

O'Brien, Patrick Karl

Working Paper

The formation of a mercantilist state and the economic growth of the United Kingdom 1453 - 1815

WIDER Research Paper, No. 2006/75

Provided in Cooperation with:

United Nations University (UNU), World Institute for Development Economics Research (WIDER)

Suggested Citation: O'Brien, Patrick Karl (2006) : The formation of a mercantilist state and the economic growth of the United Kingdom 1453 - 1815, WIDER Research Paper, No. 2006/75, ISBN 9291908533, The United Nations University World Institute for Development Economics Research (UNU-WIDER), Helsinki

This Version is available at:

<https://hdl.handle.net/10419/63618>

Standard-Nutzungsbedingungen:

Die Dokumente auf EconStor dürfen zu eigenen wissenschaftlichen Zwecken und zum Privatgebrauch gespeichert und kopiert werden.

Sie dürfen die Dokumente nicht für öffentliche oder kommerzielle Zwecke vervielfältigen, öffentlich ausstellen, öffentlich zugänglich machen, vertreiben oder anderweitig nutzen.

Sofern die Verfasser die Dokumente unter Open-Content-Lizenzen (insbesondere CC-Lizenzen) zur Verfügung gestellt haben sollten, gelten abweichend von diesen Nutzungsbedingungen die in der dort genannten Lizenz gewährten Nutzungsrechte.

Terms of use:

Documents in EconStor may be saved and copied for your personal and scholarly purposes.

You are not to copy documents for public or commercial purposes, to exhibit the documents publicly, to make them publicly available on the internet, or to distribute or otherwise use the documents in public.

If the documents have been made available under an Open Content Licence (especially Creative Commons Licences), you may exercise further usage rights as specified in the indicated licence.



UNITED NATIONS
UNIVERSITY

UNU-WIDER

World Institute for Development
Economics Research

Research Paper No. 2006/75

The Formation of a Mercantilist State and the Economic Growth of the United Kingdom 1453-1815

Patrick Karl O'Brien*

July 2006

Abstract

New institutional economics lacks a theory of state formation which could help us to deal with the mega question of why some states became more efficient than others at establishing and and sustaining institutions. Some kind of middle range theory could be formulated based upon historical case studies. This paper considers the case of Britain and as its title suggests degrades the myth of the United Kingdom as the paradigm example of liberalism and laissez faire. In making its precocious transition to and industrial market economy the kingdom's history is best represented as a case of successful mercantilism.

Keywords: military, sovereignty, mercantilism, political economy, taxation

JEL classification: E62, P16, F59

Copyright © UNU-WIDER 2006

* Centennial Professor of Economic History, London School of Economics; patrick.obrien@st-antony.oxford.ac.uk

This study has been prepared within the UNU-WIDER project on Institutions for Economic Development: Theory, History and Contemporary Experiences, directed by Ha-Joon Chang.

UNU-WIDER acknowledges the financial contributions to the research programme by the governments of Denmark (Royal Ministry of Foreign Affairs), Finland (Ministry for Foreign Affairs), Norway (Royal Ministry of Foreign Affairs), Sweden (Swedish International Development Cooperation Agency—Sida) and the United Kingdom (Department for International Development).

ISSN 1810-2611 ISBN 92-9190-853-3 (internet version)

The World Institute for Development Economics Research (WIDER) was established by the United Nations University (UNU) as its first research and training centre and started work in Helsinki, Finland in 1985. The Institute undertakes applied research and policy analysis on structural changes affecting the developing and transitional economies, provides a forum for the advocacy of policies leading to robust, equitable and environmentally sustainable growth, and promotes capacity strengthening and training in the field of economic and social policy making. Work is carried out by staff researchers and visiting scholars in Helsinki and through networks of collaborating scholars and institutions around the world.

www.wider.unu.edu

publications@wider.unu.edu

UNU World Institute for Development Economics Research (UNU-WIDER)
Katajanokanlaituri 6 B, 00160 Helsinki, Finland

Camera-ready typescript prepared by Adam Swallow at UNU-WIDER

The views expressed in this publication are those of the authors. Publication does not imply endorsement by the Institute or the United Nations University, nor by the programme/project sponsors, of any of the views expressed.

The State stands on earth and so is in the sphere of caprice, chance and error

Hegel, *Philosophy of Right*

It is upon the Navy under the Providence of God that the safety honour and welfare of this realm do chiefly attend

Preamble to articles for the First Anglo-Dutch War, 1652-54

I General reflexions on the formation of states and the growth of national economics

Efficient states govern successful economies that provide high standards of welfare for their citizens. Among Anglo-American economists that outcome is now widely represented as emanating from a process of ‘Smithian growth’ – a label that includes the extension and integration of markets for commodities, land, labour and capital, as well as the formation of regimes for the discovery and diffusion of useful and reliable knowledge for purposes of production.

Adam Smith’s name cannot, however, be appropriated for a ‘Washington consensus’ in favour of minimalist intervention by governments, because he explicitly forbade no actions by states (particularly in the geopolitical sphere) that might be in a nation’s interest and his writings provide clear intellectual justifications for the provision of public goods. Nevertheless, Smithian growth has now acquired a meaning that is congruent with antipathies embodied in new institutional economics and the spillover of its vocabularies into European economic history which represent most forms of ‘interference’ by states with the operations of competitive markets and private enterprise (today and in the past) as futile, perverse and motivated by rent seeking behaviour. ‘Smithian’ assertions that historically successful states promoted long-run growth in some regions of Europe (and Asia) basically by ‘encouraging’ the allocation of resources into activities and by motivating their utilization in ways that brought about a congruence between social and private returns can be contrasted, however, with a ‘Listian’ or ‘Schumpeterian views of states doing much more than simply creating incentives for economic growth by redefining and protecting property rights, reducing transactions, search and negotiation costs for private production and exchange. This alternative tradition (more deeply rooted in European history) conceives and elaborates upon an altogether wider and more positive role for states. In contrast to Smithian approaches (which are basically concerned with barter and exchange) the Schumpeterian theory is centred in production and international trade and emphasises the role played by states in encouraging, protecting and investing in activities that in outcome enjoyed increasing returns over the long run. Willy-nilly, (and usually as a by-product of geopolitical and political preoccupations) the strategies, policies and capital formation by some states promoted the development of sectors, industries, organizations, technologies and institutions which embodied economies of scale, scope, potential for learning, investment and structural change.

Adam Smith certainly realized that for several centuries before the Industrial Revolution, the primary and urgent concerns of national states, in Europe, were not with

the specification and protection of property rights, the reduction of transaction costs, the extension of markets, the terms of exchange and the promotion of competition, but rather with their own formation in contexts of intensifying geopolitical and imperial violence and threats of invasion, as well as internal rivalries for control over resources with aristocratic magnates, urban oligarchies, ecclesiastical prelates and other serious contenders for wealth and authority within their own borders. Power prevailed over profit by a long way in the priorities of pre-modern states. Their main objectives included dynastic survival, territorial security and aggrandizement, the monopolization of internal coercion and the integration of diverse regional, ethnic and religious populations into 'national' polities, made subject to laws, promulgated, adjudicated and enforced by a sovereign source of authority.

Some historical comprehension of when, where, how and why cities, regions, estates, countries and empires around the world obtained and retained the kind of autonomous centralized and effective government and administrative capacities required to support and sustain the construction of institutions required for long term development is a precondition for advance in new institutional economic theory.

