Working Paper No. 91/05

Fiscal and Financial Preconditions for the Rise of British Naval Hegemony 1485-1815

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November 2005

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"Revenue is the chief preoccupation of the State. Nay more it is the State"
Edmund Burke
(cited in F.C. Dietz, English Government Finance - 1485-1558
(Urbana, Illinois) p. 213)

1. States, State Formation and the Construction of Complex Institutions in Early Modern Europe

In recent decades the new institutional economics has redrawn attention to the significance of state sponsored and regulated institutions, organisations, laws, rules, customs and culturally conditioned behaviour for the promotion of long term economic development (Menard and Shirley, 2005). Modern economics has expanded its remit to include matters that Cunningham recommended to Marshall and has sustained an enlightening programme of classifying, theorizing (but only occasionally measuring) how a range of institutional variables promoted or retarded both the flow and the productivity of the inputs of land, labour, capital, technology and other proximate determinants behind histories of the economic growth of nations. Perhaps economic historians, engaged with traditions of enquiry going back to the German historical school, and who have retained links with political history, had less need than their colleagues in economics to be reminded that production and exchange across early modern Eurasia had for centuries been embedded in disabling frameworks of law, institutions and cultures (Hodgson, 2001).

* To be published by J. Backhaus and N.A.M. Rodger (eds.), Navies and State Formation (Springer, 2005-06). I am grateful for help and suggestions to Nick Crafts, Xavier Duran and Philip Hunt.

“Ships adrift on uncharted waters certainly deserve credit for every mile travelled in the right direction,” but, alas, the theory has hardly left harbour when it comes to analysing and explaining the behaviour of states. (Field, 1981, pp. 174-98).

Of course social scientists appreciate that the shallowness of theory represents a serious *lacuna* because states (or rather embryo states in process of formation) created and sustained the legal frameworks and institutions within which productive and counter-productive activities occurred. States defined and enforced property rights (Epstein, 2000). States solved or failed to solve the legal and infra-structural problems involved in extending, integrating and coordinating markets. States promoted or neglected to reorder ideologies, religions and cultures of behaviour that reduced shirking, cheating, free-riding and transactions costs and encouraged thrift, work and the discovery of new knowledge (Bloch and Evans 2005). Above all, in an era of mercantilism states performed a core function of supplying national economies (bounded by vulnerable frontiers and engaged in “foreign” trade) with two overwhelmingly important public goods, internal order and external security and protection without which investment, innovation, production, exchange and overseas trade could only have remained below the levels required for any discernible growth in real per capita incomes (Magnusson, 1993).

Unless we are satisfied with simplistic theories that “endogenise” the actions and policies of states and predict that their constitutions and the frameworks of law and rules they promulgated for the protection and operation of economic activity altered as and when it became “sufficiently profitable” for “rulers”, “innovators” or “revolutionaries” to bring about efficient political and institutional change, then we can only conclude that economics, lacks anything approximating to a theory of political, institutional and legal development (Field, 1991). But so does history, even though the central preoccupation of generations of historians has long been with the evolution of states, laws, rules, organisations, religions, ideologies and cultures conditioning personal and group behaviour. History's libraries are dominated by volumes of research into these problems for particular places at particular times (Zmera, 2001). Most historians do not believe, however, that the formation of states took place in arenas that can be simulated to market places (Aron, 2002). They do not find attempts to model the actions, inactions or failures of rulers and their servants with reference to "trade-offs", "rent seeking" or "revenue maximising" behaviour particularly heuristic and refuse to be impressed with the ontological assumptions behind propositions expressed in mathematical form (North, 1990). Perhaps there is too much violence, path dependence, vested interest, custom, inertia and bargaining recorded for national and local histories of political change in early modern Europe and no overarching and definable objective that rulers attempted maximise for economic theory to be of serious help with mega and interrelated problems of state formation, state policies and conditions for their implementation (Blockmans and Genet, 1995-99).

Over those centuries "public bads" emphasised by new institutional economics represented necessary payments or costs for state formation. Indeed the political constraints on the construction of departments and organisations nominally under the control of rulers and their advisers, (with some longer term dynastic interest in delivering governance at lower cost and forming institutions that facilitated private enterprise) were then and continue to be formidable. Historians in touch with the sources and aware of the constraints surrounding rulers during the periods that they study recognize that the modes and scale of public and quasi-public organisations, the systems in place for the recruitment of personnel, levels of corruption, degrees of rigidity and rent seeking simply exemplify the multiple objectives pursued and restraints operating upon Europe's *ancien regimes* of all political forms (Spuyt, 1994). On the one hand rulers made "unavoidable political bargains and compromises" required to secure stability but their political interest on the other was to maintain and increase their dynastic powers and wealth by supplying external security, protection overseas, victories in war, and internal order in ways and at levels of taxation that secured stability and widespread political compliance (Tilly, 1990).

During the long transition towards modern forms of sovereignty scope for functional levels of efficiency from the administrative and organisational capacities at the disposal of every conceivable kind of political regime (imperial, monarchical, absolutist, republican and parliamentary) remained severely constrained and difficult to develop (Hall and Schroeder, 2005). That constraint looks less obvious at the courts and capitals of emperors and kings and the chambers of oligarchies where many rulers benefited from the advice and services of talented men, often recruited from the church and the law. In China recruitment occurred through an examination system – admired by Voltaire and other enlightened intellectuals of his day (Brook and Blue, 1999). Loyal servants of European sovereigns can be superficially represented as corruptible rent seekers, pursuing interests, antithetical to economic progress. Nevertheless, their albeit sometimes sycophantic devotion to rulers and opposition to rival centres of power meant that they also pursued missions to centralise and to rationalise the formulation of rules; to create organisations in order to universalise, monitor and enforce their execution, to establish procedures for adjudication and, above all, to secure the fiscal resources required for effective governance (Reinhard, 1996).

Beyond courts and city councils, more serious, and persistent, problems for the formation and efficiency of states arose in varying degrees across the entire range of administrations responsible for the delivery of public goods even in those key hierarchical departments of government: armies and navies where aristocratic officers often pursued strategies and agendas of their own to the cost and detriment of rulers and national economies (Glete, 2002). By necessity early modern states resorted frequently to markets and franchising. Private firms often networked in tandem with politically appointed hierarchies to deliver public goods. Debate on the boundaries of private and public sectors goes back a very long way, particularly in relation to the political economy of taxation. How different states constructed and sustained complex fiscal policies and how well their trusted advisers and appointed or franchised administrations set up to assess and collect an astonishing variety of direct and indirect taxes has been under serious investigation since Jean Bodin (Bonney, 1995)

2. The Medieval Origins of England's Fiscal State

As Joseph Schumpeter observed, "The fiscal history of a people is above all an essential part of its general history". He was too sophisticated an intellectual to "theorise" about state formation in general but recognised that "in some historical periods the immediate formative influence of the fiscal needs and policy of the state on the development of the economy and with it on all forms of life and all aspects of culture explains practically all the major features of events; in most periods it explains a great deal , but there are few periods when it explains nothing." (Schumpeter, 1991).

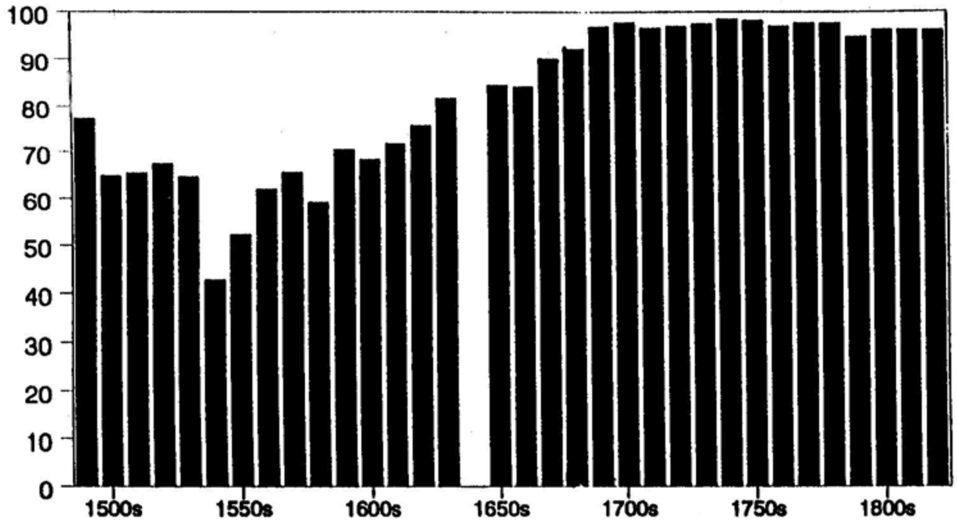
Schumpeter would certainly have appreciated that whereas economics might specify, model and occasionally measure connexions between institutions and economic growth, only history could really explain why some countries formed states that established and sustained the bureaucracies, departments and complex organisations required to raise revenues, guarantee external security, preserve internal stability and deliver arrays of public goods sooner and more effectively than others. My contribution to a volume concerned to analyse connexions between one key institution (namely navies) and European state formation offers a historical narrative that explains how, when and why the English state constructed the fiscal institutions required to fund what became and remained the largest and most powerful navy in the world from 1688 to 1941.

