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Working Paper

Institutionalism ancient, old and new: A historical perspective on institutions and uneven development

WIDER Research Paper, No. 2006/77

Provided in Cooperation with:

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

Suggested Citation: Reinert, Erik S. (2006) : Institutionalism ancient, old and new: A historical perspective on institutions and uneven development, WIDER Research Paper, No. 2006/77, ISBN 929190855X, The United Nations University World Institute for Development Economics Research (UNU-WIDER), Helsinki

This Version is available at:

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Research Paper No. 2006/77

Institutionalism Ancient, Old and New

A Historical Perspective on Institutions
and Uneven Development

Erik S. Reinert*

July 2006

Abstract

This paper argues for an ‘ancient’ institutional school, predating Thorstein Veblen’s ‘old’ institutionalism. In this view, going back as far as the thirteenth century, institutions tended to be seen as specific to a mode of production. Here both institutions and development itself are context-specific and activity-specific. Much clearer than today the arrows of causality of economic development go from the mode of production to the institutional setting, not vice versa. In order to understand development, institutions can also usefully be divided into *Hayekian institutions* that facilitate equilibrium and *Schumpeterian institutions* that enable the dynamics of development and structural change.

Keywords: institutions, structural change, uneven development, ancient institutional school

JEL classification: B15, B52, O10, O30

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

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

ISSN 1810-2611 ISBN 92-9190-855-X (internet version)

Acknowledgements

The author wishes to thank Ha-Joon Chang, Sophus Reinert, and Francesca Viano for constructive comments and criticism. The usual disclaimer applies.

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

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

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

Introduction

As a result of the inability of mainstream economics to tackle prominent problems of the global economy, some of its basic assumptions are increasingly being questioned. In this context, the standard emphasis on methodological individualism is gradually being eased in favour of studying the institutional structures necessary for economic development: the social, cultural, and political norms and habits economists had come to take for granted. This ‘institutionalist’ approach is most often traced back to the work of Thorstein Veblen in the late nineteenth and early twentieth century. My essay shows how an acute awareness of the importance of institutions, and more specifically of a certain *kind* of institutions, in fact has been explicitly present in the history of economic thought and policy at least since the Renaissance. Therefore, in addition to the ‘new’ institutional economics of Douglass North and the ‘old’ institutional economics of Veblen and Commons, there existed an ‘ancient’ tradition of institutional economics which, among other things, informed the policies responsible for the European miracle in the early modern period.

In light of this ‘ancient’ institutionalism, I wish to explore its relevance for economic development. Whereas today’s literature tends to discuss institutions independent of the type of productive structure they support, both the ‘ancient’ and the ‘old’ institutional schools saw institutions as an integral part of a particular production system. Different technological systems, or modes of production, were seen as requiring different institutions, and an institution *per se* could not change the technological system. Whereas institutions like property rights and universal suffrage today often are seen as promoting economic development, I wish to show that the arrows of causality historically have been considered going in the opposite direction. In fact, the institution of insurance came about *after* the need for it developed out of risky long-distance trade, and modern democracies, in any meaningful sense, were the fruits of literate urban artisan and working classes rather than of feudalism.

It is therefore not entirely clear that the Masaai are poor and stuck in subsistence agriculture because they lack property rights. Perhaps, I would argue, they lack property rights because they are poor and stuck in subsistence agriculture. In other words the problem lies in their mode of production – subsistence agriculture rather than e.g. manufacturing – and *not* narrowly in an institutional arrangement in a restricted sense. An institution that suits one production system may not suit another. It can for example be argued that the sequential usufruct of land found in pastoral societies¹ is much better suited to that particular mode of production than are capitalist property rights. Precisely because institutions and mode of production of a society obviously evolved together, institutions cannot be meaningfully studied separately from a technological system which needed and created them. Today one side of the equation – institutions in isolation as instruments favouring development – has too often been emphasized, skewing our understanding of economic and institutional development.

¹ Sequential usufruct means that, rooted on traditional usage, different groups use the same land at different times of the year. Property rights in the capitalist sense do not exist. The system can best be compared to ‘time-sharing’ of apartments as practiced in many holiday resorts today.

'The discipline of daily life acts to alter or reinforce the received habits of thought, and so acts to alter or fortify the received institutions under which men live' says Veblen (1961: 314). In this paper I argue that a conscious element should be added to this theory: there are, I will argue, enabling institutions that are deliberately created in order to induce change, as integral parts of the dynamics of evolving systems of production. This was one of the principal arguments of the great Enlightenment philosopher Denis Diderot in his *Supplément au Voyage de Bougainville*: by studying the recently discovered Tahitian society, Diderot argued, one could observe how these Polynesian islanders had consciously developed social and political institutions supportive of their desired polity. They had not tailored institutions to the needs of a static society, but rather to a dynamic system with the prospects of future growth and development (Muthu 2003: 54-55). Some institutions, I will argue, are created pro-actively in order to promote change (e.g. patents, scientific academies), others appear through a more reactive process as solutions to 'reverse salients' (e.g. insurance facilitating long-distance trading) that hinder the development of the system (Hughes 1987).² These two forms are clearly closely related, but differ qualitatively in being more or less pro-active or reactive in nature.

I propose to use Werner Sombart's classic distinction between *passivistic-materialistic* and *activistic-idealistic* economics to explore the different trajectories of political economy (in the sense of their 'ideal types') as they developed since the Renaissance. The latter focused on production rather than trade and anchored its analysis of economic development in institutions and social synergies, using the human body as the basic metaphor for society. The former – founding economics on physics-based metaphors – focused on trade rather than production and dismissed institutions and social synergies. The practical consequences of this dismissal are, I will argue, highly dramatic. One fundamental problem of today's development debate is that the vast majority of participants come from the *passivistic-materialistic* tradition which – since Adam Smith – has largely exogenized production and unlearned Werner Sombart's definition of capitalism as consisting of (1) the entrepreneur, (2) the modern state, and (3) *the industrial system* (Reinert 2006). At its core the history of institutions is a history of the Schumpeterian institutions that enabled the growth and spread of this industrial system across the developed world. By this definition, capitalism never reached the production system of the colonies, colonialism was for centuries in effect a technology policy aimed at keeping industry out of the colonies. Herein lie the problems of Third World poverty, not in their geography or climate.

