

# Ιστορία Οικονομικών Θεωριών

Ενότητα 3: Μερκαντιλισμός Νίκος Θεοχαράκης

Σχολή Οικονομικών και Πολιτικών Επιστημών Τμήμα Οικονομικών Επιστημών

## Σκοποί ενότητας

- Να περιγράψει συνοπτικά την έννοια του μερκαντιλισμού
- Να δείξει τις διαφορετικές ερμηνείες του φαινομένου
- Να δείξει τις φάσεις του
- Να εξηγήσει σε τι διαφέρει από την μεταγενέστερη κλασική πολιτική οικονομία
- Να καταδείξει την επιρροή του στην μετέπειτα πολιτική οικονομία



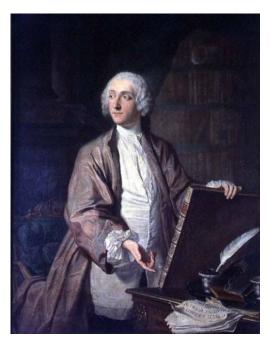
## Περιεχόμενα ενότητας

### Μερκαντιλισμός

- Ερμηνείες του μερκαντιλισμού
  - Mirabeau, Smith, Viner
  - Ιστορική Σχολή [G. Schmoller]. E.F. Heckscher
- Χώρες / συγγραφείς / περίοδοι μερκαντιλισμού
  - Αγγλία, Γαλλία, Γερμανία/Αυστρία, Ιταλία
    - Thomas Gresham, John Hales, Thomas Mun, Edward Misselden, Gerrard de Malynes, William Petty, John Locke, Dudley North, Josiah Child, Charles D'Avenant, Nicholas Barbon, Bernard de Mandeville, James Steuart
    - Jean Bodin, Antoine de Monchrestien, Jean-Baptiste Colbert
    - Veit Ludwig von Seckendorff, Johann Joachim Becher, Philip Wilhelm von Hornick
    - Bernardo Davanzati, Giovani Botero, Antonio Serra, Antonio Genovesi, Pietro Verri
  - Μπουλιονισμός / Κλασικός μερκαντιλισμός / Ύστερος μερκαντιλισμός



- Ο όρος μερκαντιλισμός δημιουργείται μετά το φαινόμενο και έχει κριτική χροιά. Δύο ερμηνείες: Η **αρνητική** (Mirabeau Smith)
- Victor de Riqueti, Marquis de Mirabeau, (1715-1789) [φυσιοκράτης]



PHILOSOPHIE RURALE,

ov

ÉCONOMIE

GÉNÉRALE ET POLITIQUE

DE L'AGRICULTURE.

REDUITE à l'ordre immuable des Loix physiques & morales, qui assurent la prospérité des Empires,

TOME PREMIER.

Système mercantile

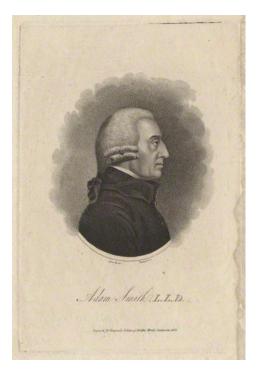
Περιγράφει ένα σύστημα άμεσης κρατικής παρέμβασης στην οικονομία

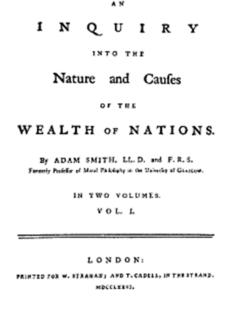


M. DCC. LXIII.



- Ο όρος μερκαντιλισμός δημιουργείται μετά το φαινόμενο και έχει κριτική χροιά
- Adam Smith, (1723-1790)





BOOK IV

Of Systems of political Oeconomy

#### CHAPTER I

Of the Principle of the commercial, or mercantile System<sup>1</sup>



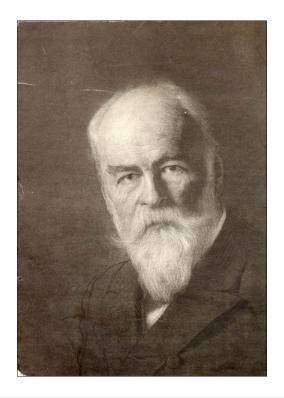
## Μερκαντιλισμός: αρνητική κριτική

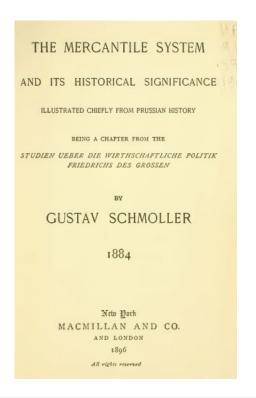
- Ο μερκαντιλισμός συγχέει το χρήμα [πολύτιμα μέταλλα] με τον πλούτο
- Πιστεύει ότι μια οικονομία δε μπορεί να αυτορυθμισθεί και ως εκ τούτου απαιτείται μια ρύθμιση από το κράτος
- Δίνει λανθασμένα έμφαση στο εμπορικό ισοζύγιο, στην απαγόρευση εξόδου πολυτίμων μετάλλων και στον προστατευτισμό.
- Η αρνητική αυτή άποψη συνεχίστηκε στην κλασική πολιτική οικονομία [JR McCulloch] στη φιλελεύθερη σχολή και ακόμα και σήμερα ο μερκαντιλισμός αντιμετωπίζεται ως προσοδοθηρία (rent-seeking):

R. E. Ekelund & R. K. Tollison, *Politicized Economics. Monarchy, Monopoly and Mercantilism*. 1997



- Ο όρος μερκαντιλισμός δημιουργείται μετά το φαινόμενο και έχει κριτική χροιά. Δύο ερμηνείες: Η **θετική** (Schmoller)
- Gustav Schmoller (1838-1917) [Γερμανική Ιστορική Σχολή]







on more than a measuring or them, there there combined, with like creations across the frontier. The whole internal history of the seventeenth and eighteenth centuries, not only in Germany but everywhere else, is summed up in the opposition of the economic policy of the state to that of the town, the district, and the several Estates; the whole foreign history is summed up in the opposition to one another of the separate interests of the newly rising states, each of which sought to obtain and retain its place in the circle of European nations, and in that foreign trade which now included America and India. Questions of political power were at issue, which were, at the same time, questions of economic organisation. What was at stake was the creation of real political economies as unified organisms, the centre of which should be, not merely a state policy reaching out in all directions, but rather the living heartbeat of a united sentiment.

