thoroughly. On the one hand, Hilton expressed the long-standing concern among British left-wing and non-conformist historians with the self-knowledge and self-determination of the workers, the poor and the dispossessed—with history from the bottom up.<sup>9</sup> This tradition of labour history and communist populism was strongly upheld by Dona Torr, an abiding influence on the Communist Historians' Group, who helped direct the members' intellectual concerns towards “the long history of popular democracy in England, and particularly the importance of the period in which small commodity producers were losing control of the means of production.”<sup>10</sup> On the other hand, Hilton followed Dobb's contention that the transition from feudalism to capitalism in Britain was the outcome of the persistent struggle over rents (economic surplus) between landlords and peasants. Struggle over rent caused the self-sufficient peasantry to be ejected from the land during the later middle ages, and gave rise to growing social differentiation by benefiting a section of wealthy peasants (the future rural

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<sup>8</sup> See R.H. Hilton and H. Fagan, *The English rising of 1381* (London, 1950); Hilton, *Bond Men Made Free. Medieval Peasant Movements and the English Rising of 1381* (London, 1973); Hilton, *Class Conflict and the Crisis of Feudalism. Essays in Medieval Social History*, rev. 2<sup>nd</sup> ed. (London, 1990).

<sup>9</sup> See Kaye, *British Marxist Historians*, p. 5 and passim.

<sup>10</sup> See R. Johnson, “Culture and the historians,” in J. Clarke, C. Critcher and R. Johnson (eds), *Working-class culture. Studies in History and Theory* (London, 1979), pp. 41-73, esp. pp. 54-6.

yeomanry), which increasingly produced for the market and specialised in saleable commodities. The change generated large numbers of dependent wage earners who had to meet most of their living requirements through the market. Ultimately, class struggle gave rise to agrarian capitalism and competitive, capitalist markets of sellers and buyers: class struggle “explained” the transition to industrial capitalism.<sup>11</sup>

As with Dobb, Hilton’s interest in the development of the material forces of production—that is, in technological progress—was by contrast negligible. The association of technological determinism with the, then prevailing, rigid versions of Stalinist “scientific history” would have given technological explanations a bad press from early on in his life as a committed historian.<sup>12</sup> “Bourgeois” believers were if anything even less sophisticated. As the opening sentence of a famous book review suggested, “technical determinism in historical studies has often been combined with adventurous speculations particularly attractive to those who like to have complex developments explained with simple causes.”<sup>13</sup>

Some twenty years later, introducing the sequel set off by Robert Brenner in 1976 to the original “transition debate,” and having noted in answer to the question, “What caused movement in history?” that “Marx himself, as well as many working in his intellectual domain, emphasize[d] that developments in the *forces* of production—new technology, new means by which labour is organized, the economic success of new social classes—come into conflict with the existing *relations* of production,” Hilton again dismissed this as merely a possibility, “somewhat crudely, to give primacy to

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<sup>11</sup> See e.g. R.H. Hilton, “A comment,” in Hilton (ed.) *The transition*; orig. publ. in *Science and Society*, Fall 1953. Also R.H. Hilton, “Feudalism in Europe,” *New Left Review* 147 (1984), 84-93.

<sup>12</sup> *Past and Present* first appeared in 1953 with the byline “A journal of scientific history.” This was changed a year later to the less politically charged “A journal of historical studies,” a description it still carries.

<sup>13</sup> “Technical determinism: the stirrup and the plough,” *Past and Present* 24 (1963), 90-100, at 90, reviewing L.White, Jr., *Medieval Technology and Social Change* (Oxford, 1962). The opening paragraph was initialled R.H.H. and P.H.S. (P.H. Sawyer), but Hilton alone signed the rest of the text. The repeated charge of “adventurism” has strong Marxist-Leninist connotations.



technological development.”<sup>14</sup>

That criticism of the most materialistic variant of Marxism was consistent with Dobb's and Hilton's restrictive understanding of the opportunities for technological development under feudalism. Hilton agreed with the Cambridge medievalist Michael Postan that medieval technology “was at a low level and almost static.”<sup>15</sup> However, he did not consider technological stagnation to be an exogenous feature of the society and economy as did Postan, but followed Marx in making technical change endogenous to the relations of production. In an essay written in 1962, published in 1965 and reprinted in 1973, on capital formation under feudalism, Hilton concluded from a set of complex calculations that lords' investment net of capital replacement was 5%. Hilton considered this to be insufficient to support thirteenth-century productivity, and inferred from this that, rather than invest, the lords' social and political standing impelled them to spend most income on personal display, the maintenance of a numerous retinue, and war. Conversely, the burden of feudal rent (including feudal exactions, ecclesiastical tithes, arbitrary royal purveyancing, and growing state taxation) and land fragmentation deprived peasants of necessary investment in capital stock.<sup>16</sup>

Whereas that early essay had emphasized supply-side constraints on technological progress, Hilton increasingly identified behavioural, demand-side features as the most serious bottleneck. The following quotation, from an essay on agriculture in medieval Leicestershire, is typical of work before the

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<sup>14</sup> R.H.Hilton, “Introduction,” in T.H. Aston and C.H.E. Philpin (eds) *The Brenner Debate. Agrarian Class Structure and Economic Development in Pre-industrial Europe* (Cambridge, 1985), pp. 1-9, at p. 7. As an example of Marxist techno-determinist primitivism, Hilton refers to G.A. Cohen, *Karl Marx's Theory of History. A Defence* (Oxford, 1978), which argues forcefully that Marxism's only claim to being an internally consistent and distinctive theory of history that is superior to its rivals is under the guise of a weak form of technological determinism. Cohen would have been surprised at Hilton's inclusion of class formation among the forces rather than the relations of production.