I have previously argued (Reinert 1999) that economic development is *activity-specific*, tied to certain economic activities exhibiting high productivity growth and increasing returns in a synergetic system formed by the presence of a large division of labour, in short what Werner Sombart calls 'the industrial system'. That only the presence of such an industrial system will create efficient agriculture was a key insight of the 1700s (Reinert and Reinert 2005) that was also at the core of US development and industrial policy into the twentieth century. The inability of neo-classical tools to capture these

² I am consciously comparing the structural development of an economy to that of an evolving technological system, and adopting the term reverse salient from the technological systems literature. 'A salient is a protrusion in a geometric figure, a line of battle, or an expanding weather front. As technological systems expand, reverse salients develop. Reverse salients are components in the system that have fallen behind or are out of phase with the others' (Hughes 1987).

production-specific variables has led to the ‘Geography, Climate and Disease School of Poverty’, which in a sense is right for the wrong reason. What this school fails to see is that it was the policy of diversification away from raw materials, creating an industrial system, which made the presently developed countries rich. Climate enters the picture only indirectly, via Veblenian vested interests. The temperate zone attracted enough immigration to create a vested interest for protecting local industry even against the mother country (e.g. Australia, Canada, New Zealand, South Africa), whereas the settlers in the tropical countries were mainly exporting raw materials. The experience of Rhodesia shows how real wages increased dramatically when the boycott forced the white settlers there to industrialize. As was the case with the United States under the Napoleonic Wars, a boycott created a highly beneficial involuntary import substitution.

Finally, much as there are Hayekian and Schumpeterian entrepreneurs, who create wealth by respectively *furthering* and *destroying* economic equilibrium, there are institutions that oil the equilibrium system as well as institutions that promote disequilibrium. What I suggest calling Hayekian institutions³ (e.g. money, law and order, property rights) help smoothing the operations of a static system in equilibrium, while Schumpeterian institutions (e.g. patents, tariffs, scientific academies) have historically been important in creating new knowledge and new economic activities, that is, the dynamic disequilibria that are the essence of economic change and development. Similarly, I will show how institutions can change character over time, and how our taxonomy of institutions might benefit from a broader analysis of their costs and benefits in different contexts, an approach that was far from unknown to the ‘ancient’ institutionalists. Institutions that at one point were beneficial can also, with the passage of time, become roadblocks for development. In terms of economic development, we must therefore never forget that the institutions necessary for Third World development may – at any point in time – be very different from those beneficial to the industrialized world, and that our past, the only real laboratory of the economics profession, still is able to shed light on the future development of the world’s poor.

The Renaissance and the birth of Schumpeterian institutions

‘It is not sufficient to inquire whether an institution of the state is attested to have been founded by our ancestors. Rather it is necessary that we understand and explain *why* it was instituted. For it is by knowing the *cause* that we gain knowledge of a thing’. This statement on methodology is found in an analysis of the Florentine Constitution written in 1413 (Baron 1966: 207) at the request of Emperor Sigismund of the Holy Roman Empire. The author, Leonardo Bruni (1369-1444), represents what has become known as the school of *civic humanism*, the ideology of the successful Italian city-states of the Renaissance.

Bruni’s description of Florence and its institutions represents something of a watershed in the social sciences. While earlier literature tended to focus on mere descriptions of facts, Bruni creates an analysis of economic institutions combining both the dynamics of *causality* and *deliberate design*. Institutions, he argued, tend to be created with a

³ The two Austrian economists Friedrich von Hayek and Joseph Schumpeter emphasized two different aspects of entrepreneurship, a factor which is generally neglected in neo-classical theory.

clear purpose in mind, as part of a conscious strategy aimed at achieving defined dynamic political and/or economic goals. These were institutions aimed at breaking the equilibrium of the Middle Ages: they were change-inducing and change-enabling institutions that I suggest calling *Schumpeterian institutions*. The ability to create such Schumpeterian institutions that enables the structural change that we call economic development – and to change these institutions when new conditions so require – comes across as a key feature of the organizational capability of any society.

While the study of institutions themselves seems to grow out of the mediaeval legal tradition, the appearance of this change-inducing type of institutions increased in importance as a new cosmology unlocked the previous zero-sum worldview (Reinert and Reinert 2005). Many of the necessary elements can be traced far back in time, but only during the period we have come to call 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 (c.1210-94) had called the ‘common good’ (Latini 1993). This *ben comune* that made some cities so wealthy (Machiavelli, in Reinert and Daastøl 1997) sprang from an organic social synergy, seeing the body as the metaphor for society. This idea of a synergic *common good* forms the nexus from which the ideas of enabling institution grew.

Second, upon this synergetic understanding of wealth creation, the Renaissance famously put the individual into focus. It must, however, be emphasized that the discovery of the role of the individual during the Renaissance was superimposed upon the already existing idea of the synergic common weal of society. The economic theory and practice of the period – often known as Mercantilism – 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. In this tradition wealth and ‘public happiness’ were forged within the framework of the nation (e.g. Schmoller 1897/1967).

