How rich nations got rich. Essays in the history of economic policy.

Reinert, Erik S.

Centre for Development and the Environment, University of Oslo

2004

Working Paper Nr. 2004/01

How Rich nations got Rich
Essays in the History of Economic Policy

Essay I
Mercantilism and Economic Development:
Schumpeterian Dynamics, Institution Building and International Benchmarking

Essay II
German Economics as Development Economics:
From the Thirty Years War to World War II

Essay III
Benchmarking Success: The Dutch Republic (1500-1750) as seen by Contemporary European Economists

Erik S. Reinert

ISSN 0804-7391

How Rich nations got Rich. Essays in the History of Economic Policy Introduction

Erik S. Reinert

The debate around the effects of globalization is both widening and deepening. While some nations, like India and China – countries that have consciously built a manufacturing sector for five decades – come across as winners, a large number of smaller Third World nations seem to lose out under globalisation. The problem of failing and failed states is growing. In response to the increasing challenges, the focal points of the Washington Institutions – the World Bank and the International Monetary Fund (IMF) – have changed over the last 15 years, reflecting a growing recognition of the complexities of economic development. The initial phase, after the fall of the Berlin Wall, can be described as *'get the prices right'*, and development will more or less take care of itself. In this phase states and government policies were out, supposedly harmony-creating markets were in. A second phase can be described as *'get the property rights right'*. It was understood that the market needed a legal setting. A third stage of understanding was reached in the mid-1990s when the watchword became *'get the institutions right'*, followed by *'get the governance right'*. Towards the end of the 1990s, evolutionary or neo-Schumpeterian elements were added to this moving target of prescriptions: *'get the competitiveness right'* and *'get the innovation system right'*.

The present three essays approach the globalization problem from a different angle, by raising the question of what precisely the presently rich nations did in order to get rich. The essays document what, historically, have been the successful formulas carrying nations from poverty to wealth, and suggests that the moving target of Washington Consensus policies does not reflect or consider the experiences of the historically successful cases of nations taking the step from poor to wealthy. The first essay gives an overview of the economic policies of mercantilism and the economic thought that built Europe, starting with the Renaissance. The second essay looks at the policies of cameralism, the particular brand of mercantilism practiced in Germany, the latecomer in European development. The successful German economic policy is followed all the way through World War II. The third essay explores the strong influence exerted by the Dutch Republic, whose early generalized wealth provided inspiration for economists and for economic policy throughout Europe. We argue that comparison and benchmarking the economic structure of successful states historically have been key elements in successful economic development policies.

Together these essays add a missing dimension to the sequence of new insights that have emerged from the Washington Consensus: *get the economic activities right*. The uniting element in the history of economic policy is that successful nations all have embraced a policy of establishing a critical mass of economic activities subject to increasing returns: a diversified manufacturing sector to which knowledge-intensive services were later added. Promoting an urban manufacturing sector, i.e. 'import substitution', and state-building were for hundreds of years two sides of the same coin. The increasing returns found in manufacturing created the synergetic element that made a nation-state greater than its parts. Without this synergetic element – identified already in the 13th Century Italian city states as *il ben comune* or 'the common weal' – the state merely represents a tax burden not adding to the common welfare through the creation of increased wealth. From this perspective democratic state formation, economic development, and functioning innovation systems are all dependent on the very same conditions: a large diversity of economic activities subject to increasing returns, all being synergetic phenomena built upon the mutual dependency created by finely knit and interlocking networks of divisions of labour. This explains why economic development, generalized wealth and civil liberties for centuries all were exclusively urban phenomena, perfectly correlated with the presence of a diversified manufacturing sector.

The historical evidence presented in these essays suggests that by excluding the historically mandatory presence of a critical mass of increasing return activities – economic activities outside the sector producing raw materials – the present policies towards the Third World will fail. Specialization in the export of raw materials and the absence of a manufacturing sector used to be the hallmark of a colony. Now it is the hallmark of a nation likely to be poor and undemocratic. The failure to capture the common precondition of a diversified manufacturing and service sector base – both for economic growth, competetiveness, innovation systems, good governance, and democracy – makes the sequential new insights of the Washington Institutions merely into catchphrases that address symptoms of economic development rather than their causes. Understanding economic development requires understanding why colonies were poor and the mother countries of empires were and are wealthy. A key difference lies in their different economic structures: in the absence or presence of a diversified increasing returns sector.

The author thanks SUM for the hospitality awarded him as a guest researcher.

Essay I: Mercantilism and Economic Development: Schumpeterian Dynamics, Institution Building and International Benchmarking

Erik S. Reinert, The Other Canon Foundation & Sophus Reinert, University of Cambridge.

Table of contents:

In most arts and sciences – from astronomy to zoology – the Renaissance represents a qualitative watershed in human history, and historians are generally united in considering it a period of unprecedented intellectual ferment. Echoes of da Vinci, Galileo, and Machiavelli still resound in the way we approach art, science, and human coexistence, and it is noticeable how these developments came 'out of Italy' (Braudel 1991). As a precondition for this, the Renaissance was also a period when the productive powers of small European city states allowed a large part of the population to live free from poverty. Where feudalism had provided wealth for the very few and misery for most, the city states of the Renaissance for the first time witnessed a situation where artisans, merchants and public employees filled the ranks of a new middle class.

The Debate on Mercantilism: A Brief Overview

In this picture, the economics profession stands out with a completely different view of the period. The fact that 300 years of economic theory and practice tend to be lumped together under the label of 'mercantilism', as if it were a homogeneous mass, alone points to a rather superficial treatment of a long period with much variety. The common view today is that mercantilism was 'an irrational social order' (Ekelund & Tollison 1981: 6), the basic feature of which was that economists collectively made the serious mistake of confusing gold with wealth. This practice is referred to as the 'Midas Fallacy' (*chrysohedonism*), after the mythological king whose touch converted everything to gold. Starting with Adam Smith, this Midas Fallacy has been the common interpretation of mercantilism, the one also found in today's histories of economic thought. The Midas Legend had, however, been known as a warning since Roman times, and the mercantilists themselves used it to explicitly refute this view of wealth (Barbon 1696). Fairly recently, two American authors have offered what appears to be an alternative interpretation of mercantilism, that of a society seeking rents, presumed to be non-productive (Ekelund & Tollison 1981).

Both these standard interpretations, of mercantilism, and of pre-Smithian economics in general, present us with serious problems. How is it possible that human civilization as we know it, from the birth of modern cities to the Industrial Revolution, is recognized as the product of genius in all human endeavours but economics? A field whose practitioners supposedly 'did not rely on any "true" empirical knowledge of economic reality whatsoever' (Magnusson on Heckscher, in Magnusson 1994: 15), but were committed to hideous methodological errors, wrong economic policies, and false goals? Mercantilism has, in a sense, been set up like an irrational 'hell', a strawman against which classical and neo-classical economic rationality increases its splendour. But, is it possible that the Industrial Revolution, which Adam Smith lived through without even noticing, came into being *in spite of* the stupid and irrational economic policies of the preceding period? Only in the bigoted historiographical

tradition of 'manifest destiny', that the greatness of the United States is God-given regardless of policy, is it possible to ignore the fact that the United States economy was built on key principles of mercantilism for well over 100 years, starting with Alexander Hamilton in 1791[1]. The titles of the most influential US economics books at the time testify to their mercantilist origins (Carey 1822).

Or, do we dare think that the mercantilist policies actually carried out, to a large extent, were in fact wise policies, given the circumstances? In this chapter, we shall claim the latter is the case; indeed, we argue that the production-focused mercantilist policies have been a mandatory passage point for nations that have taken the step from poor to wealthy, from England starting in 1485 to South Korea in the 1980s. This 'mercantilist' toolbox of the generic developmental state, the basic principles of which, we claim, have changed very little over the years – gaining somewhat in sophistication over time, but keeping to the same basic doctrines – is reproduced in Appendix 1. We argue that this represents a collection of economic principles and policy tools typical of mercantilism across Europe, including its local variants—Cameralism in Germany and Colbertism in France.

One fundamental problem of interpreting mercantilism is that few historians of economic thought actually read the original texts. Magnusson (1994: 50), discussing the previously mentioned work of Ekelund and Tollison, argues 'They also seem totally uninterested in what the mercantilist writers actually wrote', a criticism that may be extended to many histories of economic thought. Furthermore, the analysis of mercantilism frequently suffers from what Perrotta (1993: 21) calls 'percursorism', that any idea – instead of being judged by its relevance in a given context – is either hailed as a surprising early anticipation of a healthy neoclassical economic principle, or as an example of hopelessly ill-conceived theories (Ashley 1920: II, 381).

Additionally, few studies of mercantilism cover more than one or two language areas. The truly pan-European distribution of common principles and policies, particularly in the period from 1650 to 1770, is therefore seldom noticed. The matter is further complicated by the fact that the long-recognized authority on the mercantilist system, the Swede, Eli Heckscher (1931)[2], made a rather static analysis of a tradition, for which he had little sympathy, and therefore depicted as primitive and pre-analytical. Likewise, the first compiler of Spanish mercantilist literature, Manuel Colmeiro, was a recent convert to economic liberalism, and was therefore also fundamentally opposed to the system he was attempting to describe. All in all, the modern history of mercantilism has largely been written as if Attila and his Huns had been put in charge of writing the history of the Roman Empire.

Our interpretation of mercantilism relies on the insights provided when the mercantilist texts themselves are studied in the historical context in which they were written. This interpretation coincides with recent views from the European periphery, by Cosimo Perrotta (1988, 1991, 1993) in Italy, Ernest Lluch (1973, 1997, 2000) and others in Spain, and Lars Magnusson (1991, 1994) in Sweden. This 'new' and context-specific interpretation largely corresponds to the view of mercantilism held by the German Historical School, in that most of them acknowledge the interdependency of mercantilism and state-building. [3]

We shall, however, grant some validity to the two other theories of mercantilism because – although both arrive at conclusions that, in our view, are fundamentally incorrect – they grab different tails of the problems that mercantilists attempted to address. This applies both to Smith's Midas Fallacy approach and to the Ekelund & Tollison rent-seeking approach. Indeed, the outflow of bullion in the form of gold and silver was an acute *symptom* of a set of economic problems that affected most nations, and therefore, a matter contemporary writers had

[1] Even the chapter on this issue in the *Cambridge Economic History of the United States* must be considered as belonging to the 'manifest destiny' tradition (Engerman & Sokoloff 2000).
[2] Also the father of the Heckscher-Ohlin trade theory.
[3] Brentano (1827-1829), Eisenhart (1881), Laspeyres (1863/1961), Schmoller (1897/1967), (Sombart 1902/1928, 1913a, 1913b).

to attend to.[4] Early mercantilist policy advice falls into two broad categories—the simplistic and populist ones that attempted to cure the symptoms evident in the financial sphere, simply by manipulating financial variables, and what we have called the 'mercantilists of the real economy' (*realökonomische Merkantilisten*) who sought the underlying causes of the problems in the sphere of production[5]. The most heated of all mercantilist debates were between these two types of theorists—'monetarists' and 'productionists'—between de Santis and Serra in Naples (1610-1613) and between Misselden and Malynes in England (1622-1623). By the late 1600s, however, the emphasis was clearly more on the 'real economy'. John Locke (1691/1696) was one of the latest pure monetarists. Recurrent financial bubbles nevertheless recreated relatively short-lived floods of books on speculation, as was case in the 1720s.

In this essay, the focus is on the 'productionists' who were everywhere the great majority; in fact, most mercantilists are extremely clear in their analysis that the key to wealth lies in the sphere of production, rather than finance.[6] In this sense, present-day economics suits the standard accusation made against mercantilism, due to its predominant focus on financial and monetary values, much better than does mercantilism itself. The recent handling of the economic crisis in Argentina, de-industrializing the nation and halving its wage bill in order to pursue an arbitrarily chosen monetary goal, is the kind of policy against which the majority of mercantilists would have protested vehemently.

One of the more curious aspects of capitalist economic theory is that it does not allow for other than a 'normal' profit, identifying 'perfect competition' or 'commodity competition' as both the normal state of affairs and the goal of the system. The 'normal' participant in the economy is the farmer who has no influence over price, and the success stories of history, from the steel magnates to Henry Ford and Bill Gates, are in this view abhorred as 'rent seekers', by definition, a negative concept. The Ekelund & Tollison view of mercantilism can only be understood from this neo-classical/neo-Austrian point of view, and in a sense, they do identify an important aspect of mercantilism: the 'perfect competition' of the farmers did not and still does not produce significant wealth. Even the most efficient farmers in the world today, those in the United States and in the European Community, need heavy subsidies in order to achieve a decent income. Pre-Smithian economics can only be understood as system-building, 'Schumpeterian', dynamic imperfect competition. Two of its most successful economic institutions, *patents* and *protection* (for industrialization, rather than for revenue) were both created during the late 1400s in order to achieve this dynamic imperfect competition through artificially creating time-limited market power. As any businessman today, the mercantilists understood that 'perfect competition' is a situation where serious wealth cannot be accumulated, and economic development cannot take place.

It has previously been argued (Reinert & Daastoel 2004) that dynamic rents spread in the economy at three levels: 1) to the entrepreneur in the form of profit, 2) to the employee in terms of employment, and 3) through the government in terms of increased taxes. Under conditions of rapid technological change – as with the 'productivity explosions' of new technologies (Perez 2004) – this 'triple level rent-seeking' represents a hugely positive-sum game in the producing country. We argue that a core objective of mercantilism was achieving this 'triple-level rent-seeking'. Institutions like patents, protection and apprenticeship, created 300 years before Adam Smith, and scientific academies, created almost a century before his writings, would help increase the size of the economic pie, increasing profits, the wage bill and the governments' ability to tax.

---

[4] This would be similar to a balance-of-payment problem in Third World countries today, of what Celso Furtado once called 'the break-down of the capacity to import'.

[5] Schumpeter's recognition of Antonio Serra's 1613 treatise is particularly clarifying on this point: 'the implication being that if the economic process as a whole functions properly, the monetary element will take care of itself and not require any specific therapy' (Schumpeter 1954:195; Sophus Reinert in this volume)

[6] See Seligman (1920) and Reinert & Reinert (2004) for a discussion of these debates between the monetarists and 'the mercantilists of the real economy'

Changing Mentality and the Origins of Renaissance Wealth Creation

The very idea of economic development, however, was an early mercantilist innovation. When George Soros recently claimed that 'globalization is not a zero sum game' (Soros 2000), he unwittingly touched upon the very problem that faced economic thinkers as the idea of development emerged at the end of the Renaissance. For the longest time, the world was considered a finite place, locked in a cyclical system of cosmic equilibrium. This traditional zero-sum model of the universe was codified by Aristotle (politics 1328b, vii, ix, 3) and, channelled by the scholastics, came to dominate the European cosmology into the early modern period.[7] Sir Thomas Browne [1605-1682] encapsulated this view when he argued that 'all cannot be happy at once for, because the glory of one state depends upon the ruins of another, there is a revolution and vicissitude of their greatness' (Browne 1643: xvii), and the early 'balance of trade' argument was strongly related to this theory that 'one man's gain must be another man's loss' (St. Jerome in Finkelstein 2000: 89). Economic thought and, in many ways, economic development was thus shackled by fear of social instability. This, however, slowly eroded in the late Renaissance.

Several factors combined to unlock this zero-sum worldview.[8] Many of the necessary elements can be traced far back in time, but only during the Renaissance, did they achieve a critical mass sufficient to profoundly change society in the whole Italian peninsula, and later, the rest of Europe. First of all, the undeniable urban bias of wealth creation was, at the time, identified as the result of *synergic effects*, what Florentine chancellor Brunetto Latini (ca. 1210-1294) had called the 'common good'. This *ben comune* that made some cities so wealthy (Machiavelli in Reinert & Daastøl 1997), sprang from an organic social harmony – seeing the body as the metaphor for society – which was also an inheritance from the scholastics.[9] This idea of a synergic *common good* forms the axis around which many mercantilists wrote. It must be emphasized that the important discovery of the role of the individual during the Renaissance was superimposed upon the idea of a synergic common weal of society. Mercantilism, as later German economics, had a dual vision where the interests both of society and of the individual had to be considered, and at times had to be traded off against one another (See Sophus Reinert in this volume).

Secondly, the Aristotelian view of society as a zero-sum game slowly gave way to an understanding that new wealth could be *created* through innovations. Indeed, the very meaning of the word *innovations* changed, from being a potentially heretical activity—as when Roger Bacon was arrested for 'suspicious innovations' in 1277 in Oxford—to being the new carrier of human welfare and happiness when Francis Bacon wrote *An Essay on Innovations* a little more than 300 years later (Reinert & Daastoel 1997). New scientific breakthroughs and geographical and scientific explorations slowly changed the static medieval worldview. This growing understanding of an infinite and expanding cosmos was the precondition for the mercantilist reinterpretation of the economic sphere: as cosmos expanded unendingly, so could the economy. There was a remarkable synergy observable between *innovation* and *exploration*, between theory and practice, in weaving the new European cosmology (Grafton 1996).

Thirdly, religion loosened its grip on society and opened up to innovations. With the fall of Constantinople to the Turks, Byzantine philosophers moved to Italy and brought with them religious views that were more open to Man's role as a co-creator, rather than merely a caretaker, in God's plan. Man's creation in the image of God indeed made a life of invention and innovation *a pleasurable duty* (Reinert & Daastøl 1997). Thus, around 1600, as in Francis Bacon's *New Atlantis*, a never-ending frontier of new knowledge was drawn up for Mankind, that had been transformed 'from a spectator into an owner and master of nature' (Koyré 1957: vii).

The Italian economic historian – and, many times, Prime Minister – Amintore Fanfani, encapsulated the shift from scholasticism to mercantilism: 'while scholasticism thinks of an

[7] See, for example, the important and influential works of Paracelsus (1951: 38-44) and Michel de Montaigne (1580/1958: 48).
[8] We discuss the factors in more detail in Reinert & Reinert (2004)
[9] Schumpeter (1954:177) refers to 'the old scholastic Public Good'. See also Sophus Reinert (2003).

order in equilibrium, mercantilism thinks of an order in growth' (Fanfani 1955: 149). We would argue that neo-classical economics, with its focus on the allocation of scarce resources and equilibrium, in many ways, represents a return to scholasticism (Reinert 2000a).

Observing Spain and the Dutch Republic: Mercantilism as National Benchmarking

'Mercantilism was born in response to the failure of Spain', says Perrotta (1993:19), referring to the 1500s. We could add that mercantilism further developed – during the 1600s and 1700s – in reaction to the successes of the Dutch Republic and Colbert's France. The best mercantilist writers were practical men, not people dedicated to what used to be called 'metaphysical speculations'. One logical approach to establishing a national economic policy was to look for what had worked, and not worked, in other nations. The European scene provided examples of both poor and rich areas, and the observations of these successful and unsuccessful economies became a major source of inspiration for the economic theory and policy of laggard nations. Economics as a science was therefore not born in wealthy and successful areas – in Venice or in the Dutch Republic, where wealth only seemed 'natural' – but in the poorer cities and nation-states (Laspeyres 1863/1961) that were trying to understand what factors had created the few 'islands' of wealth in an otherwise poor Europe (some were islands in more than one sense, which is part of the clue).

We argue, then, that one of the key tools of mercantilism, as well as its inspiration, was benchmarking successful and less successful nations, a practice already existent during the late 1400s (Defoe 1728). Starting from around 1550, Europe provided one outstanding experience of national economic failure, Spain, and two examples of unquestionable economic success, Venice and the Dutch Republic. The basic question was a relatively simple one. Everyone knew that huge amounts of gold and silver flowed into Spain from the Americas. Starting around 1550, however, it became increasingly clear that this flow of bullion did not cause generalized wealth in Spain. The gold and silver ended up elsewhere, in nations that generally had no mines. Wealth left the nations producing raw materials – even if the raw materials were gold and silver – and accumulated in the nations housing a diversified manufacturing sector.

Spain became increasingly indebted to foreign bankers after about 1550, and gradually lost its financial independence. The monopolies of Spanish agricultural supplies, like wine and olive oil for the American colonies, caused very high food prices in the peninsula and, with the inflow of species, contributed to rampant inflation. Spanish industries, which had previously been competitive in European markets, like silk, iron and steel, died out. The country was de-industrialized and flooded with imports, which caused the species that flowed in from the American colonies to leave the country at the same speed, or even faster. Wealthy farmers, protected by a monopoly and a very inelastic supply of wine and oil, could purchase noble titles that exempted them from paying taxes. Church property and organizations were also exempt from taxes, leaving the tax burden on the few artisans and industrialists who survived the flood of imports. The powerful *Mesta*, the organization of sheep farmers, fortified its power with loans to the Crown, and worked like a state within the state. Large tracts of mortmain[10] land belonging to the church remained uncultivated. A huge clerical class added to a general contempt for manual work; huge unemployment, underemployment, and large numbers of beggars complete this brief picture of Spain in rapid decay. Money was made in Spain from financial transactions that did not promote the productive system, from *censos,* i.e. financial loans and mortgages, and from *juros,* i.e. privileges, titles and rights granted by the king in exchange for loans. A very interesting aspect here is the extent to which Spanish economists at the time clearly saw the forces behind the economic ills of the country and provided theoretical and practical remedies. 'History records few instances of either such able diagnosis of fatal social ills by any group of moral philosophers or of any such utter disregard by statesmen of sound advice' said American historian Earl Hamilton (Hamilton 1932:237).

On the other side of the European economic spectrum, we find the united Dutch provinces. Many mercantilist tracts, starting with Giovanni Botero (1588/1621), contain descriptions of their wealth, and, after the death of 'the Great Colbert' in 1683, similarly, of the

[10] Mortmain is land that cannot be sold.

success of French policies. In various forms, the statement that manufactures were the real gold mines, much more valuable than the actual gold mines themselves, is found all over Europe during the 1600s and 1700s, from Giovanni Botero (1588), Tommaso Campanella (1602) and Antonio Genovesi (1770s) in Italy, to Anders Berch, the first economics professor outside Germany, in Sweden (Berch 1747). The Spanish mercantilist Geronymo de Uztariz (1724/1752, and foreword to Goyeneche 1717), whose main work was translated into both French and English, commented from a particularly good vantage point, being a Spaniard and having lived in Holland and Italy for 23 years. Uztariz' conclusion is in line with the contemporary mainstream: '[Manufactures] is a mine more fruitful of gain, riches, and plenty, than those of Potosi'[11].

Josiah Child, a governor of the British East India Company and one of the more famous mercantilists, encapsulates this benchmarking attitude to economic policy by arguing 'If we intend to have the Trade of the World, we must imitate the Dutch, who make the worst as well as the best of all manufactures, that we may be in a capacity of serving all Markets, and all Humors' (Child 1693: 90). Similarly, Child opens his 1668 book with a comment on 'the prodigious increase of the Netherlanders' which is 'the envy of the present and may be the wonder of all future generations'. 'And yet', he adds, 'the means whereby they have thus advanced themselves, are sufficiently obvious, and in a great measure imitable by most other nations…, which I shall endeavour to demonstrate in the following discourse' (Child 1668). The French observers of the period, Huet (1712/1722) perhaps being the most detailed, found not only a country specialized in manufacturing – where close to 30 per cent of the labour force was already engaged in manufacturing in the early 1500s – but also a system of synergies which brings to mind the old Italian idea of a *ben comune.* It was clear to most astute observers that the wealth of Holland rested on the synergic interdependence of manufacturing, long-distance trade and fisheries, where 'one factor gave strength to the other and vice versa', as Antonio Serra explained the Venetian system.

A brief case-study of the Dutch city of Delft in the 17th century shows how synergies created by a diversified base of activities created knowledge and spillovers between seemingly unrelated activities. In Delft, it is indeed possible to identify a closely-knit maritime-scientific-artistic cluster, where innovations leapt to and from very different sectors of the economy. The case of Delft brings together, in the very same productive-scientific cluster, the sectors and elements that, in the German tradition, are seen as being the important driving forces of capitalism, all in an interwoven whole:

- The quest for military power, in this case through the navy, as in Werner Sombart's 'War and Capitalism' (Sombart 1913a).
- The quest for luxury, in this case art, as in Sombart's 'Luxury and Capitalism' (Sombart 1914b).
- The quest for scientific knowledge, as in Sombart's work on capitalism (Sombart 1902/1928) and Thorstein Veblen's 'idle curiosity'.

These three forces interact in creating serendipitous economic development in Delft, and a profession curiously uniting the three seemingly unrelated fields – maritime warfare, art and scientific development – is that of the producer of glass lenses, *the lens grinder.*

Dutch artists invented oil painting and painting on canvases. The raw materials for these inventions – linseed oil, linen and hemp fibre – were widely used in Dutch shipbuilding and readily available, but would not be as readily available to the artists of other schools. Taking over the leadership from Florence, in the 17th century, Delft emerged as a centre for the scientific glass production of lenses. Important improvements to the microscope were also made there (Ruestow 1996). Delft natural scientist and microscope maker, Antoni van Leeuwenhoek (1632-1723) found a synergy between the production of woollen cloth, the main industry of the day, and his scientific work, because the hand lenses he developed were used extensively to

[11] Potosi, at about 4,000 metres above sea-level in present-day Bolivia, was the richest of all mines in the world. At the time, it was the second largest city in the world after London.

inspect cloth (Huerta 2003:33). Similarly, lens-making was integrated with the development of Flemish art – bringing together the history of art and the history of science – through the work of the Delft painter Jan Vermeer (1632-1675), whose painting techniques included seeing his motifs through lenses and a *camera obscura*, an apparatus similar to a primitive camera (Steadman 2001). Vermeer also keenly participated in aspects of the discoveries surrounding him in Delft: the geographical discoveries of the Dutch navy and discoveries in the natural sciences made possible by improvements of the microscope by Leeuwenhoek and his colleagues[12]. The navy and the merchant marine constituted, however, the largest demand for lenses for binoculars, but as mentioned, lenses were also in demand among natural scientists and producers of early microscopes. The Delft lens grinders thus formed the core of an extremely dynamic and path-breaking cluster including such diverse actors as the navy, the woollen industry, painters like Vermeer, natural scientists, and microscope builders.