In Europe the beginnings of the process of state formation can be traced back to the powers and functions exercised by feudal rulers who emerged in the Middle Ages from the turmoil of rivalries among territorial warrior magnates for the status of *primus inter pares*. Their role as dynastic monarchies allowed them to deploy their own considerable resources, and to convene and coordinate military forces under the control of other powerful feudal 'lords' for: the 'collective' defence of confederated territories (which included estates, bishoprics and cities); for 'collaborative' attacks on rival confederations; for 'cooperation' to maintain internal stability and to preserve some kind of status quo in the distribution of property rights.

Over centuries of violent transition from a multiplicity of feudal confederations, to closer federations and on to states with more or less effective and efficient monopolies over the means (armed forces and revenues) required for coercion, Europe's potential sovereigns attempted to centralize and to realize the economies of scale, scope and specialization embodied in effectively organized, increasingly capital-intensive armies and navies, equipped with modern technologies for defence and aggression. Geopolitical imperatives driven by dynastic rivalry as well as advances in the technologies and organization associated with the delivery of violence, prompted rulers everywhere to progress from acting as coordinators of the military and naval power available within their frontiers, towards positions of command over the means of coercion required for the defence of vulnerable territory, national wealth and 'domestic' fiscal bases.

Their 'trajectory' towards centralization, which proceeded falteringly along several routes at different speeds across the continents and within political arenas of embryo nations, is a history marked by varying degrees of opposition from estates, aristocracies, urban oligarchies, churches and other networks of power. Constrained by historically embedded centrifugal forces, rulers of Europe's traditional polities constructed several types of state that gradually became more viable, stable, and autonomous enough to afford governance for private economies in the specific political and geopolitical contexts in which they happened to be located.

European state formation (as an inter-related process of coercion, cooperation and co-option) took centuries to complete and was marked by accident, contingency relapses and political discontinuities of every kind. Acting within the imperatives of a violent, unstable and competitive geopolitical order, centralizing monarchies, oligarchies and power elites (funded by taxes appropriated from accessible fiscal bases and from time to time from wealth expropriated from internal rivals and enemies) ‘struggled’ to construct states that could protect and regulate national economies. They simultaneously coerced and co-opted rival claimants to local powers (ancient kingdoms, estates, territorial magnates, ecclesiastical authorities, cities, towns and rebellious artisans and peasants) into compliance with their agendas to fund and construct sovereign states. Co-option, which is now perceived to have been as significant as coercion in the formation of Europe’s ancien regimes, involved sovereigns and their bureaucracies in complex political settlements with aristocracies and other traditional elites over: separations of power, rights to assess, collect and profit from ‘royal’ revenues, patronage to appoint to senior positions in the armies, navies, churches, judiciaries and the evolving bureaucracies of realms and republics. Even the construction of armed forces for the execution of royal or oligarchical policies included systems of permanent negotiation between rulers and other elites in the formation and management of the departments and organizations of monarchical and other types of regime.

Historians of state formation and political economy have long recognized that the scale, difficulties and costs of maintaining administrations and organizations to supply public goods required to provide external security, political stability internal order, and the coordination of economic agents, varied with geographies and with differences across cultures and changed through time. Rulers of compact contiguous territories surrounded by water and containing populations of similar ethnic and religious identities, pervaded by cultures of patriotism and deference to hereditary authorities and loyalty to kings and city patriarchies did not confront the same logistical problems, resistance and enforcement costs as rulers of dispersed territories with long frontiers that contained *multi-lingual*, *multi-ethnic* and *multi-religious* populations.

But everywhere in Europe the formation of stronger, more centralized and stable states involved divisions of power and the sharing of rents with established stakeholders in national wealth, regardless of whether the settlements over terms for coordination, collaboration and cooperation were reached formally after due process with ‘representative’ assemblies of ‘notables’ or operated informally and implicitly in the ways that ostensibly autocratic decisions were made and above all carried into effect by ‘privatized’ administrations ‘under contract’ to ruling houses and oligarchies or implemented by hierarchical organizations of their own making and ostensibly under royal command.

Historical trajectories along which Europe’s competing polities evolved into centralized states exemplify contrasts which historians have analysed since the Enlightenment in teleological terms as precocious or protracted transitions to freedom and democracy. The preoccupations of philosophers, political scientists and latterly neo-classical economists cannot be connected never mind precisely correlated with the priorities accorded by rulers to the development of economies or to the efficiencies of the organizations and institutions set up to provide those essential preconditions for any kind of sustained economic growth, namely external security, internal order, political stability, efficiently protected property rights, regulated markets and functional fiscal systems.

Until acceptable correlations can be established, or impressive samples of historical cases, mobilized to relate ‘constitutions for liberty’ with economic growth, historians in touch with the European past (never mind the records Tang, Sung, Ming and Qing China) will remain agnostic on the frequently quoted proclamations of close and ubiquitous connexions between freedom and growth from the times of Montesquieu to the theories of Buchanan. In recent years they have, however, become more attracted to micro and more middle range theories from new institutional economics which have redrawn attention to the significance of particular examples of institutions, organizations, laws, rules, customs and culturally conditioned behaviour for the development of specific sectors, industries, firms, trades and urban complexes. Modern economics has expanded its remit to include matters that Cunningham recommended to Marshall and is currently sustaining a programme of classifying, theorizing (occasionally purporting to measure) how a range of institutional variables conditioned both the flow and the productivity of the inputs of land, labour, capital, technology and other more proximate determinants of national economic growth.

Perhaps economic historians, engaged with traditions of enquiry going back to the German historical school, and who have retained links with history, had less need than their colleagues in economics to be reminded that production and exchange across early modern Eurasia were embedded in diverse and in less than enabling frameworks of law, institutions and cultures. Although the taxonomies and insights derived from this still evolving branch of economics are certainly enlightening to contemplate, there is one foundational premise where this so-called ‘new’ paradigm for research seems seriously ill-informed and under-specified. Ships adrift on uncharted waters certainly deserve credit for every mile travelled in the right direction, but the economic theory of institutions has not left harbour when it comes to analysing and explaining the formation and behaviour of states.

That represents a serious *lacunae* because throughout history states created and sustained the ‘local’ legal frameworks and institutions within which productive and counter-productive activities occurred. States defined and enforced property rights. States solved or failed to solve the contractual, infra-structural and coordination problems involved in extending and integrating markets. States reordered or neglected to reorder ideologies, religions and cultures of behaviour in order to reduce shirking, cheating, free-riding moral hazards and transaction costs and to encourage thrift, work and innovation. Above all, states supplied economies (bounded by vulnerable frontiers and engaged in the dangers of ‘foreign’ trade) with those vitally important public goods, external security, protection at sea and internal order without which investment, innovation, production and exchange could only have remained at levels that produced stasis rather than growth.

Of course, in normal, peaceable interludes, a great deal of subsistence (and ‘embodied’) production, even local and regional (but rarely international) trade continued with limited reference to states on the basis of customary norms and behaviour. But without states and the laws, institutions and protection that they provided, the gains from trade and specialization could not be exploited to realize a potential for growth.

Unless economic historians choose (like economists) to ‘endogenize’ their role and thereby support convenient but superficial predictions and retrodictions that the constitutions of states and frameworks of rules for the operation of economic activity altered as and when it became ‘sufficiently profitable’ for ‘rulers’, ‘innovators’ or

'revolutionaries' to bring about positive change, they must conclude that new institutional economics, lacks anything approximating to a theory of state formation and *mutatis mutandis* of institution building and innovation.