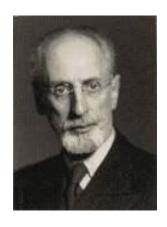
Only he who thus conceives of mercantilism will understand it; in its innermost kernel it is nothing but state making—not state making in a narrow sense, but state making and national-economy making at the same time; Διακυβεύονταν ζητήματα πολιτικής ισχύος, τα οποία ήταν, ταυτόχρονα, ζητήματα οικονομικής οργάνωσης. Το διακύβευμα ήταν η δημιουργία πολιτικών οικονομιών ως ενιαίων οργανισμών, των οποίων το κέντρο έπρεπε να είναι, όχι απλά μια κρατική πολιτική που θα πήγαινε προς όλες τις κατευθύνσεις, αλλά μάλλον ο ζωντανός σφυγμός ενός ενιαίου συναισθήματος.

Μόνο όποιος αντιλαμβάνεται έτσι τον μερκαντιλισμό θα μπορέσει να τον κατανοήσει. Ο εσωτερικός του πυρήνας δεν είναι παρά δημιουργία του κράτους. Όχι δημιουργία κράτους με τη στενή έννοια, αλλά δημιουργία κράτους και δημιουργία εθνικής οικονομίας ταυτόχρονα

state making in the modern sense, which creates out of the political community an economic community, and so gives it a heightened meaning. The essence of the system lies not in some doctrine of money, or of the balance of trade; not in tariff barriers, protective duties, or navigation laws; but in something far greater: — namely, in the total transformation of society and its organisation, as well as of the state and its institutions, in the replacing of a local and territorial economic policy by that of the national state. With this accords the fact recently pointed out with regard to the literary history of the movement, that what is peculiar to all the mercantilist writers is not so much the regulations of trade which they propose for the increase of the precious metals as the stress they lay on the active circulation of money, especially within the state itself.<sup>1</sup>

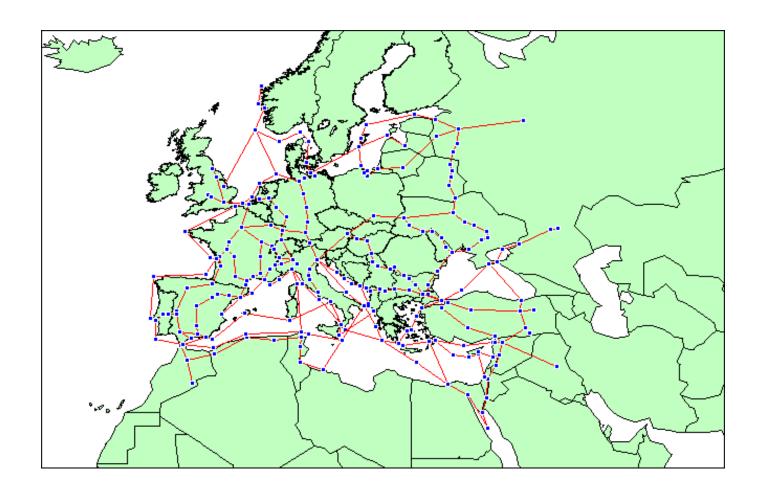
Δημιουργία κράτους με τη σύγχρονη έννοια, η οποία δημιουργεί μια οικονομική κοινότητα από την πολιτική κοινότητα προσδίδοντάς της ένα βαθύτερο νόημα. Η ουσία του [μερκαντιλιστικού ] συστήματος δεν έγκειται σε κάποιο δόγμα σχετικά με το χρήμα, ή με το εμπορικό ισοζύγιο, ή με τους τελωνειακούς φραγμούς, τους προστατευτικούς δασμούς, ή τους νόμους περί ναυσιπλοΐας αλλά σε κάτι πολύ μεγαλύτερο: δηλαδή τον ολικό μετασχηματισμό της κοινωνίας και της οργάνωσής της, καθώς και του κράτους και των θεσμών του, υποκαθιστώντας την τοπική και περιφερειακή οικονομική πολιτική με εκείνη του εθνικού κράτους. Με αυτό συμφωνεί και το γεγονός το οποίο πρόσφατα παρατηρήθηκε σχετικά με την ιστορία των κειμένων του κινήματος, ότι δηλ., αυτό που είναι κοινό σε όλους τους μερκαντιλιστές συγγραφείς δεν είναι τόσο οι εμπορικές ρυθμίσεις που προτείνουν για την αύξηση των πολυτίμων μετάλλων, όσο η έμφαση την οποίαν δίνουν στην ενεργό κυκλοφορία του χρήματος, ειδικότερα μέσα στο ίδιο το κράτος.