Let us start at the “conjuncture” in this long historical process, when Castlereagh signed the Treaty of Vienna. In 1815 at the close of 23 years of warfare against Revolutionary and Napoleonic France, the monarch and aristocratic elite in charge of governing the, by then, United Kingdom of England, Wales, Scotland and Ireland, arguably offered their deferential subjects superior standards of: external security, internal stability, protection for property rights, support for hierarchy and authority, legal frameworks for the extension and integration of markets, encouragement for technical and business innovation and, above all, more extensive and better protected access to imperial and overseas markets than any other state on the mainland. At that moment in world history, citizens of the off-shore isles, enjoyed almost complete safety from foreign invasion derived from the United Kingdom’s undisputed hegemony at sea; possessed the largest occidental empire since Rome, operated within a culture of patriotic, deferential and predictable behaviour towards monarchy, aristocracy, the established church and persons of status and worked in an economy halfway to becoming the industrial “workshop for the world” (O’Brien, 1991).

Historians of *la longue durée* (who are perhaps over concerned to discover and elaborate upon the “distant origins” of the kingdom’s clear position of primacy in conjoined geopolitical and economic spheres – a position retained by Britain and its empire – for roughly a century after 1815) - refer back to the high middle ages when England was supposedly ruled by one of the best funded, centralised and relatively powerful states in Europe (Ertman, 1997).

They certainly find indications that the realm’s precocious transition to a fiscal system in which revenues from general taxation exceeded the monarch's income from the hereditary ownership of productive assets and regalien property rights had emerged relatively early and in circumstances of war during the late 13th and 14th centuries (Cantor, 1991). Nevertheless, England's passage along Schumpeter's famous trajectory from domain to tax state never became linear and did not mark any kind of sustained uplift in the capacities of central government to fund the ambitions and activities of the state from taxes alone.

Figure 1: Percentages of Total Taxation to Total Revenue From Taxes Plus Domain Income by decade.



***Note**:* Ratios measured in current prices. Sources the databases upon which figures1 to 8 have been constructed are fully referenced in O'Brien (1988) and O'Brien and Hunt (1997 and 1999).

Furthermore, historians lack data to compare these ratios across Europe before the 1800s. Mark Ormrod's carefully validated and calibrated statistics show the "total national revenue of the Crown expressed in metric tons of fine silver" fluctuating from an unsustainable peak of around 90 tons during the early years of the first hundred years war with France, but falling back to below pre-war (1327-35) levels after England's withdrawal from the continent in 1453 (Ormrod, 1999). My own calculations for "Total taxes collected for the King" measured in constant prices display a sharp and sustained rise for roughly a century after the outbreak of that protracted era of warfare on the mainland followed by a precipitous decline from the 1420's through to the 1480's when the first Tudor monarch restored total taxes to the levels attained (in real terms) from 1340-1420 (O'Brien, 1991).

Figure 2: Total Taxes 1300-1510 (in constant prices of 1451-75)

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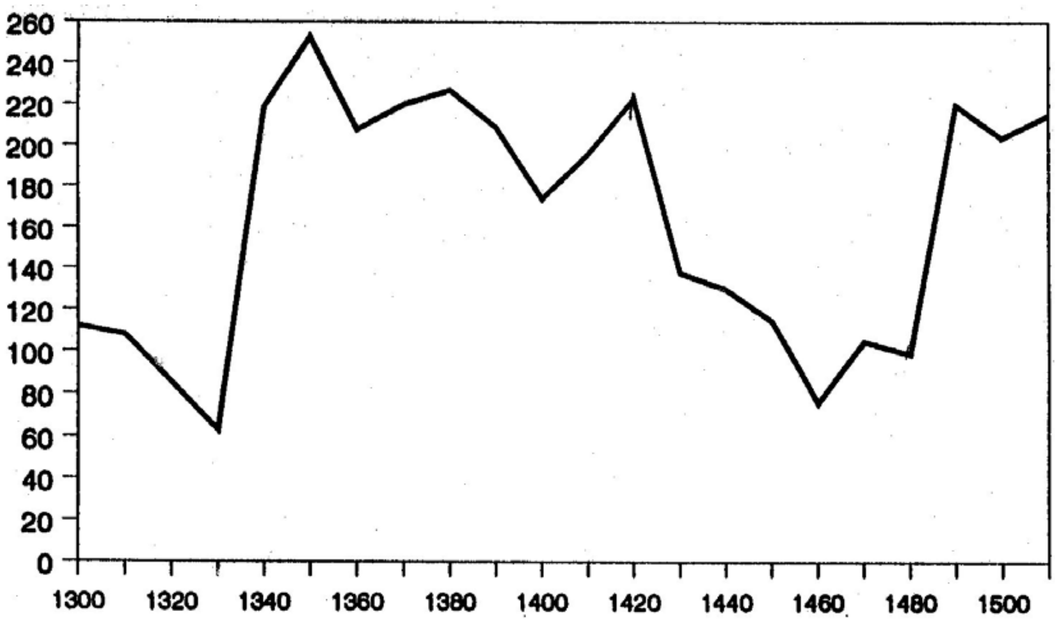


***Notes**:* The data is in index number form with 1451-75=100. The points plotted in this graph are 9-year moving averages of total receipts from taxes deflated by the Phelps-Brown-Hopkins index for the price of consumables in Southern England. The points for every tenth year have been selected to expose the long swings in total taxes collected.

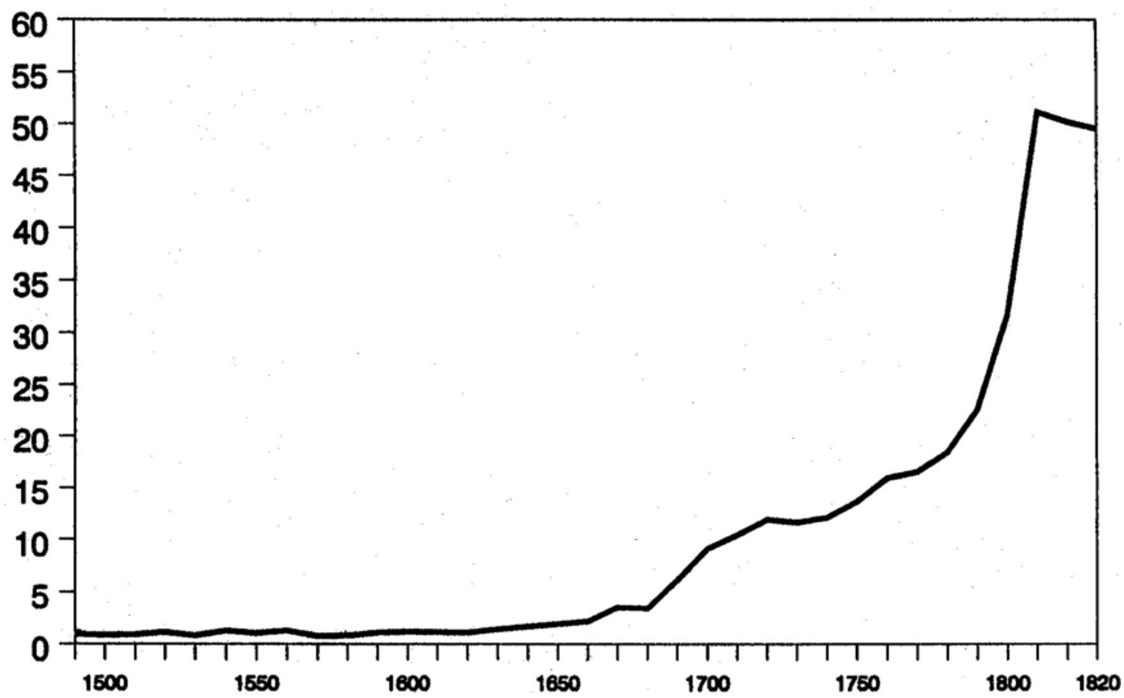
Looking back at the era of the first hundred years war from the perspective of 1660-1815 the endeavours of successive medieval monarchs to create a fiscal base, to maintain centralised power, to support internal colonisation within the Isles and, above all, to extend and defend their dynastic claims to territory across the channel in France can only be represented as a massive failure of public investment in imperialism, despite the successes of Crecy, Agincourt and other battles. To quote Ormrod : "the Plantagenet regime witnessed the almost complete disintegration of its overseas territories between 1200-1450, losing not only the potential profit from those lands, but also large amounts of England's wealth expended in the ultimately futile campaigns of re-conquest" (Ormrod, 1995, p.156).