Another product linking the three clusters – war (navy), luxury (art) and 'idle curiosity' (science) – in Holland at the time was mapmaking. Holland's position as a seafaring power demanded not only binoculars and naval instruments, but also, up-to-date maps[13]. Vermeer's fascination with maps and explorations is clear in many of his paintings, one author commenting on his 'mania for maps'. Such synergic cumulative causations, and the path dependency they created, were no doubt at the core of knowledge creation and the process of economic growth (Arthur 1989). They were, however, neither possible to reproduce in any meaningful way by quantitative methods only, nor apparent through the lenses of methodological individualism.

The enormous diversity of economic activities was observed and commented on by all contemporary economists who wrote about the Dutch Republic. This is also apparent in the early economic journals (Zincke 1746-1767). The role of diversity and the resulting creative serendipity bring back the issue of 'monoculture' in traditional development economics and in agricultural societies, where such creative linkages do not appear among professions that trade with each other. A community of milk producers and a nation of banana producers have very little to sell to each other. By emulating Dutch economic structure, rather than Dutch economic policies necessarily, and by avoiding the pitfalls of Spain, the mercantilists revealed their conviction in common economic principles:

- Economic development is *activity-specific*, created by some economic activities (manufacturing), rather than others. (Due to stagnant productivity, diminishing returns and monoculture, without synergies in agriculture).[14]
- Economic development is a *synergic* process: the greater the division of labour and the number of professions, the greater the wealth (already very clear in Serra 1613).
- The targeting, support, and protection of *manufacturing* were argued in terms of
  a) its ability to create wealth
  b) its ability to create employment
  c) its ability to solve balance of payment problems
  d) its ability to increase the velocity of circulation of money
- Starting in the 1700s, great emphasis was put on the beneficial synergies between manufacturing and agriculture: only where there was manufacturing, was there successful agriculture (Justi in Germany, Galiani in Italy, Hume in England)[15]

[12] Leeuwenhoek was to be the executor of his neighbour Vermeer's estate.

[13] With the technology of mapmaking changing from woodcuts to copper plates, the same copper used by instrument makers, the Dutch took over its production from the Italians.

[14] The wisdom of taxing diminishing return activities and paying bounties to increasing return activities was also recognised by Alfred Marshall, the founder of neo-classical economics (Marshall 1890: 452). Similarly, the different effects of technological change in agriculture (lower prices) and industry (higher wages) in Hans Singer (1950/1964) supported arguments for the key role of manufacturing industry in development. See also Reinert (1980, 1996).

[15] Modern economic historians agree with the mercantilist explanation of causality here: 'The bulk of the evidence points to urbanization being the cause of agricultural productivity gain, not a result' . Philip Hoffman quoted in Prak (2001).

The mercantilists are generally accused of not having a 'model' for development. In our view, the model comes out clearly and consistently both across time – from the first Spanish and Italian writers in the 1500s to Friedrich List in the 1840s – and across the European continent. The economic essence of mercantilism was to line up private and public vested interests by getting nations into increasing return industries that create virtuous circles of development. In other words, when private interests were seen as being in line with public interests, private interests were not only passively tolerated, but new institutions – like patents and protection – were consciously created in order to strengthen, harness and direct private initiative.

We would argue that adherence to the above principles has been a *mandatory passage point* for all nations progressing from poor to rich, including Korea in the 1960s and 1970s. When classical and neo-classical economics disallowed their *de jure* or *de facto* colonies from following these principles, they were – as Friedrich List put it – in reality, 'kicking away the ladder', which they themselves had used to climb to wealth.

The most fundamental difference between mercantilist economics and neo-classical economics is that the mercantilist policy recommendations were highly context-dependent – protecting manufacturing industry could be the right thing to do in one context, while promoting free trade could be right in another – whereas the policy recommendations of neo-classical economics are independent of context.

Mercantilist Dynamics and Institutions:
Activity-Specific Growth and Context-Specific Policy

Economic institutions have been brought to the forefront in the development debate during the last decade. It is generally agreed that economic activities and their institutions co-evolve, and attempts at establishing causality – to what extent institutions are created through *demand-pull* or *supply-push* – can therefore easily run into a chicken-and-egg type of problem. The mercantilist view of institutions was, from very early on, that institution-building was fundamentally a *demand-pull* phenomenon, that *the mode of production of a society* would determine its institutions. In 1620, Francis Bacon formulated a view that was to dominate in the social sciences for almost the next two centuries: 'There is a startling difference between the life of men in the most civilised province of Europe, and in the wildest and most barbarous districts of New India. This difference comes not from the soil, not from climate, not from race, but from *the arts*'. Francis Bacon is crystal clear on the causality in question: Man's activities – his mode of production – determine his institutions. In a similar vein, Carlota Perez (2004) recently argued the relationship between technological change and human institutions.

When Johan Jacob Meyen, a German scientist, stated in 1769 'It is known that a primitive people does not improve its customs and institutions, later to find useful industries, but the other way around' (Reinert 2000a), he expressed an understanding of causality considered common sense at the time. This view would appear to run counter to the standard World Bank view that the lack of institutions *per se* can be blamed for the poor performance of so many Third World countries. To the mercantilists, it would not be meaningful to attempt to understand the institutional development of Europe independently of the underlying strategy of industrialization that prompted the establishment of so many key institutions. The patent system was invented in Venice in the late 1400s with this purpose, and the establishment of an apprentice system in England under Elizabeth I cannot be understood outside the context of a highly successful Tudor strategy of building English woolen manufactures during the 1500s. The establishment of scientific academies in the 1700s, promoted particularly by Gottfried Wilhelm von Leibniz and Christian Wolff, cannot be understood independently of their strategy of building German economic activities outside agriculture. The success of these diversification strategies, in turn, created new institutional arrangements.

These mercantilist institutions cannot be understood outside a context of nations seeking to escape a comparative advantage in producing raw materials, a strategy which cannot be understood in the neo-classical framework of the Washington Consensus. We would argue that the present focus on institutions views institutions as outside the context of what they were created to accomplish. In reality, a large number of these institutions are part of a much broader

process of economic development that is incompatible with the internal logic of current mainstream economics. Seeing institutions independently of the productive system they support and sustain, is not meaningful, and attempting to establish scientific academies in hunting and gathering tribes is therefore attacking the problem from the wrong end. History shows that only societies that have achieved a certain level of manufacturing and/or other increasing return activities have ever achieved the 'right' institutions or any degree of 'competitiveness'. Hundreds of years of accumulated experience show that today's maxim 'getting institutions right' cannot be solved independently of 'getting into the right kinds of economic activities'.

Perhaps, the most fundamental methodological difference between mercantilism and neo-classical economics is that the mercantilists, in the same way as any successful businessman today, see economic activities as being qualitatively different. The whole colonial system was based on this crucial insight. 'Linen industry is proper only for countries where they can have flax and hemp cheap, and where the common people work at very easy rates', wrote the English mercantilist Charles Davenant (1696/1771). The woolen industry, on the other hand, was able to maintain much higher wages. When the English King prohibited the Irish from exporting woolen manufactures in 1699, he therefore knew that England was 'underdeveloping' its Irish colony. As Davenant (1699: 275) said, 'No Wise State, if it has the Means of preventing the Mischief, will leave its Ruin in the Power of another Country'.

As also indicated in the essay on German Cameralism, the mercantilists were clearly aware that they were keeping the colonies poor. Most saw this as a natural part of the world power game, while a few defended the practice by saying that since everyone else did so, England had to follow the same policy. Some, like Justi in Germany in the 1750s, thought colonialism would soon end because the people in the colonies knew they were being fooled. This was, of course, what happened in the United States, which suffered from not being allowed to establish manufacturing industries.

By establishing itself as the workshop of the world, importing raw materials and exporting manufactured goods, England experienced the most dramatic increase in wealth the world had yet seen. It was therefore of vital importance to keep things that way:

> That all Negroes shall be prohibited from weaving either Linnen or Woollen, or spinning or combing of Wooll, or working at any Manufacture of Iron, further than making it into Pig or Bar iron: That they be also prohibited from manufacturing of Hats, Stockings, or Leather of any Kind… Indeed, if they set up Manufactures, and the Government afterwards shall be under a Necessity of stopping their Progress, we must not expect that it will be done with the same Ease that now it may (Gee 1738: 81).

When the colonies demanded to establish their own manufactures, their attention could be diverted by allowing them to export their raw materials to other European countries:

> Because People in the Plantations, being tempted with a free Market for their Growths all over *Europe,* will all betake themselves to raise them, to answer the prodigious Demand of that extensive Free Trade, and their Heads be quite taken off from Manufactures, the only thing which our Interest can clash with theirs… (Decker 1744/1751).

In our view, the parallel to today's situation is clear. A large number of Third World countries have been de-industrialised during the last decades (Reinert 2003, 2004), but they are kept politically at bay with promises of being able to export their agricultural products to Europe and the United States.

As already mentioned, two important mercantilist institutions – both invented in the late 1400s –have been *patents* (in order to protect new knowledge) and *protection* (for industry-building, rather than for revenue purposes). Both institutions, of course, go against the basic tenets of neoclassical economics. It is curious how the twin institutions, *patents* and *protection* – children of the same basic understanding of the dynamics of a knowledge-based economy – are today considered to be heroes and villains respectively. Patents and their rights, creating artificial rents in order to promote new knowledge, are heralded as an indispensable ingredient of world growth, while protection, creating manufacturing rents in order to spread this production into new geographical areas, is considered the greatest of all evils. This is particularly problematic since all historically successful catching up strategies – starting with England's in 1485 and lasting there for more than 300 years – have depended on the nourishing, promotion, and protection of economic activities subject to increasing returns. The Bretton

Woods institutions now defend the mercantilist institution that helps rich countries (i.e. patents), but seek to eliminate its twin institution that could help the poor (i.e. protection).

The main institution that the mercantilists built was, of course, the state (Reinert 1999). Cosimo Perrotta saw mercantilism as an import substitution strategy, while Gustav Schmoller saw mercantilism as an exercise in state-building and nation-building. These are complementary, rather than contradictory views of mercantilism. As Schmoller describes mercantilism: '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 organizations, as well as of the state and its institutions, in the replacing of a local and territorial economy by that of the national state' (Schmoller 1896: 51).

Mercantilist economic policy therefore became highly context-specific, whereas from a mercantilist standpoint, neo-classical economic policy suffers from the same weakness as cure-all medicines in the Old US West; they come across as what used to be referred to as 'snake oil'.

Why Successful Mercantilism Carries the Seeds of its own Destruction, or Adam Smith, the Misunderstood Mercantilist

We agree with Cosimo Perrotta that mercantilism, at its core, is an import substitution policy (Perrotta 1988, 1994), a policy aimed at establishing national comparative advantage in increasing returns areas.[16] In the language of Thomas Mun (1621), the transition is from 'natural activities' to 'artificial activities', or in the language of Michael Porter, from a 'natural comparative advantage' to a 'created comparative advantage'. Porter (1990) provides a stage theory of economic development that is perfectly compatible with mercantilism (Reinert 2000b).

If this was the strategy, we should expect mercantilists to stop arguing for protectionism once this goal of industrialization has been reached. And indeed, this is what we see. Most mercantilists, and all the most sophisticated ones from Jean-Baptiste Colbert (1619-1683) to Friedrich List (1789-1846) and the 19th century American economists[17], saw the end of industrial protection and, indeed, argued that international trade between nations specialized in manufactures was a positive-sum game. After the Tudor Plan in England, the first successful system – originating in the writings of Laffemas (1597) – was that of Colbert during the reign of Louis XIV. The many volumes of Colbert's collected papers (Clément, (ed.) 1861-1872) show the manager of 'France Inc.' building manufacturing and infrastructure, facilitating internal trade, and attempting to recreate, on a national level, the synergies which earlier observers (Botero 1590) had confined to city-states (Cole 1931, 1937). Already, however, Colbert, saw mercantilist policies as temporary, and 'spoke of protective duties as crutches by the help of which manufacturers might learn to walk and then throw them away' (Ingram 1888: 41). The contemporaries could observe that for long periods of time, the leading nation of the period, the Dutch Republic, had relatively low tariffs, raising their tariff barriers only when their decay was obvious and advanced in the 1720s.

The English mercantilists John Cary (1696), Theodore Janssen (1713), and Charles King (1721) spelled out a system of 'good' and 'bad' trade, which is completely in line with Paul Krugman's (1980) trade theory – later recanted[18] – based on increasing and diminishing returns (see also Graham 1923). Janssen and King's system was very influential throughout the 18th century. This was judged on a nation by nation basis. 'Good trade' is with nations from which you import raw materials and export manufactured goods, 'bad trade' is with nations

[16] This is a fundamental *Leitmotif* in sixteenth, seventeenth, and eighteenth economic thought, and formed the basis of successful industrialization policies across Europe. It appears in English mercantilist texts, e.g. Misselden (1623), Mun (1664), Child (1693: 3, 18, 100-101), Cary (1695: 1), Barbon (1696), Davenant (1696), King (1721) and in William Petty. See also the chapters by Erik Reinert and Sophus Reinert in this volume.

[17] See Hudson (2004) for a discussion of 19th century US industrial strategy.

[18] Bhagwati (2002:31) confirms '(Krugman's) firm retreat back to free trade'.

from which you import manufactured goods and export raw material. And finally, exchanging manufactured goods for other manufactured goods is 'good trade' for both nations involved. This is also Friedrich List's principle (List 1841), which explains why List is, at the same time, both an important mercantilist and the first supporter of a European Union with free trade between manufacturing nations (Reinert 1998). List too saw mercantilism as a mandatory passage point on the road towards global free trade among equals. In other words, successful mercantilism carried with it the seeds of its own destruction: the type of protection that would initially help manufacturing, would later, by limiting production only to the national market, be an obstacle to manufacturing success. The assumption of increasing returns in manufacturing underlies most mercantilist writings, and is clearly spelled out by Antonio Serra (1613). It was James Steuart (1767), however, who produced the most mature mercantilist work in England, integrating important elements like technology, innovations, and institutions in his analysis of economic development – elements that were later to be removed from economics by Adam Smith. Two immediate translations into German testify to Steuart's international popularity and influence at the time.

Throughout the early modern 'mercantilist' period, it was clear to all that universal free trade was only in the interest of the wealthiest nations, Venice and the Dutch Republic in the 16th and 17th centuries, England later. In the United States, the same type of economic analysis that recommended industrial protection in the 1820s (Raymond 1820; Carey 1821) recommended free trade for that country in the 1880s and 1890s. The new and changed message is already clear from the book title, 'The Destructive Influence of the Tariff upon Manufacture and Commerce' (Schoenhof 1885). Writing in the United States, Friedrich List already foresaw this development around 1830: some time in the future, when the United States had industrialized after a century of protection, when its population had reached 100 million, and its navy was the most powerful in the world, then, the period would come when the United States would proclaim free trade to the world (Reinert 1998). It is impossible to understand Friedrich List's work without seeing that his 'mercantilism' was only a mandatory passage point towards free trade, which would be desirable when a symmetrical situation had been created in which all nations have a comparative advantage in dynamic, increasing return activities.

Normally, one would see Friedrich List and Adam Smith as opposite poles when it comes to economic policy, one the archetypical protectionist, and the other the archetypical free trader. However, Adam Smith can be read in a variety of ways, and he is an author who is more quoted than read. Not only are there important differences between Adam Smith's views before and after his meetings with the French physiocrats, the *Wealth of Nations* also contains passages that are more or less 'mercantilist'. The inconsistencies between the early and later Smith have, since the mid-19th century, led to a debate under the German heading, *Das Adam Smith Problem*. The variation within *The Wealth of Nations* opened the way for selective translations, as in the case of Sweden, where the most mercantilist Smith was translated first. As a result, there is at least one Adam Smith interpretation for every European nation.

In his early work, *The Theory of Moral Sentiments* (Smith 1759/1810), Adam Smith argued passionately for 'the great system of government' which is helped by adding new manufactures. Interestingly, Smith argued that new manufactures are to be promoted, neither to help suppliers nor to help consumers, but in order to improve 'the great system of government' (Smith 1759/1810, vol. 1: 320)

In fact, it is possible to argue that Adam Smith was also a 'misunderstood mercantilist', someone who firmly supported the mercantilist policies of the past, but then argued that they were no longer necessary for England. In other words, Adam Smith played the same role later played by Schoenhof (see above) in the United States. Policies, like patents and protection, that had once been established in order to further innovation, were in the 1770s partly used to hinder innovations and sold to finance the Crown. Adam Smith praised the Navigation Acts protecting English manufacturing against Holland, arguing 'they are as wise… as if they had all been dictated by the most deliberate wisdom' and holding them to be 'perhaps, the wisest of all the commercial regulations of England' (Smith 1776/1976: I, 486-487). All in all, Smith described a development that had become successfully self-sustained, a kind of snowballing effect, originating in the wise protectionist measures of the past. Only once did Smith use the term

'invisible hand' in the *Wealth of Nations*: when it sustained the key import substitution goal of mercantilist policies, when the consumer preferred domestic industry to foreign industry (Smith 1776/1976: 477). This is when 'the market' had taken over the role previously played by protective measures, and national manufacturing no longer needed such protection. If one cared to look, Adam Smith also argued for mercantilist policies as mandatory passage point as did Charles King and Friedrich List.

But Adam Smith is contradictory, and it is possible to read British vested interests into his contradictions. Undoubtedly, Alexander Hamilton – the first US Treasury Secretary– who had read Smith—noticed that, at one point, Smith argued that it would be very foolish for the people of the United States, with whom England was at war when his book appeared, to attempt to establish manufactures. In a different part of the same book, Smith convincingly argued that only nations with manufacturing industries are able to win wars. English classical economists are first Englishmen and then economists, is the implication of a remarkable passage by Lord Lionel Robbins: '..we get our picture wrong if we suppose that the English Classical economists would have recommended, because it was good for the world at large, a measure which they thought would be harmful to their own community'(Robbins 1952: 10-11). It is not surprising then, that Alexander Hamilton (1791) let the English mercantilists (in particular, Malachy Postlethwayt), and not Adam Smith, be his inspiration for US industrial policy (Hamilton 1791). 'Don't do as the English tell you to do, do as the English do' became a maxim in the young United States. Today, a wise maxim for economic policy would similarly be 'Don't do as the Americans tell you to do, do as the Americans did'.

Conclusion: Mercantilism as a *Mandatory Passage Point* for Development

Most economists show clear mercantilist tendencies when they advice their own children. Even the most convinced neo-classical economist will not tell his or her children that it does not matter what profession they choose – picking tomatoes or becoming a lawyer – because factor-price equalization, when wages and interest rates will be equal across the planet, is around the corner. However, when pontificating on children in the Third World, the same economists, recommend that nations specialize according to their comparative advantage, which will normally mean specializing in providing cheap labour to produce raw materials for simple assembly operations. That is, if a job is available at all.

When the future of their own children is at stake, economists understand that a career picking cucumbers and tomatoes will provide much less wealth than a skilled job in industry or services. Why, then, is the mercantilist argument so unheard that a nation where *everyone* specializes in picking cucumbers and tomatoes – growth industries in Mexico today – will be poorer than a manufacturing nation? We are tempted to refer to Thorstein Veblen, who claimed that education tends to contaminate and ruin many healthy human instincts. Of course, the enlightened economist today will add that Mexico should invest more in education. But Mexico's comparative advantage lies in economic activities that do not require much knowledge. Hence, its comparative advantage lies in providing cheap and uneducated labor. Investing in education therefore means training either for unemployment or for migration.

In this chapter, we have argued that the mercantilists who influenced economic policy were obsessed with strengthening domestic production. It must be kept in mind that the 1500s was a particularly cosmopolitan era, when the percentage of foreign students in European universities was much higher than today. As early as 1550, this cosmopolitan European theatre presented economic theorists and policy makers with two fascinating and revealing case studies of success and failure respectively. 'A spectre haunted Europe in the mercantilist period', says Perrotta, 'the fear of ending up like Spain, rich in gold, poor in production, and with a frighteningly unfavourable balance of trade' (Perrotta 1993: 18). Fortunately, two other cases – Venice and the Dutch Republic – as successful as Spain's case was unsuccessful, were also at hand.

Daniel Defoe (1728) tells how the first and hugely successful import substitution strategy, the English Tudor Plan during 1485-1603, was based on King Henry VII benchmarking the poverty of England and the wealth of Burgundy, a wealth based exclusively on English raw material. The success of England's 'Tudor Plan' in building a woolen

manufacturing sector showed the world that even if the success of Venice and the Dutch Republic, in a certain sense, were products of an invisible hand of Providence – a lack of raw materials had forced them into manufacturing – it was possible, through enlightened policy, to achieve the same results, even from a very different starting point.

Standard business strategy aims at maximizing market share without necessarily spelling out the theory of increasing returns and lowered unit costs, in everything from production to finance and advertising, that underlies this strategy. In the same way, the mercantilists did not necessarily explain the underlying mechanisms behind the success or failure they observed. The identification of cumulative and synergic elements behind wealth creation is what makes Antonio Serra's 1613 work so remarkable, and, we would argue, theoretically much superior to other theorists, like Myrdal, who worked on the same problems much later. In order to learn from the mercantilists, it is therefore necessary to spell out the mechanisms that they utilized, but often did not explain.

We argue that some basic economic mechanisms are as timeless as gravity. The effects of compound interest were the same in Babylonia in 2000 B.C. as with Third World debt today[19]. The conditions of a commercial enterprise with cash-flow problems would be fairly similar today as 500 years ago, and whether costs of production would (diminishing returns) or fall (increasing returns) increase as a nation specialized will have very similar results today as when Serra wrote in 1613[20]. In fact, we would argue that all the basic policy recommendations of *realökonomisch* mercantilism – investment in manufacturing, an extensive division of labour, importing raw materials and exporting manufactured goods, increasing the population of the cities – all aim at creating dynamic synergies based on what Schumpeter called 'historical increasing returns'[21] in order to create sustainable wealth, employment and balance of payments.

Martin Wolf (2003: 49), associate editor and chief economic commentator for the *Financial Times,* recently wrote an article for *Foreign Policy* where he argued the 'gap' between rich and poor countries 'reflects the success of those countries that embraced capitalism and the failure of those that did not'. The fact that mercantilism lies at the root of all successful capitalism is not considered. Harvard economist Robert J. Barro, writing for *Business Week*, recently dismissed worries about unemployment resulting from China's growing textile exports by arguing 'we should not be swayed by 17th century mercantilism, which viewed imports as bad and exports as good'. When taken together, these statements, appearing in two of the world's most influential publications on economic policy matters, frame real historical fallacies fuelling contemporary economic debates: liberalism is always 'right' and protectionism is always 'wrong'. Mercantilism, probably the most contested 'ism' in the historiography of economic analysis (Magnusson 1994), is mostly summoned as a straw man of irrational folly representing a system of destructive rent-seekers that supposedly made the fundamental mistake of confusing gold with wealth. The diffusion of this view reflects the extent to which the economics profession is virtually united in a common misconception of its own past, both as regards theory and policy.

We argue that the basic mercantilist insights – in the right contexts – have been proved right, again and again. These are: 1) national wealth cannot be created or based on raw material production in the absence of a manufacturing/increasing returns sector. 2) an inefficient manufacturing/increasing returns sector provides a much higher standard of living than no

[19] When asked what power could be stronger than the atomic bomb, Albert Einstein reputedly answered 'compound interest'. It can, in fact, be argued that the ancient Babylonians institutionalised a better solution to this problem than we have today. At varying and unforeseeable intervals, the King would cancel all non-commercial debt, thus creating a 'clean slate' for everyone. Remnants of this practice, the Jubilee Years, are found in the Old Testament, becoming the basis for the Jubilee 2000 movement to forgive Third World debt.

[20] Reinert (1980) documents that developing countries tend to produce well into the area of diminishing returns, revealed when costs decrease as production is reduced. See also Reinert (1996).

[21] With this term, Schumpeter refers to the combined effects of technological change and increasing returns, which are separable in theory, but often not in practice, because new technology is not available in the former scale.

manufacturing sector. Large-scale deindustrialization is therefore a crime to posterity (Reinert 2003, 2004). Time after time, these principles have been resurrected in times of need: with increasing poverty in Spain after 1550, with the economic downturn of Italy in the following century, during the famines in Paris in the 1770s, with the misery in France following the Napoleonic Wars, as the basis for solving serious economic problems in the United States in the early 1820s, solving the 'social problem' in 19th century Continental Europe, aiding Korea, poorer than Tanzania in 1950, in creating wealth, and after the devastation of the Morgenthau Plan in Germany after World War II (Erik Reinert in this volume). We argue that although increasing return activities partly may shift from manufacturing to services, the fundamental insights about the activity-specific and synergic nature of economic development remain valid. These are, however, blind spots in standard economics. The blind spots are products of David Ricardo's approach to economic theory – based on *a priori* assumptions rather on factual observations as in the Baconian method – today fossilized into an ideology impervious to observations of economic reality. To those nations that have not yet been through a successful mercantilist phase, generally due to a colonial past, these blind spots of economic theory create untold human suffering on a daily basis.

Appendix 1. 'Mercantilist' Economic Policies of the Generic Developmental State: Continuity of Policy Measures and Tool Kit from England in 1485 (Henry VII) to Korea in the 1960s: A Mandatory Passage for Economic Development.

…the fundamental things apply, as time goes by.
Sam, the pianist, in 'Casablanca'.