## Eli Filip Heckscher (1879-1952)



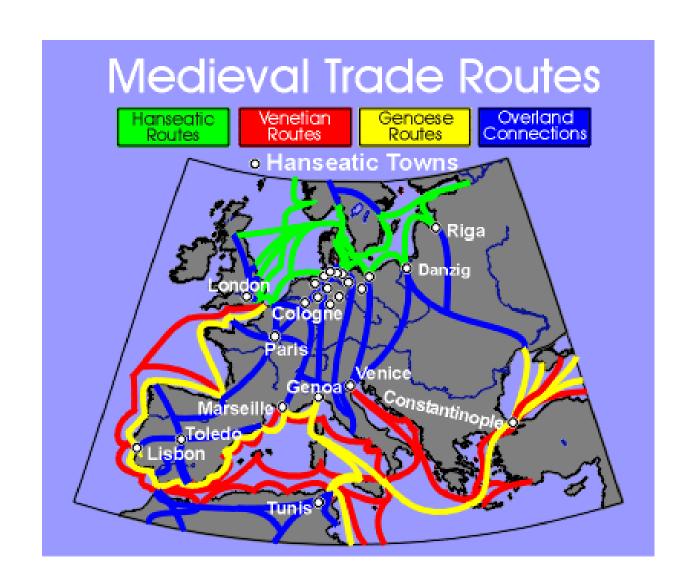
Mercantilism 1931

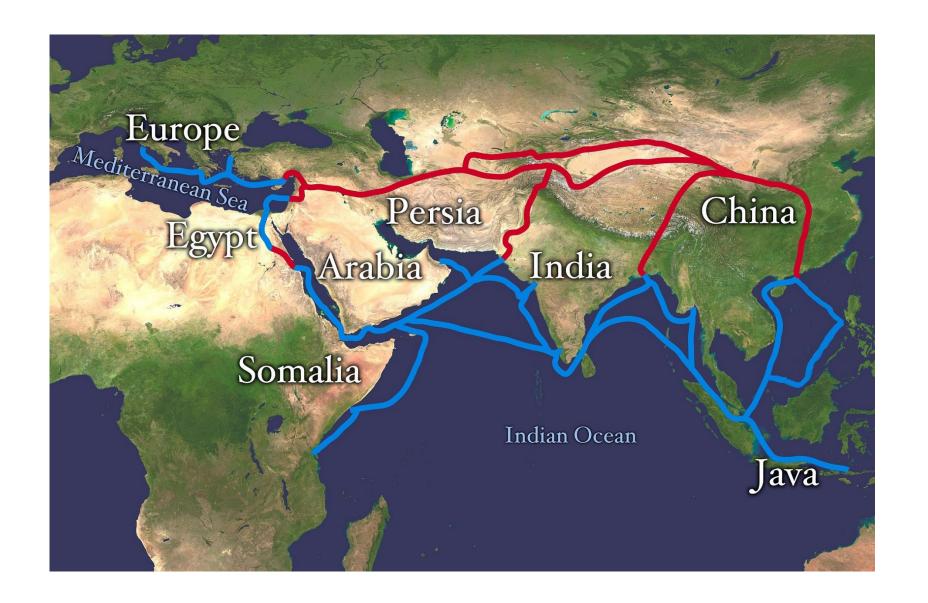
- System of unification
- System of power
- System of protection vs system of provision (fear of goods)
- Monetary system
- Conception of society