At the same time, the Aristotelian view of society as a zero-sum game slowly gave way to an understanding that new wealth could be *created* through new knowledge and innovations. Indeed, the very meaning of the word *innovations* changed, from being a potentially heretical activity—as when Roger Bacon was arrested in Oxford for ‘suspicious innovations’ in 1277—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 and Daastøl 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. The Italian economic historian Amintore Fanfani encapsulated this shift to a dynamic world view well: ‘while scholasticism thinks of an order in equilibrium, mercantilism thinks of an order in growth’ (Fanfani 1955: 149). The Medieval scholastics saw the universe as fundamentally static, while the mercantilists envisioned the cosmos as

expanding, permanently in flux. Based on this, they created institutions in order to promote and spread economic growth.⁴

The same 1400s, when Leonardo Bruni wrote, later saw the birth of two important economic institutions: both children of the same *Weltanschauung*, both created specifically in order to increase and spread knowledge: *patents* (to make new inventions profitable) and *strategic tariff protection* (in order to make it profitable to spread inventions to new geographical areas: to spread manufacturing). Although tariffs had been used to raise revenue since ‘three-score years after the Birth of Christ’ according to a seventeenth century author, their use as part of a strategy of change is only clear with Henry VII of England in 1485.⁵ The first patents also appear during the last two decades of the *quattrocento*, in Venice. In the right circumstances, these institutions have remained successful and visible hands of economic development ever since.

The study of institutions, then, has been part of social and political science for a very long time. Jakob Friedrich von Bielfeld’s cameralist treatise in economics entitled *Institutions politiques* was first published in 1760, and reached a total of twelve editions in French, German, Italian, Spanish and Russian (Bielfeld 1760, Carpenter 1975). However, as we shall discuss later, this venerable emphasis on the importance of institutions in economic and political development was excluded from the toolbox when Adam Smith set the stage of modern economics. Smith’s economics became what nineteenth century continental economists called *catalectics*, that is, the science of exchange, not of production. In this science of barter, trade and exchange, the dynamics of knowledge, technology and production and the Schumpeterian institutions that are needed to support them tended to disappear.

Consequently, important aspects of the scholastic equilibrium world view returned with physics-based equilibrium economics (neo-classical economics) (Reinert 2000b). Here economics became a theory of accumulation of capital and allocation of resources, rather than of the creation and assimilation of new knowledge. The dynamic institutions that were products of the Renaissance world view – such as patents and protection⁶ – became foreign bodies in neo-classical economic theory. With the methodological individualism of neo-classical theory, the fifteenth century view of wealth as a synergetic phenomenon in society – so important for understanding institutions – also disappeared.

I suggest then that in addition to the ‘old’ institutional school originating with Thorstein Veblen and associated with the later US institutionalists and the ‘new’ institutional school built on neo-classical economics, an ‘ancient’ institutional school also exists. This is not a radical preposition per se, as the nineteenth century American historiography out of which Veblen’s *Theory of the Leisure Class* emerged was well

⁴ Appendix 1 lists a selection of mercantilist Schumpeterian institutions and policies.

⁵ We know that Henry’s strategy from 1485 was an attempt to replicate the economic structure in the part of France where he had grown up (Reinert 1996), but it is also quite possible that it was built on observation of how previous revenue tariffs in England had, as beneficial unintended by-products, changed economic structures and created more wealth.

⁶ Only vested interests and political power are able to explain why patents are promoted and protection abhorred in today’s trade politics: From a neo-classical point of view these institutions should be equally abhorred.

versed in the study of ancient institutions. Henry Sumner Maine's seminal 1875 *Lectures on The Early History of Institutions*, which ventured as far back as the institutional structures of the pre-Christian druids, can indeed be seen as forming a bridge between the 'ancient' and the 'old' institutional schools. Veblen quoted the book often, and studied with Maine's heirs at Cornell in the early 1890s.⁷

Institutions and economic traditions in the context of the present development debate

From this vantage point, the present debate on the role of institutions in economic development – ably described in the papers by Chang (2006) and Evans (2006) – unveils a fault line that has been a dominant feature of economics since the eighteenth century. Werner Sombart (1928: 919), the great analyst of capitalism, generally distinguished between the *activistic-idealistic* Renaissance tradition – which I refer to as The Other Canon (Reinert and Daastøl 2004) – and the *passivistic-materialistic* tradition which originated in the eighteenth century with Bernhard Mandeville, Physiocracy, and Adam Smith.

The tradition in which Leonardo Bruni wrote is the prototypical *activistic-idealistic* type of economics, a tradition that considered economic development the result of *deliberate design*. In this tradition Italian economists Giovanni Botero (1590) and Antonio Serra (1613) explained uneven economic development as resulting from differences in the productive structures of nations; of scale, increasing and diminishing returns, degree of division of labour and synergies. The large division of labour in the Italian city states – compared to the situation in the countryside – gave birth to relative political freedom, to the rule of law, and to the institutions protecting property rights. Strikingly, the first cadastral register in Venice was created already in the years 1148-56.

The analysis of the *activistic-idealistic* tradition also included factors like geography and climate. While it was exceedingly obvious to economic writers at the time that wealth often depended on geographical factors (Reinert 2004b), it was certainly viable to compensate for 'bad' geography with *good economic policy*. It was clear to most observers in the *activistic-idealistic* tradition that the few wealthy areas of Europe tended to be islands, and that this was no coincidence. In the 'commodity lottery' the winners seemed to be areas that had little or no arable land. The geographical position and the lack of arable land in places like Venice, Genova, and the Dutch Republic had forced the inhabitants into making a living from manufacturing and trading. However, the nations that had drawn worse lots – for example, rather counterintuitively having much arable land – could compensate for that disadvantage through *conscious economic policies*, to which Serra (1613) devotes a whole chapter. It is clear that much early economic theory indeed was born, as a reaction to this lottery, in the poor countries that tried to emulate the productive structures of the wealthier areas of Europe (Reinert 2004b). Their strategic geographical positions and the lack of arable land had made Venice and the Dutch Republic wealthy by creating an industrial system with a huge division of labour. Other countries could create copies of these wealth-producing

⁷ This discussion is based on Viano (2006).

economic structures by promoting the same kind of activities found there. This required conscious economic policies, among them tariffs.