During the First 100 Years War medieval monarchs had experimented, with some success, in appropriating customs duties levied upon the kingdom's trade (mainly exports of wool, but also imports coming in from Europe) and constructed a wider and deeper fiscal base that created possibilities for its full extension into an efficient and acceptable system for the assessment and collection of universal taxation from their subjects' private property, incomes and expenditures, over which they claimed fiscal sovereignty. Nevertheless, the eventual defeat of the armies of the English monarchy and aristocracy on the mainland meant a drastic reduction, in the political scale and economic scope of that fiscal base, to assets located and populations resident on the Isles, or rather to England, and only potentially to Wales, Scotland and Ireland (Lenman, 2001). Defeat and almost complete withdrawal from colonisation on the continent of Europe placed very serious economic and political constraints on the capacities of the Tudor and Stuart regimes to fund strategies and policies for the formation of more powerful and centralised government on the Islands. Eventually, but 150 years after the reign of the first Tudor monarch, political tensions provoked by fiscal constraints on the formation of a more powerful state led to: a constitutional crisis, and the gradual reconstruction of England's fiscal and financial system in the wake of a destructive civil war, a republican interregnum of innovations in taxation, which continued under the restored Stuart monarchy to be consolidated politically by the so-called Glorious and Financial Revolutions, following on from the Dutch *coup d'etat* of 1688.

3. Fiscal Stasis from Henry VIII to Charles I

Decades of fiscal reconstruction during the Interregnum and Restoration (which took something like a half-century to achieve) had been preceded by 150 years of virtual stasis (punctuated by period of retrogression) in the capacities of the Tudor and Stuart regimes to appropriate sufficient resources from a fiscal base that expanded, albeit slowly, in potential to yield revenue for purposes of centralised governance.

Figure 3: Trends in Total Taxes 1490-1820



***Notes**:* The points plotted are 9-year moving averages for every tenth year 1490-1820. The vertical scale is expressed in £100, 000 at constant prices of 1451-75.

As Burke recognised throughout this period, monarchs, aristocratic ministers and their advisers continued to be preoccupied with the state's fiscal base, even though they appreciated that the kingdom's integrating regional economies, located upon an island surrounded by water, remained relatively cheap to defend against takeover by predatory Catholic enemies from the mainland (Hammer, 2003).

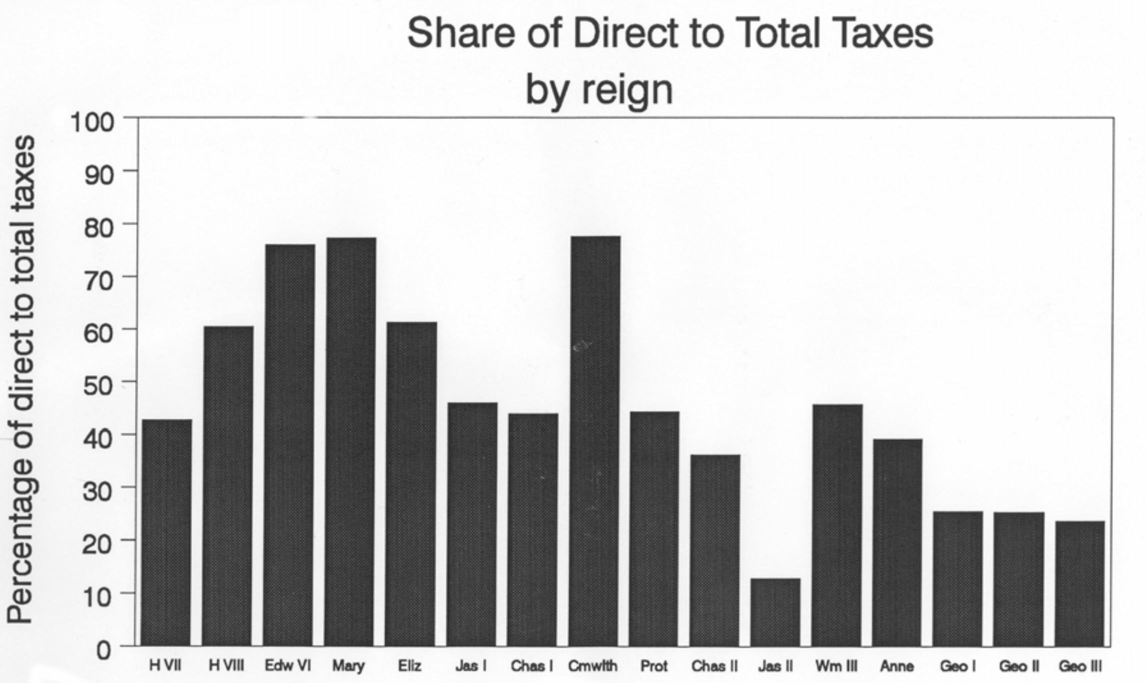
That complacent assumption, together with a historical memory of more than a century of ultimately unprofitable warfare on the battlefields of France matured into a “political culture” of resistance towards further costly ventures into European power politics and strengthened the resolve of the taxpaying classes to resist and evade royal demands for revenue.

Between the reign of the first Tudor (who died in 1509) and Charles I (executed in 1649) total revenues received by English kings from direct and indirect taxes remained roughly constant (see Figure 3), while the share from royal property (including regalian or feudal rights) fluctuated, but rose consistently above the 25% mark reached/attained in the high middle ages. England’s precocious transition from domain to tax state halted and even went into reverse before the expropriation of royal wealth by Parliament more or less completed that protracted process during the Interregnum, 1642-60 (see Figure 1).

Furthermore, that other historical shift in the composition of taxation observed by Ardant (and traced in trends to lower levels of dependence on *directly* imposed taxes upon the wealth and incomes of households and moving towards a politically less contentious and easier to collect structure of customs, excise and stamp duties, levied upon exports, imports and domestically produced goods and services) also decelerated (Ardant, 1965). In England this particular tendency, marked by cyclical fluctuations from reign to reign, had been on stream during the 14th century and had allowed Henry VII (1485-1509) to collect nearly 60% of his total tax take in the form of indirect taxes on foreign trade.

Thereafter, down to Restoration and despite serious evasion and intermittent resistance at the level of payment to compliance with demands from successive monarchs for more “supply” from indirect taxes, the institutions and organisations set up to assess, collect and despatch their revenues failed to extend the kingdom's base for indirect taxes levied on goods and services produced and/or traded within the realm. Tudors and Stuarts consistently collected the highest proportion of their aggregated tax revenues in the form of taxes assessed directly upon the incomes and wealth of their recalcitrant subjects.

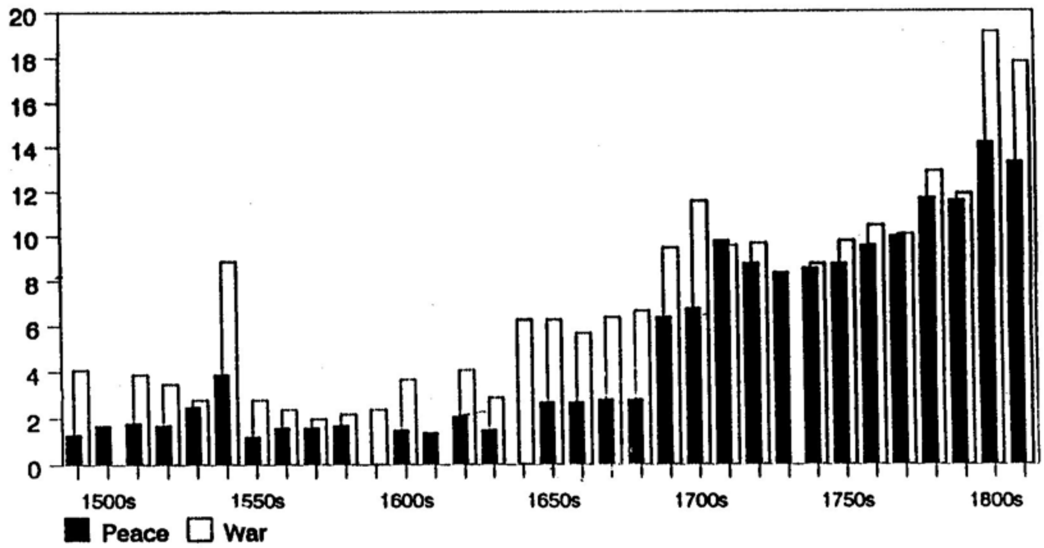
Figure 4:



Note: Ratios measured in current prices.