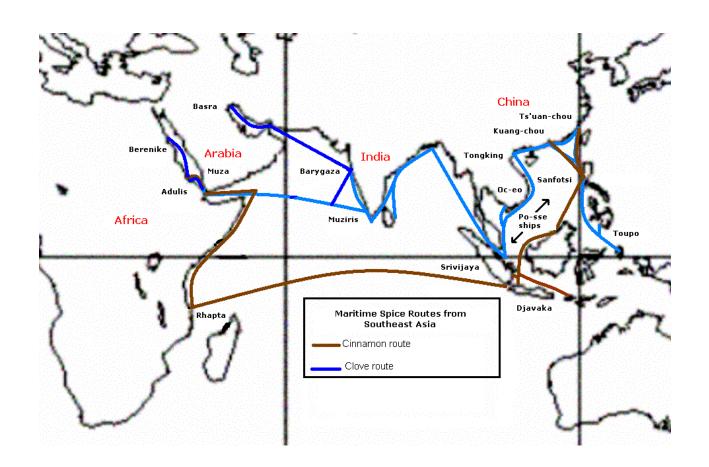


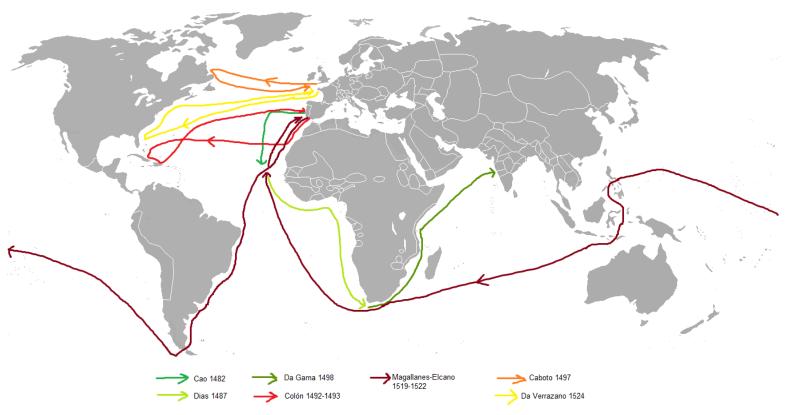
Εμπορικοί οδοί 1300-1500



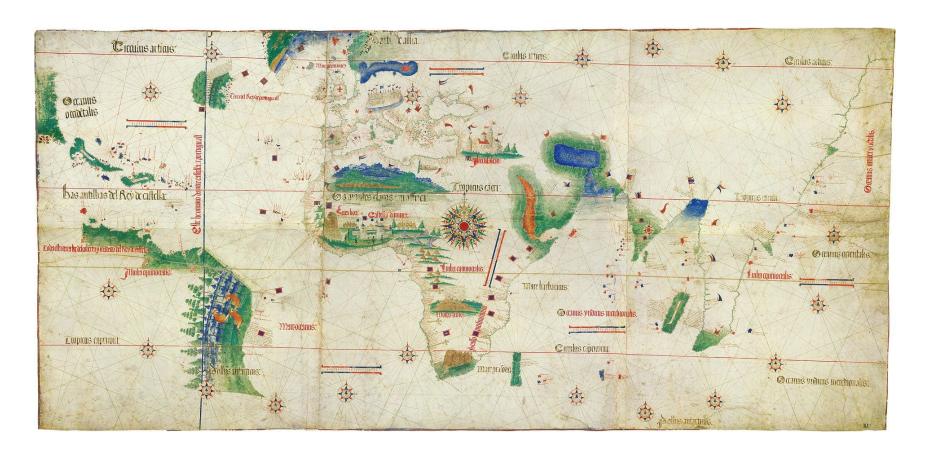






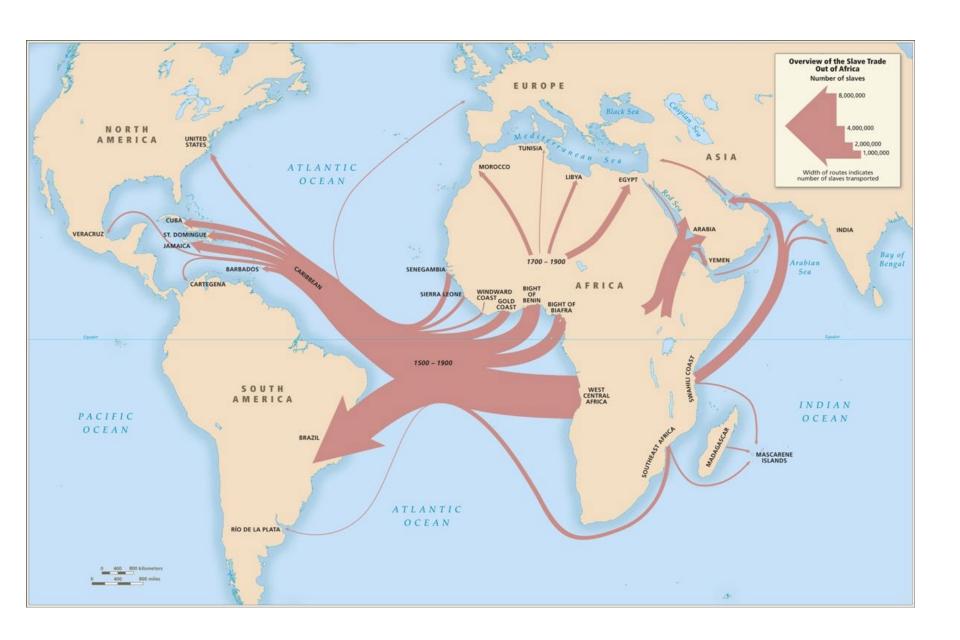


fronteras de 1500 / borders of 1500





Ptolemy Cosmographia 1467 – Jacob d'Angelo after Claudius Ptolemaeus



### Αγγλία

Thomas Gresham John Hales **Thomas Mun** Edward Misselden Gerrard de Malynes William Petty, John Locke, Dudley North, Josiah Child, Charles D'Avenant, Nicholas Barbon, Bernard de Mandeville, James Steuart

### Γαλλία

Jean Bodin, Antoine de Monchrestien, Jean-Baptiste Colbert

### Γερμανία – Αυστρία

Veit Ludwig von
Seckendorff,
Johann Joachim Becher,
Philip Wilhelm von
Hornick

### Ιταλία

Bernardo
Davanzati,
Giovani Botero,
Antonio Serra,
Antonio Genovesi,
Pietro Verri

COMPENDIOUS OF BRIEFE

#### EXAMINATION

O F

Certayne ordinary Complaints of diuers of our Country-Men in these our Dayes:

Which although they are in fome Parte vnjuft and friuolous, yet are they all, by Way of DIALOGUE, throughly debated and discuffed by

WILLIAM SHAKESPEARE, Gentleman.

1581

# TREASURE

Forraign Trade.

The Ballance of our Forraign Trade

1 S

The Rule of our Treasure.

Written by THOMAS MUN of
Lond. Merchant,

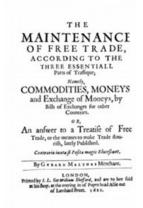
And now published for the Common good by his

Son John Mun of Bearsted in the Country of Kent, Esquire.

LONDON,

Printed by J. G. for Thomas Clark, and are to be fold at his Shop at the South entrance of the Royal

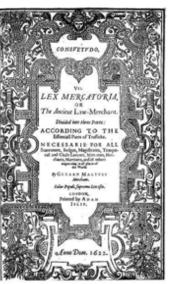
Exchange. 1664.

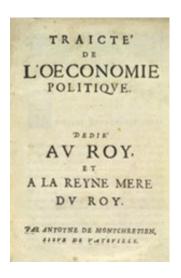


1622













Jean Bodin, 1530-1596.



Jean Baptiste Colbert, 1619-1683.







Veit Ludwig von Seckendorff, 1626-1692.

- Der Teutsche Fürsten Staaten, 1655.
- •Der Christen Stat, 1688.

Johann Joachim Becher, 1635-1682 Politischer Discurs von den eigentlichen Ursachen des Auf- und Abnehmens der Städte, Länder und Republiken, 1668.







Philip Wilhelm von Hornick, 1638-1712.

• Oesterreich über alles, wann es nur will 1684.

Bernardo Davanzati, 1529-1606 A Discourse Upon Coins, 1588 Giovani Botero, c.1544–1617 The Greatness of Cities: A Treatise Concerning The Causes of the Magnificency and Greatness of Cities (1606 English), Della Ragion di Stato: Libri dieci [Delle cause della grandezza delle città 1588] Antonio Genovesi, 1712 –1769 Delle lezioni di commercio o sia d'economia *civile*, 1765 Diceosina o'sia filosofia del giusto e dell'onesto, 1767 [1835 edition] Pietro Verri, 1728-1797 Meditazioni sulla economia politica (1771)







## ENGLANDS TREASURE

Forraign Trade.

O R, The Ballance of our Forraign Trade The Rule of our Treasure.

Written by THOMAS MUN of Lond. Merchant, And now published for the Common good by his Son JOHN Mun of Bearsted in the County of Kent, Esquire.

LONDON, Printed by J. G. for Thomas Clarg, and are to be fold at his Shop at the South entrance of the Royal Exchange. #663.

The Qualities which are required in a perfect Merchant of Forraign Trade.

He love and service of our Country consisteth not so much in the knowledge of those duties which are to be performed by others, as in the skilful practice of that which is done by our selves; and therefore (my Son) it is now fit that I say something of the Merchant, which I hope in due time As it is very shall be thy Vocation: Yet herein are my thoughts free from to know what all Ambition, although I rank thee in a place of so high es- is to be done timation; for the Merchant is worthily called The Steward of their places: the Kingdoms Stock, by way of Commerce with other Na- So it were a tions: a work of no less Reputation than Trust, which ought to be ignorant to be performed with great skill and conscience, that so the in the duties private gain may ever accompany the publique good. And Vocations. because the nobleness of this Profession may the better stir up thy desires and endeavours to obtain those abilities which may effect it worthily, I will briefly set down the excellent qualities which are required in a perfect Merchant.

I. He ought to be a good Penman, a good Arithmetician. and a good Accomptant, by that noble order of Debtor and Creditor, which is used onely amongst Merchants; also to be expert in the order and form of Charter-parties, Bills of Lading, Invoyces, Contracts, Bills of Exchange, and Policies of Ensurance.