1. Observation of wealth synergies clustered around increasing return activities and continuous mechanization in general. Recognition that 'We are in the wrong business'. Conscious *targeting, support and protection* of these increasing return activities.
2. Temporary monopolies/patents/protection given to targeted activities in a certain geographical area.
3. Recognizing development as a synergic phenomenon, and consequently, the need for a diversified manufacturing sector ('maximizing the division of labour' (Serra 1613) plus observations of the Dutch Republic and Venice)
4. Accumulated empirical evidence shows that the manufacturing sector solves three policy problems endemic to the Third World in one go: increasing national value added (GDP), increasing employment, and solving balance of payments problems.
5. Attracting foreigners to work in targeted activities (historically, religious prosecutions have been important)
6. Relative suppression of landed nobility (from Henry VII to Korea). (Physiocracy as a landowners' rebellion against this policy)
7. Tax breaks for targeted activities.
8. Cheap credit for targeted activities.
9. Export bounties for targeted activities.
10. Strong support for the agricultural sector, in spite of this sector being clearly seen as incapable of independently bringing the nation out of poverty.
11. Emphasis on learning/education (UK apprentice system under Elizabeth I, Child (1693); Leibniz, Wolff and Justi in Germany.
12. Patent protection for valuable knowledge (Venice from 1490s)
13. Frequent export tax/export ban on raw materials in order to make raw materials more expensive to competing nations (starting with Henry VII in the late 1400s, whose policy was very efficient in severely damaging the woolen industry in Medici Florence).

References:

Arthur, Brian (1989). 'Competing technologies, increasing returns and lock-in by historical events'. *Economic Journal* 99 (394): 116-31.

Ashley, William (1920). *An Introduction to English Economic History and Theory.* Putnam, New York.

Barbon, Nicholas (1696). A *Discourse Concerning Coining the New Money Lighte*r. Richard Chiswell, London.

Berch, Anders (1747). *Inledning til Almänna Hushålningen, innefattande Grunden til Politie, Oeconomie och Cameralwetenskaperna*. Lars Salvius, Stockholm.

Botero, Giovanni (1590). *Della Ragione di Stato. Libri Dieci,* this work also contains *Delle Cause della Grandezza delle Cittá , libri tre*. Vicenzio Pellagalo, Rome.

Botero, Giovanni (1622). *Relazioni Universali*. Alessandro Vecchi, Venice.

Bhagwati, Jagdish (2002). *Free Trade Today.* Princeton University Press, Princeton.

Bouwsma, William James (2000). *The waning of the Renaissance, 1550-1640*. Yale University Press, New Haven.

Braudel, Fernand (1991). *Out of Italy, 1450-1650*. Flammarion, Paris.

Brentano, Lujo (1927-1929). *Eine Geschichte der wirtschaftlichen Entwicklung Englands*. 3 volumes, Gustav Fischer, Jena.

Browne, Thomas (1643). *Religio Medici*. Andew Crooke, London.

Carey, Mathew (1822). *Essays on Political Economy; or, the most certain means of promoting the wealth, power, resources and happiness of nations: applied particularly to the United States*. H.C. Carey & I. Lea, Philadelphia.

Cary, John (1696/1745). *A Discourse Concerning the East India Trade*. T. Osborne, London.

Child, Josuah (1681). *A Treatise Concerning the East-India Trade*. Printed for the Honourable the *East India Company*, London.

Child, Josuah (1688). *Brief Observations Concerning Trade and Interest of Money*. Elizabeth Calvert & Henry Mortlock, London.

Clément, Pierre ed (1861-1872). *Lettres, Instructiones et Mémoires de Colbert*. 7 Volumes in 10 + 1 Volume 'Errata Général et Table Analytique'. Imprimerie Impériale/Imprimerie Nationale, Paris.

Cole, Charles Woolsey (1931). *French Mercantilist Doctrines Before Colbert*. R.R. Smith, New York.

Cole, Charles Woolsey (1937). *Colbert and a Century of French Mercantilism*. Columbia University Press: New York.

Davenant, Charles (1696/1995). *An Essay on the East-India Trade*. n.p., London

Decker, Mathew (1744/1751). *An Essay on the Causes of the Decline of the Foreign Trade*. George Faulkner, Dublin.

Defoe, Daniel (1728). *A Plan of English Commerce*. Printed for Charles Rivington, London.

Eisenhart, Hugo (1881). *Geschichte der Nationaloekonomie*. Gustav Fischer, Jena.

Ekelund, Robert B. and Robert D. Tollison (1981). *Mercantilism as a rent-seeking society: economic regulation in historical perspective*. Texas A&M University Press, College Station.

Engerman, Stanley L. and Kenneth L. Sokoloff (2000). 'Technology and Industrialisation, 1790-1914'. In Engerman, Stanley L & Robert E. Gallman. *The Cambridge Economic History of the United States*. Cambridge University Press, Cambridge: 367-401.

Fanfani, Amintore (1955). *Storia delle dottrine economiche dall'antichità al XIX secolo*. Giuseppe Principato, Milan.

Finkelstein, Andrea (2000). *Harmony and the Balance: An Intellectual History of Seventeenth-Century English Economic Thought*. The University of Michigan Press, Ann Arbor.

Gee, Joshua (1729). *Trade and Navigation of Great Britain Considered*. Bettesworth & Hitch, London.

Goyeneche, Pedro Francisco (1717). *Comercio de Holanda, o el gran thesoro historial y político del floreciente comercio, que los holandeses tienen en todos sus estados y señoríos del mundo*. Imprenta Real, por J. Rodríguez Escobar, Madrid.

Graham, Frank (1923). 'Some Aspects of Protection further considered'. *Quarterly Journal of Economics* 37: 199-227.

Hamilton, Alexander (1791). A Report on the Manufactures of the United States. On http://www.juntosociety.com/i_documents/ah_rom.htm

Hamilton, Earl (1932). 'Spanish Mercantilism before 1700'. In *Facts and Factors in Economic History, Articles by former Students of Edwin Francis Gay*. Harvard University Press, Cambridge, Mass: 214-239.

Heckscher, Eli Filip (1931). *Merkantilismen: Ett Led i den Ekonomiska Politikens Historia*. P.A. Norstedt, Stockholm.

Hudson, Michael (2004). 'Technical progress and obsolescence of capitals and skills: theoretical foundations of nineteenth-century US industrial policy'. In Erik S. Reinert [ed.] (2004).
Huerta, Robert D. (2003). *Giants of Delft. Johannes Vermeer and the Natural Philosophers: The Parallel Search for Knowledge during the Age of Discovery*. Bucknell University Press, Lewisburg.
Huet, Pierre Daniel (1722). *A View of the Durch Trade in all the States, Empires, and Kingdoms of the World*. C. King and J. Stagg, London. Second edition, first edition, 1717. Original French edition, 1712.
Hume, David (1767). *The History of England from the Invasion of Julius Caesar to the Revolution in 1688*. 6 volumes. A. Millar, London.
Ingram, John Kells (1888). A *History of Political Economy*. Black, Edinburgh.
Justi, Johann Heinrich Gottlob von (1760). *Die Natur und das Wesen der Staaten, als die Grundwissenschaft der Staatskunst, der Policey, und aller Regierungswissenschaften, desgleichen als die Quelle aller Gesetze, abgehandelt*. Johann Heinrich Rüdigers, Berlin.
Janssen, Theodore (1713). 'General Maxims in Trade, Particularly Applied to the Commerce between Great Britain and France'. In King (1721).
King, Charles. (1721). *The British Merchant; or, Commerce Preserv'd*. 3 volumes. John Darby, London.
Koyré, Alexandre (1957). *From the closed world to the infinite universe*. Johns Hopkins University Press, Baltimore.
Krugman, Paul (1980). *Rethinking International Trade*. MIT Press, Cambridge.
Laspeyres, Etienne (1863/1961). *Geschichte der volkswirtschaftlichen Anschauungen der Niederländer und ihrer Litteratur zur Zeit der Republik*. de Graaf, Nieuwkoop.
Laffemas, Barthélemy (1597). *Reiglement (sic) general pour dresser les manufactures en ce rayaume, et couper le cours des draps de soye, & autres merchandises qui perdent & ruynent l'Estat: qui est le vray moyen de remettre la France en sa splendeur, & de faire gaigner les pauvres…* Claude de Monstr'oil and Jean Richter, Paris.
Latini, Brunetto (1284/1993). *The Book of the Treasure (Li livres dou tresor)*. Garland Publishing, New York.
List, Friedrich. (1841/1959). *Das nationale System der Politischen Ökonomie*. Kyklos Verlag, Basel: 12. (This part of the foreword was not translated in the English translation of 1885).
Lluch, Ernest (1973). *El pensament econòmic a Catalunya.* Edicions 62, Barcelona.
Lluch, Ernest (1997). 'Cameralism beyond the Germanic World: A Note of Tribe'. *History of Economic Ideas*.5 (2): 85-99.
Lluch, Ernest (2000). 'El cameralismo en España' in Enrique Fuentes Quintana (ed) *Economia y Economistas Españoles,* Vol. 3, Galaxia Gutenberg, Barcelona, pp.721-728.
Locke, John (1691/1696). *Some considerations of the Consequences of the Lowering of Interests, and Raising the Value of Money*. Awnsham & Churchil, London.
Magnusson, Lars (1991). *Merkantilismen. Ett ekonomiskt tänkande formuleras*, Stockholm, SNS Förlag, English edition: *Mercantilism: The Shaping of an Economic Language*. Routledge, London.
Magnusson, Lars [ed.] (1993). *Mercantilist Economics*. Kluwer, Boston.
Marshall, Alfred (1890). *Principles of Economics*. Macmillan, London.
Misselden, Edward (1623). *The Circle of Commerce or the Balance of Trade*. Printed by Iohn Dawson for Nicholas Bourne, London.
Mun, Thomas (1664). *England's Treasure by Forraign Trade*. J. G. for T. Clark, London.
[Paracelsus] Hohenheim, Aureolus Theophrastus Bombastus von (1951). *Selected Writings of Paracelsus.* Jacobi, Joland [ed.]. Princeton University Press, Princeton.
Perez, Carlota (2004). 'Technological Revolutions, Paradigm Shift and Socio-Institutional Change'. In Erik S. Reinert [ed.]. *Globalization, Economic Development and Inequality: An Alternative Perspective*. Edward Elgar, Cheltenham.
Perrotta, Cosimo (1988). *Produzione e Lavoro Produttivo nel Mercantilismo e nell'Illuminismo*. Congedo Editore, Galatina.
Perrotta, Cosimo (1991). 'Is the Mercantilist Theory of the favorable balance of trade really erroneous?'. *History of Political Economy* 23 (2): 301-336.
Perrotta, Cosimo (1994). 'Early Spanish Mercantilism: The First Analysis of Underdevelopment'. In Magnusson (1993): 17-58.
Porter, Michael (1990). *The Competitive Advantage of Nations*. Macmillan, London.
Praak, Maarten (2001). 'Early Modern Capitalism: an Introduction'. In Maarten Prak [ed.]. *Early Modern Capitalism: Economic and Social Change in Europe 1400-1800*. Routledge, London: 1-21.
Raymond, Daniel (1820). *Principles of Political Economy*. Fielding Lucas, Baltimore.
Reinert, Erik S. (1980). *International Trade and the Economic Mechanisms of Underdevelopment*. University Microfilms, Ann Arbor.

Reinert, Erik S. (1996). 'Diminishing Returns and Economic Sustainability: The dilemma of resource-based economies under a free trade regime'. In Stein Hansen, Jan Hesselberg and Helge Hveem [ed.]. *International Trade Regulation, National Development Strategies and the Environment: Towards Sustainable Development?*. Centre for Development and the Environment, University of Oslo, Oslo. Available on www.othercanon.org

Reinert, Erik S. (1998). 'Raw Materials in the History of Economic Thought: or, Why List (the Protectionist) and Cobden (the Free Trader) Both Agreed on Free Trade in Corn. In Geraint Parry, Asif Qureshi, and Hillel Steiner [eds.]. *Freedom and Trade*, *1846-1996*. Routledge, London.

Reinert, Erik S. (1999). 'The Role of the State in Economic Growth'. *Journal of Economic Studies* 26 (4/5). A shorter version was published in Pier Angelo Toninelli [ed.]. *The Rise and Fall of State-Owned Enterprises in the Western World*. Cambridge University Press, Cambridge (2000).

Reinert, Erik S. (2000a). 'Full Circle: Economics from Scholasticism through Innovation and back into Mathematical Scholasticism. Reflections around a 1769 price essay: "Why is it that Economics so Far has Gained so Few Advantages from Physics and Mathematics?"'. *Journal of Economic Studies* 27 (4/5). Available on www.othercanon.org

Reinert, Erik S. (2000b). 'Karl Bücher and the Geographical Dimensions of Techno-Economic Change'. In Jürgen Backhaus [ed.]. *Karl Bücher: Theory, History Anthropology, Non-Market Economies*. Metropolis Verlag, Marburg.

Reinert, Erik S. (2003). "Increasing Poverty in a Globalised World: Marshall Plans and Morgenthau Plans as Mechanisms of Polarisation of World Incomes". In Chang Ha-Joon [ed.]. *Rethinking Economic Development*. Anthem, London.

Reinert, Erik S. (2004). *Globalization in the Periphery as a Morgenthau Plan: The Underdevelopment of Mongolia in the 1990s*. In Reinert [ed.], 2004.

Reinert, Erik S. [ed.] (2004). *Globalization, Economic Development and Inequality: An Alternative Perspective*. Edward Elgar, Cheltenham.

Reinert, Erik S. (in this working paper). 'Benchmarking Success: The Dutch Republic (1500-1750) as seen by Contemporary European Economists'. .

Reinert, Erik S. & Arno Daastøl (1997). 'Exploring the Genesis of Economic Innovations: The Religious Gestalt-switch and the Duty to Invent as Preconditions for Economic Growth. *European Journal of Law and Economics* 4 (2/3): 233-283.

Reinert, Erik S. & Arno Daastøl (2004). 'The Other Canon: The History of Renaissance Economics. Its Role as an Immaterial and Production-based Canon in the History of Economic Thought and in the History of Economic Policy'. In Reinert [ed.] (2004)

Reinert, Sophus (2003). 'Darwin and the Body Politic: Schäffle, Veblen and the biological metaphor shift in economics'. Paper presented at the 17th Heilbronn Conference in the Social Sciences, June. On www.othercanon.org

Reinert, Sophus & Erik S. Reinert (Forthcoming, 2004). 'An Early National Innovation System. The Case of Antono Serra (1613)'. *Institutions and Economic Development* 2 (1).

Robbins, Lionel (1952). *The Theory of Economic Policy in English Classical Political Economy*. Macmillan, London.

Ruestow, Edward G. (1996). *The Microscope in the Dutch Republic: The Shaping of Discovery*. Cambridge University Press, Cambridge.

Schoenhof, Jacob (1885). *The Destructive Influence of the Tariff upon Manufacture and Commerce and the Figures and Facts Relating Thereto*. 2nd edition, New York Free Trade Club, New York.

Serra, Antonio (1613). *Breve Trattato delle Cause che Possono far Abbondare l'Oro e l'Argento dove non sono Miniere*. Lazzaro Scorriggio, Naples.

Schmoller, Gustav (1897/1967). *The Mercantile System and its Historical Significance*. Macmillan, New York, 1897: 50-51 (reprinted Kelley 1967).

Schumpeter, Joseph Alois (1954). *The History of Economic Analysis*. Oxford University Press, New York.

Singer, Hans W. (1950/1964). 'The Distribution of Gains between Investing and Borrowing Countries'. In *International Development: Growth and Change*. McGraw-Hill, New York.

Smith, Adam (1759/1812). *The Theory of Moral Sentiments*. In *Collected Works*. Cadell and Davies, London.

Smith, Adam (1776/1976). *The Wealth of Nations*. Chicago University Press, Chicago.

Sombart, Werner (1913a). Krieg und Kapitalismus. Duncker & Humblot, Munich & Leipzig.

Sombart, Werner (1913b). *Luxus und Kapitalismus*. Duncker & Humblot, Munich & Leipzig.

Sombart, Werner (1902/1928). *Der moderne Kapitalismus*. Duncker & Humblot, Munich & Leipzig.

Steadman, Philip (2001). *Vermeer's Camera*. Oxford University Press, Oxford.

Steuart, James (1767). *An Inquiry into the Principles of Political Economy: being an Essay on the Science of Domestic Policy in Free Nations. In which are particularly considered population, agriculture, trade, industry, money, coin, interest, circulation, banks, exchange, public credit, and taxes*. 2 Volumes.
A. Millar & T. Cadell, London.

Uztariz, Geronymo (1724/1751). *The Theory and Practice of Commerce and Maritime Affairs*. 2 vols. John and James Rivington, London.

Zincke, Georg Heinrich, editor (1746-1767). *Leipziger Sammlungen von Wirthschafftlichen Policey-, Cammer- und Finantz-Sachen*. 192 issues in 17 volumes. Erster (bis) Sechzehender Band (und) General-Register, Leipzig.

Essay II: German Economics as Development Economics: From the Thirty Years War to World War II

Erik S. Reinert, The Other Canon Foundation, Norway.[22]

Three main elements make the study of the German economic tradition[23] particularly rewarding for development economists. First of all German economics was born late and at a moment when the nation was particularly backward, poor and ravaged by The Thirty Years' War (1618-1648), that had cost the lives of up to 70 per cent of the civilian population in some areas. Therefore – from its very inception – German economics took the vantage point of a backward nation attempting to catch up with its wealthier neighbours. As opposed to English and US economics, whose philosophical base changed radically when the nation had reached world economic power, in German economics the elements that made this analysis possible were not modified as the nation grew wealthier. Secondly, German economics has consistently, through the centuries, seen the economy from a different vantage point with different metaphors: essentially from the point of production, rather than trade, and operating on a much lower level of abstraction than today's mainstream economics and its predecessors. Thirdly, the scope of economics in the German tradition has been much wider than in the Anglo-Saxon mainstream. Factors such as geography and history, technology and technical change, government and governance, and social problems and their remedies, have all been central to the approach since its very inception.

A frequent theme in German historical writing is the idea of the country as a *verspätete Nation* – a laggard nation – compared to the rest of Europe. In such situations, the state will play a very different role than in the more developed nations.[24] As Keynes says, 'the worse the situation, the less laissez-faire works'. It was therefore only natural that other latecomers – in particular, the United States and Japan – were to build their economic theories and policies on German models.[25] During the 19th century, united in a common position against English economics, economics in Germany and the United States strongly influenced and fertilized each other. These catching-up nations united in a common theoretical front against England, a nation that not only made it politically clear that she saw it as a primary goal to prevent other nations from following the path of industrialization, but also – for the first time in the history of economics – possessed an economic theory that made this goal a legitimate one. From a policy

[22] I am indebted to Wolfgang Drechsler, Rainer Kattel and the editor for helpful comments on this chapter. The usual disclaimer applies.
[23] In this chapter, the term 'German economics' will be used to cover all economics originally written in the German language.
[24] For a discussion of the role of the state in the German economic tradition, see Reinert (1999).
[25] For a discussion of the choice of the German model in Japan, both after the Meiji Restoration and after 1945, and in the United States, see Reinert (1995).

point-of-view the main novelty of the economics of Smith and Ricardo was that they made colonialism morally defensible.[26]

The 19th century produced important German-American economic exchanges and alliances against English classical economics. Friedrich List, a German political refugee in the United States, was inspired by the visions and arguments of US economists: publications by Daniel Raymond and Mathew Carey in 1820 and 1821 provided List with new ammunition and inspiration. Later in the 19th century, another German-US pair of economists, Henry Carey and Eugen Dühring, supported and defended each other. During the 19th century, both US and Japanese economists were trained in German economics: US economists, through their graduate studies at German universities and Japanese economists, not only by German economics professors in Japan, but also by a large number of German-trained US professors who were teaching in Japan.[27] There were no graduate schools in economics in the United States in the 19th century, and most US economists received their Ph.Ds at German universities, as had all the founders of the American Economic Association. Reading knowledge of German was mandatory for economics PhDs in the United States until World War II.

We should not, however, exaggerate the differences between the German economic tradition and that of the rest of Continental Europe. In the long term, the most important dividing line is between the English economic tradition and the Continental European traditions seen as a whole. The works available in English on the German economic tradition tend to be seen from an Anglo-Saxon viewpoint, where German economics is seen in contrast to the English tradition without recognizing its similarities to the rest of the continental tradition. To most historians of economic thought, cameralism – the particular German form of economics – is seen as a German phenomenon only. Most are not aware that both the term 'cameralism' itself and the works of the cameralist authors were spread from Sweden and Russia to Spain and Italy.[28] The textbook written by the first professor of economic outside Germany, Anders Berch in Uppsala (Berch 1747), uses the term cameralism in its title. The first professorship in economics in Northern Italy, Cesare Beccaria's in the 1760s, was one of 'cameral sciences'.

The only two German language economists broadly studied in the rest of the world – Karl Marx and Joseph Alois Schumpeter – are, in fact, much less original in the context of the German tradition than they appear in the standard historiography of economic thought. Marx and Schumpeter indeed shared a typical 'German' view of productive forces bringing about change in society. In his foreword to the Japanese edition of 'The Theory of Economic Development'[29], Schumpeter stressed the similarities between Marx' approach and his own, contrasting their approach with Walrasian and Marshallian economics. In the German production-based tradition, capital *per se* has no value, and this is reflected both in Schumpeter and Marx. As a result of this, the interest rate under perfect equilibrium in Schumpeter's system would be zero. This finds its parallel in Marx' proposition that constant capital does not produce any surplus value. However, these similarities are, according to Schumpeter, 'obliterated by a very wide difference in general outlook'.[30]

Seen from the perspective of German economics, the part of Marx' work alien to this tradition was his use of Ricardo's labour theory of value. Marx' contemporaries among German economists – starting with Eugen Dühring as the first to comment on his work – therefore tended to be sympathetic towards Marx' economic analysis, but not to his turning the social pyramid upside down as the solution to society's ills. Still, Marx' influence on the German economists who followed is clear. In fact, in his book review of Werner Sombart's main work *Der moderne Kapitalismus,* Gustav Schmoller, the oldest of the giants of the New Historical School, chided his younger colleague for being too much influenced by Marx.

[26] This is documented in Reinert (2004).
[27] See Sugiyama, Chuhei and Hiroshi Mizuta (1988).
[28] This is also the case of Tribe (1988 and 1995)
[29] Reproduced in Clemence (1951: 158-163).
[30] Clemence (1951: 161).

Permanent Characteristics of the German Economic Tradition over Time

It is possible to distinguish an economic tradition in Germany from after the end of the Thirty Years War in 1648. Prior to this date, in the tradition of Xenophon, a literary tradition generally labeled *Hausvaterliteratur* gave advice on how to run estates, small and large. *Fürstenspiegel* ('Kings' Mirror'), of which the best known is the *Sachsenspiegel* from the 12th century, are books that collected the laws and customs of the German states. During the three hundred years from 1648 until the German tradition of economics tradition dissolves after World War II in 1945, a continuity of principles and approaches can be observed that clearly distinguish this type of economics, both from English economics after 1776, and from today's mainstream economics. In the essay on mercantilism in this paper, we point to the similarities between early English economics, before 1776, and the German tradition.

Different types of economics tend to be heavily influenced by the profession from which economists have been recruited. English economists were, to a large extent, merchants and traders who brought their professional perspective with them. Adam Smith spent many years as a customs inspector, adding to the commercial bias of English economic theory. Indeed, a common German criticism of English classical economics has been that it has reduced the science of economics to *catalectics*, to a science limited to the study of barter, trade and exchange. German economists, by contrast, tended to be involved in the management of the many small German states. The term cameralism itself originates in the *camera principis,* or *Kammer*, i.e. treasury. The perspective of the cameralists was that of public management, of taxes and institutions, laws and regulations. Their perspective on economic development was therefore very practical and led them to the consideration of production – rather than trade alone – and the balance between different economic activities. For example, the need for the creation of a healthy base for taxation would lead them to favour the promotion of mechanized manufacturing, whose employees would gain a taxable income and whose owners were much better tax subjects than farmers or small artisans. German economists are, almost to a man,[31] in ardent opposition to the French physiocrats who established agriculture as the only producer of 'net wealth'.

The German economic tradition focuses on the state as an important economic facilitator and, in difficult situations, occasionally also as the entrepreneur of last resort (Reinert, 1999). Probably also as a legacy of the chaos of the Thirty Years War, a chaos similar to that of Haiti or any other 'failing state' today, pragmatism has called for an orderly environment with the state as a necessary facilitator in order to create individual opportunity and happiness. In this tradition, the state is seen as something through which, rather than against which, individual liberty and progress are gained within the framework of a *common weal*.[32] Through this tradition German economics provides key insights for contemporary economies where the 'natural order' is non-productive rent-seeking based on raw materials and/or cheap labour, and where the 'natural order' at times is utter chaos.

German economics is above all an *Erfahrungswissenschaft* – a science based on experience. There is little metaphysical speculation and high abstractions, and many considered the economic theories of David Ricardo to be an example of such 'metaphysical speculations'.[33] *Strukturzusammenhänge* – structural coherence and connections – among economic factors and between the economy and the rest of society are not only obvious: understanding such connections is also most important for both economic theory and policy. Synergies would be one example of this. Compared to Anglo-Saxon economics, the German approach has therefore always been holistic. Economics was to become an umbrella science over the social sciences. There was only one criterion for what was to be included under the heading of 'economics': relevance. To the degree that nutrition might be important to the economy at one point in time, nutrition would be part of economics.

---

[31] The exceptions are August Schlettwein (1731-1802) and Theodor Schmalz (1760-1831) both marginal figures in the history of German economic thought.

[32] I am indebted to Wolfgang Drechsler for assistance in the formulation of this paragraph.

[33] A very useful discussion of different ways of understanding economic phenomena in German vs. mainstream economics is found in Wolfgang Drechsler (2004).