<sup>15</sup> R.H. Hilton, “Unjust taxation and popular resistance,” *New Left Review* 180 (1990), 177-84.

<sup>16</sup> R.H. Hilton, “Rent and capital formation in feudal society,” in R.H. Hilton, *The English Peasantry in the Later Middle Ages. The Ford Lectures for 1973 and related studies* (Oxford, 1975), pp. 174-214, at pp. 177-96. See also B.M.S. Campbell, *English Seigneurial agriculture, 1250-1450* (Cambridge, 2000), p. 17. Actually, a net rate of capital accumulation of at least 5% per annum (equivalent to 100% in just over 14 years) in the thirteenth and

1970s that minimized the impact of medieval markets:

Medieval agriculture (...) was much more primitive and more uniform in character than it is today. The principal reason for variety in modern times is the development of production for the market; and the search in a capitalist society for the most profitable type of agricultural production has enhanced the importance of physical variations. In medieval agriculture, however, *the market did not determine the character of production. The sustenance of the farmer and his family was the main objective.* Even the urban demand was unspecialized, and hence there was comparatively little specialization in production. Everyone had to produce (on the whole) the same type of grain crop and tend the same sort of domesticated animals for meat, wool, and pulling power. Variations in the quality of land are therefore rarely referred to in medieval documents.<sup>17</sup>

Having early on excluded technology and markets as dynamic historical forces, and possibly in reaction to Postan's Ricardo-Malthusian model, Hilton came subsequently to identify the effects on class struggle of the ratio between land and population as the principal source of economic change.<sup>18</sup> By contrast with his analysis of technology, however, this shift in emphasis was not accompanied by a theory of endogenous demographic growth.<sup>19</sup>

### **Dobb Again: From Class Struggle To “Petty Commodity Production”**

Hilton's analysis of feudalism and of the feudal mode of production displays two phases separated by a theoretical watershed during the first half

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early fourteenth centuries, increasing to 10-15% (100% over 5-7 years) in the fifteenth century, does not seem low for a preindustrial economy.

<sup>17</sup> R.H. Hilton, “Medieval agrarian history,” in W.G. Hoskins (ed.) *The Victoria History of the County of Leicester* (Oxford, 1954), vol. 2, pp. 145-98, at p. 145. The statement is slightly qualified at pp. 174-5: “While we have hitherto stressed the predominantly subsistence character of medieval Leicestershire agriculture, it nevertheless contained important sectors which were producing for the market—sectors no doubt of *qualitative* rather than of *quantitative* significance” (my emphasis).

<sup>18</sup> In “Feudalism in Europe,” Hilton included population among the determinant forces of production under feudalism, inasmuch as demographic collapse in the fourteenth century allowed the emergence of a yeoman class that gave rise in turn to the English agricultural revolution. He claimed on these grounds that causal primacy in social development could switch over time between class struggle and the forces of production.

<sup>19</sup> Such a theory was attempted for late medieval Normandy by G. Bois, *Crise du féodalisme* (Paris, 1976); Eng. trans., *The Crisis of Feudalism* (Cambridge, 1984); also Bois, “Against the neo-Malthusian orthodoxy,” in Aston and Philpin, *Brenner debate*, pp. 107-18.

of the 1970s. His earlier approach had been strongly structural, centring on issues of class. Accordingly he did not engage directly with the issue of the “late medieval crisis,” although his regional “total history” of 1967 ended just before the crisis and promised to tackle the matter at a future date.<sup>20</sup> Hilton took up the challenge in the Ford Lectures of 1973, which also signalled an important albeit surreptitious change in emphasis. The lectures defined their central issue as follows: “A question of particular importance, which some historians may think has been solved—though I do not—was whether the peasants’ economy was significantly market-oriented. This is a problem of central importance for the investigation of all peasantries, medieval or not,” since it affects the development of small-scale production for markets, of a competitive labour market, of internal stratification, and of capital accumulation.<sup>21</sup>

Hilton’s statement had two subtexts, both addressed critically to Postan. These were, firstly, Postan’s adoption of A.V. Chayanov’s model of the “homeostatic” peasant economy whose wealth was determined by its cyclical demographic needs, in counterpoise to V. I. Lenin’s model of social differentiation among the peasantry;<sup>22</sup> secondly, Postan’s claim—based on the assumption, which Hilton had also previously accepted, that medieval peasants preferred economic self-reliance to trade—that the late medieval economy had contracted because peasants, faced with a collapse in population and thus of demand for land, had retreated into “non-market” subsistence. Hilton’s conclusion that “all the evidence [from the late medieval west Midlands] suggests that the village economy based on the peasant

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<sup>20</sup> This stance is apparent both in his major regional study, *A Medieval Society. The West Midlands at the End of the Thirteenth Century* (London, 1967), which focused on the late thirteenth century but made use of far earlier material in contexts where Hilton believed there had been no significant intervening change; and in *Bond Men Made Free*, Part I: “General problems of medieval European peasant societies.”

<sup>21</sup> *The English Peasantry*. The statement appears first only at p. 37.