Stasis in total tax revenues allocated by these monarchs to strengthen the defence, geopolitical ambitions and governance of their realm could conceivably, however, have persisted for centuries because the English economy did not expand at rates or change its structure in ways required to widen and deepen the state's fiscal base available for either indirect or direct taxes. Of course, the overall rates of change in gross domestic product, foreign trade, agricultural and industrial output, urbanisation and economic organisation as narrated in modern economic histories of Tudor and Stuart England, cannot be quantified, but the current consensus is that rates of growth and structural change estimated for the period 1688 to 1830 can be plausibly represented as moderate accelerations in trends going way back before the industrial revolution (Crafts and Harley, 1992). This undermines any hypothesis that the slow expansion of the English economy severely constrained prospects for higher levels of taxation. There could, moreover, be no suggestion that the economy moved at the same rate as total tax revenues between the mid-14th and 17th centuries and failed to expand at all (Clay, 1984).

Figure 5. Total Revenues as Percentages of Conjectures for National Income



***Notes**:* The ratios, measured in current prices, refer to the lowest percentage for a given peace time year and the highest percentage for a war year within each decade. In the 1490's the king collected a low of 1.3% in peacetime and a high of 4.1% in wartime.

My own conjectures of ratios of total revenues to the national income of England and Wales for modal years of war and peace from 1492 to 1707 and the "estimates" based on better data for Great Britain 1712-1819 are presented in Figure 5. If the numbers are plausible, then the discontinuities already exposed on graphs representing trends in total revenues and total taxes per capita are confirmed. Secondly, after King

William’s War, 1689 to 1698, the shares of national output appropriated as taxes (and by then England had clearly matured into Schumpeter’s tax state) rose consistently and appreciably above the ratios appropriated by the Tudor and Stuart regime in peacetime (a jack up to modal rates of 8-10% compared to a range of 2-3%). Furthermore, the shares appropriated in wartime also jumped to (10% and higher, compared to 5-6% before 1689).

Figure 5 also reveals that the gap between the familiar “extraordinary” uplift in levies raised in wartime and “normal” levels of peacetime taxation virtually disappears. That occurred primarily because after the Glorious Revolution most (up to 80%) of the incremental funds that were required to fund a sequence of increasingly costly wars emanated from borrowing – i.e. from the rapid accumulation of a perpetual public debt serviced by permanent taxes imposed and designated by Parliament in statutes of the realm for that specific purpose (see Figure 7) and, secondarily, because a standing Navy required higher and sustained levels of expenditure in peacetime.

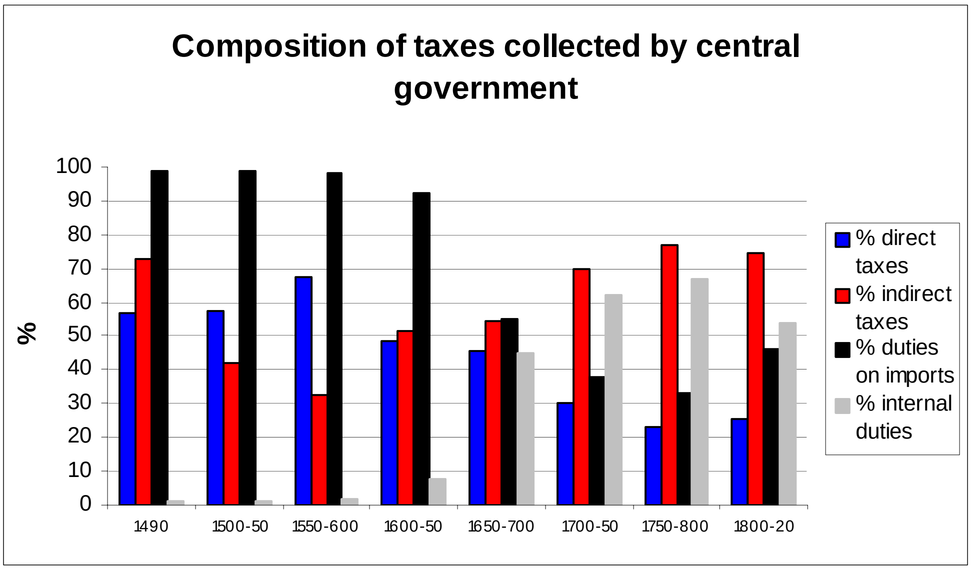
Given that economic preconditions cannot be plausibly represented as a serious constraint on at least some kind of gradual transformation of the fiscal base for the higher and stable levels of universal taxation required to support the formation of a more efficient (“Weberian” type) state, the “failure” of Tudor and Stuart regimes to collect more revenues and accumulate higher levels of debt for purposes of defence, territorial expansion, and internal governance must, therefore, be sought in the spheres of social power and of politics and administration (Mann, 1986).

For more than 150 years after the accession of the Tudor dynasty English constitutional and political history seems to have been dominated by acrimonious negotiations between Parliaments of property owners, and taxpayers on the one side and monarchs on the other, over tax revenues (both ordinary and extraordinary) that these non-democratic and non-representative assemblies of “notables” voted after negotiation, to grant to the Kings and Queens. The two parties also came into conflict over revivals, extensions and innovations to the fiscal base proposed by royal advisers as well as their designs for administrative reforms to make the assessment, collection and despatch of royal taxes more efficient and productive of revenue. Tudor and Stuart Parliaments met at the behest of monarchs in order to consider little else but requests for “supply” and to approve plans to initiate “improvements” to the realm’s fiscal base and system. Until 1688 subjects of the Crown enjoyed no “representation without taxation” (Russell, 1971).

“Duties” in the form of royal impositions on goods imported into or exported from the kingdom had been significant components of royal taxation since the middle ages. Revisions to the range of traded commodities subjected to customs duties, the rates of tax and arrangements for franchising (“farming”) their assessment and collection at the kingdom’s major ports were put into place (with formalised Parliamentary approval) usually at the beginning of every new reign with occasional revisions in between. The scale and scope of tax farms for the customs (great and small, centralised and decentralised) as well as arrangements and terms for leases (long and short, flexible and fixed) granted by the King’s Commissioners for Customs, evolved over time to take advantage of opportunities presented by developments in overseas trade. Leases could be sometimes awarded through competitive tender, but usually the consortia offering their services as collectors of customs became part of royal systems of patronage and their contracts included clauses that “farmers” could (and would) on request extend credit to the crown on the security of revenues from duties passing through the hands of their administrations (Dietz, 1964)

Before Charles I precipitated a civil war by sustained and serious attempts to widen and deepen his fiscal base for royal taxation (apart from coal and the other bulky minerals moved by ship and a short list of rather ad hoc “impositions”), Parliament consistently refused to extend indirect taxation to include commodities and services grown, mined, produced and traded within the kingdom. In a European context the English fiscal system looked anomalous in that the share of total tax revenue derived from internal duties (disparaged as “foreign excises”) levied on domestic products and services remained insignificant (O’Brien, 2002).

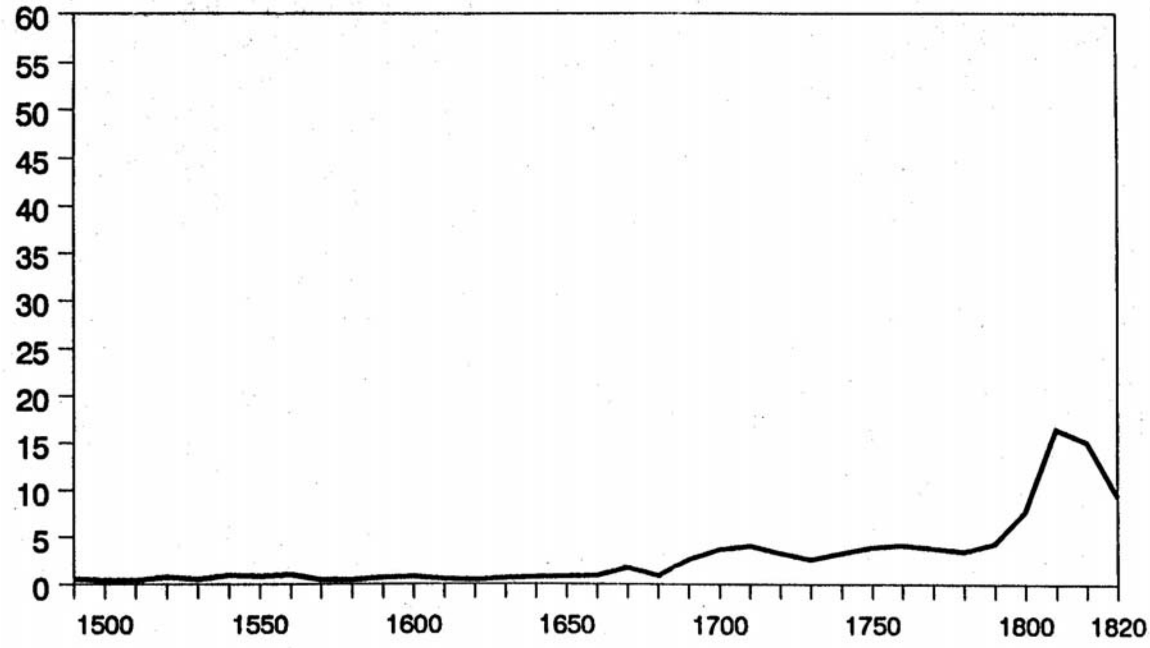
Figure 6:



The ratios are: direct taxes as a % of total taxes and ratios of (indirect taxes) from levies on imports and levies on domestically produced goods and services.