Praxisnähe – closeness to reality – and relevance have been key criteria for academic quality in this tradition. There is also a fundamental understanding that important economic factors are irreducible to mere figures and symbols. A frequent criticism is that standard economics often produces *qualitätslose Grössen*, quantities that are devoid of any qualitative understanding. Even the most accurate and comprehensive description of a human being by all his or her quantifiable aspects – height, weight, percentage of water and trace minerals – would leave out the key factor in economic development, what Friedrich Nietzsche calls *Geist- und Willenskapital:* the wit and will of Mankind.

As it developed, German economics came to be solidly based on the philosophical foundation of Gottfried Wilhelm von Leibniz (1646-1716) and Christian Wolff (1679-1754),[34] based on the legal tradition of *Naturrecht* or Natural Law. The devastation of the Thirty Years' War (1618-1648) created a need for a common basis of law regardless of creed. In the natural 'uncivilized state', the Natural Law tradition maintains that Man still has moral obligations, the origins of which are to be found in nature. Modern state theory also emerged in this same period. At the core of the system of Christian Wolff – who came to be the basis of German economics starting around 1750 – rests the presupposition that Man is essentially a social, peaceful and rational being. Related to this is a fundamental belief in Man's common sense: *der gesunden Menschenverstand.*

Schumpeterian elements are deeply embedded in the German economics tradition. A focus on learning and progress, very clear with Leibniz and Wolff, is based on the *Gottesähnlichkeit* of Man: Man's near God-like quality of being able to create new things. Being born in the image of God meant that it was Man's pleasurable duty to invent. At its most fundamental level, the contrast between English and German economics lies in the view of the human mind: To John Locke, Man's mind is a blank slate – a *tabula rasa* – with which we are born, and which passively receives impressions throughout life. To Leibniz, we have an active mind that constantly compares experiences with established schemata, a mind both noble and creative.

Of Adam Smith's ideas, the one most repudiated by German economists was that Man is essentially an animal that has learned to barter. In the tradition that followed Smith, ideas and inventions have been produced outside the economic system. Karl Menger, the founder of the Austrian School of Economics, dedicated a whole chapter in his *Grundrisse* to refute Smith's view on this point. In the German tradition, including Marx and Schumpeter, the view is that Man is an animal who has learned to invent. Nietzsche later added the point that Man is the only animal that can keep promises, and therefore creates laws and institutions. Putting these elements together, we have an impressionistic painting of what differentiates English from German economics – barter and 'metaphysical speculations' on the one hand, and production and institutions on the other.

To sum up, the following elements are the main characteristics that differentiate the German economic tradition from Gottfried Leibniz and Christian Wolff, via Johann Gottlob von Justi and Friedrich List, to the *Verein für Sozialpolitik* and the Historical Schools:

- Centre of Theory: Man and his needs: *Der Mensch und seine Bedürfnisse*.
- A non-mechanical understanding of the world: qualitative *'verstehen',* as opposed to purely quantifiable *'begreifen'* (Drechsler, 2004).
- An *activist-idealist* approach to economic policy based on morality and ethics, as opposed to a *passive-materialistic* attitude to economic policy (these are Werner Sombart's terms)
- 'History matters': theory and policy must be based on the context and should understand the cumulative mechanisms in economics.
- Technology and new knowledge are the driving forces of the economy
- Focus on production, rather than trade

[34] For a discussion of this, see Reinert and Daastøl (1997).

- Economic activities are seen as qualitatively different as carriers of economic growth.
- Economic harmony is man-made, not natural. Passivity is more likely to create 'spontaneous disorder', rather than 'spontaneous order'.

Cameralist Economic Policy: From Veit von Seckendorff (1626-1692) to Wilhelm von Hörnigk (1640-1714)

Veit Ludwig von Seckendorff (1626-1692) has been called the 'Adam Smith of Cameralism' (Small, 1909), and justifiably so. His times were violent and extremely difficult for Germany. The Thirty Years' War (1618-1648) was a religious war, initially intra-German, which gradually came to involve several European powers at the time, including Spain, France, Denmark and Sweden. The war had no winner, but it became obvious to a number of German intellectuals of the next generation that the real loser was civilized society as such. When Seckendorff was 16 years old, his father – a German in the service of the Swedish army – was executed, beheaded as a supposed spy. When Seckendorff died at the age of 66, the armies of Louis the XIV of France had recently utterly destroyed one German state, the Palatinate (*Pfalz*). In between, there were wars with the Turks and two more wars with France that had led to the loss of Strasbourg, where Seckendorff had studied. Cameralism can, in our view, not be properly understood outside this context of a simultaneous reconstruction of a civilized society and of what would today be called 'failed states', states where economic life and basic institutions had to be built, virtually from scratch. The 'natural order' of the day was barbarism.

Seckendorff entered the service of another former official in the Swedish army, Duke Ernst of Sachsen-Gotha, called Ernst *der Fromme,* or Ernst the Pious. Seckendorff loyally identified himself with the *common weal* of the state he served, but was also patriotic about greater Germany. He is referred to as one of the most learned men of his times; he corresponded with Leibniz, among others, and his high ethical standards made him a prototype for later German bureaucrats.

In 1656, at the age of 30, Seckendorff finished his most important work, and the first book in the cameralist literature, *Der Teutsche Fürstenstaat* ('The German Principality'). The book became the standard handbook for economic policy in Germany, and went through a number of editions over the next 98 years. The *Fürstenstaat* is a kind of 'owner's manual' for a small state. There are accurate descriptions of history, population, economic conditions, administration, school system, law and justice. The principles followed in the very successful reconstruction of the state of Sachsen-Gotha and its institutions after the Thirty Years' War are described. Seckendorff's approach is clearly a holistic and organic one, where the state is an organism and its *common weal* can only be understood in its totality (*Ganzheit*). Seckendorff's views are similar to those of the Italian economists of the Renaissance. The emphasis on the totality, on *Ganzheit*, was to be a hallmark of German economics, and German philosophy for the next 300 years.[35]

Seckendorff travelled to the Netherlands, accompanying Count Ernst. The wealth and religious tolerance he observed there made a huge impression on Seckendorff (Stolleis 1995:158). Early economic policy in Europe is frequently based on benchmarking against the successful states – the Netherlands (see essay in this paper) and Venice being the obvious cases – and against Spain, with its inflow of gold accompanied by deindustrialisation and increasing poverty, as the case to avoid. To Seckendorff, the Dutch appear as 'examples of the wisest and in production and trade (*in Gewerb*) the most experienced people' (Seckendorff, 1665). From the Netherlands, Seckendorff understood the crucial need for manufactures, and also the need to cluster economic activities, both arguments that Antonio Serra had already raised at a theoretical level in 1613. Seckendorff's economic measures included the promotion of manufactures and the resettlement of artisans from the countryside in the cities, where they were likely to make much better livings. He promoted the extension of agriculture and activities adding value to the produce of the land. Seckendorff also eased the mobility of labour by eliminating fees required for settlement and resettlement. With him, we also find the origins of

[35] Othmar Spann (1878-1950) represented an extreme case of 'holistic economics'.

the welfare state, of care for the poor, and of government responsibility for the care of the elderly. In his wish to limit the powers of the guilds, he showed liberal tendencies well ahead of his times.

Seckendorff's policies are to a large extent to be reflected in von Hörnigk's principles published 18 years later, which will be discussed in detail below. Seckendorff is to establish what made possible in the 18th century what Albert Hirschman calls 'a multi-level conspiracy for development'. Seckendorff is an early proponent of a school of economists and political writers that is to dominate Europe in the next century, writers who convince the kings and rulers that their *right to rule* a state country also entails a *duty to develop* the same state. The 13th century idea of a common good – originating in Italian humanism – is slowly being transformed into an idea of public happiness, and the ruler is put in charge of the project. Wilhelm Roscher coined the descriptive term 'enlightened despotism' for this kind of rule (Roscher, 1868: 77).

The enlightened ruler – the 'Philosopher-King' in Christian Wolff's terms – was in charge of this 'developmental dictatorship', and the job taken up by the cameralists following Seckendorff was to advice, assist, guide, correct, flatter and cajole the rulers into doing their jobs properly. In the logic that emerged was the better the ruler, the wealthier the people. Instead of judging his success by his own wealth, the ruler's success will be based on the wealth and happiness of his people.[36]

Of the cameralists, the first true economist was Johann Joachim Becher (1635-1682), whose varied career was to match that of the 'economist adventurers' of the next century. Here, however, focus is on Becher's university companion and brother-in-law, Philipp Wilhelm von Hörnigk (1640-1714), who delivered the economic policy measures in the most succinct way. Like Johann Heinrich Gottlob von Justi in the next century, Hörnigk was a German-born economist in the service of Austria. Hörnigk's book *Österreich über alles, wann es nur will* ('Austria above everyone else, if only she had the will to') was published anonymously in 1684, and was the most successful German-language economics book of the period. Like Seckendorff, Hörnigk corresponded with Leibniz, the famous, practically inclined philosopher of the time. Hörnigk's economics was 'reality economics', based on intensive studies of the actual situation in the country. His 1684 book reached at least 16 editions and remained in print for a full one hundred years (Carpenter, 1795: 10). The centenary edition was published in 1784 under the title *Bemerkungen über die österreichische Staatsökonomie* ('Remarks on the Economy of the State of Austria'). In this edition, it is claimed that Austria can thank Hörnigk's book for most of her wealth.

As in the case of Seckendorff, understanding Hörnigk requires understanding the setting. As with Seckendorff, civilization, as it was known was then, under threat. Just two years before the book was published, the Turks had ended one of several unsuccessful sieges of Vienna. Austria suffered great famines in 1648/50, 1692/94, 1698/1702 and 1712/13 and devastating pests in the 1630s, 1650s and 1680s. To the North, the once powerful Hanseatic League had long been in decline, and to the South, neighbouring Venice and Italy had started on a similar downward path. These were challenging times for Austria.

Hörnigk distrusted the merchants and complained that wealthy people, who had the funds to invest, did not do so. He recommended a different kind of shock therapy from that of today's economists and the Washington Consensus: the complete prohibition of luxury goods from abroad should prompt the rich to invest in national manufacturing. Like William Petty in England at that time, Hörnigk was an early proponent of 'political arithmetic'. Among other things, he calculated the income from artisans in a successful Dutch city.

Hörnigk's 'Nine Points of Economic Policy' from his 1684 book will be summarised below, and comments are added on the circumstances in which such policies, today most unusual, would be appropriate and efficient. Hörnigk's recommendations are representative, not only of German economic policy, both then and later, but also of principles that, to varying degrees, were typical of Europe's way out of underdevelopment. [37]

[36] An example of an English translation of a German book on this subject is Christian Wolff (1750).
[37] This part of Hörnigk's book was translated by Arthur Monroe (1930).

Hörnigk's **first** point is 'to inspect the country's soil with the greatest care, and not to leave the agricultural possibilities of a single corner or clod of earth unconsidered. Every useful form of *plant* under the sun should be experimented with, to see whether it is adapted to the country'. In this type of economic theory that is famous for its bias towards manufacturing, it is most interesting that the first reference should be to agriculture. Agricultural productivity advanced extremely slowly for centuries, so typically the economists of the day saw the only way to raise production was by extending the arable area through the draining of marshes, etc. Most interesting is the 'Schumpeterian' element of introducing new crops.

Second, 'all commodities found in a country, which cannot be used in their natural state, should be worked up within the country; since the payment for *manufacturing* generally exceeds the value of the raw material by two, three, ten, twenty, and even a hundred fold'. Unemployment and underemployment represented huge problems at the time, and this 'multiplier effect' of manufacturing is commonly found, both as regards value added and as regards employment. The first instance is probably with Fernando Ortiz' memorandum to the King of Spain in 1558 (see Reinert & Reinert in this volume for a further discussion)

Third, 'for carrying out the above two rules, there will be need of people, both for producing and cultivating the raw materials and for working them up (i.e. producing finished products). Therefore, attention should be given to the population, that it may be as large as the country can support, this being a well-ordered state's most important concern, but, unfortunately, one that is often neglected. And the people should be turned by all possible means from idleness to remunerative *professions*; instructed and encouraged in all kinds of *inventions*, arts, and trades; and, if necessary, instructors should be brought in from foreign countries for this'.

Fourth, once in the country, gold and silver, 'whether from its own mines or obtained by *industry* from foreign countries, are, under no circumstances to be taken out for any purpose, so far as possible, or be allowed to be buried in chests or coffers, but must always remain in *circulation*; nor should much be permitted in uses where they are at once *destroyed* and cannot be utilized again. For under these conditions, it will be impossible for a country that has once acquired a considerable supply of cash, especially one that possesses gold and silver mines, ever to sink into poverty; indeed, it is impossible that it should not continually increase in wealthy and property'. The emphasis on gold and silver was what mainstream history of thought had told us to expect, an emphasis supposedly exposing the 'primitiveness' of these theories. However, see Perrotta (1991) for an alternative view.

Therefore**, Fifth,** 'the inhabitants of the country should make every effort to get along with their domestic products, to confine their luxury to these alone, and to do without foreign products as far as possible'. As Perrotta (1993) argues, import substitution was a key aspect of mercantilism. The first, and hugely successful, such import substitution strategy was the English 'Tudor Plan' from 1485-1603 (Reinert, 1995)

Sixth, 'in case the said purchases were indispensable because of necessity or *irremediable* abuse, they should be obtained from these foreigners at first hand, so far as possible, and not for gold or silver, but in exchange for other domestic wares'. This is the clearing system that was operating also in Europe in the years after World War II, in order to avoid balance of payment deficits.

Seventh, 'such foreign commodities should in this case be imported in unfinished form, and worked up within the country, thus earning the wages of *manufacturing there*'. The multiplier mechanism of manufacturing applies both to the value added effect and the employment effect, and additionally solves the balance of payments problem.

Eight, 'opportunities should be sought night and day for selling the country's superfluous goods to these foreigners in manufactured form, so far as this is necessary, and for gold and silver; and to this end, *consumption*, so to speak, must be sought in the farthest ends of the earth, and developed in every possible way'. The 'cult of export' was not invented by the Washington Consensus. This is another way of improving balance of payment deficits endemic to poor countries, where Keynesian measures alone may only suck in imports.

Ninth, except for important considerations, no importation should be allowed under any circumstances of commodities of which there is a sufficient supply of suitable quality at home;

and in this matter neither sympathy nor compassion should be shown foreigners, be they friends, kinsfolk, *allies,* or enemies. For all friendship ceases, when it involves my own weakness and ruin. And this holds good, even if the domestic commodities are of poorer quality, or even higher priced. For it would be better to pay for an article two dollars which remain in the country than only one which goes out, however strange this may seem to the ill-informed'. This sums up the value added, employment and balance of payment arguments, an argument also presentable in a neo-classical production possibility frontier type of analysis.

The 18th Century: The Birth of Academic Economics and of Specialization in the Field

The 18th century, the Age of Enlightenment, was characterized by a very considerable literary production, including the cameralist sciences. *Bibliographie der Kameralwissenschaften* – the main bibliographical source – lists 14,040 items, with some duplication, over 1184 pages (Humpert 1937), the majority published in the 18th century. Johann Heinrich Gottlob von Justi (1717-1771) – the most influential German economist of the century – was also the most prolific writer among the economists, with a total of 67 published books (Reinert, 2004a) Thirteen different contemporary translations were made of eight of Justi's books into five different languages.

This was also the century of the first economics journals, mixing practical advice, theory, and news on the whereabouts of economists, in typical cameralist style. The best-known German economists of the time – Justi, Georg Heinrich Zincke (1692-1769) and Johann Beckmann (1739-1811) – published their own journals. Practical works on agriculture, arts, inventions and manufacturing also abounded all over Europe at the time. In addition to being an age of discoveries, the 18th century was an age of science and scientific academies, with the foundation of the large museums in Europe.

The world's first two professorships in economics (and cameralism) were established in Germany in 1727, about a century before the first such professorship in England. The first professorship in economics outside Germany was in Uppsala in Sweden, starting some time in the 1830s. The next countries to follow were Finland (then part of Sweden), at the Åbo (Turku) Academy, then Austria, where Johann Heinrich Gottlob von Justi was named professor in the cameral sciences in 1752 in Vienna, and Italy, where Antonio Genovesi was appointed professor of political economy at the University of Naples in 1754.

Since the early 1970s, Kenneth Carpenter, a librarian at Harvard University, has collected large amounts of material documenting the translations of economics books in Europe before 1850. Carpenter describes a pattern of frequent translations between continental European languages, but less frequent translations to and from English.[38] The material is not yet fully systematized, but the section on Sweden – which is finished, but remains unpublished – shows that out of 207 economics publications translated into Swedish before 1850, 84 were from German, 55 from French and 51 from English. The rest were from Danish and from multi-lingual sources. The widespread myth, of English origin, that German economics has been the isolated 'odd man out' in the history of economic thought seems to be thoroughly unfounded.[39]

Johann Heinrich Gottlob von Justi was probably the most representative German economist of the period. He was both a synthesizer and a modernizer of the German tradition, absorbing the important novelties of the 1700s into the consensus of the late 1600s. One example of a new institution was fire insurance. Perhaps the most important novelty of the century was the discovery of important synergies between manufacturing and agriculture. By promoting manufacturing, one would not be punishing agriculture, but quite the contrary. The segmentation of the field of cameralism into subfields, with their own publications and textbooks, was a sign of a maturing science. Justi himself wrote a book on the theory of finance, and his 1754 inaugural lecture as professor of the cameral sciences in Vienna was about the relationship between science and economic welfare, a theme which was to be the subject of a book by Johann Gottfried von Herder (1744-1803) some twenty years later.

[38] Preliminary results are published in Carpenter (1977).

[39] This point is also forcefully made by Spanish historian of economic thought, Ernest Lluch (1996: 163-175).

Geography had been an important element in continental European economics since the books by Giovanni Botero (1588) and Antonio Serra (1619). From the 18th century, it became fashionable to describe economics in stages, from hunting and gathering, to herding, agriculture and, finally, agriculture and manufacturing (Reinert, 2000). Justi placed these historical stages on a geographical plane using concentric circles, placing the urban increasing returns sector at the centre. This is the tool normally attributed to Johan Heinrich von Thünen (1783-1850). Both Justi and von Thünen thoroughly understood the importance of nurturing and protecting the manufacturing area, both geographically and economically the core of any nation-state. (Reinert, 2004a). When one German economist stated 'It is known that a primitive people does not improve their customs and institutions later to find useful industries, but the other way around' (Meyen, 1770: 11), he expressed something which could be considered the common sense at the time.

Also, technology had always been an integrated part of cameralism, and in the 1770s, from economics professor Johann Beckmann at the University of Göttingen, the world got its first economics textbook focusing on technology. Also Beckmann built on Justi's foundations, publishing a third edition of Justi's two-volume book, on 'Factories and Manufacturers'.

Johann Friedrich Pfeiffer (1718-1787) wrote a successful cameralist textbook (Pfeiffer, 1764-1765 & 1777-1778) and also, a very early history of economic thought covering about 30 authors – German, French, English and Italian – in six volumes (Pfeiffer, 1781-1784). As previously mentioned, virtually all German economists were opposed to physiocracy, and Pfeiffer provided a systematic theoretical refusal of physiocratic doctrines in a book entitled *The Anti-Physiocrat* (Pfeiffer, 1780).

Joseph Schumpeter compared German mercantilism with English classical economics succinctly:

> 'He (Justi) saw the practical argument for laissez-faire not less clearly than did A. Smith, and his bureaucracy, while guiding and helping when necessary, was always ready to efface itself when no guidance or help seemed needed. (Schumpeter's footnote here: 'This was not merely a dream. It will be pointed out below that the bureaucracy in the typical German principality actually tried to behave like this.') Only he saw much more clearly than did the latter all the obstacles that stood in the way of its working according to design. Also, he was much more concerned than A. Smith with the practical problems of government action in the short-run vicissitudes of his time and country, and with particular difficulties in which private initiative fails or would have failed under the conditions of German industry of his time. His laissez-faire was a laissez-faire plus watchfulness, his private-enterprise economy a machine that was logically automated but exposed to breakdowns and hitches which his government was ready to mend. For instance, he accepted as a matter of course that the introduction of labour-saving machinery would cause unemployment: but this was no argument against the mechanization of production because, also as a matter of course, *his* government would find equally good employment for the unemployed. This, however, is not inconsistency, but sense. And to us who are apt to agree with him much more than we do with A. Smith, his (Justi's) vision of economic policy might look like laissez-faire with the nonsense left out (Schumpeter 1954: 172).'

The 'Historical Schools' of the 19th and 20th Centuries

After an initial period of resistance to the ideas of David Ricardo and English Economics, the 1830s and particularly, the 1840s saw very strong growth in belief in the merits of laissez-faire capitalism. This period has a lot in common with the triumphalist period following the fall of the Berlin Wall that came to mark the 1990s. This first period culminated in the repeal of the Corn Laws in England in 1846, when the English for a while extremely skillfully managed to convince the rest of the world no longer to protect its manufacturing industry, by no longer protecting their own agriculture. There are many parallels between the 1840s and the period in which we now live: never since, until now, has such blind faith in the virtues of free markets dominated academia and policy-making to such an extent. The route from the overwhelming social problems of the mid 19th century to the national welfare states that were to follow decades later therefore contains clues on how contemporary problems, this time on a global rather than a national scale, can be handled.

Perhaps, the most essential feature of mercantilist economic policy was to diversify the economy away from agricultural monoculture into diversified manufacturing. Protecting agriculture would mean protecting the old feudal order one wished to get rid of. The English bluff – stopping the protection of agriculture to convince the rest of the world to stop protecting manufacturing industry – would easily have been called by the great continental economists of the 18th century – by a Montesquieu in France, by a Galiani or a Genovesi in Italy or by a Justi in Germany. The same would have been true for the economists of the preceding 17th century, to whom the proposal would have appeared even more ridiculous. From 1820 onwards, however, resistance to Ricardian economics was not to come from Europe, but from the United States, with important policy-focused publications by Daniel Raymond and Mathew Carey in that same year, and important theoretical work against Smithian economics by John Rae in 1834. In Europe during this period, there was mainly one lonely voice speaking against the economic policy of liberalism and peripheral de-industrialisation: Friedrich List (1789-1846). Once a US citizen, List was clearly inspired by the arguments forwarded by Daniel Raymond, a Baltimore lawyer.

List himself had been converted from a free trader to one who saw the need to protect agriculture after he saw the devastating results of de-industrialisation in France following the fall of Napoleon. Ninety per cent of what Friedrich List wrote has never been translated from German into other languages, so the very strong opinion most mainstream economists have of List is generally narrowly based. List tells us the way things work, but does not, however, generally tell us why. He convincingly argues that the cultivation and protection of agriculture will not yield the same results as the protection of manufacturing (Reinert, 1998). He tells us that the producers of olive oil will be poor in the absence of manufacturing, but not really why. With some justification, he may therefore be criticized as a theorist. List's policy recommendations were fine, and his feel for the right historical sequencing of policy measures is probably unique, but, compared to an Antonio Serra, he failed to explain their underlying mechanisms. List's theoretical concepts are vague, or, as Werner Sombart said about him: 'His concepts levitate like undelivered souls on the banks of Hades' (Sombart, Vol. 2, 1929: 929). However, his holistic vision of the synergies of economic development and national wealth creation, products of increasing return activities and of heavy investments in infrastructure, as the driving forces behind national wealth creation is almost unprecedented.

From a German economic vantage point, Friedrich List was the great free trader who forged the German customs union, the *Zollverein*. To the rest of the world he is seen as the great protectionist. List was also the first to have a vision of a European common market. Most economists today fail to understand how one can be protectionist in one context and a free trader in a different context. List's vision of global free trade is desirable only after every nation has achieved a comparative advantage in increasing returns activities. Only when the asymmetries of colonial and neo-colonial trade have been eliminated, will all parties benefit from free trade. List's vision is fully compatible with the European mercantilist mainstream of the preceding 300 years, and with Serra's theoretical explanation.

Historically based and context-specific economic theories were to dominate German economic theory from around 1850 and the hundred years to follow. This period is normally divided in three – into the 'older' and 'younger' and 'youngest' historical schools. As has also been suggested by others, it is convenient to treat List as representing a 'proto-historical school'. He raises the Italian arguments, from Botero and Serra to Galiani, that the cities and their manufacturing activities are the keys to personal freedom, to the arts, to the division of labour, and indeed, to civilization itself. A point made by German economists as early as Leibniz, and so masterfully restated by Galiani, was repeated by List, who insisted that manufacturing was also the key to creating wealth in agriculture, 'the only way to liberate agriculture from its chains'.

The first shot in the long fight between the German historical schools and English classical economics was fired in the same year, in 1848, by a book by Bruno Hildebrand (1812-1878). A few years later, Karl Knies (1821-1898), perhaps the most underrated of these economists, presented his theoretical work on the historical method in economics. Knies inspired the most prominent and influential economist in the United States at the turn of the 19th

century, Richard Ely (1854-1943), a founder and then President of the American Economic Association from 1899 to 1902, at the time classified as a 'Christian socialist'.

In 1886, another influential US economist inspired by German economics, Edwin Seligman (1861-1939), was to outline the programme of the German Historical School as follows. For Seligman, the school:

1. Discards the exclusive use of the deductive method, and stresses the necessity of historical and statistical treatment.
2. Denies the existence of immutable natural laws in economics, calling attention to the interdependence of theories and institutions, and showing that different epochs or countries require different systems.
3. Disclaims belief in the beneficence of the absolute laissez-faire system.
4. Maintains the close interrelations of law, ethics and economics; and refuses to acknowledge the adequacy of the presumption of self-interest as the sole regulator of economic action.

Key members of the 'older' Historical School were Hildebrand, Knies and Wilhelm Roscher (1817-1894). Key members of the 'younger' Historical School were Gustav von Schmoller (1838-1917), Adolph Wagner (1835-1917), Lujo Brentano (1844-1931), whereas the 'youngest' historical school is normally represented by Werner Sombart (1863-1941) and Max Weber (1864-1920). In the next section, the policies emanating from this school of economics are discussed.[40]

The foundations for Schumpeterian economics were also laid by the Historical School. Schumpeter's best-known concept in economics, 'creative destruction', was first used by Werner Sombart, who was heavily influenced by Friedrich Nietzsche.[41]

The Social Problem and the Verein für Sozialpolitik.