<sup>22</sup> A.V. Chayanov, *The Theory of Peasant Economy [1924-5]*, ed. D. Thorner, B. Kerblay, and R.E.F. Smith. Foreword by T. Shanin (Manchester, 1966); V.I. Lenin, *The development of capitalism in Russia* [1899] (Moscow, 1956). See now T.J. Byres, “Differentiation of the peasantry under feudalism and the transition to capitalism: in defence of Rodney Hilton,” *Journal of Agrarian Change* 6 (2006), 17-68.

households was considerably monetised” summed up both criticisms.<sup>23</sup>

Even so, the Ford Lectures’ characterization of the late middle ages was still strikingly static. Much occurred, yet the differences between the late thirteenth and the late fifteenth centuries were unclear, and they did not add up to the epochal watershed so central to his and Dobb’s chronology. Hilton’s indecision may have stemmed from an inability at the time to envisage how small-scale peasant production and exchange could generate structural change, and why this change should be greater during the late middle ages than before. The answer to that puzzle probably arose out of the task of editing and introducing a collection of essays centred on the Dobb-Sweezy “transition debate.” The volume, published in 1976, included a short paper by Maurice Dobb, first published in 1962, which identified market incentives as *the* feudal prime mover.<sup>24</sup> Under feudalism, Dobb suggested, class struggle over the surplus output—which included the benefits of trade—had the unintended consequence of offering producers “both the means and the motive for improving cultivation” and for engaging in petty commodity exchange, which caused class differentiation and capital accumulation within the “economy of small producers” itself. By linking peasant-artisan class struggle and economic growth via trade, Dobb offered the key to a new Marxist explanation of the late medieval crisis, and allowed Hilton to present his Ford Lectures retrospectively as “an attempt to discuss what made this phase of relatively unfettered small commodity production” historically so different. “During the course of the relatively unfettered commodity production in the 15<sup>th</sup> century,” Hilton now suggested,

the necessary pre-conditions were created for later capitalist development. (...) The history of the English agrarian economy in the fourteenth and fifteenth centuries illustrates very well the consequences of successful peasant resistance to the lords’ pressure for the transfer of surplus. In fact, this must be regarded as

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<sup>23</sup> Hilton, *The English Peasantry*, pp. 43-9.

<sup>24</sup> M. Dobb, “From feudalism to capitalism,” *Marxism Today* 6 (1962), 285-7, replying to Eric Hobsbawm, “From feudalism to capitalism,” *Marxism Today* 6 (1962), 253-6, who had raised the problem of “uneven development” discussed further below. Dobb’s essay followed his shift in 1956 to a more market-based model of socialism (above, n. 6).

a critical turning point in the history of the “prime mover.” The long period of the successful and multiform exploitation of peasant labour ended, at any rate in most Western European countries, between the middle and the end of the fourteenth century. Only with the successful re-imposition of forms of legally enforceable serfdom could the landowners have continued their previous success. *In the West this was politically and legally impossible. In Eastern Europe the story was different. In the West more and more of the disposable surplus was retained within the peasant economy.* When the harsh yoke of landlordism was next felt by the rural population, it was something quite different in essence, if not always in form—the beginning of the emergence and long and uneven development of a new triad, landowner—capitalist farmer—farm labourer.<sup>25</sup>

### **The Significance Of Political Institutions**

A more definite inclusion of trade among the determining factors of late medieval social and economic change was followed by a similar move with respect to legal and political institutions. For many years Hilton had been just as dismissive of feudal political structure and of the feudal state as of technological progress. His regional studies tended to take political structures and institutions for granted and focussed on mechanisms of rural exploitation. This was just as evident in his first study of Leicestershire estates as in his “total history” of the west Midlands a quarter of a century later, which argued that history from the bottom up could mostly dispense with national politics and central government.<sup>26</sup>

Although Hilton had shown an early interest in the dialectics of jurisdictional and political privileges or “liberties,” he made little effort to integrate those reflections into his mainstream research before the 1980s. The first proof of this seems to be a pamphlet on *Communism and Liberty* published in 1950 for working-class readers, which defined feudal “liberties” as

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<sup>25</sup> Hilton, “Introduction” to *The transition debate*, pp. 25-6 and n. 18, 27 (my emphasis). Chris Dyer has noted *per litteram* that this interpretation of Hilton’s change of stance “presumes that he had not read Dobb’s article earlier” or that working on *The Transition Debate* “made him more aware of its significance.” Dyer recalls that Hilton “was emphasizing the market a lot by c.1973,” by which time he would probably have been engaged in editing the volume of essays; it should be possible to verify this in the *New Left Review* archives.

“a very concrete expression of class privileges” that nonetheless

in the period of feudal expansion ... were a means by which ... the inherent tendencies towards anarchy were controlled. But as the productive forces from which capitalism was to develop expanded, these local, cellular forms of the political, social and economic organization of the feudal nobility became a restrictive force. Local feudal liberties had to be smashed.<sup>27</sup>

Several years later, perhaps influenced by the more eclectic work of Perry Anderson, whose *Lineages of the Absolutist State* (1976) had introduced Weberian definitions of feudalism based on “jurisdictional fragmentation” into the Marxist canon, Hilton came round to a more positive view of this characteristic feature of feudal society. Surveying the essential features of European feudalism in Anderson’s journal, *New Left Review*, in 1984, he stated that “fragmented (that is, localised) jurisdiction [should be] located in the *relations of production*, in the economic base of society, [rather] than in the superstructure,” and went on to include three factors linked with decentralized power among European feudalism’s five principal characteristics:<sup>28</sup>

1. “The strength of the peasant communities required a local mobilization of landlord power, whether the state was strong or weak. *Decentralised power in feudalism was an essential aspect, not a weakness, of feudal society*”;
2. “Landlord power for the purpose of surplus extraction was expressed through private jurisdiction”;
3. “Feudal rent” includes payments for seigniorial monopolies (including, presumably, taxation of trade);
4. Peasant commodity production was central to feudalism and “provided the bulk of landlord income”;

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<sup>26</sup> *A Medieval Society*, p. 4. An early rejection of Oxford-style “old-fashioned politico-constitutional or narrative history” characterized the entire Historians’ Group; see Hobsbawm, “Historians’ Group,” p. 38.