The forces of Fate and Providence could thus be counteracted by wise economic policies. It is crucial to understand, however, that such economic policies, ever since Henry VII's successful industrialisation of England (Reinert 1996), initially – and sometimes for centuries – required making *a less efficient* copy of the productive structure observed in the leading nations (Reinert 2004b). This required tariffs. A key objective of economic policies was for centuries to achieve the right balance between *agriculture, manufacturing, and trade* – activities that were seen as being *qualitatively different* – that would maximize human welfare. Even with the advantage of lower wages enjoyed by poor nations in competing for world markets, the dynamics of learning, technology, scale and market sizes made it impossible to catch up with the 'naturally rich' nations like Venice and the Dutch Republic without some kind of 'artificial' support of the targeted industries. Only by creating production units that from a business point of view initially were less efficient than those of the leading countries, laggard nations could raise their standard of living. Thus, in the short term the interests of the nation's inhabitants as *consumers* were sacrificed in the interest of the same inhabitants as *producers*. When the desired economic structure had been achieved, it was clear to all that the increased level of income more than compensated for the increased price level. Through economic policy nations without the natural and geographical advantages of Venice and the Dutch Republic were able to catch up with these leaders. Their toolbox for catching up has now essentially been outlawed by the 'conditionalities' of the Washington Institutions.

However, the *timing* of this protection was crucial: the same institution that in one context would cause *increased* welfare would, in another context, *decrease* welfare. Once a certain domestic industrial capacity was reached, access to larger markets was deemed more important than continuing protection: 'tariffs', as an anonymous Italian political economist travelling in Holland observed, 'are as useful for introducing the arts in a country, as they are damaging once these are established' (Anonymous 1786: 31).

In this framework economic development is *activity-specific*: intimately tied to diversified economic structures that both individually and as a whole are subject to dynamic increasing returns. Institutions therefore become context specific, the same institutions that are appropriate in one context may become totally inappropriate in another. As we shall discuss later, in a technologically dynamic system institutional unlearning becomes as important as institutional learning and – as Chang points out in this UNU-WIDER project – an institution like property rights cannot be regarded as 'something good in itself'. Context is again the key. There can be both 'too much' and 'too little' property rights, as well as institutional perversion, as we shall see under the discussion of patents.

Institutions, then, are only fully comprehensible as they relate to a future goal to be achieved. In this evolutionary world view, the economy is not on its way to any equilibrium, but rather towards some future optimum that is never reached, because the dynamics of new knowledge and technology continuously change both the present and the prospects for the future. In the activist-idealistic tradition this goal is economic *progress* or economic development. Both in the eighteenth and nineteenth centuries this progress was generally seen as moving through qualitatively different stages (see Appendix 2), e.g. from a hunting and gathering society to a pastoral society to an

agricultural society to a society based on handicraft, and finally through an industrial society (Ely 1903; Meek 1976; Reinert 2000a). It was obvious to all that an industrial society would create a higher standard of living than a hunting and gathering society. Institutions were tools from which this progress from one stage to another was crafted, and their dynamics had to be understood in the context of the productive structure.

This tradition contrasts with the *passivistic-materialistic* tradition. Starting with Adam Smith, three methodological innovations evolved – peaking with the work of David Ricardo – creating a fundamental change in the nature of economics.

1. Production and trade were unified and converted into ‘labour’ (Biernacki 1995: 252).
2. Society as a unit of analysis disappeared in favour of ‘methodological individualism’: With this the synergetic elements disappeared and private rate of return became identical with societal rate of return.
3. Inventions and innovations were exogenised from the economic theory.

Collectively, these assumptions radically changed economics in a variety of ways: first of all, in this theory all economic activities became qualitatively alike as carriers of economic activities (‘the equality assumption’). Markets thus became institutions that automatically created harmony. A major innovation brought by this kind of economic theory was that, for the first time, colonialism became morally defensible (Reinert and Reinert 2005). Previously it had been clear to most social scientists that the key element of colonialism – prohibiting the establishment of manufacturing – was tantamount to poverty.

With Adam Smith the metaphor on which the science of economics was based also changed. Since Roman Law the basic metaphor in understanding society had been the human body, where synergies are obvious. When the basic metaphor for economics became physics-based – either with the invisible hand that kept the social system together or later with equilibrium physics – the need for institutions in order to oil the machinery of progress disappeared. Since its conception with Adam Smith, an important hallmark of laissez-faire theory has therefore been its *neglect* of institutions. Harvard economic historian Thomas McCraw puts it this way: ‘Smith exhibits a powerful aesthetic aversion to any type of collective action, a visceral distaste bordering on revulsion. For him, “human institutions” so invariably produce “absurd” results that they have no presumptive legitimacy’ (McCraw 1992: 364).

In the activist-idealist tradition that sprung from the Renaissance, power and politics were an integrated part of economic reasoning. Feudalism was a political system that had to be fought in order to create the desired economic structures. From thirteenth century Florence via Henry VII in 1485 to Korea of the 1960s containment of the political power of the landed oligarchy has been a part of the process of economic development.

What Chang appropriately calls a ‘fatalist’ bias in today’s mainstream argument is born with the passivistic-materialist tradition. In Adam Smith, it is Providence – not power or politics – that has created the distribution of land. The same Providence, however, has – through its invisible hand – also wisely limited human beings’ possibility for

consumption and pleasure in a way that gives virtually the same level of happiness to rich and poor alike:

The rich ... are led by an invisible hand to make nearly the same distribution of the necessaries of life, which would have been made, had the earth been divided into equal portions among all its inhabitants... When Providence divided the earth among a few lordly masters, it neither forgot nor abandoned those who seemed to have been left out in the partition. These last too enjoy their share of all that it produces. In what constitutes the real happiness of human life, they are in no respect inferior to those who would seem so much above them. In ease of body and peace of mind, all the different ranks of life are nearly upon a level, and the beggar, who suns himself by the side of the highway, possesses that security which kings are fighting for. (Smith 1759/1812: 318-19)