So does history! Even though the preoccupations of most historians have always been with the evolution of states, laws, rules, religions, ideologies and cultures conditioning personal and group behaviour. History's libraries are dominated by volumes of research into these matters for particular places at particular times. Most historians do not recognize, however, that the formation of states took place in arenas that can be simulated to market places. 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 even that altogether more promising theory of the ostensibly ubiquitous 'revenue maximizing' behaviour of rulers (derived from the reflexions of Frederick Lane) particularly illuminating. Perhaps there is too much violence, path dependence, vested interest, custom, inertia and bargaining recorded for national and local histories of political change and no overriding and persistent objective that rulers attempted to maximize for economic theory to be of serious help with the mega and interrelated problems of state formation, strategies for development and institution building.

More insights might become available from theories formulated to model the evolution of competitive advantages in incentive systems embodied in large scale, hierarchically organized firms, producing goods and services for sale to consumers. Economics begins to extend modern theories of industrial organization to explore the conditions for efficiency among complex organizations with less clear cut objectives but charged to deliver public goods, such as health, education, protection against crime, etc. Unfortunately a whole generation of literature has been ideologically concerned simply to expose bureaucratic failures, anachronistically represented as: corruption, rent seeking, inertia, rigidities and other theoretically plausible attributes of organizations designed and run by states for multiple purposes, but which were historically in Europe only tangentially connected to requirements for the efficient operation of factor and commodity markets. Economic analysis is well designed to offer recommendations for the construction and management of organizations charged with single or complementary missions, but has a lot less to offer when it comes to comprehending designing or evaluating institutions with multiple and conflicting objectives.

In Europe and till very late in the nineteenth century, corruption, rent seeking, free riding, moral hazards and every conceivable kind of principle agent problem continued to be the omnipresent and daily concerns of states attempting to manage their armies, navies and fiscal systems and other branches of administration. The political constraints on developing departments and institutions nominally under the control of rulers and their advisers, to deliver public goods at acceptable 'fiscal' and 'political' costs were then and continue, in many third world countries today, to be formidable. Historians in touch with the sources and aware of the constraints surrounding states during the periods that they study recognize that the modes and scale of public and quasi-public organizations, the systems in place for the recruitment of personnel, levels of corruption, degrees of rigidity and rent seeking simply exemplify the multiple objectives and restraints constraining the operation of Europe's ancien regimes of all political forms. On the one hand rulers made 'unavoidable' political bargains and comprises required to secure stability, but their political interest on the other was to maintain, increase and centralize power by supplying external security, victories in war, and

internal order on terms that did not threaten their own property rights, legitimacy and dynastic succession.

During the long transition to ‘Weberian’ ideals of sovereignty, administrative competence and national bureaucracy which provides scope for functional levels of efficiency, the organizational capacities at the disposal of every conceivable kind of political regime (imperial, parliamentary, monarchical, oligarchical, republican and absolutist alike) remained severely constrained by the existing, if evolving, technologies for communication and control, as well as the omnipresent political difficulties of establishing organizations to implement policies, however, benign for growth. That may seem less obvious at the courts and capitals of emperors and kings and the chambers of oligarchies where many rulers benefited from the advice and support from talented ‘servants’, often recruited from the church and the law or in China through a meritocratic examination system – admired by Voltaire and other enlightened European intellectuals of his day. Yet these loyal servants engaged in the execution of the policies of sovereigns continue to be represented as rent seekers, pursuing interests, antithetical to economic progress. Even though their albeit sometimes sycophantic devotion to rulers and opposition to rival centres of power meant that they pursued missions to rationalize and universalise the formulation of rules; to support established procedures for their adjudication and to enforce and monitor the execution of policies.

To implement policies even those involving the armed forces of the Crown they resorted frequently to markets and franchising. Private firms often networked in tandem with politically appointed hierarchies to deliver public goods, designed for coercion and other purposes. Debate on the boundaries of private and public sectors goes back a very long way. Furthermore, and regardless of their pretensions to rule by dynastic authority (with or without divine rights) or claims to legitimacy bestowed by unrepresentative assemblies of notables, nothing much could be accomplished without command over resources. That is why generations of historians have analysed the political economy of taxation at the heart of state formation. How different states constructed and sustained complex fiscal policies and how well their trusted advisers, franchised administrations or appointed bureaucracies charged to assess and collect an astonishing variety of direct and indirect taxes performed has been under investigation since David Hume.

II Liberal and mercantilist narratives of state formation in the United Kingdom

2.1 Liberal myths and mercantilist realities

In retrospect it seems clear from Europe’s historical records that some states (England, and Holland – the First Modern Economy) constructed and managed the bureaucracies, departments and complex organizations required to raise revenues, solve problems, preserve stability and delivery arrays of public goods that promoted rather than restrained economic growth sooner and more effectively than others (e.g. France, Spain and Austria) and that political pre-requisites for the formation and integration of markets occurred in China long before Europe, South America and Africa.

This work could not hope to provide the basis for the construction of a general theory of state formation, state behaviour and institution building by states. Historical case studies

might, however, expose the geographical, economic and political conditions that favoured the emergence of ideal type ‘Weberian’ states in some polities before others. It will be my aim (in brief compass) to restore a representation of state formation and institution building in the United Kingdom that degrades an established ‘Whig’ view of the process and undermines the deployment of Britain’s famous economic transition to an industrial market economy as *a*, if not *the*, ‘paradigm case’, supporting a Washington consensus for laissez-faire, free trade, democratic governance and the triumph of private enterprises virtually unassisted by help from the state.

Unfortunately (and as liberal myth that is understandably congenial to modern economics) by default something approximating to that consensus has also dominated the writing of British economic history since Ashton published his classic text on the Industrial Revolution in 1948. As a scion of the Manchester school Ashton almost ignores central government because he wrote history from below and saw entrepreneurs and artisans as the prime movers behind the Industrial Revolution and observed that ‘the instinct of the industrialists was to eschew politics. It was not by the arts of lobbying or propaganda, but by unremitting attention to their concerns ... they became a power – perhaps the greatest power – in the state’. His neglect of metropolitan government (followed by almost all writers of textbooks on this famous conjuncture in British history right down to the present day), emanates not only simply from ideological representations of the nature of the kingdom’s pre-industrial ancien regime as one from corrupt aristocratic and expensive governance – a view derived from Adam Smith – but more significantly a preconception that flows from a shortened chronology for any serious historical analysis of Britain’s precocious transition to an industrial market economy. Unfortunately, and short of time to keep up with a voluminous and complex historiography, with ideological agendas of their own and carrying from their schoolbooks recollections of the ‘Whig’ tradition in England’s political history, the new political economy of the Glorious Revolution continues to represent a coup d’état in 1688 as a triumph for democratic rule over royal tyranny; a victory for private enterprise over public monopolies, a felicitous substitution of science for religion, and more recently as a commitment by way of the triumph of ‘Parliamentary’ governance to secure property rights and the rule law. It is no surprise that modern institutional economists rely upon anachronistic history. They find it easier to reach for the First Industrial Revolution as the paradigm example, embodying a ‘teleology’ of political commitments to an optimally designed set of ‘liberal’ institutions for long term economic growth.

Braudel insisted, however, that the formation of states which accompanied the growth of economies can only be comprehended by studying very long time spans, which will allow underlying (geographical, geopolitical and political forces) conditioning economic performance to be exposed, not as waves on the water, but as the sea bed. By focussing on *la longue durée*, historians might locate structural parameters as well as significant conjunctures or discontinuities which, looked at retrospectively, from some vantage or end point can help social scientists to mobilize historical evidence in order to provide statistical foundations, to shape a more plausible narrative and to endow it with theoretical and rhetorically persuasive power.