<sup>27</sup> R.H. Hilton, *Communism and Liberty* (London, 1950), pp. 9-10.

5. Merchant capital and large-scale urbanization denoted “a further development of this money element in the relations of production.”

This shift in emphasis—which defines Hilton’s most original contribution to a Marxist theory of feudalism—may have also been connected with a growing interest in medieval trade and towns, foreshadowed in the Ford Lectures of 1973. In a seminal paper on small town society, also published in 1984, he emphasized the economic significance of “certain institutional features ... [such as] freedom of tenure and status, privileged access to the market, some administrative and even jurisdictional autonomy.”<sup>29</sup> His subsequent comparison between English and French towns took the argument a step further, identifying *jurisdictional privilege* as a key element of both the medieval urban economy and its class structure:

Early medieval [English] urban communities, or rather the merchants which spoke for them, asked for the privileges which would give them freedom for mercantile activity. These privileges were very much the same in the French communes. In the *villes de franchise* and the *villes de consulat* as well as in the English free boroughs the urban bourgeoisie had *specific class interests in the achievement of privileges*, which not only enabled it to control its mercantile activities, but also to subordinate the artisans, to organize municipal finance, and to use *the crucial instrument of power in feudal society, jurisdiction*, over the town’s inhabitants.<sup>30</sup>

Remarkably, this, Hilton’s last major monograph, was framed in predominantly legal and institutional terms. Despite local variations, he suggested, English and French urban privileges displayed “considerable similarities” defined as follows: 1. burgesses had personal legal security against arbitrary feudal jurisdiction; 2. urban courts applied simplified legal processes; 3. tenure of urban real property was free; 4. burgesses were exempt from seigniorial

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<sup>28</sup> Hilton, “Feudalism in Europe” (my emphasis). Chris Dyer has suggested *per litteram* that Hilton’s interest in Max Weber was stimulated already in the early 1970s by his newfound enthusiasm for urban history.

<sup>29</sup> R.H. Hilton, “Small town society in England before the Black Death,” *Past and Present* 105 (1984), 53-78.

<sup>30</sup> R.H. Hilton, *English and French Towns in Feudal Society* (Cambridge, 1992), pp. 127-8 (my emphasis).

impositions; 5. property was secured against arbitrary seizure; 6. towns had varying degrees of financial autonomy, usually granting townsmen the right to collect various dues; 7. towns had varying degrees of political and administrative autonomy.

Hilton concurrently identified several connections leading from political and institutional structure to diverging economic features in the two countries.<sup>31</sup> Yet, in common with other British Marxist historians of his generation, he never seriously engaged with twentieth-century Marxist theories of class and state-formation, whose main originators (Antonio Gramsci, György Lukacs and, later, Louis Althusser) were still mostly unknown in Britain before the early 1970s. (To place this caveat in context, it is worth recalling that not a single member of the first three generations of the influential French journal “*Annales*,” including Marc Bloch, developed a significant interest in, let alone a theory of, the feudal or premodern state either.)

### **The Comparative Method**

For much of his life Hilton seems to have viewed the comparative method as a source of generalizations about a social form, feudalism, which displayed roughly similar features across the whole of Europe. His focus on class determination and class relations led him to emphasize national and international similarities in the form and manner of peasant exploitation, rather than dissimilarities and divergences in the “intricate machinery of class domination” and in economic development.<sup>32</sup>

Like most Marxists of his generation, Hilton did not use comparison systematically as a heuristic tool that offers the historian the closest she can hope to get to controlled, testable hypotheses. Hilton did not ignore the latter entirely, but he tended to frame comparative questions in terms of English exceptionalism rather than as a guide to causation. Thus, his early paper on feudal capital formation suggested that, since “one of the most important ways

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<sup>31</sup> *Ibid.*, pp. 22-3, 45-7, 83, 91, 95-6, 100-4.

<sup>32</sup> P. Anderson, *Lineages of the Absolutist State* (London, 1974), p. 11.



in which the late medieval peasants contributed to capital formation was in the building up of the country's herds of cattle and flocks of sheep," "relatively tranquil countries like [late medieval] England" might have obtained "a vital advantage in the early stages of the economic expansion of modern times" over Continental countries more damaged by warfare.<sup>33</sup> Subsequently, Hilton argued that the late medieval reduction in the feudal levy was most pronounced in England, "the weak link of European feudalism," which "no doubt [explained] the primacy of England in capitalist development."<sup>34</sup>