Instead Tudor and Stuart regimes entered into an ultimately futile series of attempts to devise ways of obtaining and retaining current and acceptable valuations of the wealth and incomes of the households, firms and corporations under their sovereignty, jurisdiction and protection and thereby, in principle, liable to contribute direct taxes to support the policies of the state in accordance with some measurable and transparent capacities to pay.

Figure 7: Direct Taxes 1490-1820



***Notes**:* The points plotted are 9 year moving averages for every tenth year 1490-1820. The vertical scale is expressed in £100,000 in constant prices of 1451-75.

That regal (even noble) endeavour began with the Danegeld in 991 or more famously with the Domesday survey of 1086, which recorded and valued real property under the management of William the Conqueror's Norman vassals and his recently colonised subjects. Nothing as thorough or comprehensive ever appeared again in English fiscal history although partial and more or less serious surveys of taxable wealth and income were carried out in 1291, 1332, 1453, 1474, 1514, 1522, 1533, 1556, 1628, 1642, 1676 and 1694 (Dowell, 1965 edn.). Fiscal surveys sought to provide monarchs with the information they required to impose transparent criteria as proxies for the measurement of the wealth and/or incomes of proscribed lists of taxpayers (individuals, households, firms or corporations). With these data on record Kings could assess liabilities to pay either direct taxes levied on a regular basis, e.g. fifteenths and tenths, 1334-1623, monthly assessments 1642-59, the land tax 1694-1798) or alternatively used to levy taxes for hypothecated and "extraordinary" purposes e.g. a benevolence, amicable grant, proscription, aid, compulsory loan or the infamous ship money of Charles I. The long histories of all these plans and short lived trials with redefined and ostensibly objectively measured bases and modes for the assessment and collection of liabilities for taxation follow remarkably similar trajectories towards failure. Tough, but usually satisfactory, negotiations transformed plans into statutes of the realm approved by Parliaments. There then followed a short (one, two and occasionally three years) period of success when the mode of assessment and amounts collected proceeded within realistically anticipated degrees of compliance with new rules laid out in laws and decrees. Thereafter, when capacities to harass (and even coerce) county, local and parish officials (who were neither in the employment nor pay of the Crown) faltered their initial impetus collapsed in the face of resistance which erupted sporadically into localised revolts. In order to maintain royal rights to demands, both regular and extraordinary revenues from direct taxation agreements had to be reached over both levels of liability and modes of assessment. Compromises invariably implied a withdrawal of royal plans for a redesigned and centrally monitored fiscal base and system followed thereafter by reversion to the status quo of “good old ways”, whereby entirely traditional and locally acceptable methods for assessment reappeared century after century (O’Brien and Hunt, 1999, pp. 75-87).

Famously and after short trials conducted to interfere with local processes of assessment and collection, in 1334 (for the fifteenth and tenths) and in 1694 (for the land tax) the state “settled” on “quotas” expressed as specified proportions that each county (or sub-county) was legally liable to contribute to any pre-selected total demand for revenue. Monarchs and their advisers continued to revise specifications for wealth and income liable for assessment. They hectored Parliaments and elites in the shires, and experimented sporadically with threats of coercive monitoring (seriously under Henry VIII and Oliver Cromwell). But before the reign of Charles I they found it politically expedient to keep their distance from the process of apportioning liabilities to contribute to the needs of the state across the towns, villages, parishes, firms, corporations and households of their kingdom. Their prudent withdrawal from the administration of a royal system of direct taxation that claimed to be universal implied toleration for otherwise indefensible geographical and social anomalies, inequities and exemptions in the incidence of such taxes, which placed serious fiscal constraints on the capacities of the Tudor and Stuart regimes to defend the realm, form an efficient centralised state and protect colonisation and commerce overseas.

4. The Construction of a Fiscal State During the Interregnum and Restoration

Fortunately, or unfortunately, prudence disappeared in the reign of Charles I, whose determination to increase the size and power of the state and size of its Navy led him and his advisers to formulate plans to widen the fiscal basis for the collection of ship money (hypothecated to support a royal fleet) and to deepen the productivity and raise potential yields of all other forms of direct taxation available to the Crown by reintroducing systematic and centralised monitoring over an established, lax but locally controlled process of assessment and collection (Rodger, 1997). Charles represented the most serious threat to the wealth and income of his more prosperous subjects since Henry VIII, who had at least compensated them for his demands for aids, amicable grants, subsidies and benevolences by selling off the lands and other assets he had expropriated from the Church, quickly and cheaply to fund his final futile attempts at the re-conquest of English dynastic claims to territories in France and on an equally unprofitable conflict with Scotland (Guy, 1997).

Of course, in origin, process and outcome, England's famous and protracted civil war encompassed very much more than a conflict between Monarchy and Parliament over taxation. Nevertheless, (and to keep within parameters established for this essay) pre-war trials to universalise liability for ship money and implicitly to revalue the kingdom's fiscal base; together with wartime plans for a general excise, followed by experiments with policy and administration conducted by both sides (Parliament and Royalists) to establish a more realistic and transparent base for direct taxation and above all, to cast the state's fiscal net wider, in order to include a penumbra of successful and unsuccessful excise and stamp duties levied upon goods and services produced and sold within the kingdom, can all be connected to that famous and dramatic interregnum in English history (Russell, 1973).

Predictably pressures arising from protracted, widespread, civil conflict on English soil for the first time since the Norman conquest, from wars between the "kingdoms" of England, Scotland and Ireland and from the omnipresent threat of armed intervention by royalist allies from the mainland led to the abrogation by Parliament and the Crown of constitutional conventions established for centuries for the scale, scope and administration of taxes demanded for the support of the state. During the Civil War and its aftermath of Republican government and military rule, almost all conceivable methods for raising revenue from taxes levied on income, wealth, commodities and services appeared - often accompanied by rigorous methods of assessment designed to discover, reassess and record the capacities and liabilities of corporations, firms, farms and households to contribute both directly and indirectly to the extremely "urgent" needs of both the King and his Parliamentary enemies (O'Brien and Hunt, 1997). That famous interregnum in English history, which emerged with the introduction of ship money in 1628, reordered an established culture of complacency and resistance towards royal taxation into one of comprehension (or, rather, apprehension) among the propertied classes concerning the dangers of disorder arising from an under-funded state, which in turn generated conditions for the restoration of monarchy and the political will required for the reform of the realm's fiscal base by ministers, advisers and administrators with the experience of how trials with the assessment and collection of both direct and indirect taxes had actually worked out before, during and after the war (Hutton, 1990). In short, the constitutional conflict and civil war between the King and Parliament supported a general proclivity towards greater compliance among taxpayers towards demands for a serious uplift in royal income, as well as the accumulation of knowledge and experience of how to reconstruct a fiscal system that might, without serious political dissension, generate sufficient revenues to support the policies of a restored king with his *equipe* of aristocratic advisers in an alliance with merchants for the maintenance of internal order, external security and more effective naval support for trade and expansion overseas (Hirst, 1999).

During the closing reigns of the Stuart monarchy (when the uplift in taxation in real terms amounted to only two or three times the amount appropriated by Charles I) his son's ministers concentrated on the reconstruction of a fiscal system that provided the taxes that year after year would allow the Orange and Hanoverian state to borrow funds and accumulate debt on the scale required to carry the kingdom from 1688 to 1815 through eight wars against France and her allies and reach that pinnacle of geopolitical power recognised by the rest of Europe at the Congress of Vienna.

To relay fiscal foundations for state formation, naval defence and expansion overseas, ministers depended on compliance from restoration Parliaments and taxpayers chastened by the experience of warfare and military rule (Seaward, 1991). They called upon lessons learned from legal and administrative experiments with a multiplicity of productive and unproductive excise, stamp and custom duties, as well as repeated and rigorous trials to create acceptable, viable and universal bases of information required for the effective assessment of direct taxes.

Neither the economic nor the political preconditions allowed the English (or indeed any other state in Western Europe) to establish an “effective” system of direct taxation much before the mid-19th century (Ormrod, 1999). Despite all the information and decades of experience gained from the extension of ship money, monthly assessments of incomes conducted by Cromwell’s soldiers, and experiments during the late 17th century with graduated poll and hearth taxes, in the 1690s,the English state reluctantly accepted a land tax based upon stereotyped valuations of wealth (basically land) as recorded for assessments in 1641 and 1660; settled for administration by parish officials monitored by local elites; and reverted to the tradition of contributions in the form of county quotas that ossified over time and manifestly failed to capture regional, structural and personal changes in the distribution of wealth and which allowed the Celtic peripheries and border counties to pay very little for the maintenance and defence of a fiscally disunited kingdom (Brand, 1793).