> 'Ricardo, and still more those who popularised him, may stand as an example for all time of the extreme danger which may arise from the unscientific use of hypothesis in social speculations, from the failure to appreciate the limited applications to actual affairs of a highly artificial and arbitrary analysis. His ingenious, though perhaps over-elaborated reasonings became positively mischievous and misleading when they were unhesitatingly applied to determine grave practical issues without the smallest sense of the thoroughly abstract and unreal character of the assumptions on which they were founded.' H.S. Foxwell, Professor of Economics, Cambridge University, 1899.

The year 1848, also the year of publication of *The Communist Manifesto*, saw a 'backlash' against Ricardian and laissez-faire economics. In all European languages, 'the social problem', which had lingered under the surface ever since the end of the Napoleonic Wars, suddenly surfaced with incredible vigour and produced both revolutions across Europe and a lot of literature on the subject. But, as Galiani had so eloquently pointed out 70 years before, mankind is a great connoisseur of effects, but a poor judge of causes. In our view, Professor Foxwell's comments about Ricardo anticipate what Schumpeter was later to call The Ricardian Vice of economics.

The reaction of German economists to this challenge is slightly confused by frequent mention of three overlapping categories or groups of economists: 1. The German Historical School, 2. The *Kathedersozialisten* ('The socialists of the professorial chair'), and 3. The Association for Social Policy, The *Verein für Sozialpolitik*. This requires some clarification.

The German Historical School is a term later introduced to refer to these generations of German mainstream economists. *Kathedersozialist* is a somewhat unfortunate term imposed on a group of economists by a contemporary journalist, in the same year the majority of them founded the *Verein für Sozialpolitik*. The first term used by the journalist was 'freshwater

[40] For a discussion of the Historical School, see Shionoya (2001) and Grimmer-Solem (2003).
[41] See Reinert, Erik S. and Hugo Reinert (forthcoming 2004).

sailors', a derogatory term employed by European sailors about colleagues who thought they were sailors but had never experienced 'the real thing', i.e. the reality and perils of the oceans (Oppenheim, 1872). The intent was the same: these economists were accused of trying to improve the real world without having much experience themselves. Compared to Ricardian economics, however, these economists were much closer to analysing 'the real thing', the context and reality of economics. Compared to English classical economics, Ricardo was the 'freshwater sailor' in a sea of arbitrary assumptions, while the *Kathedersozialisten* were attempting – successfully, in the long term — to tackle the world as it really was.

Probably a quote from Gustav Schmoller's opening speech at the founding meeting of the *Verein für Sozialpolitik*, in a private home in Eisenach on Sunday, October 6, 1872, best explains the background for its creation:

> 'The deep cleavage in our society separating entrepreneurs and workers, owning and not owning classes, represents a threat of a social revolution. This threat has drawn closer. In wide circles there have been serious doubts whether the economic doctrines which dominate on today's market – and which were expressed at the Economic Congress – forever will keep their dominance. Will the introduction of the free right to carry on business (*Gewerbefreiheit*) and the elimination of all mediaeval legislation on guilds really create the perfect economic conditions that the hotheads (*Heißsporne*) of that tradition predict?'

It was the original *Verein für Sozialpolitik,* active from 1872 to 1932, that was to build the theoretical and practical foundations of 20th century European welfare states. The Scandinavian welfare states, that were to become the most prominent, took over, not only many German institutions, but often also their names in literal translation. Significantly, the *Verein* ceased to exist the year Hitler came to power, but its work had also largely been completed by then.

The creators of the welfare state then were economists whose common trait was that they were anti-Ricardian, people who disliked communism just as much as they disliked liberalism. However, when these economists, their theories and political opinions, are studied carefully, they come across as a very diverse group. The question which arises, is how a group with these differences managed to be so productive and to create so many new institutions and social reforms. The *Verein* continued a tradition starting with Seckendorff and Leibniz; producing what to modern economists would look like microscopic analyses of economies and economic history. From the accumulation of such micro-data, context-dependent policy conclusions were drawn at a high level of abstraction. The method of the historical school can be compared with the case-study method of the Harvard Business School at a national, rather than a company level. The case-method was established by that school's first dean, an enthusiastic student of Schmoller, Edwin Gay (1867-1946), whose own studies of economics and economic history in German-speaking Europe lasted more than twelve years.

One important element that kept the *Verein* together was a common research agenda, around which facts were gathered from all regions of German-speaking Europe, with papers written and presented at their annual meetings. One year they would discuss problems caused by the lack of health insurance, another year how to create a system protecting workers from unemployment, and the next year the consequences of 'Fordist' mass production. One fascinating issue of the time was how to address the poverty of those areas specialized in economic activities that had not been mechanised and/or remained highly intensive in unskilled labour. The 'home workers', *Heimarbeiter,* were mostly paid by piece. Such specialisation in 'unmechanizable' production bereft of scale effects and untouched by the ruling techno-economic paradigm, clearly parallels today's *maquilas* (low-tech assembly plants). However, unlike the Mexican *maquila* workers of today, these workers were theoretically free to move to other more industrialised areas in Germany at the time.

It has been argued that the *Verein für Sozialpolitik* rarely disagreed with the imperial economic policy of Bismarck, implying that they were uninfluential or 'puppets' of the regime. In our view, causality runs the other way: Bismarck's economic policy rarely disagreed fundamentally with the views of the *Verein*. Bismarck understood social reality and problems, and also understood that the liberals had no cure, and therefore relied heavily on the

recommendations of the *Verein*, which – as noted earlier – covered an unusually wide political spectrum.

As we saw, the scholarly output of cameralism was enormous, as was the scholarly production of the next century of German economics, particularly during the century following 1848. The papers and reports of the *Verein für Sozialpolitik* conferences fill 188 volumes and occupy five metres of shelf space. The first century of *Schmoller's Jahrbuch*, the most influential journal of the same group of economists, from 1871 to 1971, fills almost seven metres of shelf space. In addition, there were literally dozens of other journals and an enormous number of books and monographs. We do not have to accept the neo-liberal claim that 'there is no alternative'; here lie the bases for a full-fledged alternative to neoclassical economics, unfortunately locked in a language that was once the lingua franca of economics, but which today is relatively inaccessible.[42]

The famous *Methodenstreit* between German and Austrian economists, a kind of civil war inside German language economics, started in the 1880s between Gustav Schmoller and Carl Menger.[43] Viewed from today's vantage point, this occasionally vitriolic academic discussion was essentially a quibble over details. Carl Menger, the academic who supposedly argued against the use of history in economics, argued: 'A highly developed theory of economic phenomena is inconceivable without the study of economic history', 'No reasonable person conceals the importance of historical studies for research in the field of political economy', and 'history is indispensable for theoretical economics'. Schmoller and Menger agreed that both induction and deduction were needed, and the *Methodenstreit* was seemingly about who was to be in the driver's seat – over which of the two was going to be the 'main science' and which would be the 'auxiliary science'.

In spite of the *Methodenstreit* civil war, German economics probably reached its highest point of influence around 1900. Both in the United States and in Japan, economic theory and policy were heavily influenced by German economics. Much to the satisfaction of German economists, John Stuart Mill had recanted on two key features of English classical economics relating to economic development: the wage funds doctrine (which limited the resources available for wages and salaries) and the free trade doctrine (Mill admitted the usefulness of industrial tariffs). It was generally agreed that Ricardo's abstract system had produced social disasters. A symptom of the loss of influence was Cambridge economist W. Cunningham's book, 'The Rise and Decline of the Free Trade Movement', London, Clay/Cambridge University Press, 1904. It was therefore with a certain justification that Gustav Schmoller, in his inaugural lecture as *Rektor* of the University of Berlin in 1897 (Schmoller, 1897), could celebrate the victory of empirically oriented over dogmatic economics, both left and right.

Germany 1945-1947: The Morgenthau Plan Validates the German Economics Tradition

German economics, with an unbroken tradition from about 1650 to 1950, is uniquely valuable as a full-fledged alternative to today's mainstream economics. This tradition represents the most consistent bulwark against mechanistic and simplistic economic solutions of all political shades. We have attempted to build on this theoretical tradition in constructing The Other Canon of economics (www.othercanon.org). Creating, motivating, directing and controlling market forces in order to enhance human welfare has been the *Leitmotiv* of German economic theory since its inception after the Thirty Years' War. After World War II, German-type economics continued to dominate German economic policy in its 'social market economy'.

The economic integration of Europe, at least until the 2004 extension, followed Friedrich List's prescriptions of symmetrical integration. In Europe German pragmatism ruled at home, recently with a huge emphasis on innovation, while neoclassical economics became an export article ruling Europe's relationship with the rest of the world. As a theoretical tradition

[42] Prof. Jürgen Backhaus, now of Erfurt University, has, for almost two decades, organised the Heilbronn Symposia, the main purpose of which is to render important German economic analyses accessible in the English language.
[43] For a discussion of the *Methodenstreit*, see Reinert (2003a).

the German tradition of economics was essentially thrown out – in our view, totally unjustifiably –with the bath water of Nazism. Policies based on this theoretical tradition not only developed Europe, but also the United States and Japan; indeed, such policies have been a mandatory passage point for all successful national transitions out of poverty.

After World War II, the core idea of cameralism as development economics – the idea that national development needs an increasing returns manufacturing sector – was vindicated through a large-scale experiment, the Morgenthau Plan. The purpose of this plan, named after Henry Morgenthau, the US Secretary of the Treasury during 1934-1945, was to prevent Germany from ever starting a war again (Morgenthau, 1945). This was to be achieved by de-industrialising Germany, making it a pastoral economy by closing factories, taking the industrial machinery out of the country, and filling the mines with water. The plan was approved in an Allied meeting in 1943 and carried out after the German capitulation in May 1945.

The Morgenthau Plan was abruptly stopped in 1947 when ex-President Herbert Hoover of the United States, on a fact-finding mission, reported back from Germany: 'There is the illusion that the New Germany left after the annexations can be reduced to a "pastoral state". It cannot be done unless we exterminate or move 25,000,000 out of it'. Hoover had rediscovered the wisdom of the cameralist and mercantilist population theorists: an industrialised nation has a much larger carrying capacity in terms of population than an agricultural state. The de-industrialisation process had also led to a sharp fall in agricultural yields and to institutional collapse, providing evidence of the importance of the linkages between the industrial and agricultural sectors that were also a hallmark of cameralist economics. Less than four months after Hoover's alarming report from Germany, the US government announced the Marshall Plan, which aimed to achieve exactly the opposite of the Morgenthau Plan: Germany's industrial capacity was to be brought back to its 1938 level at all cost. It cannot be emphasised enough that the Marshall Plan was not just a financial plan, but principally a *reindustrialisation plan*.

After years of neglect, the Morgenthau Plan was resurrected *de facto* by the Washington Consensus, starting in the 1980s and, even more strongly, after the end of the Cold War in 1991. This new *de facto* Morgenthau Plan came with the label of 'structural adjustment', which often had the effect of de-industrialising Third World nations (Reinert, 2004b). These two ideal types of economic policy – the Marshall Plan and the Morgenthau Plan – embodied the 'virtuous' and 'vicious' circles that were fashionable, but not well explained, in the heyday of development economics during the 1950s and 1960s (Reinert, 2003b).

In 1947 the United States understood the destructive forces that had been put in motion with the Morgenthau Plan. In his Harvard speech in June 1947 – announcing what came to be called the Marshall Plan – US Secretary of State George Marshall stressed that 'the farmer has always produced the foodstuffs to exchange with the city dweller for the other necessities of life'. This division of labour, i.e. between increasing returns activities in the cities and the countryside, was 'at the present time…threatened with breakdown'. George Marshall then made a remarkable recognition of cameralist and mercantilist economic policy: **'**This division of labor is the basis of modern civilization'. Civilisation requires increasing return areas, something that people from Antonio Serra to Abraham Lincoln and Friedrich List had already been saying for a long time. However, this core of five centuries of economic theory has always eluded trade-based English economics and its successor, today's mainstream economics. Its conceptual and instrumental tools fail to grasp this factor – a key blind spot in mainstream economics that causes untold human suffering today. Herein lies the key to understanding the growing number of 'failed states' that now follow in the wake of the Washington Consensus. In 1953 George Marshall was awarded the Nobel Peace Price.

References

Berch, Anders (1747). *Inledning til Almänna Hushålningen, innefattande Grunden til Politie, Oeconomie och Cameralwetenskaperna*. Stockholm: Lars Salvius.

Carpenter, Kenneth (1977). *Dialogue in Political Economy. Translations from and into German in the 18th Century*. Boston: Kress Library Publications No. 23, Harvard Business School.

Clemence, Richard V. (1951). *Essays of J. A. Schumpeter*. Cambridge, MA: Addison-Wesley, pp. 158-163.

Drechsler, Wolfgang (2004). "Natural versus Social Sciences: On Understanding in Economics". In Erik Reinert (ed.). *Globalization, Economic Development and Inequality: An Alternative Perspective*. Cheltenham: Edward Elgar.

Grimmer-Solem, Erik (2003), *The Rise of Historical Economics and Social Reform in Germany 1864-1894,* Oxford, Oxford University Press..

Humpert, Magdalene (1937), *Bibliografie der Kameralwissenschaften*, Cologne, Schroeder

Lluch, Ernest (1996). "El Cameralismo mas allá del mundo germánico". *Revista de Economía Aplicada*, 4 (10): 163-175.

Meyen, Johan Jacob (1770). *Wie kommt es, dass die Oekonomie bisher so wenig Vortheile von der Physik und Mathematik gewonnen hat; und wie kann man diese Wissenschaften zum gemeinen Nutzen in die Oekonomie einführen, und von dieser Verbindung auf Grundsätze kommen, die in die Ausübung brauchbar sind?* Berlin: Haude & Spener.

Monroe, Arthur (1930). *Early Economic Thought. Selections from Economic Literature prior to Adam Smith.* Cambridge: Harvard University Press.

Morgenthau, Henry, Jr. (1945). *Germany is Our Problem. A Plan for Germany.* New York: Harper.

Oppenheim, H.B. (1872). *Der Katheder-Sozialismus*. Berlin: Oppenheim.

Perrotta, Cosimo (1991). 'Is Mercantilist Theory of the Favorable Balance of Trade Really Erroneous? *History of Political Economy*, 23(2): 301-36.

Perrotta, Cosimo (1993), 'Early Spanish Mercantilism: The First Analysis of Underdevelopment', In Lars Magnusson, *Mercantilist Economics*. Boston: Kluwer, 1993: 17-58.

Pfeiffer, Johann Friedrich von (1764-1765 & 1777-1778). *Lehrbegriff sämtlicher oeconomischer und Cameralwissenschaften*, Stuttgart und Mannheim, Johann Christoph Erhard und C. F. Schwan. 6 volumes.

Pfeiffer, Johann Friedrich von (1781-1784). *Berichtigungen berühmter Staats- Finanz- Policei- Cameral- Commerz- und ökonomischer Schriften dieses Jahrehunderts, von dem Verfasser des Lehrbegriffs sämtlicher Ökonomischen und Cameralwissenschaften*, Frankfurt: Esslingersche Buchhandlung. 6 volumes.

Pfeiffer, Johann Friedrich von (1780). *Der Antiphysiocrat, oder umständliche Untersuchung des sogenannten Physiocratischen Systems*, Frankfurt: Esslingersche Buchhandlung.

Reinert, Erik S. (1995). "Competitiveness and its predecessors - a 500 year cross-national Perspective". *Structural Change and Economic Dynamics*, 6: 23-42.

Reinert, Erik S. (1998). Raw Materials in the History of Economic Policy; or, Why List (the Protectionist) and Cobden (the Free Trader) Both Agreed on Free Trade in Corn. In Parry, G. (ed.). *Freedom and Trade. 1846-1996.* London: Routledge.

Reinert, Erik S. (1999). "The Role of the State in Economic Growth". *Journal of Economic Studies*, 26 (4/5).

Reinert, Erik S. (2000), "Karl Bücher and the Geographical Dimensions of Techno-Economic Change", in Backhaus, Jürgen (ed.) *Karl Bücher: Theory, History, Anthropology, Non-Market Economies,* Marburg: Metropolis Verlag.

Reinert Erik S. (2003a). "The Austrians and the Other Canon". In Backhaus, Jürgen (ed.).*Evolutionary Economic Thought. European Contributions and Concepts.* Cheltenham: Edward Elgar.

Reinert, Erik S. (2003b). "Increasing Poverty in a Globalised World: Marshall Plans and Morgenthau Plans as Mechanisms of Polarisation of World Incomes". In Chang, Ha-Joon (ed.). *Rethinking Economic Development*. London: Anthem.

Reinert, Erik S. (2004a). "Johann Heinrich Gottlob von Justi (1717-1771): The Life and Times of an Economist Adventurer". In Backhaus, Jürgen (ed.). *Johann Heinrich Gottlob von Justi: The Beginning of Political Economy*. Boston: Kluwer.

Reinert, Erik S. (ed.) (2004b). *Globalization, Economic Development and Inequality: An Alternative Perspective*. Cheltenham: Edward Elgar.
Reinert, Erik S. and Arno Daastøl (1997). "Exploring the Genesis of Economic Innovations: The religious gestalt-switch and the *duty to invent* as preconditions for economic growth". *European Journal of Law and Economics,* 4 (2/3): 233-283.
Reinert, Erik S. and Hugo Reinert (forthcoming 2004). "Creative Destruction in Economics: Nietzsche, Sombart, Schumpeter". In Backhaus, Jürgen and Wolfgang Drechsler (eds.). *Friedrich Nietzsche 1844-2000: Economy and Society*, Series *The European Heritage in Economics and the Social Sciences.* Boston: Kluwer.
Roscher, Wilhelm (1868). "Der sächsische Nationalökonom Johann Heinrich Gottlob von Justi". In *Archiv für die Sächsische Geschichte,* 76-106.
Schmoller, Gustav (1897). *Wechselnde Theorien und feststehende Wahrheiten im Gebiete der Staats- und Socialwissenschaftlichen und die heutige deutsche Volkswirtschaftslehre, Rede bei Antritt des Rectorats*, Berlin: W. Büxenstein.
Schumpeter, Joseph (1954). *History of Economic Analysis.* New York: Oxford University Press.
Seckendorff, Veit Ludwig von (1665) *Additiones oder Zugaben und Erleuterungen zu dem Tractat des Teutschen Fürstenstaats*, Frankfurt: Gotzen.
Shionoya, Yuichi (ed.) (2001). *The German Historical School: The Historical and Ethical Approach to Economics.* London: Routledge.
Small, Albion W. (1909). *The Cameralists: The Pioneers of German Social Polity*, New York: Burt Franklin.
Sombart, Werner (1928). *Der Moderne Kapitalismus,* München und Leipzig: Duncker & Humblot. Sombart, Werner. 2 volume edition 1902, 4 volume edition 1919, 6 volume edition 1928. (French, Spanish and Italian translations of the two last volumes have been published)
Stolleis, Michael ed. (1995), *Staatsdenker in der Frühen Neuzeit*. Munich: Beck.
Tribe, Keith (1988). *Governing Economy. The Reformation of German Economic Discourse 1750-1840.* Cambridge: Cambridge University Press.
Tribe, Keith (1995). *Strategies of Economic Order. German Economic Discourse (1750-1950).* Cambridge: Cambridge University Press.
Sugiyama, Chuhei and Hiroshi Mizuta (1988). *Enlightenment and Beyond. Political Economy comes to Japan.* Tokyo: University of Tokyo Press,
Wolff, Christian (1750). *The Real Happiness of a People under a Philosophical King Demonstrated; Not only from the Nature of Things, but from the undoubted Experience of the Chinese under their first Founder Fohi, and his Illustrious Successors, Hoam Ti, and Xin Num.* London: M. Cooper.

Essay III: Benchmarking Success: The Dutch Republic (1500-1750) as seen by Contemporary European Economists

Erik S. Reinert
The Other Canon Foundation

Table of Contents:

This essay looks at the Dutch Republic from the vantage point of the economists of the period. These pre-Smithian economists are normally grouped together in the history of economic thought under the decidedly derogatory label of 'mercantilists'. Under its standard Whig conception, any idea in the history of economic thought – as identified almost a century ago by English historical economist Ashley – instead of being judged by its relevance in a given context, is either hailed as a surprising early anticipation of a healthy neoclassical economic principle or as an example of hopelessly ill-conceived theories (Ashley 1920: II, 381).

I would argue that as a tool in order to understand the rise and fall of the Dutch Republic, mercantilism had some clear analytical advantages over neo-classical economics. Not only was the mercantilist or pre-Ricardian economists' toolbox much larger than today's, the pre-Ricardian system already included a large number of economic factors which the profession presently attempts to re-introduce to mainstream economics. Examples of what gradually was left out of economics starting with Adam Smith are innovations – part of English economics from Francis Bacon (1561-1626) until and including James Steuart's important work (1767) – technology, increasing returns, institutions, geography, synergies, path dependency, that economic activities are qualitatively different as carriers of economic growth, the idea that economic policy should be *context-specific*, and the whole fundamental question of why economic development is by nature so uneven. With the English classical economists economic theory gradually lost its previous understanding of the vicissitudes of technology and production, and came to concentrate upon trade and prices. The contemporary mercantilists are therefore likely to provide a much richer analysis of the Dutch Republic than what is found in the works of the later classical economists.

Mercantilism can productively be seen both as state- and nation-building (Schmoller 1897/1976) and as a strategy of industrial import substitution (Perrotta 1993), which at the time was seen as two sides of the same coin[44]. To the laggard countries of Europe, the Dutch Republic provided important inspiration on both these accounts. That inspiration did not come from Dutch policies, but by asking what policies would have to be created in order to achieve the same *results* as those observed in the Dutch productive system, but under very different circumstances and conditions; in very different contexts. The economists of the time were looking at nations much in the same way businessmen are managing companies, but instead of maximizing profit they were maximizing national value added (GDP) and employment. Just as companies may lose money and even go bankrupt, nations may lose out in this dynamic game. In this respect, from about 1550, the European theatre presented an extraordinary case of increasing poverty and failure, that of Spain (Perrotta 1993), and one or two cases, Venice and The Dutch Republic, of a resounding success that was obvious to any visitor. Later, when it became evident that the Italian city-states had fallen behind the Dutch Republic, it was clear to the Italian economists that the Dutch and others had copied them and beaten them in their own game.[45]

To the keen early observer the formula behind the wealth of the Venetians and the Dutch was reasonably straightforward, fundamentally based on observing the presence, strength and variety of those economic activities (and accompanying institutions) that dominated economic life in rich countries, but were absent or weak in the poorer ones. As Josuha Child says when explaining the purpose of his 1688 economics treatise: 'the means whereby (the Dutch) have thus advanced themselves, are sufficiently obvious, and in a great measure imitable by most other nations.., which I shall endeavour to demonstrate in the following discourse'

---

[44] For a general discussion on mercantilism, see Essay I in this paper.

[45] 'The voyages of the Italian to the Northern seas rendered Flanders a convenient place for depositing their merchandize. Awakened by their example the Flemish became the second manufacturers of Europe. Particular privileges bestowed upon their merchants by the counts of Flanders, animated them still further. But their spirit was again depressed by the revocation of these privileges. Other nations profited of this imprudence; and thus England, France, Holland and Germany by the means of the Anseatic (sic) league, came to have a share in that industry and opulence which had formerly characterized the Italians alone' (Beccaria 1769/1970: 32-33). See also S. Reinert (forthcoming 2005)

(Child 1668). In 1613 Antonio Serra had made a similar analysis, identifying the mechanisms that made Venice so wealthy and Naples so poor (Serra 1613, Reinert & Reinert 2003). The methodology used by Child, Serra and their contemporaries was in its essence one of benchmarking, of attempting to generalize and theorize from the experiences of failing and successful nations. This approach is in my view a core feature of mercantilism.

1. Engines of Growth: Generalising from the Experience of Early Economic Development in Venice and the Dutch Republic

'Mercantilism was born in response to the failure of Spain' says Perrotta (1993:19), referring to the 1500s. One could add that mercantilism further developed – during the 1600s and 1700s – as a response to the successes of the Dutch Republic, of Tudor England, and of Colbert's France. The best mercantilist writers were practical men, not people dedicated to what used to be called 'metaphysical speculations'. One pragmatic and logical approach in order to establish a national economic policy was to look for what had worked, or not worked, in other nations. Economics as a science was therefore not born in wealthy and successful areas – in Venice or the Dutch Republic where wealth only seemed 'natural' – but in the poorer cities and nation-states that were trying to understand what factors had created the few 'islands' of wealth in an otherwise poor Europe. This is one of the key insights from Etienne Laspeyres, the author who probably most thoroughly has studied the economic literature produced by the Netherlands' own writers during the time of the Republic (Laspeyres 1863/1961).[46]

Benchmarking with successful and less successful nations was a practice already started during the late 1400s with Henry VII and the Tudors in England (see below). Part of this process was the observation that early economic development in Europe had a very clear urban bias. Wealth accumulated in some cities, but in far from all. From a monetary point of view the basic question was a relatively simple one. Everyone knew that huge amounts of gold and silver flowed into Spain from the Americas. Starting around 1550, however, it became increasingly clear that this flow of bullion did not cause generalized wealth in Spain. The gold and silver ended up elsewhere, in nations that generally had no mines. It was clearly observable that wealth and purchasing power left the nations producing raw materials – even if the raw materials were gold and silver – and accumulated in those nations that were home to a diversified manufacturing sector. In various forms, the statement that manufacturing were the *real* gold mines, much more valuable than the gold mines themselves, is found all over Europe from the late 1500s through the 1700s, from Giovanni Botero (1590) to Tommaso Campanella (1602) and Antonio Genovesi (in the 1770s), all in Italy, to Geronimo Uztáriz in Spain (1724/1751:9) to Anders Berch, the first economics professor outside Germany, in Sweden (Berch 1747: 217).