A lack of interest in comparative heuristics helps explain why, having spent so much effort on how to characterize the late medieval crisis as a dynamic, open-ended and *general* process that marked the beginning of a new epoch as much as the end of an old one, Hilton avoided the related issues of "historically conditioned divergence" between Europe and the rest of the world, and between England and Continental Europe.<sup>35</sup> Maurice Dobb had identified those problems in the same paper of 1962 where he re-evaluated the role of petty commodity trade in feudal development. The major sources of "uneven development," Dobb suggested, included the *availability of land*, which influenced the ability by poor and/or dispossessed peasants to migrate from areas of high population pressure, thereby reducing the need to find wage-employment; the *form* that feudal exactions took, which affected the strength of peasant resistance; and the *presence of markets*, "as represented by towns or inter-regional trade routes" and "as encouraging commodity production (i.e. production for the market) *within the petty mode*," which stimulated processes of social differentiation.<sup>36</sup> Thus, inasmuch as class struggle over resources is mediated by political structure, and markets require political enforcement and co-ordination, Dobb's theory of development and underdevelopment presupposed a theory of the European feudal state and of its differences and divergences, which doesn't seem to have engaged Hilton's interest very much.

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<sup>33</sup> Hilton, *The English Peasantry*, pp. 202-5.

<sup>34</sup> Hilton, "Feudalism in Europe."

<sup>35</sup> Hilton, *English and French Towns*, p. 2.

<sup>36</sup> Dobb, "From feudalism to capitalism," 286-7.

## **Hilton and the “transition from feudalism to capitalism”: where do we go from there?**

Outside the Marxist canon, medieval social and economic historians for the past few decades have followed many of the paths first trodden by Rodney Hilton, although not always on his own terms. For historians with Marxist sympathies or with a more theoretical bent, Rodney Hilton established over four decades and nearly single-handedly a stronger empirical grounding to Dobb’s theory of the transition from feudalism to capitalism, and defined many of the debate’s parameters up to the present day.

For much of his life, Hilton focussed disproportionately on class and property rights to land, arguing that the dispossession of economically self-sufficient peasants from the land was a necessary and sufficient cause for the rise of a technologically dynamic, fully commoditized, capitalist mode of production. He was never greatly interested in the material forces of production (technological development), and came only late to questions related to the nature and dynamic of feudal power and the feudal state. These biases arguably weakened the import of his discovery in the 1970s of “petty commodity production” as a source of dynamic change, and undermined his explanations for three basic phenomena, the internal dynamic (the prime mover) of the feudal economy, the transition to capitalism, and uneven development. The following notes take as their point of departure Dobb’s and Hilton’s work on these topics and the debates they gave rise to, to outline briefly my understanding of the current theoretical and empirical state of play.<sup>37</sup>

A theory of the feudal mode of production and of the transition to capitalism requires a clear definition of the historical beginning and end points of the process. I would define *feudalism* as a social-economic formation

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<sup>37</sup> The following discussion follows S.R. Epstein, *Freedom and growth. The rise of states and markets 1300-1750* (London, 2000) and Epstein, “The rise of the West,” in J. Hall and R. Schroeder eds. *An Anatomy of Power: the Social Theory of Michael Mann*, Cambridge UP 2006, pp.233-62.

featuring a prevalence of:

1. divided and competing property rights to land, capital and labour, enforced by competing legal rights (from this follows that the military and economic competition between feudal lords gives rise to pressures for territorial political and institutional coordination, and establishes the parameters for state powers; note that serfdom is neither a necessary nor a sufficient condition for a feudal society to emerge and persist);
2. quasi-competitive markets with dispersed regulation enforced through (competing and overlapping) jurisdictional rights;
3. producer control over the means of production;
4. irregular and patchy technological innovation, which is a function of competitive market forces.

I would then define *capitalism*, by contrast, as a social-economic formation featuring a prevalence of:

1. exclusive property rights to land, capital and labour, enforced by the jurisdictional sovereignty of the state;
2. competitive markets with dispersed regulation under the centralised sovereignty of the state;
3. producers who earn wages and do not control the means of production;
4. systematic technological innovation, which, as a function of competitive market forces, determines producers' (firms') chances of economic survival.

Following on from these definitions, a theory of the transition from one social-economic formation to the other must, at the least, explain the following historical questions: first, how did agricultural supply keep up with growing population (demand); second, how did exclusive property rights develop; third, how did the wage-based, non-agricultural sector expand, such that the share of population employed in agriculture fell from approximately 90-95% at the

outset of feudalism (across Europe, c.1100) to approximately 30% as the capitalist socio-economic formation was taking full shape (in England, c.1800); and fourth, how did technology in the energy and manufacturing sectors progress, as Marx put it, “out of the hand-mill into the steam-mill.”

*Agriculture and the feudal state.*<sup>38</sup> A recent, substantial body of research shows that agricultural supply in medieval and early modern—that is, feudal—Europe was far more elastic than either Marxists like Hilton or “Ricardo-Malthusian” pessimists like Postan assumed.<sup>39</sup> This work has established that the major bottleneck to productivity gains in feudal agriculture was not technological, as Postan claimed, for the best technology available already to thirteenth-century agriculturalists was more than adequate to supply food to a growing population; land (and possibly labour) productivity in parts of early fourteenth-century England appear to have been as high as in the mid- to late eighteenth century.<sup>40</sup> The most notable feature of feudal agriculture was, by contrast, the astonishing *inefficiency* with which best practice was applied. Most feudal agriculture lay very far indeed from the contemporary technological frontier. At the same time, the relative “distance” from the frontier differed considerably between regions with similar institutions and property rights to land. How can these differences be explained? Why did some peasants—and lords—under feudalism apply best available practice, while their neighbours apparently ignored the improved livelihoods they could achieve from technical innovation?