By exogenising the factors that create both economic development *and* any qualitative difference between economic activities, this type of economic theory becomes a system of automatic economic harmony. The elements causing this economic harmony are essentially built into the basic assumptions of the theory itself. Still, when the real world refuses to behave like the model predicts, these assumptions are rarely discussed. Instead, Fate and Providence are brought back in.⁸ The parallel movements that we are witnessing in mainstream economics today – *exit* policies and *entry* Providence and Millennium Goals – are all logically connected. Chronologically the sequence is this: (1) A harmony-creating theory is built where no policies are necessary (the neo-classical synthesis). (2) This model fails to deliver on its promises. (3) Instead of looking for the solution to this discrepancy between theory and reality *inside the logical structure of the standard model itself* (where it is actually found), external factors like climate, Faith and Providence are brought back. (4) Due to a complete lack of qualitative understanding of economic development as an industrial system, the *symptoms* rather than the *causes* of poverty are attacked through the Millennium Goals (Reinert 2005b).

Institutions and the return of Providence: geography, climate and disease

An important element in today's debate on development is that the people who were in charge of implementing the destructive policies of the 1990s – people like Jeffrey Sachs – are still in power, now as gurus of what we could call the 'Geography, Climate and Disease School of Poverty' (see Evans 2006). The fact that we in reality have put Attila the Hun in charge of the reconstruction of Rome means (a) that we shall not have a discussion on what went wrong and caused the destruction in the first place, and (b) we shall not have a discussion that questions the logic of standard textbook economics. In the same way that the collapse of the first wave of globalisation led economists into eugenics or racial hygiene (Ross 1998), today's problems in the periphery are explained in ways that fail to address the problems of standard economics itself. Mainstream economic discourse from climate and disease to the Millennium Goals functions as a giant (and very successful) cover-up for past mistakes. It is almost as if the drastic fall in living standards since the inception of the Washington Consensus – from Argentina to Mongolia – were results of climatic changes rather than changes in the framework for

⁸ See also Viner (1972) for a discussion of this.

economic policy. Instead of climate and geography, the understanding of industrial systems, Schumpeterian institutions, and technological change should be brought into development economics.

In the activist-idealistic tradition of economics – The Other Canon – the roots of poverty lie in the productive structure of poor nations: a domination of resource-based monoculture under diminishing returns, and a lack of division of labour, diversity, synergies and increasing returns. At the core of the self-reinforcing mechanisms of economic development lies increasing returns (Arthur 1989). Jump-starting increasing returns activities (generally manufacturing) has been a mandatory passage point for all presently rich countries. The key problem today is that the institutional tools these countries used historically have now essentially been outlawed through free trade agreements and conditionalities imposed by the Washington institutions. In the alternative Other Canon tradition, a colonial economic structure – specialising in diminishing return activities – was a key element in the poverty trap. What may initially have been a climatic condition – Providence – rapidly became a question of policy and politics: the nations where the settlers came in order to exploit raw materials specialized according to the vested interest of the settlers in ‘colonial’ products. In nations with a large number of settlers – generally in temperate climates – they rapidly passed laws and regulations promoting manufacturing industries. Where both types of settlers were present – like in the US – these conflicts became a political dividing line that contributed to a civil war. From this point of view, Latin America is a group of countries where the ‘South’ won the civil war.

Largely ignoring history, the Geography, Climate and Disease School of Poverty tends to confuse *symptoms* of poverty with *causes* of poverty as mentioned above. The focus on malaria is a case in point. For centuries malaria was endemic to large parts of Europe. Malaria has been found as far north as the Kola Peninsula in Northern Russia. In the upper Rhine valley at 1,400 m above sea level in Switzerland – today an unlikely place for malaria – the disease ran rampant up to a few hundred years ago. Slowly malaria was virtually eradicated in Europe through a combined process of economic development and public sanitation. Stagnant water is not only potentially unhealthy, it is also unprofitable. To get the water running was needed for irrigation, for navigation, and for power supply. Expanding urban areas required unproductive land to be drained in order to increase food supply, while at the same time the general progress created both the possibility and the attitude behind sanitation projects. Economic development killed malaria, not mosquito nets as with today’s Millennium Development Goals.

The presently dominating view, promoted by the Washington institutions, that the quality of the Third World institutions is an important reason why their prescribed policies failed, represents – in my opinion – to a large extent a reversal of the arrows of causality in the process of economic growth. Good institutions seem to require a certain type of economic soil in order to grow in a healthy way. ‘High-quality states’ have hardly ever been created without significant artisanship and manufacturing urban sectors, where the rule of law and slowly also democracy achieved their first footholds. Good institutions and good governance as economic growth itself appear to be *activity-specific*, to require the presence of increasing return activities and a large division of labour. Institutions and economic activities clearly co-evolve – the arrows of causality necessarily move in both directions – but presently one of the two directions appears to be overwhelmingly overrated.

Institution-building and development: co-evolution and the direction of arrows of causality

This section looks at how the question of causality between institutional change and productive structures has been evaluated by social scientists. In my opinion the virtually unanimous consensus across Europe from very early on was that – in spite of obvious elements of co-evolution – institution-building in its fundamental nature was a *demand-pull* phenomenon, that *the mode of production of a society* would mould, shape and determine its institutions.