2. He ought to know the Measures, Weights, and Monies of all forraign Countries, especially where we have Trade, & the Monies not onely by their several denominations, but also by their intrinsique values in weight & fineness, compared with the Standard of this Kingdome, without which he cannot well direct his affaires.

- 3. He ought to know the Customs, Tolls, Taxes, Impositions, Conducts and other charges upon all manner of Merchandize exported or imported to and from the said Forraign Countries.
- 4. He ought to know in what several commodities each Country abounds, and what be the wares which they want, and how and from whence they are furnished with the same.
- 5. He ought to understand, and to be a diligent observer of the rates of Exchanges by Bills, from one State to another, whereby he may the better direct his affairs, and remit over and receive home his Monies to the most advantage possible.
- 6. He ought to know what goods are prohibited to be exported or imported in the said forraign Countreys, lest otherwise he should incur great danger and loss in the ordering of his affairs.
- 7. He ought to know upon what rates and conditions to fraight his Ships, and ensure his adventures from one Countrey to another, and to be well acquainted with the laws, orders and customes of the Ensurance office both here and beyond the Seas, in the many accidents which may happen upon the damage or loss of Ships or goods, or both these.
- 8. He ought to have knowledge in the goodness and in the prices of all the several materials which are required for the building and repairing of Ships, and the divers workmanships of the same, as also for the Masts, Tackling, Cordage, Ordnance, Victuals, Munition and Provisions of many kinds; together with the ordinary wages of Commanders, Officers and Mariners, all which concern the Merchant as he is an Owner of Ships.
- 9. He ought (by the divers occasions which happen sometime in the buying and selling of one commodity and sometimes in another) to have indifferent if not perfect knowledge in all manner of Merchandize or wares, which is to be as it were a man of all occupations and trades.
- 10. He ought by his voyaging on the Seas to become skilful in the Art of Navigation.
- 11. He ought as he is a Traveller, and sometimes abiding in forraign Countreys to attain to the speaking of divers

Languages, and to be a diligent observer of the ordinary Revenues and expences of forraign Princes, together with their strength both by Sea and Land, their laws, customes, policies, manners, religions, arts, and the like; to be able to give account thereof in all occasions for the good of his Countrey.

12. Lastly, although there be no necessity that such a Merchant should be a great Scholar; yet is it (at least) required, that in his youth he learn the Latine tongue, which will the better enable him in all the rest of his endeavours.

Thus have I briefly shewed thee a pattern for thy diligence, the Merchant in his qualities; which in truth are such and so many, that I find no other profession which leadeth into more worldly knowledge. And it cannot be denied but that their sufficiency doth appear likewise in the excellent government of State at Venice, Luca, Genoua, Florence, the low Countreys, and divers other places of Christendom. And in those States also where they are least esteemed, yet is their skill and knowledge often used by those who sit in the highest places of Authority: It is therefore an act beyond rashness in some, who do dis-enable their Counsel and judgment (even in books printed) making them uncapable of those ways and means which do either enrich or empoverish a Common-wealth, when in truth this is only effected by the mystery of their trade, as I shall plainly shew in that which followeth. It is true indeed that many Merchants here in England finding less encouragement given to their profession than in other Countreys, and seeing themselves not so well esteemed as their Noble Vocation requireth, and according to the great consequence of the same, doe not therefore labour to attain unto the excellencie of their profession. neither is it practised by the Nobility of this Kingdom as it There is more is in other States from the Father to the Son throughout honor and their generations, to the great encrease of their wealth, and Industrious maintenance of their names and families: Whereas the life, than in a memory of our richest Merchants is suddenly extinguished; great Inheritthe Son being left rich, scorneth the profession of his Father, wasteth for conceiving more honor to be a Gentleman (although but in wartue,

#### CHAP II.

#### The means to enrich this Kingdom, and to encrease our Treasure.

↑ Lthough a Kingdom may be enriched by gifts re-Aceived, or by purchase taken from some other Nations, yet these are things uncertain and of small consideration when they happen. The ordinary means therefore to encrease our wealth and treasure is by Forraign Trade, Forraign wherein wee must ever observe this rule; to sell more to Trade is the rule of strangers yearly than wee consume of theirs in value. For our Treasure, suppose that when this Kingdom is plentifully served with the Cloth, Lead, Tinn, Iron, Fish and other native commodities, we doe yearly export the overplus to forraign Countries to the value of twenty two hundred thousand pounds; by which means we are enabled beyond the Seas to buy and bring in forraign wares for our use and Consumptions, to the value of twenty hundred thousand pounds; By this order duly kept in our trading, we may rest assured that the Kingdom shall be enriched yearly two hundred thousand pounds, which must be brought to us in so much Treasure; because that part of our stock which is not returned to us in wares must necessarily be brought home in treasure.

Again, some men have alleged that those Countries which permit mony to be carried out, do it because they have few or no wares to trade withall: but wee have great store of commodities, and therefore their action ought not to be our example.

To this the answer is briefly, that if we have such a quantity of wares as doth fully provide us of all things needful from beyond the seas: why should we then doubt that our monys sent out in trade, must not necessarily come back again in treasure; together with the great gains which it may procure in such manner as is before set down? And on the other side, if those Nations which send out their monies do it because they have but few wares of their own, how come they then to have so much Treasure as we ever see in those places which suffer it freely to be exported at all times and by whomsoever? I answer, Even by trading with their Moneys; for by what other means can they get it, having no Mines of Gold or Silver?

Thus may we plainly see, that when this weighty business is duly considered in his end, as all our humane actions ought well to be weighed, it is found much contrary to that which most men esteem thereof, because they search no actions ought further than the beginning of the work, which mis-informs especially their judgments, and leads them into error: For if we only sidered in behold the actions of the husbandman in the seed-time their ends. when he casteth away much good corn into the ground, we will rather accompt him a mad man than a husbandman: but when we consider his labours in the harvest which is the end of his endeavours, we find the worth and plentiful encrease of his actions.

banks, and suddenly remain dry again for want of waters. Behold then the true form and worth of forraign Trade, which is, The great Revenue of the King, The honour of the Kingdom, The Noble profession of the Merchant, The School of our Arts, The supply of our wants, The employment of our poor, The improvement of our Lands, The Nurcery of our Mariners, The walls of the Kingdoms, The means of our Treasure, The Sinnews of our wars, The terror of our Enemies. For all which great and weighty reasons, do so many well governed States highly countenance the profession, and carefully cherish the action, not only with Policy to encrease it, but also with power to protect it from all forraign injuries: because they know it is a Principal in Reason of State to maintain and defend that which doth Support them and their estates.