In pre-Smithian economics the establishment of manufactures came to be seen as part of a wider mission of *civilizing society*. The Italian economist Ferdinando Galiani (1728-1787) – whom Friedrich Nietzsche called the most intelligent person of the 18th century – stated that 'from manufacturing you may expect the two greatest ills of humanity, superstition and slavery, to be healed' (Galiani 1770/1959: 116). The following statement from Johann Jacob Meyen in 1769 summarized the zeitgeist of the day: 'It is known that primitive nations do not improve their customs and habits later to find useful industries, but the other way around…' [47]

As we shall see, part of this *zeitgeist* was an understanding that only in barren areas lacking natural resources and with few possibilities for food production – such as in Venice and in the Dutch Republic – such development would come 'naturally'. In other areas the transition from diminishing return activities (agriculture) to increasing return activities (manufacturing) – as they were identified by Serra (1613) – from 'natural activities' to 'artificial activities' – using the terminology of Thomas Mun (1621) – required heavy-handed government policies. Here

[46] On Laspeyres' book, see Drechsler (2000).
[47] See also Montesquieu (1748) and Hirschman (1977) for discussions of this issue.

again, what the Dutch Republic had achieved – rather than the policies of the Dutch Republic – was the object of attention of foreign economists and foreign rulers alike.

Successful business and its profits were also viewed very differently at the time of the Dutch Republic than in neoclassical economics. Businessmen and traders of all times and ages have sought profit. It is therefore somewhat illogical to find that at the core of today's economic theory of capitalism is a situation where no profit, or very little, is made, that of 'perfect competition'. The kind of economic success that creates national wealth is in effect Schumpeterian dynamic imperfect competition, the kind of rents that increase the size of the economic pie. The success of Bill Gates should in my view be described as an example of such successful dynamic Schumpeterian rent-seeking. It is my claim that the same is the case of early economic development. In this perspective economic development is a situation that is tied to successful rent-seeking on a particular kind. If capitalism is about making profits, then economic development is successful profit-making – not merely 'normal' profits – when and if these profits, through markets and policy measures, result in *an increase in the standard of living of the nation's population*. If the purpose of the actors of the economic system is to create 'rents', it is not meaningful to label rent seeking in general as something 'wrong'. My approach to mercantilism is therefore very different from that of Ekelund and Tollison (1981), but closer to that of Thorstein Veblen, whose distinction between 'good' and 'bad' capitalists, and implicitly 'good' and 'bad 'rent[48], was whether they increased the size of the economic pie available for distribution. Many of the rents created and collected in the Dutch Republic did.

In my view, the study of early successful economic development – of early successful rent-seeking – is also useful in order to explain differences in economic growth today. Some of the most powerful economic mechanisms – like compound interest and increasing and diminishing returns – are timeless. As Alfred Marshall (1890) points out, diminishing returns appears very early in the history of mankind, in the Genesis of the Bible, when 'the land was not able to carry them all'. The existence of diminishing returns made economics into 'the dismal science'. I would similarly claim that the opposite mechanism – increasing returns – is at the core of the synergetic and cumulative mechanisms that made early economic development possible in Europe. A study of the economists contemporary with the Dutch Republic show that these mechanisms were operating in the Republic and were – with varying degrees of clarity and sophistication – known to them.

2. Imperfect Competition, Schumpeterian Rents and Synergies in Early Economic Development

2.1. Dynamic Rents and Rising Incomes

Perhaps the most significant economic breakthrough marking the end of scholasticism and the birth of the Renaissance was the recognition that economic wealth was not a zero-sum game. A new worldview of an expanding economic world gained ground parallel to the expanding geography of the great discoveries and the expanding cosmos of Giordano Bruno (Reinert & Reinert in Essay I). Italian economic historian (and many times Prime Minister) Amintore Fanfani encapsulated the shift from scholasticism to mercantilism: 'while scholasticism thinks of an order in equilibrium, mercantilism thinks of an order in growth' (Fanfani 1955: 149).

Giovanni Botero (1590), from Piedmont in Italy, was one of the first economists and social scientists who clearly saw that the world was not a zero-sum game, that the gain of one actor did not have to be the loss of another. From the very beginning, it was clear that the main force that brought the world out of the zero-sum mode was manufacturing industry. In his *Ragion di Stato,* Botero himself writes 'such is the power of industry that no mine of silver or gold in New Spain or Peru can compare with it, and the duties from the merchandise of Milan

[48] To Veblen 'good' capitalists base their income on *production*, whereas the 'bad' capitalists base their income on *vendibility*. It may be argued that Veblen did not see the importance of finance for innovations.

are worth more to the Catholic King than the mines of Potosi and Jalisco. Italy is a country in which… there is no important gold or silver mine, and so is France: yet both countries are rich in money and treasure thanks to industry.' (Botero 1590: 152).

There were, then, profits – or rents – which were seen to not necessarily reduce the wealth of others. This was particularly the case with manufacturing-based rents rather than feudal rents. My proposition is that early economic development in all the most successful European states – Venice, the Dutch Republic and England – were able to harvest three *different* kinds of rents which, to the nations in question, increased the size of the economic pie.

The three kinds of rents were:

- Manufacturing rents, at the core of which are increasing returns which are absent in agriculture (Serra 1613)
- Long-distance trading rents
- Raw-material based rents, which were different in each case

In Venice the raw-material based rent was from salt. Fredrik Lane comments that the young Venetian Republic hesitated to go to war, but was always determined in defending the saltpans under its domination (Lane 1973: 58). Salt was the first non-luxury long-distance commodity traded, and the control of salt has been important from Ancient China to the Mayas of Yucatan. Due to the power that the control of salt supply brought with it, this commodity was often brought under government control, e.g. in Ancient China. The importance of salt for the finance and growth of the Venetian Republic is well documented in Jean-Claude Hocquet's *Il Sale a la Fortuna di Venezia* (Hocquet 1990)[49].

In the Dutch Republic the raw material controlled was fish. There are important Schumpeterian elements attached to the development of the Dutch fisheries. The first one is the discovery of pickling, or salting, of herring by William Buerem, who died in 1347 and to whom Charles V (1500-1558) later erected a statue (Huet 1722: 25). In order to fully utilize this new invention, a second innovation was needed: a large vessel, the herring *buss* carrying from eighteen to thirty men – a 'factory ship' gutting and salting the fish while at sea – that could remain at sea for up to eight weeks (de Vries & van der Woude 1997: 244). This technology was fully developed by 1600 and remained stable for the next 200 years.

In England the raw-material based rent was wool, the control and use of which founded the basis for the economic strategy of the Tudors, starting in 1485. The export taxes put on wool were an important element in the Tudor strategy of industrialising England. Daniel Defoe (1728) interprets a vision of the first Tudor monarch Henry VII, who came to power in 1485, to industrialise on the basis of assuring England's competitors having more expensive raw materials the English manufacturers. Growing up with his aunt in Burgundy, Henry VII (1457-1509) observed the general wealth there, created by the manufacturing of woollen cloth with English raw materials (Defoe 1728, Reinert 1994). After conquering the throne of England, Henry started encouraging their own woollen manufacturers, while slowly increasing the export duties on raw wool and the import duties on finished cloth. Under Elizabeth I, when sufficient manufacturing capacity had been built up, wool export was prohibited. The effect of these policies can be seen in Florence, where they caused a general economic decline and an attempt by the Medici to diversify into silk.

These types of rents spread through the labour markets by various mechanisms. A larger division of labour is increased, the new activities require more skills, possibilities for technological spillovers are created (see under point 4), there is more competition for labour, alternative ways of making money raise the wage level, and – as in the 19th century United States – a 'high wage strategy' becomes a political possibility. As these rents increase, the tax-base of the nation also increases. Among German Cameralists, it was observed that people working with machinery were able to pay higher taxes that those who were engaged only in

[49] Also in the Dutch Republic salt refining, essential to the fishing industry, was among the important processing industries or *trafieken* (de Vries & van der Woude 1997), but did not reach the strategic importance it earlier had in Venice.

manual work, and advancing manufactures and advanced technology therefore became a logical part of a strategy to raise the income of the state.

I suggest that the pie-increasing rents collected by successful businessmen spread also to the workers and to the state, thus operating at three levels in a triple rent-seeking: the *entrepreneurs/capitalists*, the *workers*, the *government*. It is crucial to understand why agricultural rent does not spread in the same way (see below), i.e. why – under certain circumstances – the trickle-down theory of economic development works. The *industrial system* (Sombart 1902/1928), through various mechanisms, forces a form of rent-sharing. Reinert (1980 & 1996) explores these mechanisms.

2.2. Path Dependency and Synergies

> 'So true it is, that when commerce has once changed its course, it is the most difficult thing in the World to bring it back again.'
>
> Pierre Daniel Huet (1630-1721), *A View of the Dutch Trade in All the States,* 1722.

The advanced mercantilists had a systemic view of society, and – with different degrees of sophistication – they saw the synergetic and cumulative interaction of the factors mentioned above as being the true engines of growth and welfare. These cumulative mechanisms create strong path dependency, and therefore, as Huet says above, once commerce has changed its course it is very difficult to get it back. Joshua Gee, in his 1729 treatise, presents a similar argument:

> 'The Trade of a Nation is a mighty Consequence (sic), and a Thing that ought to be seriously weighed, because the Happiness or Misfortune of so many Millions depend upon it. **A little Mistake in the Beginning of an Undertaking may swell to a very great one**. A Nation may gain vast Riches by Trade and Commerce, or for Want of due Regard and Attention, may be drained of them' (emphasis added).

The mercantilists discussed the 'stickiness' and cumulativeness of national wealth much in the same way a business strategist today will discuss the importance of industry market shares. In both cases, *volume* is a key to lower costs and consequently to more market power. The nations that attempted to copy the Dutch Republic were acutely aware that the Dutch strategy was one of high volume and low margins (e.g. Uztáriz 1724/1751), and this strategy created considerable barriers to entry for would-be competitors. In the countries that were attempting to catch up with the Dutch Republic, the accumulated learning and economies of scale in Dutch trading and manufacturing needed to be compensated not only through tariffs and subsidies; laggard countries also faced considerable barriers caused by the leading nation's 'increasing returns from the use of force as an economic service' (Lane 1979: 45-48).

The most sophisticated model of economic growth at the time is that of Antonio Serra (1613) who analyses the wealth of Venice and the poverty of Naples, a model that also fits the Dutch Republic very well. Serra's is a system where 'the number and variety of industrial professions' (i.e. the degree of division of labour), 'the quality of the population', 'the presence of a great commerce', economic policy ('the regulations of the State') – under the presence of increasing returns to scale in manufacturing (but not in the production of raw materials) – create a self-reinforcing system of growth where each factor reinforces the others (Reinert & Reinert 2003):

> Venice 'is aided by her extensive manufactures; a factor which brings a great many people there, not only because of the trades themselves, in which case the effect would be attributed to them, but also as a result of **the concurrence of these two factors together, because one gives strength to the other**, the great concourse due to commerce and due to the geographical situation being increased by the manufactures, and the manufactures being increased by the great concourse due to commerce, while commerce is made greater by the same concourse of people.' (Serra 1613, translated in Reinert 1999)

Daniel Defoe, in his *Plan of English Commerce* (1728) expresses a simpler system of cumulative causation where the interactions of manufactures and navigation mutually reinforce each other:

'Manufacture supplies Merchandise
Navigation supplies Shipping,
Manufacture is the Hospital which feeds the Poor
Navigation is the Nursery which raises Seamen
Manufacture commands Money from Abroad.
Navigation brings it Home
Manufacture leads the Ships out
Navigation loads them in
Manufacture is Wealth
Navigation is Strength.

'To conclude, Manufacture for Employment at Home, and Navigation for Employment Abroad, **both together**, seem to set all the busy World at Work; **they seem to joyn Hands** to encourage the industrious Nations, and if well managed, infallibly make the World rich' (Defoe 1730: 68-69, emphasis added).

A different way of expressing the necessity and interrelationship of several factors at once is to refer to them as 'pillars' that are all needed to sustain the economic structure, as does Pieter de la Court about the Dutch Republic in his *Interest van Holland* (1662/1702). The metaphor of pillars effectively conveys the message that all the elements are necessary.

> 'Navigation, the fishery, commerce, and manufactures are **the four pillars of the State**; that these ought not to be weakened nor incommoded by any incumbrance whatsoever; for it is they (sic) make the inhabitants to subsist, and enrich the country, by bringing into it foreigners of all sorts &c.' (emphasis added)

Contemporary authors like Huet (born in 1630) and Uztáriz (born in 1670) emphasise the importance of the synergies between fisheries and manufacturing in the Dutch Republic: that manufacturing alone would not have created the same wealth as manufacturing and fisheries do together. This argument is found again today when modern scholarship emphasizes the numerous backward and forward linkages from the fishing industry in the Republic to the rest of the economy (de Vies & van der Woude 1997: 236,268). The importance of this kind of linkages for agricultural development, seeing the benefits accruing to agriculture from the proximity of manufacturing, was perhaps the most important new insight in economics during the early 1700s. 'Husbandry… is never more effectually encouraged than by the increase of manufactures' says David Hume in his *History of England* (1767, vol. III). The Dutch fisheries and manufacturing sectors combined may indeed have played the same role of modernizer of the agricultural sector as so many 18th and 19th century economists attributed to the manufacturing sector alone. Agricultural labour productivity in the maritime sector of the Republic was double that of the inland sector, partly reflecting a grater capital intensity in the maritime zone (J. L. van Zanden referred in de Vries & van der Woude 1997: 230-231). Economists at the time would attribute this important synergy to the proximity of agriculture to diversified manufacturing; an insight lost both to the English classical economists and to today's development economists. The agricultural output in the rest of the Dutch republic was comparable to the rest of Europe: the productivity in the maritime areas was exceptional.

Already Giovanni Botero (born 1544) commented on the strength of Dutch inventions, imitations, and manufacturing as well as on the strength of Dutch husbandry. The pastures, and cows 'produce a lot of milk', and 'it is assumed that cheese and butter bring in more that one million in gold annually because large quantities are exported to the surrounding countries, to Germany, England and Spain'. The Dutch sheep 'produce three or four lambs at the time, and the cows often two calves; the cows produce so much milk that one who has not seen it would not believe it' (Botero 1596/1622: 48).

3. The Dutch Republic and the Contemporary Economists

Historians of economic thought generally point to the lack of 'high theory' in the Dutch Republic. Laspeyres (1863/1961) discusses 644 texts on practical economic and administrative issues from the time of the Republic, but find they contain little theory. However, from the late 1500s through the 1700s political economists from outside the Netherlands frequently comment on the economic success, and later decline, of the Dutch Republic, and attempt to draw lessons from the Dutch experience for domestic use. The economic success of the Dutch Republic and its mirror image in the failed economic policies of Spain during the same period provided inspiration to economists of many nations. The gold from the Americas flowed into Spain while 'no Nation in the World has so little Gold and Silver as the Spaniards' (Huet 1722: vii). What were the mechanisms at work? Gold and silver in this connection should be seen as wealth in terms of purchasing power, not 'treasure'.

'The worse the situation, the less laissez-faire works', says Keynes. The Dutch Republic, having an early mover advantage both in trade and manufacturing, could achieve economic success with much less policy intervention than with the nations that followed. Dutch policy and Dutch economics were by nature fairly pragmatic, essentially responding to the policy of its neighbours and, as Laspeyres says, it is not easy to find consequent principles behind the policies, as it was in France (Laspeyres 1863: 134). I would argue, though, that the goals behind Dutch policy were not much different from those of Colbert's France. Having had a first mover advantage it was, however, not necessary for the Dutch to use customs duties extensively in order to promote manufacturing until into the 18th century, when the catching-up policy of their neighbours was successful to the point of seriously wounding Dutch manufactures. However, the primacy the Dutch Republic put on manufacturing is clear, as when de la Court says: 'So desirous were the people of Amsterdam to increase their manufactures, that in 1614 they offered large sums of money to the employers and artisans of Aix and other places to induce them to come and settle in their city, and their offers, we are told, were accepted' (quoted in McCullagh 1846: 267). The goals of the Dutch and the goals of the French, English and later German mercantilist writers that followed were essentially the same, but the contexts were different, and consequently also the policies.

The wealth of the Dutch Republic – their 'great treasures' and 'how they have made themselves absolute owners of all the commerce in Europe' as declared in the title of one book on the subject (Goyeneche 1717) – was of great interest to the other European nations. Much as the Chinese were seen in the 18th century to have found the *philosophers' stone*, the Dutch were, long before that, seen as having found an *economists' stone*, a key to producing national wealth. The policies of the mercantilists were based on the following understanding.

- Economic development is activity-specific, created by some economic activities (manufacturing) rather than others (Due to agriculture's stagnant productivity, diminishing returns and monoculture without synergies.)
- Economic development is a synergetic process: the greater the division of labour and the number of professions, the greater the wealth (very clear already in Serra 1613).
- The targeting, support, and protection of manufacturing is argued both in terms of
  a) its ability to create wealth,,
  b) its ability to create employment,
  c) its ability to solve balance of payment problems,
  d) its ability to increase the velocity of circulation of money.
- Starting in the 1700s great emphasis is put on the beneficial synergies between manufacturing and agriculture: only where there is manufacturing there is successful agriculture (Leibniz and Justi in Germany, Galiani in Italy, Hume in England).

The **French** observed the development of their neighbours in the Dutch Republic with much interest. The rudimentary tariff legislation under Henry IV specifically targets Dutch cloth (France, Edict 1581), and so do the policies of the first French mercantilist (Laffemas 1597). The voluminous correspondence of Colbert, who by his contemporaries all over Europe is almost unanimously referred to as 'the great Colbert', contains literally hundreds of references to the political economy of the Dutch (Clément 1861-1872). One of Colbert's complaints is the Dutch prohibition of imports from France, and also – a complaint echoed by Huet – the role of the Dutch in 'copying and falsifying' French products. However the early Dutch protectionist measures seem to have been directed at France at times of conflict and/or war. As Laspeyres comments, Dutch trade policy is distinguished by the fact that systematic protection only occurs in the period of decline, starting around 1725.

Pierre Daniel Huet (1630-1721) is in my view the most interesting and clearly the most influential French observer of the economy of the Dutch Republic. In *A View of the Dutch Trade* Huet traces the history of beneficial Dutch economic policy back to before the turn of first millennium, giving an account of Dutch inventions and innovations. Huet also quotes Julius Caesar on the industrious nature of the Dutch. Huet was a collaborator of Colbert and a teacher of the French princes, and his study of the economy of the Netherlands was made at Colbert's request. Huet had been Bishop of Avranches, but retired to the Jesuits in Paris in 1699 where he spent the last 22 years of his life. Several translations indicate the influence of Huet's book on the Dutch Republic (originally published in 1712). There is a Spanish translation (Goyeneche 1717) and a second edition of the English translation already in 1722 (Huet 1722). A German edition from 1717 is thoroughly commented by the most influential German cameralist at the time, Georg Heinrich Zincke (1692-1769), who also provides a biography of the distinguished author (Zincke 1748: 552-78).

Charles Dutot, a cashier in the *Compagnie des Indes*, in his *Political Reflections upon the Finances and Commerce of France* (1739) ends the book with the quote from Pieter de la Court's found under point 2.4 above: 'Navigation, the fishery, commerce, and manufactures are the four pillars of the State'. These elements – navigation, fishery, commerce and manufacture plus the role of foreigners – are common for most of the foreign commentators when they attempt to explain the wealth of the Dutch, however with different emphasis.

In **England** William Petty (1623-1687) studied two years in The Dutch Republic as a young man, and even wrote a 'Collection of the Frugalities of Holland' that was lost at sea. What was later to become 'Petty's Law', the stages of growth of various economic sectors, was based on his observations of Holland. Petty saw initially the primary sector of an economy dominating, later to be followed by growth of the secondary (manufacturing) sector, and finally the tertiary service sector would be the dominant. As did virtually all pre-Smithian economists, Petty saw the transition from agriculture to manufacturing as a necessary evolution. For the latecomers, this required tariffs. It is important to note that at the time, the term 'free trade' was used to describe the absence of trade monopolies, not the absence of tariffs (Seligman 1920: ix).

The obvious urban biases of early economic development made Petty suggest that England, like Holland, should industrialize and buy its foodstuffs abroad. By observing Holland it became clear that density of population obviously was one of the secrets of riches, Petty – as did so many of his contemporaries – not only wanted population to rise as rapidly as possible, he wanted to diminish the population of the already thinly populated areas of Britain and bring as many as possible to London.

Few English mercantilists of the 1600s and 1700s fail to mention the Dutch, almost always as an example to imitate. Josuha Child opens his 1668 book with a comment on 'the prodigious increase of the Netherlanders which is 'the envy of the present and may be the wonder of all future generations' (Child 1668). In his 1693 book, Child returns to the Dutch as being the example to imitate: 'If we intend to have the Trade of the World, we must imitate the Dutch, who make the worst as well as the best of all manufactures, that we may be in a capacity of serving all Markets, and all Humors' (Child 1693: 90).

Italian economists were the first to recognise the synergetic growth of the cities as a product of division of labour and the inventions that were only possible in manufacturing, not in the production of raw materials. An early and much quoted work on the Netherlands was

written by the Florentine Lodovico Guicciardini (1521-1589): *Descrittione di tutti i Paesi Bassi, altrimenti detti Germania inferiore* (Guicciardini 1567) Lodovico was the nephew of Fransceso Guicciardini (1483-1540), the famous historian of the Italian peninsula. Giovanni Botero's *On the greatnesse of Cities (Sulle Grandezze delle Città,*1588, English translation 1607) sees cities not only as the cradle of manufacturing, but also of freedom, culture and wealth in Europe.

In what is a very early book on geography and ethnology at a world level – *Relationi Universali* (first edition 1596) – Giovanni Botero partly uses Guicciardini as a source, but has clearly also visited the Netherlands himself. Botero gives an account of the 'Schumpeterian' qualities of the Dutch both as inventors and imitators, and lists some of the things they have invented. In the style of the early Italian economists Botero emphasizes 'the quality of the people': the Dutch 'drink immoderately' and 'believe lightly' and 'even the women have very great abilities in commerce'. (Botero 1596/1622: 49). During the *settecento* Italian economists like Antonio Genovesi and Cesare Beccaria analyse how Italy has fallen behind the Dutch Republic and other countries that have taken over Italy's previous strength in manufacturing and trade. This comparative analysis provides important inputs into the intellectual ferment that created the Italian *risorgimento* (S. Reinert forthcoming 2005).

Spanish economists were naturally very interested in the economic success of the Dutch Republic, whose 16th and 17th century success provided such a contrast to the decadence of Spain during the same period (from about 1550). The economic decadence of Spain did not occur for lack of competent economic advice from its native economists (Hamilton 1932). Spanish economist Gerónimo de Uztáriz (1670-1732) is of particular interest not only because his very influential *Teórica y practica de comercio y de marina* (1724/1751) contains many references to the Dutch Republic, but also because of Uztáriz' personal knowledge of the Netherlands during a period of a military career of almost 20 years. He attended the Royal Academy at Brussels and served in the Low Countries both during his military service and later as captain in the infantry, before becoming Prime Minister to the Spanish viceroy of Sicily in 1705 (Hamilton 1935, Fernandez Durán 1999). Also with Uztáriz we can observe how ideas travelled in Europe at the time. His book was translated into English, French and Italian. Uztáriz' first publication was the foreword to the 1717 Spanish translation of Huet's *Commerce de Holland* mentioned above (Goyeneche 1717). Uztáriz' conclusion is in line with the contemporary mainstream: '[Manufactures] is a mine more fruitful of gain, riches, and plenty, than those of Potosi'[50], and he presents a long list of policy measures aimed at making the Spanish economy more like that of the Dutch Republic.

In **Germany**, Veit Ludwig von Seckendorff (1626-1692) has been called the 'Adam Smith of Cameralism' (Small, 1909), and justifiably so. His times were violent and extremely difficult for Germany. In the reconstruction of Germany after the Thirty Years' War (1618-1648), Seckendorff – in the service of Duke Ernst *der Fromme* (the Pious) of Sachsen-Gotha – came to set an example for the management of the many small German states. Seckendorff travelled to the Netherlands, accompanying Count Ernst, and the wealth and religious tolerance he observed there made a huge impression on him (Stolleis 1995:158). To Seckendorff, the Dutch appear as 'examples of the wisest and in production and trade (*in Gewerb*) the most experienced people' (Seckendorff 1665). From his travels in the Dutch Republic, Seckendorff came to understand the crucial need for manufactures and the importance of population density. Economic activities needed to be clustered rather than spread, an argument that Antonio Serra had already raised at a theoretical level in 1613. Seckendorff's economic measures therefore included the promotion of manufactures and the resettlement of artisans from the countryside in the cities, where they were likely to make much better livings. He also promoted the extension of agriculture and activities adding value to the produce of the land.

Later in the 17th century authors like Philipp Wilhelm von Hörnigk (1684) follow up the cameralist tradition with more emphasis on purely economic factors. As William Petty in England at that time, Hörnigk was an early proponent of 'political arithmetic' and, among other things he calculated the income from artisans in a successful Dutch city. In the early economics

[50] Potosi, at about 4,000 meters in present Bolivia, was the richest of all mines in the world. At the time it was the second largest city in the world after London.

journals, references are continuously made to Dutch institutions and practical affairs (Zincke 1746-1767), (Bergius 1767-1780), (Beckmannn 1770-1806). German economists Jakob Friedrich von Bielfeld (1717-1770) and Johan Heinrich Gottlob von Justi (1717-1771) provide insights and descriptions of the reasons for the *decay* of states in general (Bielfeld 1760) and of the Dutch Republic in particular (Justi 1760) (see section 6 of this paper).