We saw that initially Dobb, Hilton and their followers explained these differences as a result of feudal property rights to land, and that in their eyes, only the introduction of capitalist relations of production on the land epitomized

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<sup>38</sup> This section follows Epstein, *Freedom and growth*, pp. 40-52, with references.

<sup>39</sup> Little of this recent research utilizes a Marxist framework and terminology, and it also prefers the traditional periodization into medieval and early modern; in *Freedom and growth*, I employ the term “premodern” to highlight, along Marxian lines, the basic technological and organizational similarities between pre- and post-1500 European agriculture.

<sup>40</sup> For the most recent data on land and labour productivity in fourteenth-century England, see Campbell, *English seigniorial agriculture*; E. Karakacili, “English agrarian productivity rates before the Black Death: a case study,” *Journal of Economic History* 64 (2004), 24-60.

by the “landlord-tenant-labourer” triad provided adequate incentives for systematic innovation. Their model thus predicted that lords and peasants under feudalism would behave similarly, and it excluded practically by definition the differentiating effect of market incentives. Dobb’s and Hilton’s “discovery” in the 1960s and 1970s of the dynamic role of production for exchange did not significantly change this anti-market bias, because they did not associate it with a political economy and an evolutionary theory of feudal markets. They were still unable to explain why market incentives, and the agricultural innovation that markets stimulate, might differ between regions, or why incentives might change over time. That is also why Hilton could not convincingly explain why English peasants became more commercialised after the Black Death, since nothing in the way markets were organized seemed (in his analysis) to have changed.

Recent agrarian studies have placed far greater emphasis on “commercialization,” and explain differences in agrarian economic performance in terms of a broad range of factors that helped to define the opportunity costs of investment (real rates of interest) and trade (transaction costs). Since real interest rates are, in the long run, a function of investment risk and investment opportunity (market size), both of which are determined by search, enforcement and transport costs, these studies suggest that the major cause of poor rates of investment and innovation arose from unusually high transaction costs under feudalism. In this view, feudal political and jurisdictional fragmentation and warfare gave rise to coordination failures and a systematic paucity of investment in public goods, including transport and commercial arrangements, credible and predictable justice, and financial and political stability.

This explanatory shift has two important implications. First, it turns agricultural supply from an *independent* variable that determined the overall rate of growth and opportunities for development of the feudal economy, as portrayed by Hilton, into a *dependent* variable that could respond elastically to changes in demand, subject to the opportunity costs of investment and trade.

Second, it shifts the emphasis in explanations of agricultural productivity from property rights to land narrowly defined, to property rights over the producer surplus broadly defined. It suggests that students of the transition from feudalism to capitalism need to pay more attention to the conditions that made investment in agriculture profitable, rather than to the technical or organizational characteristics of feudal agriculture itself.

These findings can be reformulated along Marxist lines as follows: In the feudal-tributary mode of production, most rural producers owned their means of production and sold a portion of their produce on the market.<sup>41</sup> Therefore, they responded positively to changes in supply and demand and relative prices.<sup>42</sup> Feudal lords (who included the ruling elites in towns with jurisdictional prerogatives over the hinterland) extracted an agricultural surplus from the peasantry through decentralized legal compulsion backed by military threat; the surplus was perceived directly as rent in cash, kind, or labour, and indirectly through taxation, levies on trade, and the provision of justice. Although the relative share of income from different sources varied over time and space, the share from rights of jurisdiction (which sometimes also included compulsory labour services) was always substantial. The principal threat to feudalism thus did not come from trade—up to a point feudalism thrived on trade.<sup>43</sup>

Having said this, however, feudal lords did regulate and tax markets for income. Moreover, because feudal lords were less directly exposed to market pressures than peasant producers—at the end of the thirteenth century

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<sup>41</sup> I follow J. Haldon, *The State and the Tributary Mode of Production* (London, 1993), in employing the term “tributary” to emphasize that feudal incomes accrued as much through tax and tribute as through labour services and economic rent.

<sup>42</sup> Note that this formulation does not prejudge the composition or size of the surplus; in other words, it does not presuppose, as much Marxist and non-Marxist literature does, that a peasant household will only sell its physical surplus to subsistence. I would argue instead that the “self-subsistent” peasant is largely a figment of nineteenth-century modernization theory, and that the choice whether to produce for personal consumption or for market exchange is the result of rational, historically contingent price-based calculus (which will include, for example, whether goods for personal consumption will actually be accessible via the market). This assumption, of course, makes no claim as to whether those prices are being formed through “feudal” (heavily and “competitively” taxed) or “capitalist” markets.

<sup>43</sup> A point made already by Dobb, *Studies*, pp. 39-42, 70-81.

produce from the demesne sector in England, then the largest in western Europe, accounted for only about 30% of the average lordly income, equivalent to under 5% of GNP, much of which would have been consumed directly—they were probably less likely to lead agricultural innovation.<sup>44</sup>

The main obstacle to agricultural growth in the feudal economy was therefore the cost of trade, which was largely defined by institutional regulation and tariffs and by political and military stability, and to a lesser extent by developments in transport technology. The lords' and towns' main purpose in stimulating trade was to maximize rent streams from their jurisdictional rights. Those rights were a basic feature of their social and political power. As a result, the introduction of jurisdictionally "free" trade did not just *lower* feudal and urban revenues—it also challenged the superiority of lord over peasant and town over country.