# Sir William Petty (1623–1687)





Sir William Petty by Isaac Fuller oil on canvas, circa 1651, NPG



A Treatise of Taxes and Contributions (1662)
Political Arithmetick (approx. 1676, pub. 1690)
Verbum Sapienti (1664, pub. 1691)
Political Anatomy of Ireland (1672, pub. 1691)
Quantulumcunque Concerning Money (1682, pub. 1695)



## TREATISE

O F

### Taxes & Contributions.

Shewing the Nature and Measures of

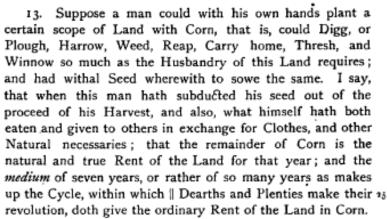
(Crown-Lands.)	(Penalties.
Assessements.	Monopolies.
Customs.	Offices.
Poll-Moneys.	Tythes.
Lotteries.	Raising of Coins.
1	Harth-Money.
Benevolence.	Excize, &c.

With several intersperst Discourses and Digressions concerning

(Warres.	(Beggars.
The Church.	Ensurance.
Universities.	Exportation of \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \
Rents & Purchases.	Free-Ports.
Usury & Exchange.	Coins.
Banks & Lombards.	Housing.
Registries for Con-	Liberty of Con-
veyances.	science, &c.

The same being frequently applied to the present State and Affairs of IRELAND.

London, Printed for N. Brooke, at the Angel in Cornbill. 1662.



14. But a further, though collaterall question may be, how much English money this Corn or Rent is worth? I answer, so much as the money, which another single man can save, within the same time, over and above his expence, if he imployed himself wholly to produce and make it; vis. Let another man go travel into a Countrey where is Silves, there Dig it, Refine it, bring it to the same place where the other man planted his Corn; Coyne it, &c. the same person, all the while of his working for Silver, gathering also food for his necessary livelihood, and procuring himself covering, &c. I say, the Silver of the one, must be esteemed of equal value with the Corn of the other: the one being perhaps twenty Ounces and the other twenty Bushels. From whence it follows, that the price of a Bushel of this Corn to be an Ounce of Silver.



18. Our Silver and Gold we call by severall names, as in England by pounds, shillings, and pence, all which may be called and understood by either of the three. But that which I would say upon this matter is, that all things ought to be valued by two natural Denominations, which is Land and Labour; that is, we ought to say, a Ship or garment is worth such a measure of Land, with such another measure of Labour; forasmuch as both Ships and Garments were the creatures of Lands and mens Labours thereupon: This being true, we should be glad to finde out a natural Par between

Land and Labour, so as we might express the value by either of them alone as well or better then by both, and reduce one into the other as easily and certainly as we reduce pence into pounds. Wherefore we would be glad to finde the natural values of the Fee simple of Land, though but no better then we have done that of the usus fructus above-mentioned, which we attempt as followeth.



19. Having found the Rent or value of the usus fructus per annum, the question is, how many years purchase (as we usually say) is the Fee simple naturally worth? If we say an infinite number, then an Acre of Land would be equal in value to a thousand Acres of the same Land; which is absurd, an infinity of unites being equal to an infinity of thousands. Wherefore we must pitch upon some limited number, and that I ap- prehend to be the number of years, which I conceive 27 one man of fifty years old, another of twenty eight, and another of seven years old, all being alive together may be thought to live1; that is to say, of a Grandfather, Father, and Childe; few men having reason to take care of more remote Posterity: for if a man be a great Grandfather, he himself is so much the nearer his end, so as there are but three in a continual line of descent usually co-existing together; and as some are Grandfathers at forty years, yet as many are not till above sixty, and sic de cæteris.



THE

Political Anatomy

O F

### IRELAND'

WITH

The Establishment for that Kingdom when the late Duke of Ormond was Lord Lieutenant. Taken from the RECORDS.

To which is added

VERBUM SAPIENTI; or an Account of the Wealth and Expences of England and the Method of raising Taxes in the most Equal manner.

Shewing also, That the Nation can bear the charge of Four Millions per Annum, when the occasions of the Government require it.

By Sir WILLIAM PETTY, late Fellow of the Royal Society, and Surveyor-General of the Kingdom of *Ireland* 

#### LONDON:

Printed for D. Brown, and W. Rogers, at the Bible without Temple-Bar, and at the Sun over-against St. Dunstans Church, Fleet-street, 1691. B UT to make nearer approaches to the perfection of this Work, 'twould be expedient to know the Content of Acres of every Parish, and withal, what quantity of Butter, Cheese, Corn, and Wooll, was raised out of it for three years consequent; for thence the natural Value of the Land may be known, and by the number of People living within a Market-days Journey, and the Value of their housing, which shews the Quality and Expence of the said People; I would hope to come to the knowledg of the Value of the said Commodities, and consequently the Value of the Land, by

deducting the hire of Working-People in it. And this brings me to the most important Consideration in Political Oeconomies, viz. how to make a Par and Equation between Lands and Labour, so as to express the Value of any thing by either | alone. To which purpose, suppose two Acres of 64 Pasture-land inclosed, and put thereinto a wean'd Calf, which I suppose in twelve Months will become I C. heavier in eatable Flesh; then I C. weight of such Flesh, which I suppose fifty days Food, and the Interest of the Value of the Calf, is the value or years Rent of the Land. But if a mans labour ------for a year can make the said Land to yield more than sixty days Food of the same, or of any other kind, then that overplus of days food is the Wages of the Man; both being expressed by the number of days food. That some Men will eat more than others, is not material, since by a days food we understand  $\frac{1}{100}$  part of what 100 of all Sorts and Sizes will eat, so as to Live, Labour, and Generate. And that a days food of one sort, may require more labour to produce, than another sort, is also not material, since we understand the easiest-gotten food of the respective Countries of the World.



deducting the hire of Working-People in it. And this brings me to the most important Consideration in Political Oeconomies, viz. how to make a Par and Equation between Lands and Labour, so as to express the Value of any thing by either | alone. To which purpose, suppose two Acres of 64 Pasture-land inclosed, and put thereinto a wean'd Calf, which I suppose in twelve Months will become I C. heavier in eatable Flesh; then I C. weight of such Flesh, which I suppose fifty days Food, and the Interest of the Value of the Calf, is the value or years Rent of the Land. But if a mans labour ----- for a year can make the said Land to yield more than sixty days Food of the same, or of any other kind, then that overplus of days food is the Wages of the Man; both being expressed by the number of days food. That some Men will eat more than others, is not material. since by a days food we understand 100 part of what 100 of all Sorts and Sizes will eat, so as to Live, Labour, and Generate. And that a days food of one sort, may require more labour to produce, than another sort, is also not material, since we understand the easiest-gotten food of the respective Countries of the World.