4. Development as Synergies and Diversity: The case of 17th Century Delft

The strong urban bias that we can observe in early economic growth supports the idea that a larger division of labour *per se* is a starting point for cumulative causations of growth (Serra 1613, Reinert & Reinert 2003). Already Xenophon hinted at these 'systemic increasing returns' when he claimed that certain problems in a city may be cured by increasing the size of the city. A large division of labour maximises the potential of learning across disciplines. The foreign economists whose knowledge of the Dutch Republic is the most intimate, Huet and Uztáriz, do not tire in listing the different industries of every Dutch city and the importance of the enormous diversity.

A case study of Dutch city of Delft in the 17th century shows how synergies created by a diversified base of activities produced knowledge and spillovers between seemingly unrelated activities. No doubt other Dutch cities also exhibit similar cases of cross-activity learning. In Delft it is possible to identify a closely-knit maritime-scientific-artistic cluster, where innovations leapt to and from very different sectors of the economy. The case of Delft brings together, in the very same productive-scientific cluster, the sectors and elements that, in the German tradition, are seen as being the important driving forces of capitalism, all in an interwoven whole:

- The quest for military power, in this case through the navy, as in Werner Sombart's 'War and Capitalism' (Sombart 1913a);
- The quest for luxury, in this case art, as in Sombart's 'Luxury and Capitalism' (Sombart 1914b);
- The quest for scientific knowledge, as in Sombart's work on capitalism (Sombart 1902/1928) and Thorstein Veblen's 'idle curiosity'.

These three forces interact in creating serendipitous economic development in Delft, and a profession curiously uniting the three seemingly unrelated fields – woollen industry, maritime warfare, art and scientific development – is that of the producer of glass lenses, *the lens grinder.*[51]

Dutch artists invented oil painting and painting on canvases, a fact emphasised already by Botero (1588). The raw materials for these inventions – linseed oil, linen and hemp fibre – were widely used in Dutch shipbuilding and readily available, but would not be as readily available to the artists of other schools. Taking over the leadership from Florence, in the 17th century, Delft emerged as a centre for the scientific glass production of lenses. Important improvements to the microscope were also made here (Ruestow 1996). The Delft natural scientist and microscope maker, Antoni van Leeuwenhoek (1632-1723) found a synergy between the production of woollen cloth, the main industry of the day, and his scientific work, because the hand lenses he developed were used extensively to inspect woollen cloth (Huerta 2003:33). Similarly, lens-making was integrated with the development of Flemish art – bringing together the history of art and the history of science – through the work of the Delft painter Jan Vermeer (1632-1675). Vermeer's painting technique included seeing his motifs through lenses and a *camera obscura*, an apparatus similar to a primitive camera (Steadman 2001). Vermeer also keenly participated in aspects of the discoveries surrounding him in Delft: the geographical discoveries of the Dutch navy and the discoveries in the natural sciences resulting from the improved microscopes made by Leeuwenhoek and his colleagues[52]. Leeuwenhoek 'also had

[51] This analysis builds on Reinert & Reinert (forthcoming 2005).
[52] Leeuwenhoek was to be the executor of his neighbour Vermeer's estate.

extensive, indeed intimate, contacts with the artistic community, for his microscopic researches involved years of close interaction with the artists who served as his draftsmen' (Ruestow 1996: 182n). The navy and the merchant marine constituted the largest demand for lenses for binoculars, but as mentioned, lenses were also in demand in the textile industry and among natural scientists and producers of early microscopes. The Delft lens grinders thus formed the core of an extremely dynamic and path-breaking cluster including such diverse actors as the navy, the woollen industry, painters like Vermeer, natural scientists and their draftsmen, and the microscope builders.

Another product linking the three clusters – war (navy), luxury (art) and 'idle curiosity' (science) – in Holland at the time was mapmaking. Holland's position as a seafaring power demanded not only binoculars and naval instruments, but also up-to-date maps[53]. Vermeer's fascination with maps and explorations is clear in many of his paintings, one author commenting on his 'mania for maps'. Such synergic cumulative causations, and the path dependency they created, were no doubt at the core of knowledge creation and the process of economic growth.

The enormous diversity of economic activities was observed and commented on by most contemporary continental economists who wrote about the Dutch Republic. This is also apparent in the early economic journals (Zincke 1746-1767). The role of diversity and the resulting creative serendipity bring back the problem of 'monoculture' as identified in traditional development economics, where such creative linkages as those observed in 17th century Delft do not occur. Agricultural communities normally have little to sell to each other. By emulating Dutch economic structure, rather than necessarily Dutch economic policies, and by avoiding the pitfalls of Spain, the mercantilists constructed their economic policies.

5. Factors and Issues

5.1. Scarcity of Natural Resources as a Prime Mover

This factor is mentioned by virtually every author as a fundamental reason behind the success of the Dutch, and de la Court – himself a Dutchman – devotes a whole chapter to the miserable natural conditions of Holland. 'Our country yields almost nothing out of its own bowles', he says (part 1, ch.9), also quoted by McCullagh (1846, Vol. 2: 270). Joshua Gee (1729: 128) is among the many writers who ascribe the Dutch engagement in trading as a result of the deficiency of valuable land.

Botero (1590/1622) comments on Holland's lack of resources, but wealth in products. The absence of raw materials creates abundance the goods made from the same raw materials: 'Holland, without vines, without flax, without wood and with very little cultivated soil, abounds incredibly with wine, linen, ships, and grain' (Botero 1590/1622: 57). Not only did the Netherlands lack natural resources, the ports were also 'positively bad' (McCullagh 1846: 12). Uztáriz comments in this way on the connection between Dutch barrenness, its lack of possibilities for food production, and its specialisation in other areas:

> 'Its inhabitants are so skilful in theory, and vigilant in the practice of this important maxim of state, that other nations must acknowledge an inferiority. For it is notorious that in spite of a small sandy district, which nature has allotted them, they singly carry on more trade in all the four quarters of the world, than the great powers of France and England united. To attain this, they avail themselves of very active principles, and a plan of traffick different from that of other states, and which the barenness of their country obliges them to. And yet, by the help of commerce, they are become so populous, that were all their broad rivers, arms of the sea, gulphs, marshes, and waste land, converted into fruitful pastures, all would not suffice to maintain the inhabitants with food. But as a fourth part of that district is not cultivated, and its pastures are about another fourth, the rest being water, or land that yields neither fruit, grass, trees, or any

[53] With the technology of mapmaking changing from woodcuts to copper plates, the same copper used by instrument makers, the Dutch took over its production from the Italians.

> thing useful in life, some writers insist that their harvests cannot support a fourth of their own consumption, the worst circumstance a people can labour under' (Uztáriz 1751: 149-150)

A late English author comments, bordering on the heroic, on how the harsh surroundings moulded the Dutch character:

> 'That undismayed and undisheartened the early Frisian race should have lived on amid their often-broken, but as often-mended dykes, learning by each new catastrophe how to improve on former expedients, with no rash confidence that even these repairs would prove effectual, is the first and, on the whole, perhaps the greatest fact in the book of their national life. From it all the rest of their dauntless venture, daring and endurance, seems to grow naturally and credibly. What work could they be put to do harder than this? Day and night, all the year round, from sire to son, to keep wakeful watch lest their country should sink into the sea!' (McCullagh 1846: 8)

5.2. The People

> *'Caesar observes in his Commentaries, that the People of the Low Countries were very laborious and industrious, both for Invention and Imitation. His Words are, Est summae genus solertiae, atque ad ad omnia imitanda quae a quoquo traduntur aptissimum.'*
>
> Huet, *A View of the Dutch Trade*, 1722.

Early economists paid much attention to what Serra (1613) calls 'the quality of the people'. In Serra's book, the Genovese work harder than the Venetians, but other factors (like geographical position) cause the Venetians to come out as being the wealthiest. In the 'quality of the people', the Dutch score very high with early economists, but – most importantly in my view – the industriousness of the people is normally mentioned in connection with the scarcity of resources: the one is almost a result of the other. That necessity is the mother of inventions (and imitations) was obvious to most of the contemporary economic observers (Montesquieu 1748).

Because the mentality was recognised as being so important, a mandatory passage point for laggard nations was its conscious changing and moulding. Profit-seeking was understood as not being *nature* but an acquired *culture*. As Frederick the Great of Prussia impatiently says in Lowe's translation: 'The plebs will never give up their humdrum tune, unless you drag them by their noses and ears to their profits.' (Lowe 1988: 21). Manufacturing and trade were seen as the carriers of the 'right' habits (Hirschman 1977).

Botero (1590: 49) comments on the Dutch that 'They have an inclination towards music…, they rapidly and easily imitate everything they see. They have invented the art of painting in oils and to colour glass and many other noble things'. He also says that:

> 'The peoples of Holland surpass all other nations of Europe in size and their women all others in beauty, and they do not lag behind them in politics or wealth. They have maintained their ferocity and bravery of old, and in possession of an abundant country, in continuous contact with the Sea, they respect no foreign power or force'.

If one wishes to subscribe to a cyclical idea of history (Kindleberger 1996: 14 ff), the Dutch are here described as still forcefully ascending, while 200 years later a German author would observe the same characteristics declining in the Dutch Republic (an anonymous Italian traveller (1786) and Bielfeld (1760), see section 6 of this essay).

Botero admires the skill of the Dutch women: 'Also the women have a great intelligence in commerce and trade, and almost all of them know reading and writing and several languages' (1590: 49). However, he also describes the Dutch as pragmatic and relatively unemotional: 'They forget easily both insults and benefits, they neither hate nor love firmly'. Adam Smith says that 'It is there (in Holland) unfashionable not to be a man of business' (Smith 1776/1976, I, 108).

A late contribution to this discussion, from Sweden, sums up the mercantilist argument with emphasis on *population density*. The author is a student of Anders Berch who held the Chair of Economics in Uppsala:

> 'How things really are in national economics, is nowhere clearer than in the case of the United Netherlands. They have virtually no domestic (resources), but still, through the industry of its large population, exceed in strength the immense but sparsely populated and idle Spain. (The Netherlands) knows well how to use the folly of others to its own benefit. We see how poor Spain is with all its gold and silver mines, the best ports and the best soil in the world, because of its lack of inhabitants. On the other hand how its large number of inhabitants make the United Provinces mighty, with their miserable ports and the worst climate on earth'
> (Westbeck 1747: 4-5).

The importance of foreign immigration – particularly through the skills that they bring in – is a constant theme starting already in the Byzantine Empire and in Xenophon's *Poroi* (Zincke 1753). The immigration of foreign skills was often helped by religious and other prosecutions, a fact that both Holland and England – starting with the Tudors – consciously used to their advantage. Conversely, the Venetian Republic prohibited the migration of skilled workers under the threat of death penalty (Reinert 1999). Carlo Salerni (1782/1996) comments on how already Edward III of England, in 1331 recruits a certain John Kemp from Flanders in order to obtain the skills of producing fine woollens while his conational Brevver brought the art of fine dying to England in 1667 (Salerni: 1782/1996: 81).

In his first work – *Het Welvaeren der Stad Leyden* – Pieter de la Court indeed puts immigration at the center of the engine of growth in that city. Leyden's welfare is neither the result of wise laws promoting manufacturing nor of the guilds, but a result of warring neighbours. The policy here must be not to tax foreigners more than the locals. This principle must also be extended to the students. If costs – rents, luxury taxes etc. – are too high, manufacturing will be forced into the countryside (Laspeyres 1863: 185-186).

'Not only were strangers of every race and creed sure of an asylum in Holland, but of a welcome; and singular pains were taken to induce those whose skill enabled them to contribute to the wealth of the state to settle permanently in the great towns', says McCullagh (1846, Vol.2: 267). The different immigrants would also contribute different skills, at one point the Flemish Protestants brought in skills in laces and ribbons, and the Jews skills in dyeing and chemistry in general.

The Dutch institutions and their 'organisational capability', their reliability as suppliers of goods and shipping services, is commented on by the early economists. The institution-building seems to have been very conscious at many levels. Grotius' 'Mare Liberum' (1609) had as its immediate objective to overthrow the claims of the crown of Spain to the exclusive navigation of the Indian and Pacific Oceans (McCullagh 1846, Vol. II: 334). Johann Beckmann, professor of economics in Göttingen at the time of Adam Smith, makes the following observation in his *History of Inventions* (London 1798): 'In the year 1404 the magistrates of Bruges, in Flanders, requested the magistrates of Barcelona to inform them what was the common practice in regards to bills of exchange' (Beckmannn 1798, Vol. 2: 462). The Dutch ability to learn from others, as Colbert complained about when it came to copying French products, has clearly been an important feature across time.

5.3. Industries and the Cult of Manufacturing

> 'From the raw materials from Spain and the West Indies – particularly silk, iron and *cochinilla* (a red dye) – which cost them only 1 florin, the foreigners produce finished goods which they sell back to Spain for between 10 and 100 florins. Spain is in this way subject to greater humiliations from the rest of Europe than those they themselves impose on the Indians. In exchange for gold and silver the Spaniards offer trinkets of greater or lesser value; but by buying back their own raw materials at an exorbitant price, the Spaniards are made the laughing stock of all Europe'.

> Luis Ortiz, Spanish Minister of Finance, to Felipe II: 'Memorandum to the King to prevent money from leaving the Kingdom', Madrid, 1558.

This statement by Luis Ortiz is an early expression of what I have called 'the cult of manufacturing' in Europe. Almost 200 years later, when discussing Germany's import of manufactured goods Zincke repeats the same argument: 'Above all Holland is the country which, through its manufacturing- and trading-arts, brought it to the point that in addition to importing from them many raw materials, which they themselves do not produce, we also import an indescribable quantity of their own and imported goods. Even goods that we could acquire directly and nearer ourselves, are delivered to us through the hands of the Dutch. One example of this is camel hair. The most unbelievable and ridiculous is that we receive our own produce, i.e. from our own raw materials on which we have already worked, only improved and perfected, from the hands of the Dutch: i.e. cloth made from our wool and yarn, the canvas made from our own linen yarn, lace, yarn etc.' (Zincke 1750: 306). The importance of the *variety and diversity* of the Dutch manufactures is frequently mentioned (e.g. McCullagh 1846, Vol. II: 267-269).

Huet lists page after page of the manufactures in which the different cities of the Dutch Republic specializes, but sees the impossibility of giving a complete account:

> 'I do not pretend to give an exact Particular of all the Manufactures of the United Provinces; it would be too prolix for the Brevity of this Treatise. I shall only say, that it is certain, that in no Kingdom, State, or Country in the World, they are so numerous and flourishing as in Holland. I shall take Notice only of some of the most considerable, and such as sell best in other Countries'.

Then follows page after page if listings of towns and their industries. The importance of the fisheries in explaining the success of the Dutch is emphasised both by Huet and Uztáriz (1751, Vol. 1: 168 ff). Hume reports that Greenland was discovered by the English under the Reign of James I, 'and the whale-fishery was carried out with great success. But the industry of the Dutch, in spite of all opposition, soon deprived the English of this source of riches'. (Hume 1767, Vol. 5: 125).

The sources also stress the long Dutch tradition is shipbuilding, since before the Crusades. When Count William in 1217 sailed from the Meuse, 'The troops of France and Germany were transported to Palestine in Venetian and Genovese vessels; the Dutch were borne thither in their own' (McCullagh 1846, Vol. 2: 79).

Already in 1590 Botero comments that more than 800 large ships can be seen outside the walls of Amsterdam (Botero 1590/1622: 57). On this branch of industry Huet (1722) says:

> 'Sardam, not far from Amsterdam, is certainly the only Place in the World, where all Sorts of Ships are built for the Use of Merchants, not only of the United Provinces, but of other Countries, which causes a prodigious Consumption of Wood, Cordage, Masts, Sails, and other Necessaries for Shipping, of which great Numbers are daily sold to Strangers, ready built, and fit for Launching'.

5.4. Technology, Inventions, Imitations and Competitiveness

I have already quoted Julius Caesar – as quoted by Huet – on the skills of the Dutch both in inventing and in imitating. The Dutch also have a long history of manufacturing. Huet starts his account on Holland in the year 1000, but McCullagh goes further back. After all his volume on Holland is Volume II of a work entitled *The Industrial History of Free Nations*, where Volume I is an account of the industries in Ancient Greece. McCullagh notes that the Dutch manufacturers around the year 750 were 'held in high repute among the people of other countries where comparatively little progress in the peaceful arts had as yet been made'. He also

notes their dependence on English wool, which made Charlemagne (742-814) scrupulously protect the Anglo-Saxon merchants although he was at war with England.

There are clearly many elements of both inventions and imitations in Dutch economic history. I have already mentioned the crucial Schumpeterian elements behind the success in fishing, and the synergies created between fishing, manufacturing and trading:

> 'About the year 1400, the Art of Salting, or Pickling of Herrings, was found out by a Fleming of Pierulem, which much encouraged this Sort of Fishery, as being of very great Advantage, and together with the Manufactures, made Navigation flourishing in that large Province, and of Consequence very much encreased their Trade and Commerce (Huet 1722: 9)

The French under Colbert emphasised the Dutch skills of imitation rather than that of invention. However, the index of Zincke's *Leipziger Sammlungen* (1761: 561-563) gives us an indication of the many inventions and products which reached Germany from Holland, still at this late stage: *Holländerey* is another term for *Viehzucht* or husbandry; *Holländische Alleen* was a way of planting fruit trees, and *Holländische Erbsen* are 'field peas'. Among the many things discussed and praised in Zincke's journal over the years are: *Holländisches Manufakturwesen;* the Dutch manufacturing system, the Dutch maxim of finance, The Dutch printing houses and their books, Dutch fisheries, Dutch inns, Dutch paper mills, Dutch horses, Dutch policy institutions, the Dutch constitution, the Dutch way of building ships, Dutch silk manufactures, Dutch cloth, Dutch flax cultivation, Dutch herring fisheries, Dutch clover, Dutch scarlet, Dutch turf, Dutch paper, Dutch gunpowder and Dutch navy. Similarly the *Oxford English Dictionary* (Vol. III: 729) provides in impressive list of objects and institutions that have been used in the English language with the prefix 'Dutch'. The word 'dutchify' seems, at one point, to have had similar connotations as the term 'americanise' today.

Zincke (1750: 338) is worried about the inability of the Germans to be inventive, and is forced to admit 'that few Germans have achieved fame from inventing something entirely new' He attributes this to the 'German *Phlegma'* and the love of old habits. Because of this, he says, the Germans overestimate the value of imported goods, Italian, French or Dutch, so that often goods which are produced in Germany are sold as imports (1750: 339).

Uztáriz emphasises the cost effectiveness of Dutch shipping as an important success factor (Uztáriz Vol. 1: 170). He recommends a similar high volume/low margin strategy for Spain. Also according to Adam Smith, the Dutch 'trade upon lower profits than any people in Europe' (1776/1976: 102). Important elements in Dutch 'competitiveness' were the low interest rates in the Republic, and the ease with which capital could be raised. John Law (1760) is the author who clearly understands these mechanisms best (Child 1668: 13, 15, Law 1769: 26-30, Smith 1776/1976: 102). Child elevates low interest rates to the main cause of the wealth of a nation (1668: 7), while many continental economists would typically see the low costs of capital as a result of the abundance and profitability of manufacturing and trade; factors mutually reinforcing each other and creating 'virtuous circles' of cumulative causations.

The level of costs was frequently a concern with early economists, including the cost of articles that would indirectly determine the price of common labour, and – in the last instance – determine the nation's ability to compete with foreign manufactures. Along this line of reasoning Johann Heinrich Gottlob von Justi was worried about the high price of firewood in Germany, and in England an important motive behind Richard Cobden's campaign for free trade in corn was the very high influence of corn prices on the cost of feeding English manufacturing labour (Reinert 1998). In France Colbert saw that in order to enable France to compete internationally, 'an easy and sure subsistence had to be provided for the working population' (Kaplan 1976: Vol. 1, 2.). The Dutch prohibition of export of freshwater fish, which as opposed to the luxury product herring was food for 'the lesser sort of folk' (de Vries & van

der Woude 1997: 237), most certainly served the same purpose of keeping costs down by keeping down the cost of feeding and maintaining the common man.

I would argue with Laspeyres that the Dutch criticism of monopolies also should be seen in this light: they make Holland less competitive through high costs (Laspeyres: 93). On the other hand, the huge profits in overseas trade would no doubt have fallen if the Dutch monopolies had been given over to an army of independent traders. More 'perfect competition' would have brought both profits and prices down considerably. So the Dutch Republic was faced with a trade-off: de-monopolizing trade would increase the competitiveness of local production at the cost of the profits of the trading companies. Monopoly prices for luxury articles were not the main problem; these did not influence the wage level of the common man, and the huge profits from re-exports from Holland in the end would benefit the Republic through 'trickle-down'. For the articles consumed by the common man, on the other hand, regulations of various sorts aimed and reducing the negative effects of the monopolies (Laspeyres: 94-95).

Beckmann's section on 'Garden Flowers' in the *History of Inventions* gives perhaps one typical role of the Dutch as innovators and traders. Beckmann first informs us that flower bulbs were first brought to Europe by the Spaniards, but then 'the full tuberoles were first produced from seeds by one le Cour, of Leyden, who kept them scarce for some years by destroying the roots, that they might not become common' (Beckmann 1798, Vol. 3: 3).

A discussion of the Dutch Republic also invites the reopening of the huge debate on luxury that lasted for centuries in Europe. Early economists, like Botero (1590) and Laffemas (1597), attack luxury, but – as is well known – Bernhard Mandeville (1714) turns the argument around: luxury is the demand that keeps the wheels of business growing. In the end the consensus of the 18th century boiled down to a general agreement that luxuries were tolerable if they created employment at home. We must keep in mind that full employment and a positive balance of payments cannot be taken for granted in most European states at the time. We are far from any 'production possibility frontier', and through its de-industrialisation and accompanying capital shortage, unemployment and poverty, Spain has set an example of *what not to do*.

Bernhard Mandeville, a Dutchman by birth and education, wrote his *Fable of the Bees* in 1714 (an early fragment in 1707) as if he were English. While many writers comment on the frugality of the Dutch, Mandeville examines the contradictions of frugality and luxury in the Dutch Republic: 'In Holland the People are only sparing in such things as are daily wanted, and soon consumed; in what is lasting they are quite otherwise: In Pictures and Marble they are profuse; in their Buildings and Gardens they are extravagant to Folly'.

Mandeville also sees the combination of encouragement of luxury consumption and high excise taxes being a conscious Dutch 'strategem'. When the sailors from the East India ships come home, the sailors 'squander away in wine, women and music, as much as people of their taste and education are well capable of', and they become 'the Lords of six weeks'. 'In this strategem', says Mandeville, 'there is a double policy': first, their squandering insures that they have to go to sea again, solving the problem of manning the ships, and secondly. 'the large sums so often distributed among those sailors, are by this means made immediately to circulate throughout the country, from whence, by heavy excises and other impositions, the greatest part is soon drawn back into the public treasure'(Mandeville 1714/1806: 112).

6. The Decline of the Dutch Republic

Starting in the 1630s, Dutch envoys and authors started reporting on other nations' growing willingness to promote and protect their own shipping and manufacturers (Laspeyres 1863: 125). The English navigation acts of 1655 and Colbert's acts protecting French manufacturing (1664 and 1667) supported the transfer of production and trade from Dutch to English and French hands. These measures were clearly hurting the Dutch interests, and in Holland the discussion at the time focused on whether the English or the French policy was the most harmful to the nation (Laspeyres 1863: 127).

However, among foreign economists commenting on Holland in the early 18th century, like Huet, there is little sign of a decline. Being born in 1630, Huet's frame of reference would naturally be the 1600s. But as the 18th century advances, we start finding comments about the decay of Holland in the economic literature. An important reason for the decline is seen as other nations' attempts at taking over the activities that create most profit for the Dutch, a successful policy of 'import substitution' both in shipping and manufacturing (Mandeville 1614/1806: 109 & Steuart 1767).

Adam Smith, returning to the discussion above, sees the deindustrialisation of Holland as a result of high taxation on bread and other necessities of the common man.[54] 'These and some other taxes of the same kind, by raising the price of labour, are said to have ruined the greater part of the manufactures of Holland' (Smith 1776/1976: I: 405). Typically of economics as it was to become, starting with A. Smith, the decline of Holland was to him a) self-imposed by internal mistakes (indirectly by too big government) b) tended to be reduced to a single factor of explanation, understood at the level of *prices*, rather than in the realm of production and c) void of any analysis of power relations, so important to the mercantilists. England's success in 'blowing the Dutch out of the waters' played no role in Smith's analysis (see Lane (1979) on military power below).

As already mentioned, the Italian city-states had been subject to similar problems of de-industrialization and loss of political power as those now faced by the Dutch republic[55]. That trade was warfare in another form was clear to the mercantilists. The analysis across the Italian peninsula was similar to that in the Dutch Republic: the foreigners are beating us at our own game.

Asking if the decline of the Dutch Republic was inevitable is a tempting exercise in counterfactual history. One could ask if an earlier reversal of the policy of free trade and small duties, rather than only in the 1720s, would have given a different outcome? As O'Brien, Griffiths and Hunt (1991:418) say 'Apart from Switzerland, few states followed Holland in allowing attachment to commerce and free trade to undermine national industries'. An anonymous Italian visitor to Holland in 1786 makes an additional interesting point: 'Why do not the Dutch, who are so skilled in commercial affairs, establish an easy remedy to the decadence of their manufactures? They do still have poor provinces that are maintained by the charity of the other provinces. Why do they not establish the manufactures in these (poor) provinces, copying the English who have established the greatest part of their manufactures where money is scarce, and, as a consequence, food is cheaper?' (Anonymous 1786: 110-111)[56].