Alas, only a précis of the complex history of English state formation (1453-1815) as a necessary perspective and basis for the comprehension of institution building could possibly be presented within an essay, attempting to represent long run geopolitical and political history of an island kingdom. The representation of the fiscal and budgetary

'architecture' of a state behind the construction of English institutions might however expose conjunctures in its formation, which did not occur as an outcome of the Glorious revolution of 1688, in the wake of the publication of the *Wealth of Nations* in 1776, or even follow the passage of the first Parliamentary reform bill of 1832, but rather 'came to pass' with the final defeat (1805-15) of Dutch, Iberian, American and above all, French pretensions to countervail the realm's conjoined 'mercantilist and maritime strategy' for: the provision of those all important and persuasive public goods: the security of the realm, internal stability, and the acquisition and preservation of the largest occidental empire since Rome.

2.2 The formation of a fiscal state

Economically Britain did exceptionally well during a long boom in global commerce that succeeded the consolidation of the Qing dynasty (1644-83) and which coincided with the break-up of the Mughal empire in India (1761-1818). Was that (as 'Weberian' global historians maintain) because the country's institutions (particularly its Parliamentary system of governance) and its cultures of behaviour and enterprise had become clearly more hospitable to private investment and innovation than rivals on the mainland as well as maritime China and Tokugawa Japan? Comparative research into the histories of European institutions has left us more agnostic about the particularities and superiorities of the realm's institutions. While recently rediscovered 'worlds of surprising resemblances' across a range of advanced economic regions of Eurasia undergoing Smithian growth for centuries before the First Industrial Revolution has effectively degraded both Marxian and Weberian perceptions that only certain countries of North Western Europe (particularly England), had proceeded far along trajectories or up learning curves leading to modern economic growth.

For all that, there is one (and a potentially significant?) contrast between Britain and all other pre-modern candidates for a First and Early Industrial Revolution. The salient contrast (under restoration here) is the kingdom's geographically conditioned process of state formation which became inseparable from a sustained commitment by Crown and Parliament to a maritime strategy for the defence of the realm and which, over time, turned out to carry unintended but benign consequences for the development of the economy.

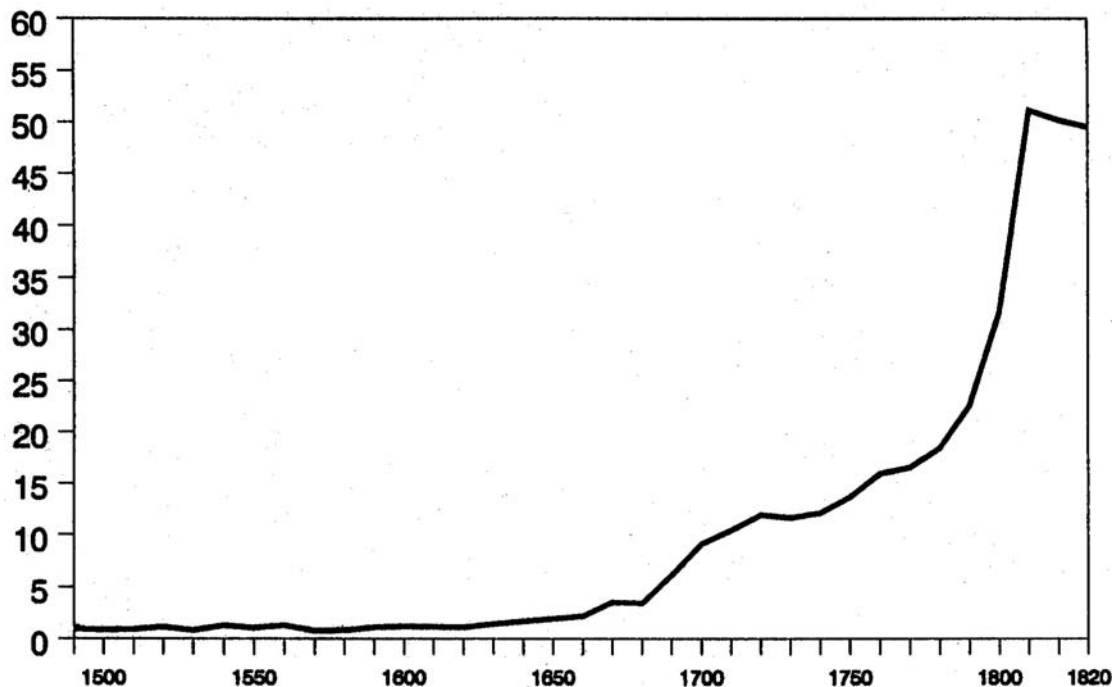
As men of the pen, writing during a liberal international economic order that succeeded centuries of mercantilism and imperial conflict, from 1415-1815, economic historians of the First Industrial Revolution have not accorded sufficient weight to geopolitical policies and strategic investments by the state (in close partnership with private enterprise) that carried the realm's maritime economy to a plateau of possibilities from where the kingdom's precocious transition to an industrial society became first possible and then probable.

Not long after the First Hundred Years War (1337-1453) when England's feudal armies had ignominiously retreated from centuries of dynastic and imperialistic warfare on the mainland, the Island's kings, aristocrats and merchants began to conceive of naval power as the first line of defence against external threats to the security of their realm and as the force required to back conquest and commerce with continents other than mainland Europe. For several reasons that conception took nearly two centuries (1453-1649) to mature into a political and fiscal commitment for the defence of a vulnerable

and unstable kingdom and for the realization of its potential as a maritime power and economy. First, internal colonization, the expropriation of ecclesiastical property, predation and free riding upon Iberian research development and investments required to support commerce with Asia and colonization in the Americas continued to be more attractive and easier options for Tudor and Stuart monarchs and their coterie of courtiers and predatory territorial magnates to pursue. Second, and despite the vulnerability of the dynasty and the kingdom to threats of takeover, first by France in the reign of Henry VIII and then more seriously by Spanish Armadas, despatched by Philip II, the aristocracies and the propertied elites assembled in the Houses of Lords and Commons to discuss taxes (and very little else except religion) successfully resisted all attempts by the Crown to deepen and widen its fiscal base in order to fund the resources required to establish standing forces (armies and navies) of sufficient scale, scope and technological capability to defend the realm, maintain internal order and protect private investment in commerce and colonization overseas.

Eventually nearly two centuries of fiscal stasis, economically malign disputes over religion and persistent acrimony over the crown's rights to taxation, culminated in an 'interregnum' of highly destructive civil war, republican rule, and the restoration of monarchy and aristocracy, which in outcome led to the formation of a modern and relatively effective English state.

Graph 1 Total taxes, 1490-1820



Notes: The points plotted are 9-year moving averages for every tenth year 1490-1820, measured in constant prices of 1451-75.

As well as truly massive destruction of life and capital, this famous interregnum witnessed: the most serious threats to hierarchy and property rights in English history before the spread of mass democracy in the late nineteenth century; the appreciation by wealthy elites (represented in Parliament) of the advantages attending the establishment of a standing fleet of warships under control of the Crown, for the defence of an island realm, as well as the externalities generated by a Royal Navy for the maintenance of that other and equally significant public good – internal order. Above all, the majority of stakeholders in the wealth of the realm recognized the need for the reconstruction of a fiscal and financial system that could provide the funds required for its security, for the stability of the regime and for the maintenance and protection of an established and highly inegalitarian system of property rights, representing assets and capital located within the kingdom, in merchant ships on the high seas or in bases, plantations and colonies in England's expanding empire in the Americas, Africa and Asia.