### Political Arithmetick,

O R

#### DISCOURSE

#### Concerning,

The Extent and Value of Lands, People, Buildings: Husbandry, Manufacture, Commerce, Fishery, Artizans, Seamen, Soldiers; Publick Revenues, Interest, Taxes, Superlucration, Registries, Banks; Valuation of Men, Increasing of Seamen, of Militia's, Harbours, Situation, Shipping, Power at Sca, &c. As the same relates to every Country in general, but more particularly to the Territories of His Majesty of Great Britain, and his Neighbours of Holland, Zealand, and France'.

#### By Sir WILLIAM PETTY.

Late Fellow of the Royal Society.

London, Printed for Robert Clavel at the Peacock, and Hen. Mortlock at the Phanix in St. Paul's Church-yard. 1690.

The Author's Method and Arguing.

The Method I take to do this, is not yet very usual; for instead of using only comparative and superlative Words, Manner of and intellectual Arguments, I have taken the course (as a Specimen of the Political A-lirithmetick I have long aimed at) to express my self in Terms of Number, Weight, or Measure; to use only Arguments of Sense, and to consider only such Causes, as have visible Foundations in Nature; leaving those that depend upon the mutable Minds, Opinions, Appetites, and Passions of particular Men, to the Consideration of others: Really professing my self as unable to speak satisfactorily upon those Grounds (if they may be call'd Grounds), as to foretel the cast of a Dye; to play well at Tennis, Billiards, or Bowles, (without long practice,) by virtue of the most elaborate Conceptions that ever have been written De Projectilibus & Missilibus, or of the Angles of Incidence and Reflection.



#### Natural and Political

### **OBSERVATIONS**

Mentioned in a following INDEX,

and made upon the

## Bills of Mortality.

ву

Capt. FOHN GRAUNT, Fellow of the Royal Society.

With reference to the Government, Religion, Trade, Growth, Air, Diseases, and the several Changes of the said CITY<sup>1</sup>.

—— Non, me ut miretur Turba, laboro, Contentus paucis Lectoribus.—

The Fifth Edition, much Enlarged\*.

LONDON,

Printed by John Martyn, Printer to the Royal Society, at the Sign of the Bell in St. Paul's Church-yard.

MDCLXXVI.