Probably the key element here is that the industrial developments in England at the time were qualitatively entirely different from the industries that were dying out in the Dutch Republic. The late 1700s in England represent the birth of a new techno-economic paradigm (Perez 2002 & 2004): during this period the technological improvements in cotton spinning, the leading industry, increase English labour productivity by more than 25 per cent *per year.* Having lost touch with the technological frontier, as the Dutch Republic clearly had, competing against areas where such rare 'productivity explosions' take place is virtually impossible. Any attempt to meet the challenge of English cotton spinning, which was well ahead on the learning curve, would have required firm policies and high tariff barriers. One hundred years later, the United States built its steel industry against English competition behind tariff barriers of up to 100 per cent. Such policies would have been completely alien to the principles that the Dutch Republic had inherited from the Golden Age, a time when the Republic itself had been in the

[54] 'In Holland the money price of the bread consumed in towns is supposed to be doubled by the price of such taxes' (Smith 1776/1976 I: 405).

[55] See S. Reinert (forthcoming 2005). Van der Wee (1988) addresses the industrial decline both in Italy and the Low Countries.

[56] There were attempts to prevent the migration of industry to the poorer areas of the Republic (de Vries & van der Woude 293, 337). However, it is argued that this would not have improved the situation very much because 'the lower costs did not enlarge the market', and this policy would therefore only have delayed the deindustrialisation (ibid. p. 337).

position where England now was: the main beneficiary riding and cashing in on the waves of new technologies.

To the extent our anonymous Italian himself provides an answer to the question, this development is due to the 'laziness' of the Dutch inhabiting 'this coffee house of Europe'. He admires the past achievements of the Dutch, and recognises the classical mercantilist argument that commerce 'domesticates Man and forms him to society'. But he argues that the Dutch Republic at this point suffers from an overdose, where commerce dominates over everything else and exhausts society rather than perfecting it further (*ibid*: 117). In a phrase that recalls the analysis of the decadence of Spain 200 years earlier, our Italian traveller refers to people who are so wealthy that they feel they would lose their honour if they worked. Although manufacturing is decaying all over the Republic, the situation in Utrecht – which is the refuge of the national nobility – is worse than elsewhere: manufacturing has disappeared almost completely (*ibid*. 110).

The data surrounding the decline of the Dutch Republic are controversial, but the sequential decline of the Hanseatic League, the Italian city-states and the Dutch Republic indicate that an era of small city-states is over. Two overriding factors seem to combine, irreversibly increasing the *minimum efficient size* of capitalism: Larger nations, like France and England, have themselves built manufactures and overseas trade, and these nations consciously attempt to extend the synergies of the city-state to a larger geographical territory[57]. The idea of a *minimum efficient size* of an economic system, reflecting *systemic increasing returns*, was not new at the time. I have already mentioned that in Xenophon such 'systemic increasing returns' were seen as curing the problems of a city by increasing its size. One could argue that the present trend towards globalisation is just a further move in this same direction[58]. Regarding the decay of the Dutch Republic, we find this type of analysis confirmed by contemporary economists.

In his 'Nature and Character of States' *(Natur und Wesen der Staaten)* (1760), Johann Heinrich Gottlob von Justi (1717-1771) provides some very perceptive comments on the decay of Holland. Justi uses the fact that Holland is built on water to create a metaphor conveying the message that a certain era – a certain way of producing wealth – has come to an end. Holland is like a house on pillars on water, where the pillars are rotting:

> '....the example of Holland can be held against me: a country that lacks almost all the gifts of nature and that even in its little corner of the world must keep up the most expensive dikes in order not to be swallowed by the sea; but in spite of that, due to the industrious inhabitants, is a flourishing state. To this I reply that while I recognise that the poverty of the soil can be compensated by the industriousness of the inhabitants, that will still only be on borrowed and artificial ground. This is a structure that has been erected on piles that have been driven into the seabed, in which it is possible to live comfortably for a while. In the end, however, these piles will decompose, and the structure will collapse. Such an artificial ground have all nations that have flourished only by virtue of the comfort of their navigation and their hard work, without any natural wealth. **This ground will only exist as long as other nations are so naïve that they do not see that, with their own industriousness, they could busy themselves with the production that they have (previously) left to be done by that hard-working people.** As soon as these nations grow wiser, the artificial ground will rot and they will have nothing but the bad soil that nature has given them. In my opinion, during this present century the artificial ground of the Dutch has already started to decompose considerably, and probably it will increasingly go into decomposition as the wisdom and industriousness of the other European peoples increases, in particular that of the people of the North (*nordisch*)...A republic is much better off when it has constructed its structure of welfare on its own natural soil (Justi 1760: 35-36, emphasis added).

In other words, as other nations learned to follow the Dutch strategy, she would 'fall behind'. We can assume this to happen both in trade and in manufacturing. In my opinion Justi is here pointing to several things: a) there is a catching-up, foreign nations understand that they will be

[57] This aspect of capitalist development is described by Eli Heckscher (1931) and Karl Polanyi (1944).
[58] The theories of German economist Karl Bücher in this respect are discussed in Reinert (2000)

better off if they increase their manufacturing and shipping, b) the rules of the game are changing; city mercantilism is no longer enough as a larger *Hinterland* is needed. Interestingly, at the time when the decay of the Dutch Republic was becoming increasingly evident, the mercantilists start emphasizing the important synergies between manufacturing and agriculture. Although already had commented on the successful Dutch husbandry in the 1500s, agriculture had tended to be disregarded as a source of wealth during the time of the city-states. Now agriculture, but *only if manufacturing was present*, increasingly started to be seen as a source of wealth. We may speculate that the small weight of agriculture in the city-states, which had once been their important strength, became a weakness as nation-state mercantilism gradually gained force. Part of the explanation would be the importance of the farming population – who represented the vast majority of the population in most European countries – as a home market at a time when industrialisation increasingly addressed the needs of ordinary people while rural self-sufficiency diminished.

Justi changes the rules in Serra's model (1613): nature-given comparative advantage (geographical position) has diminished in importance, and man-made comparative advantage has increased in importance. Recreating and extending the observed urban advantage became a central challenge as city mercantilism gave way to nation-based mercantilism. Justi's comments here are in line with later observations by Friedrich List and Emmanuel Wallerstein, who both point out that while England achieved this increased size through national unity, the failure of the Hanseatic League, the Italian city states and Holland did not develop beyond a collection of city-states, which they see as a main reason for their loss of leadership (List 1841, chapters 1-3; Wallerstein 1978, vol. 2: 90–93).

The work of Jakob Friedrich von Bielfeld (1717-1770) contains an extensive typology on the reasons for the decadence of states. Bielfeld's book (1760) was an economic bestseller with a total of 12 editions, and one chapter (Chapter XV in Vol. 2) treats the Decadence of States. To Bielfeld there are two types of causes of decadence, *Foreign* and *Intrinsic*. Among the twelve foreign external causes are large scale migrations (barbarian invasions), wars, too much quarrel and warfare with neighbours ('it can take one century of war to obtain the same result as a couple of written treaties'), too large geographical extension of the empire (the Roman Empire is one example), loss of independence (Portugal's dependence on England is one example), too ambitious and vain national projects (like Carl XII's plans for Sweden), civil wars which carve up the empire, dividing the power between two rulers, and the weakening of authority and loss of control of the territories (Portugal's loss of control over Brazil and Genova's loss of control over Corsica are Bielfeld's examples).

The *intrinsic* reasons for the decadence of a state are twenty: a 'vicious Constitution', a King unfit to rule (*un Souverain incensé*), minorities which weaken the ruler, ministers who betray the ruler, lax law enforcement, contempt for religion, *fanatisme*, 'exaggerated despotism', too much liberty, negligence of useful production in favour of the frivolous (The Portuguese who take their manufactured goods from England, only to play the guitar and fill up the churches to pray in front of some Saint is the example of horror here), a useless nobility too proud to work (see also Justi 1756), ridiculous laws, depopulation of the state (celibacy being one of the causes), colonies that become too strong (the Spanish possessions in the Americas being the example), epidemic diseases, alcoholism, lenient military discipline, too high debts, internal strife in the state administration, and changing the basic principles of the constitution.

Which of these twenty different intrinsic causes of decadence did Holland suffer from, in Bielfeld's view? Bielfeld mentions Holland in two cases: He sees too much liberty – *Liberté dégénere en libertinage* – being the cause of 'the lethargy of Holland' in 1760. Bielfeld's use of the word 'lethargy' in describing the Dutch contrasts sharply with Botero's use of the words 'ferocity and bravery' about the Dutch 170 years earlier, adding that they 'respect no foreign power or force'. These statements support a 'life cycle' theory of economic development (Kindleberger 1996). This also resembles the very early theories of history represented by 12th century Arab historian Ibn Kaldoun, where a dynamic desert tribe invades and occupies a city, only slowly to degenerate, and in turn to be taken over by a new 'brave tribe'. Adding to this the 18th century idea of the stages of economic development – hunting and gathering, pasturage, agriculture and industry (Reinert 2000) – we may superimpose world-wide cycles of

technological change and progress on a cyclical theory of growth and decay in specific geographical areas.

Although representing decidedly different schools of thought, Bernhard Mandeville (1714/1806: 109) and James Steuart (1767) both anticipate Adam Smith's point about the high level of taxation as an important reason for the decay of the Dutch. So does, later, McCullagh (McCullagh 1846, Vol. 2: 358). Observers of the decline of Spain point to the fact that the productive people tended to be highly taxed, but the passive *rentiers* not. To James Steuart (1767) the worst kind of taxes are those levied on private production for private use (i.e. goods not entering the market): His example here is 'Holland, where a man cannot kill his own pig, or his own calf, without paying a tax'.

The factors that present themselves as candidates for the decline of the Dutch Republic are many, and – as in the case of the much slower rise of the same Republic – we must assume that the economic, political, and institutional factors collude and mutually reinforce each other. Kindleberger presents a long list of factors causing the decline of the Dutch Republic: 'wars; foreign mercantilism; foreigners copying Dutch techniques; the shift of Europe away from using Amsterdam as an entrepôt, first in trade, then in finance; the loss of capital in loans to France in the Revolution; and the levying of indemnities by France', all external. Internal factors listed are 'withdrawal from trade and industry by finance, high taxes on consumption (i.e. Mandeville's point)..; provincial resistance to central directions, especially in matters of taxation; the persistence of guilds; loss of skilled workers; conspicuous consumption (which Mandeville had seen as a reason for growth, not decline); skewed income distribution, and many more' (Kindleberger 1996: 103-104).

Like Florence and many Italian city-states, the Dutch Republic seems, then, to have failed to successfully convert from 'city mercantilism' to 'national mercantilism', a centralised system where the benefits observed in the cities were extended, through a central government, to a larger geographical territory. This failure in the long term to build synergies created by economies of scale in trade and production to the extent later done by its rivals, had probably also been responsible for the decline already of coalition which was much than that of the Dutch states; the Hanseatic League (compare Kindleberger 1996: 83-84).

Like Florence – whose industries suffered from the English Tudor strategy of import substitution and high export taxes on wool – the Dutch Republic may have been unable to respond to the economic challenges posed first from England and France, and then from Germany. I would argue that the virtuous circles created cumulatively by the triple rents; *long distance trade, fisheries* and *manufacturing*, seem to have been weakened in parallel. The mutually reinforcing factors of high profits in these three types of economic activities degenerated synergetically – through cumulative causation – in much the same way as they had been generated, but in a much slower process, over the centuries building up to the Golden Age. The final result was the parallel loss of economic, military, and political power that throughout history seems to hinge on what Frederick Lane (1979: 45-48) – the great historian of Venice – calls '*increasing returns* from the use of force as an economic service'

References

Anonymous (1786). *Relazione di una scorsa per varie provincie d'Europa del M. M.... a Madama G.. in Parigi.* Pavia: Nella Stamperia del Monastero di S. Salvatore.

Ashley, William (1920). *An Introduction to English Economic History and Theory.* Putnam, New York.

Bergius, Johann Heinrich Ludwig, editor (1767-1780), *Policey- und Cameral-Magazin* (1767-1774) & Neues Policey- und Cameral-Magazin (1775-1780), Leipzig, bey M. G. Weidmanns Erben und Reich.

Beckmannn , Johann, editor (1770-1806), *Physikalisch-ökonomische Bibliothek worinn von den neusten Büchern, welche die Naturgeschichte, Naturlehre und die Land- und Stadtwirtschaft betreffen, zuverlässige und vollständige Nachrichten ertheilet werden*, Göttingen, im Verlag der Wittwe Vandenhoeck und im Vandenhoek und Ruprechtschen Verlage, 23 volumes.

Berch, Anders (1747), *Inledning til Almänna Hushålningen, innefattande Grunden til Politie, Oeconomie och Cameralwetenskaperna,* Stockholm, Lars Salvius.

Bielfeld, Jakob Friedrich (1760), *Institutions politiques,* The Hague, Pierre Gosse Junior. 2 volumes.

Botero, Giovanni (1590), *Della Ragione di Stato. Libri Dieci,* this work also contains *Delle Cause della Grandezza delle Cittá , libri tre,* Rome, Vicenzio Pellagalo. English translation 1706.

Botero, Giovanni (1596/1622), *Relazioni Universali,* Venice, Alessandro Vecchi.

Child, Josuah (1668). *Brief Observations Concerning Trade and Interest of Money.* London: Elizabeth Calvert and Henry Mortlock.

Child, Josuah (1681). *A Treatise Concerning the East-India Trade.* London: Printed for the Honourable the *East India Company.*

Clément, Pierre (Editor), *Lettres, Instructiones et Mémoires de Colbert*, Paris, Imprimerie Impériale/Imprimerie Nationale, 1861-1872, 7 Vols. in 10 + 1 Volume 'Errata Général et Table Analytique.'

Drechsler, W. (2000) 'Etienne Laspeyres' History of the Economic Thought of the Netherlanders: A Law & Economics Classic?', in *European Journal of Law and Economics*, vol. 10, no. 3 (November), pp. 235-242.

Dutot, Charles, *Political Reflections upon the Finances and Commerce of France*, London, A. Millar, 1739.

Ekelund, Robert B. and Robert D. Tollison (1981). *Mercantilism as a rent-seeking society: economic regulation in historical perspective*. Texas A&M University Press, College Station.

Fanfani, Amintore (1955), *Storia delle dottrine economiche dall'antichità al XIX secolo*. Milan, Giuseppe Principato.

Fernández Duran, Reyes (1999), *Jerónimo de Uztáriz (1670-1732). Una Política Económica para Felipe V,* Madrid, Minerva.

France, Edict (1581), *Edict du Roi, contenant establissemét d'un Bureau de Douane en chascune ville de ce Royaume à la semblance de celuy qui est long temps y a estably à Paris,* Paris, Federic Morel.

Gee, Joshua (1729), *Trade and Navigation of Great Britain Considered,* London, Bettesworth & Hitch.

Goyeneche, Pedro Francisco (1717), *Comercio de Holanda, o el gran thesoro historial y político del floreciente comercio, que los holandeses tienen en todos sus estados y señoríos del mundo. Qual es el modo de hazerle, su origen, sus grandes progresos, sus posesiones y gobierno en la Indias. Como se han hecho dueños absolutos de todo el Comercio de Europa, y cuales son las mercaderías convenientes para el trato Marítimo. De donde las sacan, y las considerables ganancias que en él hacen,* 'traducido del francés', Madrid, Imprenta Real, por J. Rodríguez Escobar. Comments by Uztáriz.

Guicciardini, Ludovico (1567), *Descrittione di tutti i Paesi Bassi, altrimenti detti Germania Inferiore,* Antwerp, Silvio.

Hamilton, Earl (1932), 'Spanish Mercantilism before 1700', in *Facts and Factors in Economic History, Articles by former Students of Edwin Francis Gay,* Cambridge, Mass., Harvard University Press, pp. 214-239.

Hamilton, Earl (1935), 'The Mercantilism of Gerónimo de Uztáriz: A reexamination', in Himes, Norman (editor), *Economics, Sociology and the Modern World. Essays in Honor of T. N. Carver,* Cambridge, Harvard University Press, pp. 114-129.

Heckscher, Eli (1931), *Merkantilismen. Ett led i den ekonomiska politikens historia,* Stockholm, Norstedt.

Hirschmann, Albert O (1977*), The Passions and the Interests. Political Arguments for Capitalism before Its Triumphs,* Princeton, Princeton University Press.

Hocquet, Jean-Claude (1990), *Il Sale e la Fortuna di Venezia*, Rome, Jouvence.

Hörnigk, Philipp Wilhelm von (1684), *Oesterreich über alles wann es nur will. Das ist: wohlmeinender Fürschlag Wie mittelt einer wohlbestellten Lands-Oeconomie die Kayserl. Erbland in kurzem über alle andere Staat von Europa zu erheben. Durch einen Liebhaber der Kayserl. Erbland Wolfahrt,* no place, no publisher.

Huerta, Robert D (2003), *Giants of Delft. Johannes Vermeer and the Natural Philosophers: The Parallel Search for Knowledge during the Age of Discovery***,** Bucknell University Press.

Huet, Pierre Daniel (1722), *A View of the Durch Trade in all the States, Empires, and Kingdoms of the World,* London, C. King and J. Stagg. Second edtion, first edition 1717. Original French edition 1712.

Hume, David (1767), *The History of England from the Invasion of Julius Caesar to the Revolution in 1688,*London, A. Millar, 1767. 6 volumes.

Justi, Johann Heinrich Gottlob von (1760), *Die Natur und das Wesen der Staaten, als die Grundwissenschaft der Staatskunst, der Policey, und aller Regierungswissenschaften, desgleichen als die Quelle aller Gesetze, abgehandelt*, Berlin, Johann Heinrich Rüdigers.

Kaplan, Steven L. (1976), *Bread, Politics and Political Economy in the Reign of Louis XV,* The Hague, Nijhoff.

Kindleberger, Charles (1996), *World Economic Primacy 1500-1900,* New York, Oxford University Press.

Kindleberger, Charles (1999), *Essays in History*, Ann Arbor, University of Michigan Press.

Laffemas, Barthélemy (1597), *Reiglement (sic) general pour dresser les manufactures en ce rayaume, et couper le cours des draps de soye, & autres merchandises qui perdent & ruynent l'Estat: qui est le vray moyen de remettre la France en sa splendeur, & de faire gaigner les pauvres…*, Paris, Claude de Monstr'oil and Jean Richter.

Lane, Frederick (1973), *Venice. A Maritime Republic,* Baltimore, Johns Hopkins.

Lane, Frederick (1979), *Profits from Power. Readings in protection-rent and violence-controlling enterprises*, Albany, State University of New York Press.

Laspeyres, Etienne (1863/1961), *Geschichte der Volkswirtschaftlichen Anschauungen der Niederländer und Ihrer Literatur zur Zeit der Republik,* Nieuwkoop, de Graaf. (reprint)

Law, John (1705/1750), *Money and Trade Considered,* Glasgow, R & A. Foulis (French, German and Dutch contemporary translations).

List, Friedrich (1841), *Das Nationale System der Politischen Ökonomie*, Stuttgart, Cotta.

Lowe, Adolph (1988), *Has Freedom a Future?,* New York, Praeger.

McCullagh, W. Torrens (1846), *The Industrial History of Free Nations, Considered in Their Relation to Their Domestic Institutions and External Policy,* Volume I, The Greeks, Volume II, The Dutch, London Chapman & Hall

Magnusson, Lars ed. (1993), *Mercantilist Economics*, Boston, Kluwer, 1993

Montesquieu, Charles de Secondat, Baron de (1748), *De l'esprit des loix, ou, du rapport que les loix doivent avoir avec la constitution de chaque gouvernement, les moeurs, le climat, la religion, le commerce, &c.* Genève: Chez Barrillot & fils.

Mun, Thomas (1664), *England's Treasure by Forraign Trade*. J. G. for T. Clark, London.

O'Brien, Patrick, Trevor Griffiths and Philip Hunt (1991), 'Political Components of the Industrial Revolution: Parliament and the Cotton Textile Industry, 1660-1774', in *The Economic History Review,* New Series, Vol. 44, No. 3, pp.359-423.

Perez, Carlota (2002), *Technological Revolutions And Financial Capital: The Dynamics of Bubbles and Golden Ages,* Cheltenham, Edward Elgar.

Perez, Carlota (2004), 'Technological Revolutions, Paradigm Shifts and Socio-institutional Change', in Reinert, Erik S. ed., *Globalization, Economic Development and Inequality: An Alternative Perspective*, Cheltenham, Edward Elgar.

Perrotta, Cosimo (1994), 'Early Spanish Mercantilism: The First Analysis of Underdevelopment', in Magnusson (1993), 17-58.

Polanyi, Karl (1944), *The Great Transformation,* New York, Rinehart.

Reinert, Erik S. (1980), *International Trade and the Economic Mechanisms of Underdevelopment,* Ann Arbor, Michigan, University Microfilms.

Reinert, Erik S. (1994), 'Catching-up from way behind - A Third World Perspective on First World History'. In Fagerberg, Jan et. al. (eds.) *The Dynamics of Technology, Trade, and Growth,* Aldershot, Edward Elgar.

Reinert, Erik S. (1996), 'The role of technology in the creation of rich and poor nations: Underdevelopment in a Schumpeterian system', in Aldcroft, Derek H. and Ross Catterall (editors), *Rich Nations - Poor Nations. The long run perspective,* Aldershot, Edward Elgar.

Reinert, Erik S. (1998), 'Raw Materials in the History of Economic Policy; or, Why List (the Protectionist) and Cobden (the Free Trader) Both Agreed on Free Trade in Corn.', in Parry, G. (editor), *Freedom and Trade. 1846-1996.* London, Routledge.
Reinert, Erik S. (1999), 'The Role of the State in Economic Growth.', In: *Journal of Economic Studies*, vol. 26, No. 4/5, 1999.
Reinert, Erik S. (2000), 'Karl Bücher and the Geographical Dimensions of Techno-Economic Change', in Backhaus, Jürgen, (Editor) *Karl Bücher: Theory - History - Anthropology - Non-Market Economies*, Marburg, Metropolis Verlag.
Reinert, Erik S. ed. (2004), *Globalization, Economic Development and Inequality: An Alternative Perspective*, Cheltenham, Edward Elgar, series 'New Horizons in Institutional and Evolutionary Economics'.
Reinert, Erik & Arno Daastøl (1997), 'Exploring the Genesis of Economic Innovations: The Religious Gestalt-switch and the Duty to Invent as Preconditions for Economic Growth, in *European Journal of Law and Economics,* pp. 233-283.
Reinert, Erik S. & Sophus Reinert (2003), 'An Early National Innovation System: the Case of Antonio Serra's 1613 *Breve Trattato*', in *Institutions and Economic Development/* Istituzioni e Sviluppo Economico, Vol. 1, No. 3, 2003.
Reinert, Sophus (forthcoming 2005), 'The Italian Tradition of Political Economy: Theories and Policies of Development in The Semi-Periphery of The Enlightenment, in Jomo, K.S., *Pioneers of Economic Development,* Amsterdam, SEPHIS.
Ruestow, Edward G. (1996), *The Microscope in the Dutch Republic: The Shaping of Discovery,* Cambridge, Cambridge University Press.
Salerni, Carlo (1782/1996). *Riflessioni sull'economia della provincia d'Otranto.* Lecce: Centro di Studi Salentini.
Seckendorff, Veit Ludwig von (1665), *Additiones oder Zugaben und Erleuterungen zu dem Tractat des Teutschen Fürstenstaats*, Frankfurt: Gotzen.
Seligman, E.R.A. (1920), *Curiosities of Early Economic Literature.* San Francisco: Privately Printed by John Henry Nash.
Schmoller, Gustav (1897/1967), *The Mercantile System and its Historical Significance,* New York, Macmillan, Kelley (translated from articles in *Schmoller's Jahrbuch*).
Serra, Antonio (1613), *Breve Trattato delle Cause che Possono far Abbondare l'Oro e l'Argento dove non sono Miniere,* Naples, Lazzaro Scorriggio.
Smith, Adam (1776/1976), *The Wealth of Nations*, Chicago, Chicago University Press.
Sombart, Werner (1913a), *Krieg und Kapitalismus*, Munich & Leipzig, Duncker & Humblot.
Sombart, Werner (1913b)*, Luxus und Kapitalismus*. Munich & Leipzig, Duncker & Humblot.
Sombart, Werner (1928), *Der moderne Kapitalismus,* Munich & Leipzig, Duncker & Humblot. 6 volumes.
Steadman, Philip (2001), *Vermeer's Camera*, Oxford, Oxford University Press.
Steuart, James (1767), *An Inquiry into the Principles of Political Economy: being an Essay on the Science of Domestic Policy in Free Nations. In which are particularly considered population, agriculture, trade, industry, money, coin, interest, circulation, banks, exchange, public credit, and taxes*. London, A. Millar & T.Cadell. 2 Volumes.
Stolleis, Michael ed. (1995), *Staatsdenker in der Frühen Neuzeit*. Munich: Beck.
Uztáriz, Gerónimo de (1751), *The Theory and Practice of Commerce and Maritime Affairs,* London, Rivington & Croft.
Van der Wee, Herman, editor (1988), *The Rise and Decline of Urban Industries in Italy and in the Low Countries,* Leuven, Leuven University Press.
Vries, Jan de & Ad van der Woude (1997). *The First Modern Economy. Success, failure and perseverance of the Dutch economy, 1500-1815,* Cambridge, Cambridge University Press.
Wallerstein, Immanuel (1978), *Det Moderne Verdenssystem*, 2 vols., Oslo: Gyldendal.
Westbeck, Gustaf (1743), *Tankeförsök om Särskilda Näringars Särskilda Idkande*, Uppsala, n.p.
Zincke, Georg Heinrich, editor (1746-1767), *Leipziger Sammlungen von Wirthschafftlichen Policey-, Cammer- und Finantz-Sachen*, Erster (bis) Sechzehender Band (und) General-Register, Leipzig, 192 numbers in 17 volumes.