Following on from a series of republican and royalist experiments with the political principles, methods of assessment and collection of taxes, a 'reconstructed' fiscal base came into place under the restored Stuart monarchy. Constitutionally that base rested, first and foremost, upon the reaffirmation by the Crown of the long-established tradition (challenged under provocation by Charles I) that English monarchs could not levy taxes without formal consent from Parliament.

Thereafter, Parliament never presumed to control royal expenditures and hardly ever withheld consent for supply; particularly in wartime, when the loyalty of honourable members to the protestant succession could be called into question by aristocratic patrons or arraigned at the bar of xenophobic and loyal public opinion. In practice flows of revenue and predictable degrees of compliance with demands from the state depended upon three major and quasi-constitutional reforms that were effectively institutionalised before the Dutch coup d'état (Glorious Revolution) of 1688.

First (and before Pitt's Income Tax Act in 1799) the restored state reluctantly abandoned a history of futile attempts, going back to Domesday of 1086, to assess direct taxes on the income and wealth of households according to some pre-specified, transparent and centrally monitored criteria to pay. Instead the Crown settled (with no serious resistance from Parliament) for an extension of royal powers over indirect taxes and for control of public administrations (which replaced franchised tax farming) as the way to assess and collect duties levied upon an ever-extending range of goods and services produced and/or consumed within the kingdom. Customs duties, which had been part of England's fiscal constitution since the Middle Ages, were thereby supplemented and complemented by excise and stamp 'duties' (long established on the mainland) to form an integrated and productive system of indirect taxation.

Complementarities and coherence in fiscal policy then came into operation because the selected and carefully calibrated range of products and services subjected to these novel duties in effect received virtually complete protection from imports and exemptions (in some cases bounties) when exported or re-exported overseas. Following the interregnum an accelerated and radical shift from direct to indirect forms of taxation (from 60 per cent to 70 per cent of totals collected by the Tudor monarchy to around 25 per cent under the Hanoverians) the system became outstandingly successful in supplying the English state with the revenues required to fund the provision of external security and internal stability with commercial and imperial expansion overseas.

Between 1670 and 1810 total revenues from taxes rose around 16 times in real terms, while national income increased by a multiplier of 3.

Third, steady and predictable inflows of indirect taxes provided the state with sufficient inflows of stable income to borrow ever increasing amounts of money in the form of redeemable, irredeemable, short and long-term loans on London, Amsterdam and other European capital markets. Loans (also subject to formal but never withheld Parliamentary approval) serviced by hypothecated receipts from indirect taxes introduced an all important element of flexibility into the capacities of the English state to fund public goods and to support an altogether more aggressive and expansionist, mercantilist and geopolitical strategies against rival European (and eventually Asian) economies for gains from trade and colonization overseas.

For example, between 1652 and 1815 the English state engaged in no less than eleven wars against European powers and economic competitors (mainly conflicts with France and Spain, but including four wars against the Netherlands). After 1689 something like 80 per cent of all the incremental revenues required to mobilize its forces emanated from loans and the nominal capital of the national debt grew from less than £2 million in the reign of James II to the astronomical sum of £854 million or 2.7 times the national income for 1819 and the share of taxes devoted to servicing government debt jumped from modal ratios of 2-3 per cent before the Glorious Revolution to 60 per cent after the Napoleonic War. When Castlereagh signed the Treaty of Vienna in 1815 (which effectively marks the end of the era of mercantilism) the, by then, United Kingdom was recognized to possess unchallengeable hegemony at sea, controlled the largest occidental empire since Rome, enjoyed extraordinary shares of world trade and income from servicing global commerce and its domestic economy stood half way through an Industrial Revolution.

Graph 2 Debt servicing ratios as a percentage of total taxes, 1688-1814

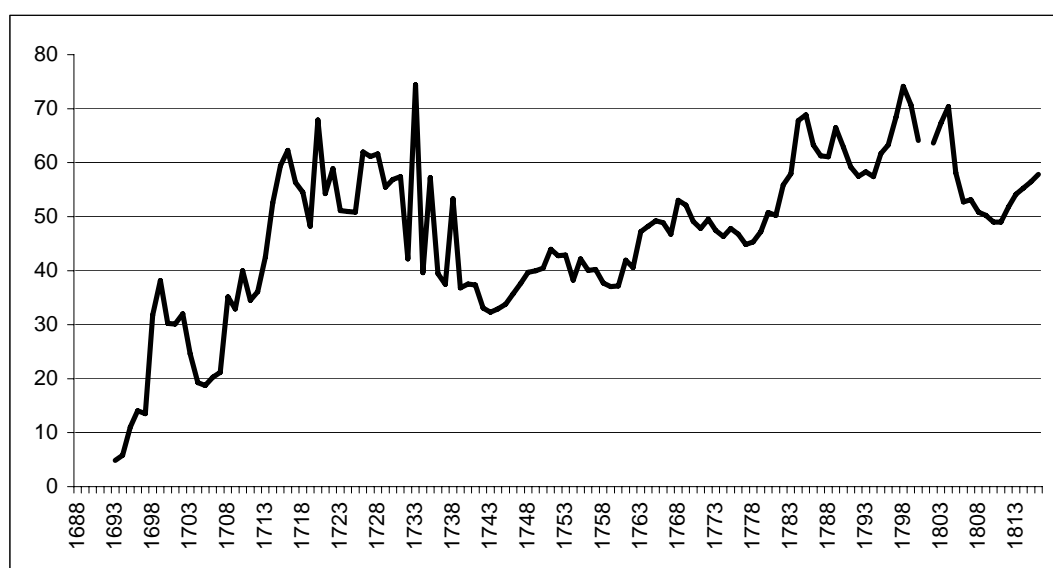
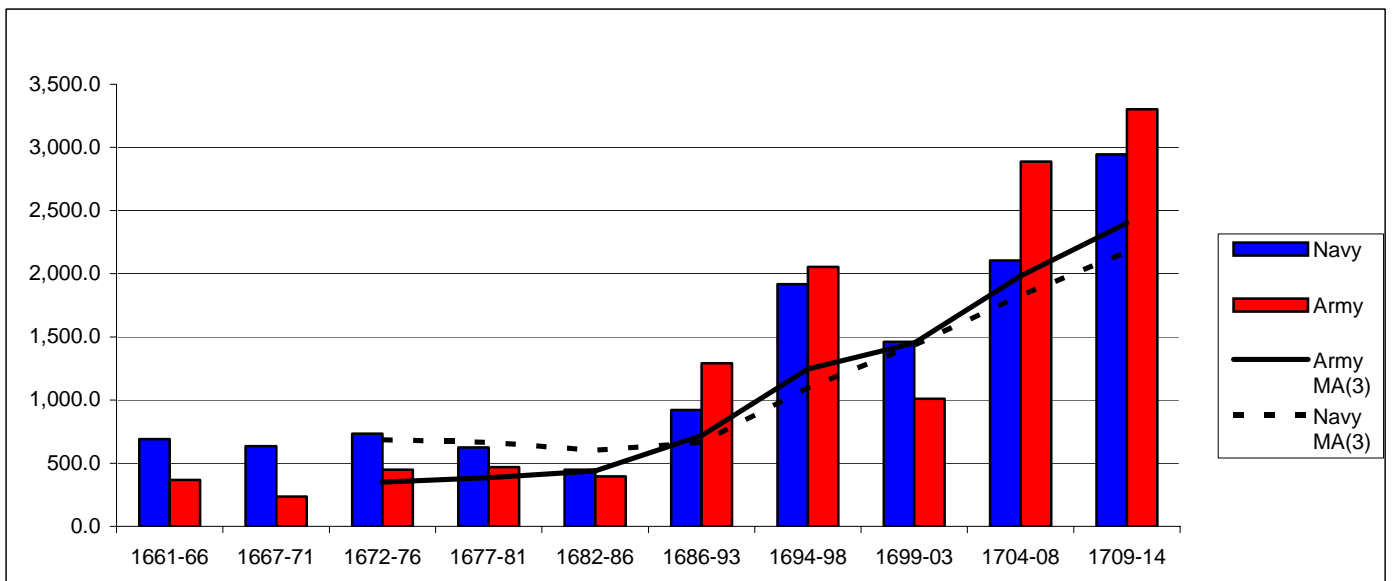
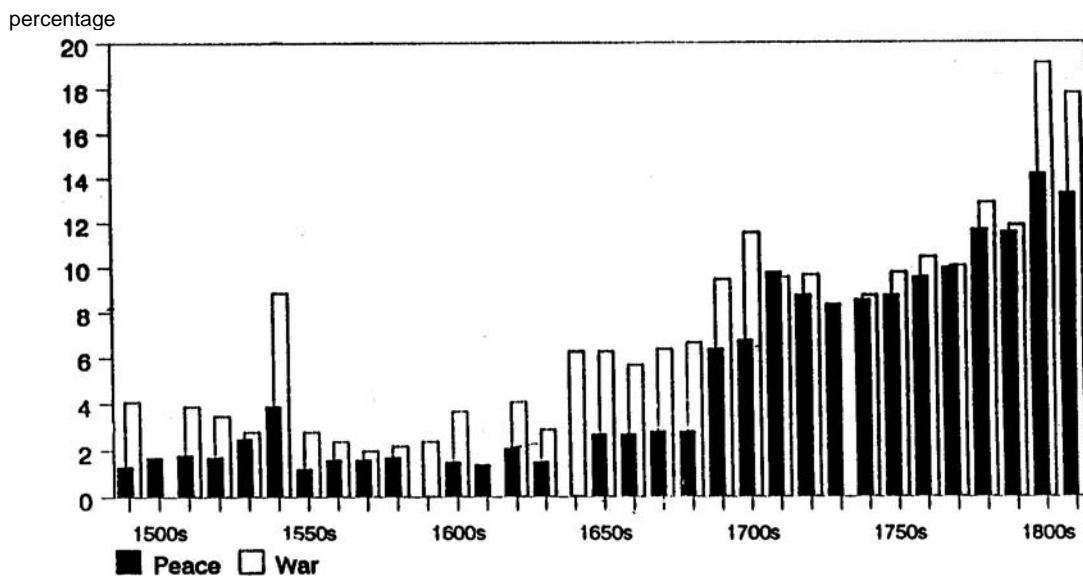