However, in the longer run, strong feudal and urban jurisdiction was incompatible with agrarian development. By the later Middle Ages, agricultural innovation was inversely correlated with the intensity of seigniorial rights, and rural proto-industrial growth was inversely correlated with the jurisdictional powers of towns. This suggests that feudalism had the following major "contradiction" at its heart: the *political economy of feudalism was necessary to establish markets* and to coordinate economic activities during its first great phase of expansion (c.950-1250), but already by 1300 that same political economy—which combined market monopolies and the coordination failures arising from political and jurisdictional parcellization—had begun to *fetter* further growth. By 1300, the fundamental constraint on feudal agriculture came from feudal institutional constraints, rather than from technological inertia.

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<sup>44</sup> B.M.S. Campbell and K. Bartley, *England on the Eve of the Black Death: An Atlas of Lay Lordship* (Manchester, 2005), Tables 2-3, estimate an annual mean demesne income of £22 for English lay lords in 1300-49; for an annual mean total income of c. £70, see C. Dyer, *Standards of Living in the Later Middle Ages. Social Change in England c. 1200-1520* (Cambridge, 1989), ch.2; N.J. Mayhew, "Population, money supply, and the velocity of circulation in England, 1300-1700," *Economic History Review*, n.s. 48 (1995), 244, 249-50. For a comparison between the rate of commercialization of peasant and demesne agriculture, see R.H. Britnell, *The Commercialisation of English Society, 1000-1500*, 2<sup>nd</sup> ed. (Manchester, 1996), pp. 121-3.

Beneath these overarching features, the political economy of feudal Europe displayed strong diversity. This explains the emergence, no later than the early twelfth century, of economically leading, or core, regions and semi- or fully peripheral ones.<sup>45</sup> In most of Western Europe, the use of lordly powers of coercion to tax and monopolize trade, which kept the economy substantially below its full agricultural potential, was counterbalanced by the lords' strategy of territorial expansion through localized war. Warfare was as much a part of the intrinsic mechanics of feudalism as jurisdictional exploitation. Although the main goal of territorial expansion was to increase the total available political and economic resources, expansion also improved economic efficiency by increasing jurisdictional integration and reducing transaction costs within the new territory. Territorial ("state") formation made it possible to reduce seignieorial dues, weaken or abolish rival feudal and urban monopolies, systematize legal codes and legislation, weights and measures, help coordinate markets and reduce opportunities for pillage and warfare, and restrict rulers' opportunities to act as autocratic "stationary bandits" against their subjects.<sup>46</sup>

Political centralization—the transfer of sovereignty over feudal means of coercion to territorial authorities—transformed feudal rights of jurisdiction that sanctioned a decentralized mode of economic coercion, into fiscal or property rights over commercial transactions that sanctioned a centralized, state-based mode of economic coercion. Following the late medieval crisis, the evolution of decentralized feudal immunities (privileges and rights of freedom) into state-defined and redeemable claims to fiscal rights began to commoditize the economic and legal base of the feudal class. From the fifteenth century, financial capital, rather than social status, gradually became the elites' new

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<sup>45</sup> For an analysis along such lines of the late medieval English economy as "semi-peripheral," see B. M. S. Campbell, "The sources of tradable surpluses: English agricultural exports 1250-1349," in L. Berggren, N. Hybel and A. Landen (eds) *Cogs, Cargoes and Commerce: Maritime Bulk Trade in Northern Europe, 1150 1400* (Toronto, 2002), pp. 1-30.

<sup>46</sup> This expression, which refers to "territorial lords [who] tax their subjects heavily and use the proceeds to serve their own interests" (rather than those of their subjects), has been popularized by M. Olson, *Power and Prosperity. Outgrowing Communist and Capitalist Dictatorships* (New York, 2000), pp.6-11.



coin of exchange, while the state's decision whether to sell fiscal income streams to the highest bidder or to abolish them altogether was increasingly subjected to financial rather than political considerations. Thus, early modern "absolutism" was not simply a form of state feudalism. By embarking on the road to centralized, monopolistic jurisdiction, early modern states also laid the institutional bases of modern capitalism and capitalist class struggle.

In sum, agricultural expansion in the feudal system was the result of two countervailing forces, one pressing for military and jurisdictional decentralization, which made trade and investment more costly, the other pushing for increased political and jurisdictional centralization, which reduced the costs of investment and trade. In the long run, jurisdictional centralization prevailed, leading to a slow reduction in transaction costs and stimulating commercialization and specialization. The "prime mover" and the "contradiction" within the feudal mode of production lay in the relations between lords, peasants, markets and the state.

*Expanding the wage-earning, non-agricultural sector.*<sup>47</sup> The existence during the later middle ages of regions with clearly defined, potentially capitalistic, property rights to land (bourgeois ownership, competitive tenancies, easy availability of rural wage labour) such as Lombardy, Sicily, the Île de France, or parts of Flanders, which nonetheless did not experience a rapid capitalist transition, proves that such property rights were necessary but not sufficient for the transition to unfold. Rather than unique property to land, the most distinctive feature of the English economy compared to its Continental peers was probably the unusual elasticity of demand for surplus labour outside agriculture. In England as elsewhere, excess agricultural labour was absorbed either by towns or by proto-industrial activities in the countryside. Since rural proto-industry tended to threaten traditional urban occupations and the urban tax base, town rulers generally opposed it; therefore, successful rural proto-

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<sup>47</sup> This section follows Epstein, *Freedom*, ch.6; Epstein, "Introduction," to Epstein (ed.) *Town and country in Europe, 1300-1800* (Cambridge, 2001), pp. 1-29; P. Glennie, "Town and country in England, 1570-1750," in Epstein (ed.), *Town and Country*, pp. 132-55.

industries required some form of institutionalized freedom from urban prerogatives over the countryside. The extent to which such necessary “freedoms” existed determined the elasticity of demand of the industrial and service sectors, without necessarily displacing peasants physically into towns. Conversely, the separation of a class of wage labourers from its means of production undermined feudal coercion because wage earners could credibly threaten to migrate.