‘Industry molds people’ is the title of a 1929 book, recently reprinted (Kautz *c.*1929). Industrialization changed attitudes and institutions, changes that would have been impossible in the absence of that industrialization. Feudal societies cannot have the institutions of industrial societies, so human attitudes and institutions are more a product of their mode of production than the other way around. As Thorstein Veblen puts it:

it may be said that institutions are of the nature of prevalent habits of thought, and that therefore the force which shapes institutions is the force or forces which shape the habits of thought prevalent in the community. But habits of thought are the outcome of the habits of life. Whether it is intentionally directed to the education of the individual or not, the discipline of daily life acts to alter or reinforce the received habits of thought, and so acts to alter or fortify the received institutions under which men live. And the direction in which, on the whole, the alteration proceeds is conditioned by the trend of the discipline of daily life. (Veblen 1961: 314)

In 1620 Francis Bacon formulated a view that was to dominate in the social sciences for centuries: ‘There is a startling difference between the life of men in the most civilised provinces 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 clear on the causality in question: Man’s activities – his modes of production – determine his institutions.⁹ Further geographical discoveries were only to reinforce this view. William Robertson’s *The History of America* (1777) emphasizes Bacon’s point: ‘In every inquiry concerning the operations of men when united together in society, the first object of attention should be their mode of subsistence. Accordingly as that varies, their laws and policies must be different’ (Reinert 2000a). This *mode-of-production-demand* view of institutions is in my view strongly at odds with the present World Bank view, where institutions *per se* – freed from any understanding of the system of production – are supposed to solve problems of development.

Subsequent insights only reinforced this same view: pre-agricultural societies, be they Andean tribes or Norwegian Sámi, tended to have similar institutional arrangements. Later development into agriculture required fundamentally new institutions, in the same way as did the later process of industrialization. Today, in the theories of Carlota Perez, each new techno-economic paradigm again requires new sets of institutions and a new set of organizational common sense (see Appendix 3). The stage theories of the eighteenth and nineteenth centuries, mentioned above, are expressions of an *activity-*

⁹ With Bacon we also find a changing view of interest and usury, as funds are needed to finance innovations.

specific view of institutions. Starting already around 1500, the primary focus in development policy would be to establish the particular economic *activities* that were seen to create growth. In turn, the targeted economic activities would create a demand for useful institutions. By looking at institutions *per se*, outside the context of the productive system, crucial factors involving demand, knowledge, synergies and cumulative causations are excluded.

When Johan Jacob Meyen, a German scientist, in 1769 stated '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 2000b), he expressed an understanding of causality that was considered common sense at the time. In the *Communist Manifesto* Karl Marx and Friedrich Engels follow the same line of reasoning: technical change brought on by manufacturing is the driving force of change; it is manufacturing that rescued people from what they call the idiocy (isolation/stasis) of rural life:

The bourgeoisie, by the rapid improvement of all instruments of production, by the immensely facilitated means of communication, draws all, even the most barbarian, nations into civilization ... The bourgeoisie has subjected the country to the rule of the towns. It has created enormous cities, has greatly increased the urban population as compared with the rural, and has thus rescued a considerable part of the population from the idiocy of rural life.

This view – that the mode of production brings with it changes – appears 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 early modern 'mercantilist' writers it would not be meaningful to attempt to understand the institutional development of Europe independent of the underlying strategy of industrialization that prompted the establishment of so many key institutions. As already mentioned, 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 woollen manufactures during the 1500s. The establishment of countless scientific academies in the 1700s all over Europe must also be understood as part of a strategy to establish economic activities outside the agricultural sector. The success of these diversification strategies in turn created new institutional arrangements.

'Mercantilist' institutions (see Appendix 1) cannot be understood outside a context of nations seeking to escape a comparative advantage in producing raw materials. We would argue that the present focus on institutions tends to see them statically and context-free rather than as parts of a complex dynamic link of causality of economic development. 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 present mainstream economics. Seeing institutions independently of the productive system they support and sustain is not meaningful. 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 'get the institutions right' cannot be solved independently of 'get into the right kind of economic activities'.*

Historically, we can often observe that the economic activity establishing a demand for the institution in question would appear before the institution itself. A ‘reverse salient’ that hindered the evolution of the system was solved by establishing a new institution. Insurance was created as the result of high-risk camel caravans and other long distance trading. The caravans and the ocean trade were there long before the important institution of insurance, and without these high-risk ventures such institutions are much less likely to evolve. Banking was created in the Italian city-states, where certain economic activities created a demand for such institutions, and introducing banking in a society which is not ripe for such institutions is unlikely to have much beneficial effect and may therefore easily fail. Over the centuries, manufacturing industries in particular were seen as a necessary ingredient in creating the most desirable institutions, including political freedom. Beneficial institutions were, to some extent, seen as unintended secondary effects of establishing certain types of economic activities.

It can be argued that even as late as after the Second World War – with the Marshall Plan to reindustrialize Europe –the ‘technology of institution building’ in terms of *creating* wealth was based on targeting the kind of activities that would bring the right kinds of institutions, not the other way around. Also, particularly since the 1870s, the *distributive* institutions aimed at solving the social problems brought by industrialisation were systematically and consciously created by accumulation of case studies by the German *Verein für Sozialpolitik* (1872-1932). German institution-building for a welfare state played a key role for all of Europe.

German economist Karl Diehl (1941) used a piece by Swedish playwright August Strindberg to discuss the relationship between modes of production and economic institutions, reaffirming the tradition from Francis Bacon to Montesquieu that institutions are determined by the mode of production, and that it is not really constructive to attempt reversing the arrow of causality. In Strindberg’s novel *De lycksaligas ö* (‘The island of the blissful’) a group of eighteenth century Swedish convicts, including two young students who had insulted the King, experience a sequence of Robinson Crusoe type shipwrecks on their way to a far-away colony that they never reach (Strindberg 1882/1913). Led by the students, the convicts – by now free from any authority – establish their own society and consciously discuss the abolishment or establishment of the institutions they are used to at home. While at the most tropical of the islands visited, they decide to abolish most of the known institutions. You need no inheritance law if you walk around naked and harvest the fruits of the earth, they argue. When, after a second shipwreck, they reach an island with a more temperate climate, they discover that their new life-style requires the reintroduction of institutions that they had previously abandoned as useless. August Strindberg shows us Francis Bacon’s point: an institutional system is mainly moulded around the needs determined by the mode of production, not the other way around.