Chart 1 Annual average expenditures on the army and navy, 1661-66 to 1709-14
(in £1,000s 1660=100)



One of the major reasons why Britain found itself in such an envied and feared position at that Congress (a conjuncture in European and geopolitical history) is because the restored and reconstructed Stuart state (taken over by William of Orange and his German successors) allocated very high and rising proportions (85 per cent is the modal ratio) of all the rapidly increased flows of revenue made available to them by British taxpayers and by British and foreign investors to sustain much larger (and possibly more efficient) armies and navies than had been possible for two centuries before and for some decades in the aftermath of the Republic.

Chart 2 Total tax revenues expressed as shares of conjectures for national income, 1490s to 1810



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 1490s the king collected a low of 1.3 per cent in peacetime and a high of 4.1 per cent in wartime.

Apart from contemporary and recently repeated Whig spin, the significant outcomes that flowed from the Glorious Revolution of 1688 resided above all in the profound changes to the realm's foreign and strategic policies and an immediate and sharp rise in real expenditures on the armed forces.

That uplift in claims by forces of the Crown on national resources was sustained over a Second Hundred Years War with France, increased erratically from war to war to reach a very high ratio of around 15 per cent of gross domestic product by the closing years of the final conflict with Napoleon.

2.3 The maritime strategy for 'the safety, honour and welfare of the realm' 1689-1939

In an international economic order riven with dynastic, imperial and geopolitical rivalries, the need for an Island state to allocate considerable resources to preclude invasion, preserve internal stability and retain advantages over its equally violent competitors in armed struggles for gains from global commerce and colonization formed inescapable parameters within which institution building along with macro economic growth occurred. In that order, counterfactual scenarios and analyses concerned with the distortions from competitive equilibria wrought by taxation or the unmeasured 'crowding out' effects that flowed from high levels of government borrowing are interesting, but anachronistic exercises for economics to pursue. These exercises are, moreover, largely irrelevant to questions of whether the English state raised and allocated the resources that carried the kingdom and its economy to a plateau of safety, political stability and potential for future development attained and envied at the Congress of Vienna, and proceeded in ways that could be plausibly represented as more or less efficient for building of institutions and the growth of the economy. Since nobody then or now has elaborated alternative strategies which combined security for the realm with the growth for the economy, the advice of historians to study what was done, compare English strategies with those pursued by other European and Asian powers and perhaps conclude with Pangloss that virtually everything that was done was done for the best in the *worst* of all possible worlds looks sensible.

In retrospect that appears to be a persuasive stance to take on the maritime strategy pursued for the defence of the Isles, (a persuasive notion floating under the Tudors and early Stuarts) but taken forward during the Commonwealth to mature into a well-funded and binding commitment by the state to a standing navy of the size and technical capability required to preclude invasions of the Isles from offshore. That commitment which continued to our own era of airpower made sense to an isolated Republic threatened with Royalist inspired privateering on its trade, with invasions supported by outraged kings from the mainland, but in possession of funds (realized from the sale of the expropriated wealth of the monarch and his treasonable supporters) to invest heavily in the construction of warships. Ironically Cromwell's large 'model fleet' escorted Charles II back to his kingdom and the Restored state (stimulated into widespread anxiety by Colbert's programme to build a modern and superior French Navy) constructed and maintained the largest and most powerful navy in Europe. Thereafter (with occasional lapses) the Royal Navy defended the realm, won a string of famous victories at sea and (through a range of benign interconnexions) helped, in no small way, to carry an expanding maritime and leading sector of the British economy towards levels of integration, competitive efficiency and potential for future development

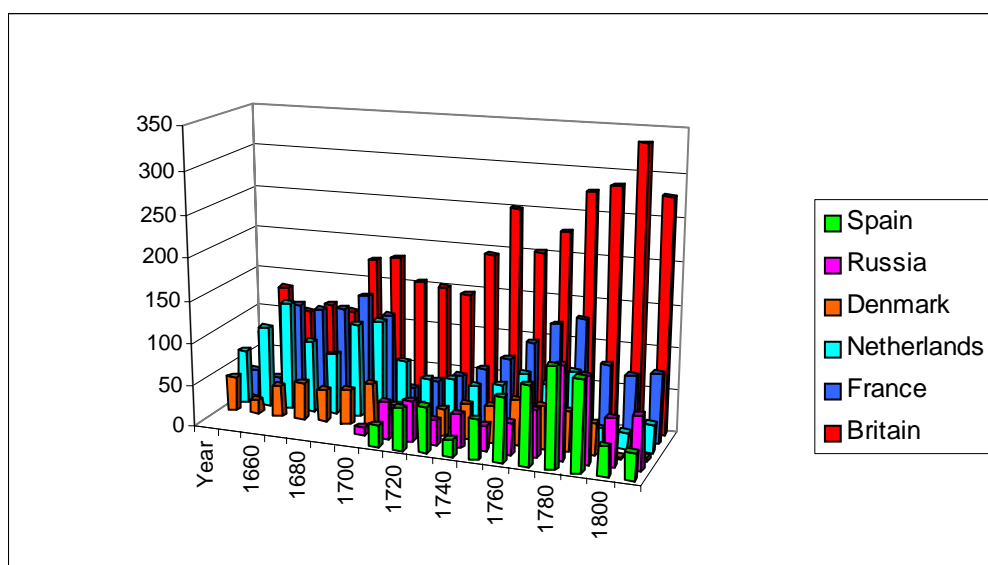
achieved during the Industrial Revolution and which became manifestly obvious between 1846-73.