No matter! The decentralised politically acceptable collection of quotas provided something every year, and the land tax (even when levied upon stereotyped and partial valuations) could be moved up to twenty per cent in wartime (Ward, 1953). Meanwhile the ministers and fiscal advisers of the restored monarchy concentrated upon: reorganising the Treasury and other commissions and departments of state responsible for monitoring royal revenues from indirect taxation; and upon clarifying and strengthening legal frameworks for the definition and measurement of liabilities for this potentially more productive form of taxation, and above all, upon the administrative machinery for the implementation of the law in relation to the assessment, collection and despatch of customs, excise and stamp duties to the Exchequer in London (Roseveare, 1991).

Their endeavours in framing and persuading Parliaments to pass legislation and in constructing complex, politically viable and (by the standards of the day) relatively effective fiscal institutions for the appropriation of ever increasing flows of revenue can be represented as an outstanding achievement in European state formation of paramount significance for the security of the realm and growth of the economy (Prados de la Escosura, 2004).

In the wake of a profound shift in geopolitical strategy that followed from the Glorious Revolution, the Hanoverian government became outstandingly successful in realising the potential of a fiscal system for indirect taxation put in place during the Restoration after a traumatic civil war.

Between 1689 and 1815 most of the taxes flowing into the Exchequer were allocated to support naval and military forces of the Crown. The armed forces received and spent extremely high proportions (fluctuating between 70% during interludes of peace to 90% in times of war) of the income from (taxes plus loans, anticipating taxes) raised for the defence of the realm and for the pursuit of its commercial, mercantilistic and imperialistic policies overseas (Parliamentary Papers, 1868-69). Something close to 80% of the money allocated to prosecute warfare against other European powers emanated from loans recorded for the first time by Parliament as a “national debt”, which rose from an insignificant “nominal” capital for a “royal” debt of around £2 million in the reign of James II to reach the extraordinary total of £834 million – equivalent to 2.5 times the national income of Great Britain for 1819 (Parliamentary Papers, 1857).

Legally the interest, amortisation and sinking fund charges required to service debt accumulating at that rate were secured upon predicted and hypothecated annual receipts from customs, stamp and excise duties. After 1688 Parliament either extended that “net” to include an ever-widening range of commodities and services produced and/or consumed within the kingdom, or elevated the rates of duty of indirect taxes already placed on the statute book as legitimate and politically acceptable objects for taxation (Dickson, 1993).

Before the Restoration, Tudor and Stuart Parliaments had consistently opposed the creation of royal bureaucracies for the assessment and collection of indirect taxes because customs and excise officers employed as agents of the crown represented a threat to liberty and to the wealth and incomes of the monarch's otherwise loyal subjects (Smith, 1999). Parliaments preferred systems of franchising out responsibilities for the assessment and collection of duties to consortia of tax farmers who contracted to provide fixed annual sums for terms of a lease. Leases could be short or long and covered farms that ranged in scale and scope from a single tax or a specific locality, to a range of taxes covering the entire kingdom and allowed honourable members and their clients to share in the patronage and profits derived from managing royal property rights to taxation.

For the Crown, franchised tax farms guaranteed potentially more stable flows of revenue and leaseholds provided periodic opportunities to monitor and squeeze surplus profits out of the private managers of royal revenues. Furthermore, farmers could be selected not only because they possessed some local or industrial knowledge and managerial credentials to collect taxes levied on production and trades, but also because as men of status and wealth with business contacts they stood prepared to extend loans and credit to monarchs with endemic cash flow problems (Aston, 1956).

Farming operated within bounds of acceptable efficiency in times of peace, but could collapse in times of war, internal disorder, bad harvests and disruptions to overseas and internal trade when prospects for collecting the sums guaranteed by leases diminished, when monarchs demanded more credit and when farmers sought defalcations (or release) from their contractual obligations to deliver fixed annual sums to the Royal Exchequer in London.

Unsurprisingly the long history of tax farming is one of tension between franchising and the direct supervision of administrators and officers employed by the Crown's Commissioners for Customs, Excise and Stamps (Sinclair, 1802-04). Oscillation and vacillation between privatised and public management of indirect taxes came gradually to an end during the Restoration when first (1671) the Customs Service and later (1683) the Excise passed under the control and management of the Crown. Although both the political advantages and efficiencies of privatised, but monitored, organisations for the assessment and collection of the Crown's revenues continued to be advocated and debated until well into the 18th century (McArthur, 1801).

Political resistance to the transfer of indirect taxation from private into centralised institutions and organisations weakened among those with wealth after an interregnum of disorder and threats to property. While the argument for decentralised control over the process became less and less relevant when the Treasury leased extensive farms covering a wider range of excise and customs duties to syndicates ("cliques") of London based merchants and financiers widely regarded as all too influential clients of the Crown (Chandaman, 1975). Furthermore, (and this chronological fact is often ignored by Whig insistence on the discontinuities of the Glorious Revolution) Parliamentary guarantees to support royal loans incurred (and specifically appropriated and approved by Parliament) emerged during the Third Dutch War, 1672-74. Together with institutionalised, transparent and systematic arrangements for the payment of interest and the amortisation of naval, military and other debts incurred by the Crown, these guarantees implied that the capital market for bills, bonds and other paper assets issued to fund expenditures by the forces of the Stuart Monarchs, could be widened beyond "coteries" of tax farmers lending on the security of indirect taxes under their control (Tomlinson, 1979). Thus, steps towards the control and management of royal borrowing had been taken by Parliament and the Treasury seven years before the deposition of James II when the House of Commons resolved that anyone who lent to the Crown without Parliamentary authority would be judged an enemy of Parliament.

In 1683 the Commissioners for Excise, responsible to the Treasury for approving and monitoring the organisation, set up by farmers, for the collection of internal duties simply absorbed their managers and staff and adapted their modes of assessment and collection to the task of implementing the law and maximising the take - net of the costs involved in defining liabilities, collecting "duties" and despatching revenues to the Exchequer in London. Over time they recruited personnel by examination, promoted on merit, instituted payments and pensions systems for specialized posts within the service, monitored corruption and established (often in consultation with producers) universal, transparent and acceptable rules for the assessment of excise duties, levied on clearly specified commodities, at licensed sites, on particular dates, followed by timetables for the payment of liabilities (O'Brien and Hunt, 1997). The service never became popular or accepted by Tory and radical opponents of the Hanoverian regime but over time the Excise evolved into one of the most efficient departments of state in Europe, and became a model for the creation of a modern civil service during the reign of Queen Victoria (Brewer, 1989).

Although the farming of tariffs had been abruptly terminated more than a decade before 1683, the Commissioners for Customs never attained anything like a comparable reputation for efficiency. Between 1685 and 1785 their contribution to the King's revenues multiplied 5.5 times compared to the contribution from internal duties which increased by a factor of 19.5. (O'Brien, 1988). Of course, the potential for the collection of internal duties probably grew much faster while customs officers also administered an incredibly complex code of legislation, embracing regulations concerned with shipping, the protection of industry, the promotion of exports, commerce with the realm's colonies and privileges and exemptions of diverse kinds legislated into place by Parliament in response to the political pressures and lobbies of the *ancien regime*. Furthermore, customs officers confronted powerful and well organised conspiracies to smuggle foreign luxuries (wines, brandies, tobacco, silks, tea, coffee, sugar and other expensive and desirable imports) into the kingdom. Yet despite the serious problems involved in the execution of the kingdom's laws related to the realm's overseas trade and the collection of customs duties upon declared and retained imports, the quality and efficiency of the personnel recruited to manage the service continued to be diluted by patronage, the survival of sinecures and above all, by a traditional unreformed system of remuneration for officers stationed in London and the outports – a system based on fees collected by the officers on the waterline for assessing and clearing of ships and their cargoes of liability for duty. Clearly opportunities for corruption built into that system of payment together with barely contained smuggling, could only have reduced receipts from customs duties arriving at the Exchequer to levels well below the amounts legally collectable (Hoon, 1938). Both Walpole and Pitt the Younger attempted to check rampant evasion by transferring the responsibilities for the assessment and collection of duties on imports to the Department of Excise. Walpole failed in 1733, but 50 years later Pitt the Younger succeeded in transferring responsibility for the imposition and collection of duties on imported tea, spirits, wine and tobacco to the Department of Excise. Pitt's reforms, together with the rising volume of imports entering the kingdom's ports during the long war with Revolutionary France and the deployment of the Royal Navy to apprehend smugglers, led to a pronounced welcome and long overdue jack up in revenues from customs duties between 1793 and 1815 (Leftwich, 1908).