Having lost a qualitative type of understanding which can only be achieved by understanding production, rather than just barter and trade, neo-classical economics has lost this connection between production and institutions: the activity-specific element of institutional development which for centuries was commonly known to social scientists. This loss is much to the detriment of many developing countries today. Thus, we would argue that the problem of ‘failed states’ and their institutional failures cannot meaningfully be discussed independently of the kind of economic activities in which these states engage.

The fundamental insight behind the 1947 Marshall Plan was that economic activities were qualitatively different, those of the countryside (which we could call diminishing returns activities, or agriculture) differed from those of the cities (which we could call increasing returns activities, or industry). In his famous speech at Harvard, 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 diminishing returns activities in the countryside, was ‘at the present time...threatened with breakdown’. George Marshall then made a remarkable recognition of the cameralist and mercantilist economic policy of previous centuries: ‘This division of labor is the basis of modern civilization’. Civilisation requires increasing returns activities, something that economists and politicians from Antonio Serra (1613) to Alexander Hamilton (1791) and Friedrich List (1841) had already been saying for centuries. We suggest that historical institution-building again needs to be seen in this light.

Historically institution-building has been intimately tied to strategies of learning and change, of changing the economic fabric of a society, a way of thinking not easily captured within a neo-classical *laissez-faire* framework. In 1404 the magistrates of Bruges, in Flanders, requested the magistrates of Barcelona to inform them what the common practice was in regard to bills of exchange (Beckmann 1797: Vol. 3, p. 482). This is an example of a conscious attempt to import an institution in order to increase production and trade in their city. Studying institutions *per se* in an equilibrium framework, outside the context of the desired process of change, is in our view generally not meaningful. Likewise, we would argue that it is not meaningful to study institutions divorced from the historical setting that made the desired change feasible. For example, it will probably be impossible to recreate an institution born with great effort in industrial Europe in an African hunting and gathering tribe. Institutional change must therefore be seen, as traditionally it has been, in a dynamic context of technological change where different economic activities, operating in a system of synergy, are seen as playing different roles, demanding and creating very different institutional frameworks.

Different theories and different types of institutions: Hayekian and Schumpeterian

One prevalent part of what we have come to call ‘the Enlightenment project’ was ordering the world by creating taxonomies or classification systems, of which that of Linnaeus is the best known. The analytical accuracy of neo-classical economics, on the other hand, is essentially a product of a lack of taxonomies, of what Nobel laureate James Buchanan calls ‘the equality assumption’. The assumption that all economic activities are qualitatively alike leads to Paul Samuelson’s factor-price equalization. Just a simple taxonomy of economic activities being of two kinds – those subject to increasing and those subject to diminishing returns – automatically invalidates the theory of factor-price equalisation, and creates a system where one nation in practice may specialise in being poor. *This absence of a taxonomy is thus intimately tied to mainstream’s perceived lack of need for policies and for institutions.*

In economics Friedrich von Hayek and Joseph Alois Schumpeter have given their names to two types of entrepreneurs. It seems potentially useful to create another simple taxonomy based on the same criteria for the purpose of understanding the role of

institutions in economic development in a neo-classical versus in an evolutionary/Schumpeterian framework.

The *Hayekian entrepreneur* is someone who creates more perfect markets and equilibrium because he adds or creates nothing new. This is done essentially by arbitrage. A nice example of this type of entrepreneurship was given by my marketing professor Jim Heskett at Harvard Business School. Professor Heskett's pet business idea was based on the observation that in England brown eggs commanded a premium price over white eggs, while in the United States the situation was reversed: white eggs were more expensive than brown eggs. Heskett's subsequent plan to hire a jumbo jet to carry white eggs from England to the United States, and bring brown eggs back to England is a typical example of Hayekian entrepreneurship, an equilibrium-producing initiative.

In contrast, the *Schumpeterian entrepreneur* is a driving force in history, a producer who pushes forward the never-ending frontier of knowledge by introducing innovations. There are a few individuals who are notorious routine-breakers, but these few force the other companies in the same business either to follow the same path or perish. The dynamics of capitalism is produced by these routine-breaking entrepreneurs and firms: innovation is necessary to survive. As one of the figures in *Alice in Wonderland* says, 'this is how fast you have to run here in order to stand still'. The corresponding saying in the world of business is 'this is how fast you have to innovate in order to keep your profits stable'.

Neo-classical economics produces a simple, calculable and quantifiable static economic theory that only needs Hayekian equilibrium-oiling institutions. The second type of theory, of a much more complex Man, also needs a much more complex and dynamic theory, the core of which is *irreducible to numbers and symbols*.¹⁰ The first view of Man calls for what Sombart named an *ordnende* economic theory (i.e. organizing without a qualitative understanding), while the second calls for a *verstehende* economic theory, that is, an 'appreciative' theory in Nelson and Winter's terminology (Sombart 1930). Insights from anthropology are very useful in such 'appreciative' theory. Not by coincidence Thorstein Veblen and Karl Polanyi (1944) – two main contributors to the study of institutions – both belong to the very small group of economists who received much of their inspiration from anthropology, probably the least quantifiable and most *verstehende* of all the social sciences.

It will be clear from this analysis that I consider most of the 'new' institutional school to fall in the framework of Hayekian institutions, but not necessarily all. Douglas North's statement that 'The central issue of economic history and of economic development is to account for the evolution of political and economic institutions that create an economic environment that induces increasing productivity' (North 1991: 98) may be seen as approaching a Schumpeterian view of institutions. However, the stress on 'increasing productivity' rather than on inventions, innovation, novelty, and structural change reveals a neo-classical rather than a Schumpeterian conception of growth and development.

¹⁰ This *qualitative* understanding, not reducible to numbers, is called *verstehen* in German. The term is not directly translatable.