Persistently high levels of public expenditure on the Royal Navy probably exceeded allocations for gross domestic capital formation between 1760 and 1810 and in times of war amounted to around half of the value of Britain's exports, plus re-exports. This commitment provided the kingdom with Europe's (the world's) largest fleet of battleships, cruisers and frigates, manned by a largely coerced workforce of able seamen, managed by well motivated officers. The fleet was constructed and maintained in readiness for multiple missions by a skilled workforce of shipwrights, carpenters and other artisans and serviced by an infra-structure of ports, harbours, dockyards, stores for victuals and spare parts, ordnance depots and other onshore facilities in both public and private ownership and control.

Once a huge fleet and its onshore infra-structure of human and physical capital were operating primarily to keep ships of the line strategically placed at sea as the first bastion of defence for the realm; and secondarily (but at falling average cost) to sustain cruisers, frigates and other well armed ships on 'mercantilist missions' for the protection of British trade and its colonies; for the predation on all 'hostile' and potentially hostile merchant marines; for the bombardment of the enemy's maritime cities and colonies, for the interdiction of competitive trade, and finally for gunboat diplomacy, then the English states evolving maritime strategy turned out to include all kinds of attendant advantages for internal stability, for protection of property rights and the growth of Britain's home and colonial economies.

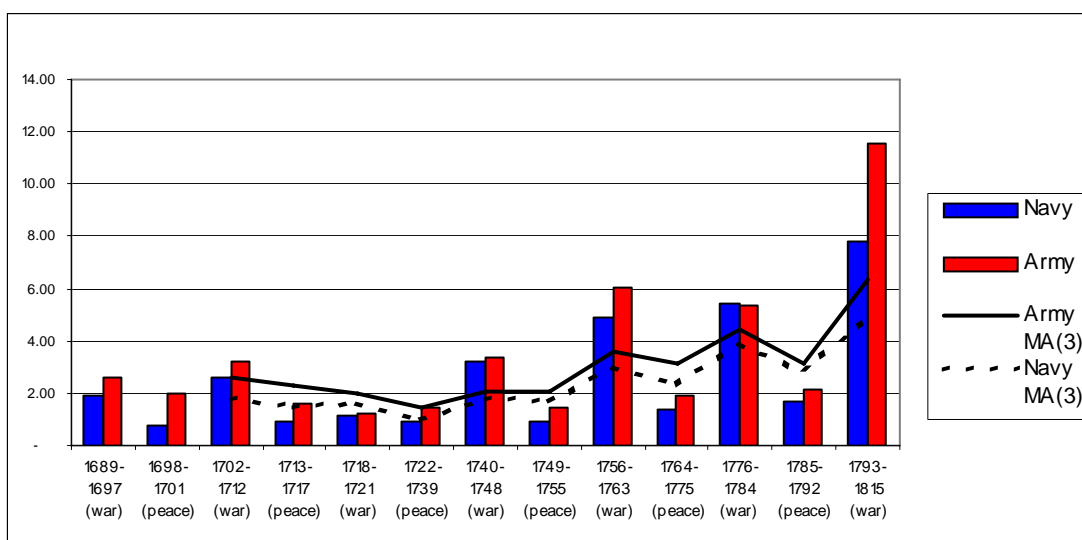
First, a large fleet of durable, strategically placed and proficient ships of the line (floating fortresses) provided external security at a relatively high level of efficiency compared to the logistical costs per joule of force delivered by large armies, recruited, mobilized, equipped, supplied with food and forage and moved overland to battlegrounds, places of siege and vulnerable borders to repel enemy attacks.

Chart 3 Numbers of warships in the service of the royal and rival navies, 1650-1810



Source: Glete (1993)

Chart 4 Average annual expenditures on the army and navy, 1689-1815
(in millions of £ (1678-88=100))



The relatively low costs, and in outcome, highly successful and economically significant offshore strategy for defence allowed the British state to spend more upon armed forces and to allocate greater proportions of its already elastic fiscal and financial resources not only to complementary mercantilist and imperial missions pursued at sea, but to sustain surprisingly high levels of military expenditure. Throughout the period 1688-1815, the military share of expenditures on armed forces by the European state most committed to naval defence and aggression amounted to a modal 60 per cent.

Part of that allocation included the costs of hiring of mercenary regiments of Hanoverian, Hessian and other soldiers for combat outside the kingdom; part consisted of subsidies and subventions to Britain's European allies willing to field or threaten to field troops to contain and thwart the designs of France and its allies on the mainland, or in India and the Americas; and finally, part consisted of the commitment of British troops to theatres of war on the continent, notably in 1702-12 and 1808-15. Expenditures on military forces engaged directly or indirectly with rival armies prevented Bourbon states (France and Spain) and their European allies from allocating funds to construct fleets of a size and capability required to mount serious challenges to the Royal Navy's defence of the realm and its increasingly effective protection of British interests overseas.

By far the largest proportion was allocated, however, to British regiments, militias, volunteers and yeomanry on stations in the realm as a less than credible second line of defence against serious invasions, but utilized consistently, successfully and economically over this period of population growth and rapid urbanization to preserve the stability of the regime against subversion and to protect hierarchy and property rights against sporadic but rather persistent challenges to law and order.

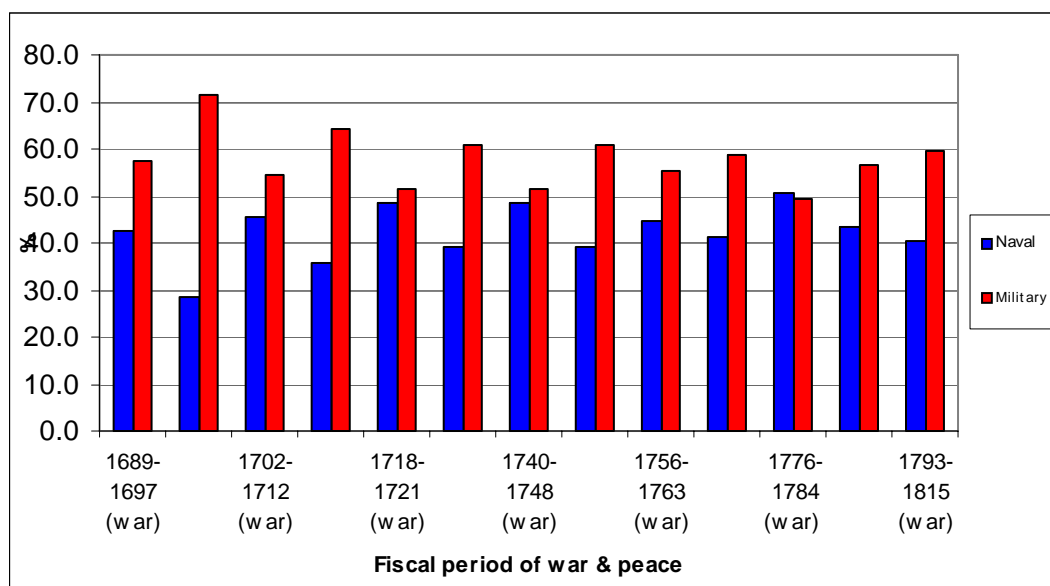
Prospects for trade across a less than united Kingdom came, from time to time, under serious threat from within the potentially seditious provinces of Scotland and Ireland; particularly the latter where a colonized Catholic population resented 'English' property rights and the metropole's discriminatory regulation of local commerce and industry. With external security taken as given, stability, good order, respect for an established inegalitarian system of property rights and the maintenance of hierarchy over their