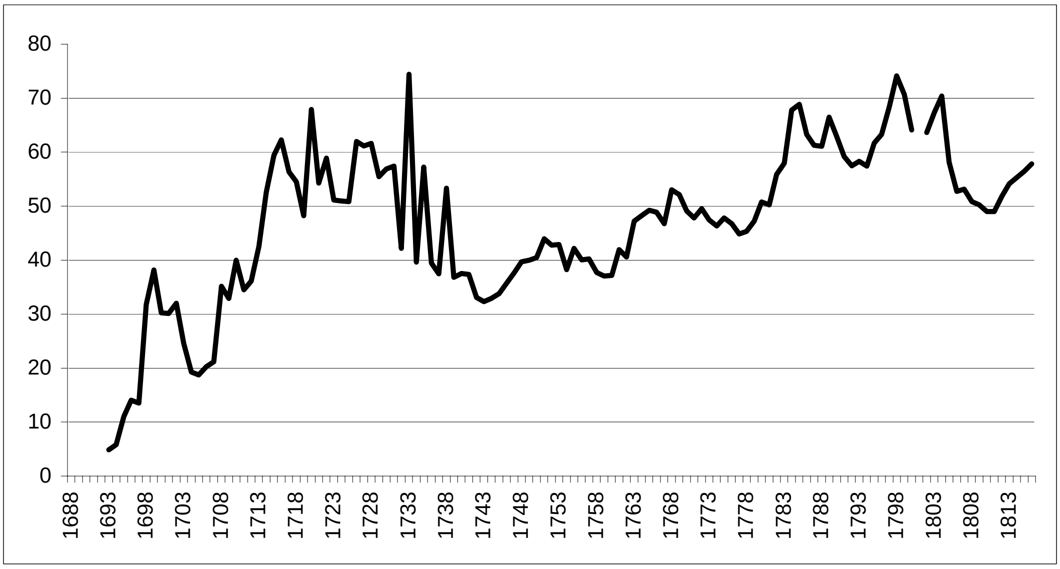
5. The Political Economy of the Hanoverian Regime 1688-1815

After an interregnum of civil war and military rule, under the restored Stuart monarchy, political and administrative foundations were well and truly established for the future development of a fiscal and financial system that Whigs of the day (and Whig historians today) continue to represent as an outcome of the Glorious Revolution (North and Weingast, 1989). Essentially (and surely in outcome?) the Dutch *coup d'état* of 1688 represented a signal from a new monarchical regime to an under-taxed European society and economy with developed but latent fiscal and financial potential (as well as a powerful navy) that costly support (taxes and loans) would become necessary for the strategic, commercial and imperial policies pursued by William III and successors in order to ensure the survival of a protestant regime in England (O'Brien, 2002).

In sequence two expensive wars under William III and Anne put the fiscal institutions established under the Restoration to severe tests of endurance that demanded legislative clarification, further innovations and unavoidable administrative improvements to the range and machinery for indirect taxation in order to service loans – raised in large measure in negotiations with consortia of financiers on the London capital market to fund immediate and sharp uplifts in expenditures required to mobilise the navy and the army for warfare.

The potential embodied in a fiscal system rather well constructed and managed by European standards of the day and dependent upon indirect taxes was realised after the "Revolution" over a series of wars with France and other rival powers between 1689 and 1815 when very large shares of the customs, stamp and above all the excise duties flowing into the Exchequer were allocated to service loans raised to support expenditures upon the forces of the Crown. Debt servicing fluctuated but continued in war and peace alike (Figure 8) to testify to accumulation of a national debt and the fundamental change in strategic policy that occurred in 1688 (Prest, 1998).

Figure 8: Allocations for Debt Servicing as a Share of Total Net Income From Taxation



The data for this figure have been calibrated from annual inflows and outflows of public revenues from the Exchequer recorded in Parliamentary Papers 1868-69 (XXXV).

A juxtaposition of transfers for servicing debt (interest, amortisation, sinking fund and administrative charges) with tax receipts set out in figure 8 is perhaps the most illuminating way of comprehending the mechanism and long term outcome of the discontinuity in fiscal strategy that flowed from the Glorious Revolution. Declarations of war had traditionally signalled an immediate jump in expenditures on the armed forces funded and sustained, in large proportion, by royal borrowing. Loans incurred for defence and/or aggression by Tudor and Stuart monarchies had normally been accompanied or succeeded in short compass by demands for “extraordinary” taxation and conflicts were concluded in fiscal terms by the amortisation of the monarch’s debts over finite and usually short periods of time. For the period 1689-1815, the monarch’s debts became “the national debt” and an omnipresent and increasingly significant component of the kingdom’s fiscal system. In return for clear constitutional declarations that the Commons enjoyed absolute sovereignty over supply (i.e. the imposition, assessment and collection of taxes and the raising of loans for reasons of state), with a good deal of "Whig spin", Parliament formally acquiesced in a fiscal and financial system (already accepted and in operation under Charles II and James II) which *in effect* virtually removed (or severely attenuated) long standing fiscal constraints on the political and administrative capacities of Tudor and Stuart monarchs to fund whatever armed force that they and their ministers decided to mobilise for the defence of the realm, the preservation of the state and the prosecution of its (their) interests overseas (Ralph, 1744). Whereas the fiscal implications of Tudor and Stuart policies became visible and burdensome to taxpayers almost immediately, after 1688 the mode of funding defence and/or aggression obscured the implications and costs of warfare by resorting first to long term and then to perpetual loans to raise most of the *extra money* required to mobilise the army and navy quickly and more easily (Braddick, 1996). After a rather short interlude of further fiscal and financial construction along Dutch lines, the Hanoverian regime funded its wars with money borrowed on an increasingly efficient capital market that developed in association with the Treasury and Bank of England in London to attract and supply funds for a restored state that serviced its rapidly accumulating debt with regularity and reliability from publicly hypothecated receipts from elastic supplies of indirect taxes (particularly excises) – assessed and collected by the most efficient fiscal bureaucracy in Europe (Carruthers, 1996). That organisation, together with the constitutional basis for borrowing had been established during the Restoration, but realised its potential when William of Orange in effect returned the kingdom (after an interlude of 235 years, 1453-1688) to an active involvement in European geopolitics and imperialism overseas (Rodger, 2004).

After the Glorious Revolution warfare ceased to be accompanied by immediate and significant uplifts in taxation. Of course taxes (particularly the land and other direct taxes) rose at the outbreak of conflicts and reminded English, Welsh and Scottish taxpayers that wars cost money, but the largest share of their burden had been shifted forward to future generations of taxpayers, and the rich (Tories as well as Whigs) found it functional and profitable to diversify their portfolios of assets into low risk bonds, providing for the kind of secure stable flows of income supplied by modern insurance companies and pension funds (Dickson, 1993). Political discourse (which occurred within an entirely constricted public sphere that included ministers of the Crown) shifted towards expressions of concern about the burdens of taxation to be levied on future generations (Horwitz, 1977). With their sovereignty assured, cajoled, bribed and organised by ministers of the Crown, eighteenth century Parliaments moaned and grumbled , but almost never refused supply, particularly in wartime when the loyalty of members to the protestant succession and Hanoverian regime could be questioned by aristocratic elites and reviled at the bar of xenophobic public opinion (Colley, 1992). Memories of the Civil War, the real or perceived threats to the established Anglican church and stability of the regime, an accelerated shift to more acceptable, less visible and easier to collect revenues from indirect taxation conjoined with the evolution of favourable political and institutional conditions for the accumulation of public debt and, of course, victories in war opened the way to the successful operation of the most effective fiscal state in Europe.

Legally, the interest, amortisation and sinking fund charges required to service the state's rapidly accumulating debt were secured upon predicted and assigned annual receipts from customs, stamp and excise duties. After 1688 Parliament either extended that "net" to include an ever-widening range of commodities and services produced and/or consumed within the kingdom, or elevated the rates of duty of indirect taxes already placed on the statute book as legitimate and politically acceptable objects for taxation (Cunningham, 1778).

Of course, some share of the increase in revenues from taxation, direct and indirect, is attributable to an acceleration in the growth of real incomes and real expenditures on commodities and services subjected to duties that occurred despite higher taxes. For "Smithian" economic theory, but to some un-measurable degree dependent upon assumptions made about their incidence, all increases in the "burden" of taxation operated to "restrain" the capacities of an otherwise competitive market economy to achieve optimal (equilibrium) levels of efficiency and output. For the rise of Britain over that final "long century" (1689-1815) of mercantilism, the concentration of liberal political economy and history on the "costs" of higher taxes – almost without reference either to state formation or to the macro-economic benefits and externalities that accrued and cumulated from rather limited reallocation of real resources to the forces of the Crown, particularly to the navy – in retrospect looks anachronistic and ideological (Dome, 2004). Critiques by liberal historians, based implicitly upon counterfactual scenarios of peaceable international and stable internal economic orders have been constructed to condemn the strategic policies pursued by the Hanoverian regime as manifestly wasteful and malign for the growth of the economy. Yet nobody at the time (or since) has elaborated upon an alternative "geopolitical strategy" that might conceivably have carried the kingdom and its economy to the plateau of security, imperial power and potential for industrialization attained by Britain, when the Treaty of Vienna ushered in a century of peace and prosperity after victories at Trafalgar and Waterloo (Mokyr, 1993).