The capacity by established towns to oppose proto-industrial growth differed greatly across Europe. However, it was generally strongest in the ancient, more Romanized and corporatised European core and weakest in the north-western periphery, and urban restrictions to proto-industrial activity were particularly ineffective in central and northern England. This institutional difference in urban “feudal” powers provided seventeenth- and eighteenth century England with far greater flexibility than most Continental countries in establishing “new” proto-industrial towns based upon excess rural labour, and gave English agriculture and rural manufacture a critical competitive edge.

*Technological innovation.*<sup>48</sup> Technological innovation in agriculture was slower than in the rest of the economy. The reasons included the lack of botanical science that made it hard to transfer agricultural knowledge over long distances, and the unpredictability of agricultural markets discussed previously, which raised the opportunity cost of new techniques. But agricultural innovation in the sense of technical novelty (invention as opposed to diffusion) was also slow because much could still be achieved with techniques available from the high middle ages: in eighteenth-century France, for example, thirteenth-century technology could have generated 60% higher

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<sup>48</sup> This section follows S.R. Epstein, “Craft guilds, apprenticeship and technological change in pre-industrial Europe,” *Journal of Economic History* 53 (1998), 684-713; Epstein, “Property rights to technical knowledge in premodern Europe, 1300-1800,” *American Economic Review* 94 (2004), 382-7; Epstein, *Transferring Technical Knowledge and Innovating in Europe, c. 1200-c. 1800*, Working Papers in Economic History, LSE, November 2004.

output than was achieved in practice.<sup>49</sup>

As it is, without any persistent technological progress in manufacturing, mining and the production of energy, the transition to industrial capitalism could not have occurred, and the economy of feudal Europe would have got stuck in the kind of “high level equilibrium trap” that characterized China into the eighteenth century.<sup>50</sup> To understand why feudal Europe was able to catch up with and forge ahead of its Eurasian peers, we need to take a closer look at the kind of technical knowledge that premodern craftsmen and engineers worked with. Most importantly, such knowledge was largely tacit and experience-based, which placed basic cognitive limitations to how it could be expressed, processed and transmitted. Lack of codification meant that information about what was available, and the reproduction of that knowledge, depended critically on the mobility of individual experts. The essential reason why technical innovation under feudalism was so slow, therefore, was due to the high costs of transferring experience-based, uncoded knowledge, and to the weak, irregular face-to-face interactions between geographically scattered craftsmen and engineers.

From the late eleventh century, however, a distinctively “feudal” technological system began to emerge, based on craft-based apprenticeship training, non-ascriptive membership of craft associations and, increasingly, competition for skilled workers between towns and states. These three elements defined a set of necessary and sufficient conditions for the accumulation, codification and circulation of reliable technical knowledge. Craft-based training ensured that it met both masters’ and apprentices’ needs. Non-ascriptive membership meant that skilled workers could move from city to city with few restrictions or penalties, and inter-state competition for technology

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<sup>49</sup> G.W. Grantham, “Divisions of labour: agricultural productivity and occupational specialization in pre-industrial France,” *Economic History Review*, 2<sup>nd</sup> ser. 46 (1993), 478-502.

<sup>50</sup> See K. Pomerantz, *The Great Divergence. China, Europe, and the Making of the Modern World Economy* (Princeton, 2000). Pomerantz’s analysis of the causes of the European transition, however, is very different from mine.

and high-status consumer goods meant that specialized knowledge could circulate and cross-fertilize, and that technicians could move where their skills were most required.

The costs of technical dissemination fell over time in response to growing state competition for skilled workers, and to urbanization. Urbanization—especially the development of regional and national metropolises after the late medieval crisis—offered improved opportunities for exchanging knowledge, higher average quality of labour, a greater likelihood of matching skills to demand, and stronger incentives for knowledge modelling and codification. Although it is not a priori clear whether high urbanization attracted skilled migrants, or whether migration (driven by exogenous factors like war) caused high urbanization, the evidence points to the primacy of the former, pull factors, specifically of urban commercial success. Skilled migrants enabled each new technological leader—which shifted over time from central and northern Italy (1200-1450), to the southern Rhineland and southern Netherlands (c.1450-1570), to the Dutch Republic (1570-1675) and finally to Britain after c.1675—to draw on the accumulated knowledge of its predecessors, recombine it with local experience, and develop the knowledge pool further.

Nonetheless, the secular rate of innovation was not stable. The three features shaping the provision of “human capital” under feudalism (craft-based training, non-ascriptive membership of craft guilds, and strong inter-urban mobility) were greatly strengthened during the late medieval crisis; this gave rise to a sharp, secular increase in the rate of technical innovation and diffusion across western Europe. A second marked increase in the rate of innovation followed the “seventeenth-century crisis,” when coordination within states and competition between states increased sharply. In conclusion, the underlying, unifying factor of the two great “feudal crises” of the Marxist canon is the rate of development of the productive forces.

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