							7	he	Tab	le o	f C	A.	S U	AI	LT	IE	S.						1629	1633 1634	1647	1651			In 20
The Years of our Lord	1647	1648	1649	1650	1651	1652	1653	1654	1655	1656	1657	1658	1659	1660	1629	1630	1631	1632	1633	1634	1635	1636	1631	1635 1636	1649	1653	1657	1629 1649 1659	Years.
Abortive and Stil-born Aged	335	329 835	327 889	351 696	389 780	381 834	384 864	433 974	483	419 892	463 869	467 1176	421	544	499	439	410	445	500	475	507	523	1793	2005	1342	1587	1832	1247	8559
Ague and Fever Apoplex and Suddenly Bleach Blasted	1260 68	884 74	751 64 1	970 74 3	1038 106 7	1212 111 2 6	282 118	1371	743 689 92	875 102	999	1800 138		2148 67	579 956 22	712 1091 36	1115	671 1108 17	704 953 24	623 1279 35	794 1622 26	714 2360	2475 4418 75	2814 6235 85	3336 3865 280	3452 4903 421	368o	2377 4010 177	15759 23784 1306
Bleeding Bloody Flux, Scouring and Flux Burnt and Scalded	155 3	176	5 802 10	289 5	833 11	762 8	200 5	386 7	168 10	368 5	362 7	233 4	346 346	2 251 6	13 5 449 3	438 10		13 4 348	6 4 278	4 3 512	346	330	54 16 1587	14 7 1466	5 11 1422	12 12 2181	14 19 1161	16 17 1597	99 65 7818
Calenture Cancer, Gangrene and Fistula	26	29	31	19 8	31	53	1 36	1 37	73	31	3 24	35	63	1	20	14	23	28	27	30	12 I 24	3 3 30	25	19 4	24 2	31 4	26 3	19	125
Wolf Canker, Sore-mouth and Thrush Child-bed	66	28	54	42	68	51	53 158	72	44	81	19	27	73	68	6	4	4	1	-	30	,	74	85	8	190	244	150	114	609 8 689
Chrisoms and Infants Colick and Wind Cold and Cough	1369	1254 71	1065 85	990 82	206 1237 76	1280 102	158 1050 80 41	192 1343 101 36	177 1089 85 21	1393 120 58	236 1162 113	225 1144 179	858 116	167	2596 48	157 2378 57	2035	171 2268	132 2130	143 2315	163 2113 37	230 1895 50	590 9277 105	79 668 8453 87	498 4678 341	769 4910 359	839 4788 497	133 490 4519 247	3364 32106 1389
Consumption and Cough Convulsion Cramp	2423 684	2200 491	2388 530	1988 493	2350 569	2410 653	2286 606	2868 828	2606 702	3184 1027	2757 807	3610 841	33 2982 742	3414 1031	1827 52	58 1910 87	18	1797 241	45 1754 221	54 1955 386	2080 418	57 2477 709	174 5157 498	207 8266 1734	8999 2198	77 9914 2656	140 12157 3377	43 7197 1324	598 44487 9973
Cut of the Stone Dropsie and Tympany Drowned	185	434 40	1 421 30	508 27	444 49	556 50	617 53	704 30	660 43	706 49	631 63	931 60	6 646 /57	872 48	235 43	252 33	279 29	280 34	266 37	0 5 250 32	329 32	389	01 5 1048	10 1734	6 1538	0 4 2321	0 13 2982	47 1302	38 9623
Excessive drinking Executed Fainted in a Bath	8	17	29	43	24	12	19	21	19	22	20	18	7	18	19	13	12	18	13	13	13	45 13	139	147 52	144 2 97	182 76	215	130	827
Falling-Sickness Flox' and small Pox Found dead in the Streets	139	400	1190	184	525	1279	139	812	1294	823	835	409	1523	5 354	3 72	10 40	7 58	7 531	2 72	5	6 293	8	27 701	21 1846	10	8	79	55	384 1 74
French-Pox Frighted	18	6 29 4	15	18	21	20	14 20 2	20	29	4 23	9 25	53	2 51	31	18	33 12	20 12	12	7	1354 8 17	24 12	24 22	83	69 48	29 80	2755 34 81	3361 27 130	2785 29 83	243 392
Gout Grief	9	5	12	9	7	7	5	6	8	7	8	13	14	9	2	5	3	4	4	5	7	3 8	14	3 24	9 35 48	5 25	2 36	28	21
Hanged, and made-away themselves Head-Ach	11	10	13	14	9	14	15	9	14	16 3	24 4	18	13 11 35	36 26	18 8	20 8	6	15	14	3	8	20 7	71 37	18	48	59 47	45 72	47 32	279
Jaundice Jaw-faln	57 I	35	39	49	41	43	57	71	61	41	46	77	102	76	47	59 16	35 13	43	35	45	54	63 11	184	197	180	212	17 225	188	998
Impostume Itch	75	16	65	59	80	105	79	90	92	122	80	134	105	96	58	76	73	74	50	62	73	130	47 282 00	35 315	260 01	35	428	228	1639
Killed by several Accidents King's Evil Lethargy	27	57 26	39 22	94 19	47 22	45 20	57 26	58 26	52 27	43 24	52 23	47 28	55 28	47 54	54 16	55 25	47 18	46 38	49. 35	41 20	51 20	60 69	202 97	201 150	217	207 94	194	148 66	1021
Leprosie Liver-grown, Spleen and Rickets	53	46	56	59	65	72	67	65	52	4	38	1	6	4 2	1 2		2	2	3	- 1	2 2	2	5 2	7 2	13	21	21	9	537 67 06
Lunatick Meagrom	12	18	6	11	7 8	11	9	12	6	50 7	13	51 5	14	15	94 6	11	99	87 5	82 4	77	98	99	392 28	356	213 47	269 39	191	158	1421
Measles Mother	5 2	92	3	33	33	62	8	52	11	153	15	80	6	74	42	2	3	80	21	33	27	12	127	8 <sub>3</sub>	133	34 155	22 259 8	O5	757
Murdered Overlaid and Starved at Nurse	25	2 22	7 36	28	4 28	3 29	30	3 36	58	6 53	5	7 50	70 / 46	20 . 43	4	10	3	7	8	6	5	3 8 14	10	19	17	13	27	77 86	18 86
Palsie Plague Plague in the Guts	27 3597	611	67	20 15	23	16	29 6	18	22	23 6	20	22 14	17 36	21	17	23	274	25	14	21	25	17	34 82 1599	46 77 10401	87 4290	123 90 61	215 87	53	529 423
Pleurisie Poisoned	30	26	13	20	23	110	32 17	23	87 10	315	446 17	16	253 12	402 10	26	24	26	36	21		45	24	00	90	61 89	142	844 52	253 51	991
Purples and Spotted Fever Quinsie and Sore-throat	145	47 11	43	65	54 24	60 20	75 18	89	56	52 13	56	126	368 21	146	32 OI	58	58	38	24	125	245	397	186	4 791	300	278	290	243	415 14 1845
Rickets Mother, rising of the Lights Rupture	150 150 16	92	216 115	190	260 134	329 138	135	372 178	347 166	458 212	203	476 228	441 210	521 249	44	72	99	98	24 60	04 14 84	5 49 72	50 104	22 00 309	55 113 220	780 777	71 1190 585	45 1598 800	657	247 3681 2700
Scal'd head Scurvy	32	20	7	6 21	7 1 29	16	41	15	11 2 103	71	19	18	12	28	2	6	4	9	4	3	10	13	21	30	36	45	68	369	201
Smothered and stifled Sores, ulcers, broken and bruised	15	17	17	16	26	32	25	32	23	34	40	82	95 61	48	5	24	9		9		00	25	33 24	34	94	132	300	115	593 26
Shot (Limbs Spleen	12	17				-	13	13	-3	6	40	47	7 7	20	23		20	48	19	19	22	29	91	89	65	115	144	141 07	504 27 68
Shingles Starved Stitch		4	8	7	1	2	1	1	3	1	3	6	7	14	- 1		- 1		1					1	29	26	13	07	2
Stone and Strangury Sciatica	45	42	29	28	50	41	44	38	49	57	72	69	22	30	35	39	58	50	58	49	33	45	114	185	19	5	13	29	51
Stopping of the Stomach Surfet	29	29 137	30 136	33 123	55	67	66	107	94	145	129	277	186	214				1	3	"	1	45 6	i	4 6	144	173	247	216	937 13 669
Swine-Pox Teeth and Worms	767	597	3	598	709	- 1	178 1 691	4	128 2 803	161	137	218	202	192	63	157	149	86 6	104	114	132	371	445 23	721	613	671	644	401	3094 57
Tissick Thrush	62	47			,	~	٠,٠	1131	303	1198	878	1036	839	1008	440	506	335	470 34	432 23 28	454 15	27	1207	1751 68	2632 65	2502 109	3436	3915	1819	14236
Vomiting Worms Wen	147	107	105	65	85	6 86	53	14	7	27	16	19	8	10	15	4	17	10	2	31 5 28	34 6	3	95 7	93 16	17	27	69	15	136
Suddenly	1		1		2	2	-		1		1	2	1	1	63	59	28 1 37	62	19 4 58	62	27 78	34	105	74 4 233	424	4	4	124 2 63	830 15 454

Probably a name for confluent small pox. See Creighton, 1., 462—463.

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# Τέλος Ενότητας

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