potentially unruly employees became a key political-cum-economic interest for landowners, merchants, farmers, industrialists and other businessmen of Hanoverian Britain. On the whole, their ‘monarchical and aristocratic’ state met concerns for the protection of property, for the maintenance of authority over workforces and when necessary redefined their legal rights by promulgating statutes for the realm which superseded custom and common laws that could be interpreted as providing protection for the welfare of the majority of the nation’s workforce without assets, status and power.

For example, the institutions of the Elizabethan poor law for dealing with poverty, unemployment, vagrancy and labour migration maintained a repressive system of control over the labour of juveniles, females and unskilled men. For less vulnerable and governable groups of artisans and industrial workers and, especially for groups who formed ‘combinations’ to challenge what they perceived to be adverse changes in a traditional and more moral economy, the punishments prescribed by Parliament for: the formation of unions; for riots against high prices of basic necessities; for resistance to enclosures and turnpikes; for attacks upon mills, barns, factories and labour saving machinery; for insubordinate and disorderly conduct as well as every kind of theft became discernibly harsher and, under the bloody code, increasingly lethal.

Modern social historians (less impressed than their Whig predecessors with Parliament’s rhetorical antipathies to standing armies in times of peace) have made us aware that the actual numbers of troops, embodied militiamen and patriotic volunteers on station in Britain and Ireland year after year (and particularly in wartime) were more than adequate to deter and repress disturbances to the peace. For purposes of political stability, maintaining internal order, the protection of property and upholding hierarchies of all kinds, it is not at all obvious that on a per capita basis, the political and legal authorities of constitutional Britain commanded and used less effective coercive force than those military despotisms on the mainland of Europe. Indeed in 1808 the numbers of soldiers mobilized to combat Luddites in the Midlands and North of England exceeded troops under Wellington’s command in the Peninsular.

Chart 5 Proportions of expenditures on armed forces allocated to the army and the navy, 1689-1815



2.4 Conclusions: the security, stability and growth of the realm

Somehow through eleven wars (which included three, perhaps four, occasions when French and Spanish admirals failed to take advantage of openings in the kingdom's first line of defence) the Royal Navy retained command of the Channel and the North Sea. Throughout the period which witnessed Britain's combined geopolitical and economic rise, the Navy's guard over Western and Eastern approaches to the Isles, blockades of enemy naval bases, the interdiction of their supplies of strategic raw materials and weapons and occasional pre-emptive strikes effectively prevented a rival fleet from clearing a viable sea route for the landing of armies on the kingdom's shores. For centuries before and throughout the dangerous period of expansion overseas after 1688 neither aggressive foreign (nor defensive British) troops ever ravaged, taxes and looted the nation's towns, terrorised or infected its population, destroyed its capital or ransacked its inventories of grain, animals, industrial raw materials and transport equipment; let alone undermined the stability or even changed the policies and institutions of autocratic Orange and Hanoverian regimes. In wartime the proportions of the British workforce (particularly skilled artisans) drafted into the army (the country's secondary line of defence) remained low. Troops (and embodied militias) required for defence and service overseas could, moreover, be recruited overwhelmingly from among the unskilled potentially unemployed fringes (often Celtic and Colonial) of an expanding imperial workforce or, when necessary, hired as mercenary soldiers from labour abundant societies on the mainland. Furthermore, and while the Navy operated as the realm's main relatively cheap but highly effective first line of defence, the state funded and maintained a royal army which (together with local militias) provided not only an albeit potentially inadequate second line of defence, but remained on call and active for the preservation of the internal order necessary for investment and economic growth. With virtually no civil police at their command, the Navy allowed the political authorities (central and local) of Hanoverian Britain to allocate less of their revenues and to give smaller weight to external security and more towards the provision of an effective military presence and exemplary displays of the armed and flexible force required to maintain good order, protect property and preserve authority over a potentially 'ungovernable population' and a society becoming more urban, industrial and deferential perforce by the year.

Although the fiscal base, direct benefits and externalities from the state's unswerving commitment to a maritime strategy became clear enough after the interregnum, naval historians would certainly be dissatisfied with any explanation which accounted for the long term superiority for 'their' Royal Navy in terms of geographical advantages, complemented by the formation of a fiscal and financial base, that after a delivered interregnum of civil war and republican government delivered the high and persistent levels of investment in warships and their on-shore infra-structural support systems required for the defence of the realm. Naval historians discuss: technological and economic leads and lags in the costs and designs of European warships and their guns; the quality of British, compared to foreign crews of seamen serving aboard warships; the recruitment, promotion and incentive systems surrounding officers in charge of battleships, cruisers and frigates. Furthermore, (but only latterly) they have engaged with the relative efficiencies of centrally coordinated organizations, firms and networks on shore that constructed, repaired and maintained armed ships as well as the with admiralties, boards and commissions that recruited and motivated officers and coerced crews to achieve an evolving plurality of objectives selected by states for their standing navies.

Repeated assertions (written in the glow of victories at sea) that the long run success of the Royal Navy is clearly imputable to British technology, superior seamanship, bravery in battle, better tactics, carefully designed incentives, more efficient logistical support systems, the Nelson factor and, above all, to the capacities of Parliamentary systems of governance to formulate policies and construct complex organizations for their implementation and coordination, will be very difficult to demonstrate without an extensive research programme in institutional histories. The literature for systematic comparisons of navies as national institutions is not out there and it is not clear that economics theory will be that helpful. Meanwhile such claims are simply not proven. At present, but looking over the benign loops of inter-connexions between the Royal Navy on the one hand, the merchant marine, the fishing, shipping, shipbuilding and armaments industries, as well as the banking, insurance and other commercial services, afforded by Britain's expanding waterborne trading sector on the other, economic historians might be more inclined to configure the Royal Navy at the hub of an evolving, integrating and progressive maritime sector of an Island economy. In short, they would represent British naval superiority as an indispensable protective shield of an engine for trade with growth, pressed forward along learning curves and cumulating mechanisms for reinforcement by the combined investments of the kingdom's private and public sectors in a rather coherent strategy for security, stability, good order and precocious structural change.

This could never be the comprehensive narrative of the First Industrial Revolution, but even as restored history from above, it makes for more plausible chapters in a story than books that highlight Parliamentary government, private enterprise, liberalism and laissez-faire. To perhaps some significant degree (and despite bawdlerized versions of Adam Smith) an Industrial Revolution emerged on the Isles as the outcome of aggressive and successful mercantilism. In the beginning was a fiscal state with its Royal Navy.