Yes, the incidence of indirect taxes impacted "regressively" on the social welfare of the working classes and with increased severity during those desperate years of search for revenue from 1793-1815, at the end of the Second Hundred Years' War against France. Despite suggestions (from a hard-nosed minority of intellectuals, who thought taxes stimulated harder work) most 18th century Parliamentarians subscribed however, to the rhetoric of a traditional paternalism that the “necessities of the poor” should be exempt from taxation. Ministers and their advisers favoured taxes on “luxuries” (especially alcoholic beverages and tobacco) and framed legislation in ways that defined commodities and calibrated rates of duty (e.g. distinguishing wax from tallow candles and strong from table beers) so as to avoid contentious impositions that were blatantly regressive in their incidence (Kennedy, 1913).

Although the tax system as a whole could only appear from any serious exercise in measurement as ”regressive” (in that the system clearly appropriated larger proportions of revenue from tax payers in lower, rather than higher, income bands), trends in legislation probably moved towards progression, particularly for directly assessed taxes on proxies for income such as houses, windows, servants, carriages, and riding horses. Late in the day (1799) Pitt the Younger introduced the first income tax which included provisions for exemptions, some graduation and child allowances (Shehab, 1953).

Mercantilists of the time insisted, however, that complex and benign connexions existed between the growth of the economy, the rise of a fiscal state and the macro economic benefits that flowed from state formation and investment in national security and geopolitical power that were in their view inseparable from the (unmeasured) opportunity costs of ever increasing levels of taxation (Gomes, 1987). Although most of the items in implicit balance sheets behind 18th century debates in political economy, might be specified, they remain impossible to add up and (to repeat) could never be realistically juxtaposed against some equally efficient, but less expensive, counterfactual strategy for the industrialisation of the British economy.

Meanwhile retrospective (distorted Smithian?) assessments of the state by neo-liberal historians not only ignore connexions between public revenues and expenditures on strategic objectives, but neglect positive spin-offs for the integration of a national capital market and the diffusion of financial intermediation that accompanied the accumulation of a public debt (Neal, 1990). Although they are told that mercantilist thought contributed very little towards the progress of economic science, historians have detected a sensible thrust in the formulation and execution of taxation policies pursued by successive British governments from 1688 to 1815 that might, be represented as consistent and functional for the preservation and expansion of a fiscal base, the formation of a Weberian state and for the growth of the domestic economy (Winch and O'Brien, 2002). At least histories of internal duties as they operated within contexts in which several industries developed over the long 18th century can now be read as a move forward from simply defining all taxes as inimical for moving the economy towards a state of mathematical but mystical equilibrium.

Although exercises in the measurement of incidence of taxes are impossible to conduct for this period, historians can at least restate principles embodied in legislation surrounding the imposition, assessment and collection of taxes. These principles never operated consistently across the range of taxes or for the whole period 1688-1815. Nevertheless, chronology, exceptions and anomalies do not undermine recent "representations" of Hanoverian fiscal policy as a rather coherent attempt to integrate internal duties (excises and stamps) with external duties (customs and tariffs). For example, a majority of domestically produced commodities and services subjected to excises received protection from foreign substitutes. This principle applied, for example by way of tariffs on imported candles and prohibitions on foreign shipping under the navigation acts. Customs legislation virtually insulated British industry from foreign competition and thereby extended and deepened the Government's base for internal duties. Some of the potentially malign economic effects of providing protection for industries subjected to internal duties were, moreover, mitigated because excised commodities could escape from their burdens, when exported beyond the borders of the realm. Clauses in the legislation for excises providing for repayments, rebates, drawbacks, bonded warehouses, bounties and other provisions included clear and (as the rates of internal duties and tariffs went up and up) increasingly strong incentives for British industrialists and merchants to sell higher proportions of the commodities and services they supplied, either as domestic exports and/or re-exports outside the borders of the realm. At the same time, customs and maritime legislation also exempted many imported inputs into manufacturing from duty to pay for the services of the state.

Whole swathes of industry and some services like shipping (connected to shipbuilding) could legally avoid "duties" for excises by exporting their outputs and almost all the new and/or rapidly growing industries of the period (cotton, wool, iron, metallurgy, canals and financial services) either escaped notice or fought off and carried light duties (O'Brien, 1988).

Finally, but as yet another unintended outcome of their mission for effective and cheap administration, the Commissioners for Excise and their officers responsible for the collection of internal duties promoted the concentration of production in larger firms and urban locations. Assessments for liability occurred at licensed sites for production. Commodities singled out for duty needed to be clearly specified (e.g. as strong or small beer, wax or tallow candles). Volumes (physical units) of outputs were gauged or measured at particular stages of the production process. Since prospects for avoidance, evasion and fraud continued to be an omnipresent problem, excise officers preferred to "negotiate" liabilities for taxes, modes and schedules for payment with larger firms conveniently located in towns. Fiscal rules and regulations framed the manufacture of excised commodities in diverse ways that actively discouraged the proliferation of sites for production, the deployment of "inconvenient" processes of manufacture and the production of cheaper substitutes not covered by statute. In short, the whole bias of legislation and rules for the execution of laws for the imposition of excises on British manufacturing industry operated to discourage the extension of small scale informal sectors of the economy, and encouraged the emergence of larger scale, locally concentrated firms producing standardised and homogeneous commodities that might be efficiently assessed for duties imposed by the state (Ashworth, 2003). That assessment involved, moreover, the quantification of outputs measured in physical units – a procedure that offered incentives to firms to introduce process innovations that lowered costs of production.

How all this legislative and day to day administrative engagement played out for the long run development of British industry is difficult to ascertain. “Smithian” economists are likely to deplore frameworks of bureaucratic regulation that seem almost designed to reduce competition, promote concentration and restrain product innovation. “Schumpeterian” economists might be inclined to take a more positive view of fiscal legislation that promoted internal and external economies of scale, raised levels of investment in process innovations, encouraged exports and created political conditions for a more active and sensitive engagement between the realm’s landed and ruling elites on the one hand, and businessmen who unwittingly ran an expanding urban and industrial base for fiscal exactions on the other (Beckett and Turner, 1990).

Clearly, the futile attempt by the monarchy and aristocracy to extend stamp and excise duties to the realm’s thirteen colonies in America represents an extremely serious failure of political imagination. After all, an unrepresentative Parliament and the Crown’s ministers prudently took little cognisance of the pathetically inadequate sums contributed by Scotland and Ireland towards the defence of their realm (Parliamentary Papers, 1868-69, appdx. 13). Despite Walpole’s blunder into an excise crisis in 1733 and also thwarted political attempts by Bute and Pitt to bring cider and shops and other minor objects into the net and the persistence of evasion and fraud, the degree of “compliance” achieved by an *ancien regim*e in securing such a large and sustained uplift in the flows of taxes required to reassure its creditors over the massive accumulation of debt that accompanied the rise and formation of the most successful mercantilist state in Europe looks remarkable (Douglas, 1999).

Concurrent economic growth certainly carried rising proportions of the kingdom's firms, households and economic activities into a net for taxes levied on the manufacture and consumption of domestically produced (as well as imported) goods and services which became legally eligible and administratively accessible for duties and contributions to the state. Yet between 1670 and 1810 total revenues from taxes (direct as well as indirect) rose in real terms by a factor of sixteen while national output merely tripled. Structural changes to the economy including industrialisation, urbanisation, the concentration of production in larger firms and farms, rising ratios of foreign trade to national income, the decline of subsistence in favour of marketed forms of production and the recently rediscovered propensities of "industrious households" to work harder in order to consume taxable "decencies" (sugar, tea, candles and soap), as well as "luxuries" (e.g. wine, spirits, beer, tobacco, silks and calicoes), all helped to fund the formation of Britain's "fiscal naval" state. Nevertheless, significant differences in the multipliers for rates of increase in aggregated tax revenues compared to national income suggests that the overall growth of the economy owed more to a rise of the fiscal state and its navy rather than vice versa. In short, the origins of Britain's outstanding geopolitical achievements from 1688-1815 are to be found in a reordering of its political system and culture by civil war and reconstructed foundations for efficient fiscal and financial organisations put into place during the Restoration and which evolved to reach high and sustained levels of efficiency during the second hundred years' war with France (Crouzet, 1996). When its fiscal and financial systems ran into diminishing returns after the exertions of the Revolutionary and

Napoleonic Wars, Britain’s geopolitical hegemony and economic transformation continued for another century under the cheaper rhetoric of laissez-faire, free trade and universal peace policed by its all powerful navy (Rodger, 2004).

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