Institutions as roadblocks to change: institutional inertia, institutional overdoses and institutional perversions

Just as they may open the path for Schumpeterian creative destruction, institutions may – if they have been created in order to further an old order to be destroyed – function as roadblocks for change. Karl Marx and Thorstein Veblen both discuss institutional inertia as such roadblocks impeding change. As Carlota Perez (2004) argues, fundamentally new technologies require not only new institutions; they simultaneously require and develop a new type of organizational common sense (see Appendix 3). The slow speed of institutional unlearning hinders technological change. Feudalist institutions hindered industrialization, and had to be demolished. Similarly Thorstein Veblen – that quintessential institutional economist – argued that new technologies spread better in new environments where old institutions do not hold them back. This is clearly an important mechanism that explains why periods of radical technological change are also periods when new nations – uninhibited by institutions that preserve the old order – are able to leapfrog into world leadership.

It is natural that the observation of institutional inertia serving as a roadblock to further development will appear in periods with radical technological change, in the transition period between techno-economic paradigms. The timing of the references of Marx, Nietzsche, Veblen and Perez/Freeman all testify to this.

This same type of argument is often used to explain why immigrants tend to be more entrepreneurial than locals: they are unbound by the existing institutional framework in their new country. Again, with Veblen the *activities themselves* tend to push the institutional change, not the other way around. The technology of institution-building must therefore, in our view, be deeply integrated into Leonardo Bruni's question from 1413: the question of *why* it was instituted. A failure to do this leads down today's slippery slope where mainstream policy-making seems to indicate that what African hunting and gathering tribes need are better property rights rather than a different production structure.

Also Friedrich Nietzsche describes, in a quite poetic way, an institutional inertia where ideas come first and only slowly are able to change institutions: 'The overthrow of institutions does not follow immediately upon the overthrow of opinions, instead, the new opinions live for a long time in the desolate and strangely unfamiliar house of their predecessors and even preserve it themselves, since they need some sort of shelter' (Nietzsche 2000: 4,708).¹¹

Technological dynamics requires that institutions be seen dynamically as they relate to changes in the productive sectors. In this context institutions must be understood as *context-specific* tools in a setting where economic development is *activity-specific* and where the factor bias of economic development changes over time. A changing factor-bias of economic development means that some economic periods need one factor of production more intensely than other periods, as for example, the age of railways was relatively intensive in the use of capital. This would in turn change the institutional

¹¹ *Dem Umsturz der Meinungen folgt der Umsturz der Institutionen nicht sofort nach, vielmehr wohnen die neuen Meinungen lange Zeit im verödeten und unheimlich gewordenen Hause ihrer Vorgängerinnen und konservieren es selbst, aus Wohnungsnot.*

requirements of one era from those of another. It is also possible that institutions that are productive and legitimate in a certain dose may – in a larger dose – become either unproductive or illegitimate or both. Institutional overdoses are entirely possible, and they may bring with them a perversion of the institution as compared to its original intent.

The Inca Empire, or *Tahuantinsuyu*, is the largest society known to have functioned without the use of money, with an estimated 12 million inhabitants ranging from the north of present-day Chile to the south of Columbia, including large parts of Bolivia, Peru and Ecuador. In a society without money, taxes are paid by working a certain number of days a year for the community. In many countries military conscription represents to this very day this type of tax-by-labour. In the Inca Empire this tax institution was known as the *mita* (Murra 1978). In a year with 365 days, 36.5 days of work per year would represent a tax rate of 10 per cent.

When the Spanish arrived and needed labour for the mines, they extended the *mita* to what in effect became slavery. This is an early example of how legitimate institutions are used in a way that makes them ethically illegitimate. Today the changes taking place in the fifteenth century institution of patents may be not only be comparable to the ‘illegitimate’ change in the Inca institution of *mita*, but also be unproductive in the sense that the institutions of patents in some cases may hinder rather than foster innovations (Perelman 2002).

There are examples of too broad patents previously awarded being revoked because they blocked further innovations.¹² Today, allowing patents to move upstream from products to e.g. genes may block rather than promote further research. This is a case of ‘institutional perversion’ similar to one observed by Adam Smith. At the time of Smith’s writing, the institution of patents in England had clearly partly become perverted. Instead of supporting innovations, the kings would sell monopolies in order to finance expensive wars. In this way patents become vehicles of static rent-seeking rather than of dynamic Schumpeterian rent-seeking as they were supposed to.

In 1943 the Supreme Court of the United States held the broad claims of Guglielmo Marconi’s patent for improvements in apparatus for wireless telegraphy to be invalid. In a similar way, the Wright brothers were granted a patent by the US Patent Office in 1906 for a flying machine. An array of patent litigations was to follow. This ended only with the advent of the First World War when the aircraft manufacturers formed a patent pool with the approval of the US government, causing all patent litigation to cease automatically (Perelman 2002). In the new knowledge-based economy, the encroachment of patents into the areas closest to the frontier of knowledge makes catching-up through reverse engineering – a common tool for catching up under Fordist mass production – increasingly impossible. This is no doubt an issue that will grow in importance in the years to come.

Some institutions importantly serve dual, multiple, and systemic purposes. Industrialization, adding manufacturing activities to a nation, was argued for from the point of view of increasing employment, increasing wages, increasing taxes, reducing the deficit in the balances of trade and payment, and as a means to increase the velocity

¹² This discussion is inspired by a presentation by Richard Nelson in Rio de Janeiro, March 2005.

of circulation of money (Reinert and Reinert 2005). Indeed, industrialization was seen as the nucleus of the virtuous circles of growth and development. Customs duties for a long time played the dual role of creating fiscal income and industrialization. This combination was particularly important in weak nations in the economic periphery, as in Latin America, where the ports were one of the few areas that the state fully controlled. Going back to the original sources, not a minimal doubt exists that a primary purpose of import duties after 1485 was a strategy to change the economic structure of a nation rather than increasing fiscal income. This was also the case in England, where the whole debate around ‘good’ and ‘bad’ trade amply testifies to this (King 1721). If the original intention of patents had been to increase fiscal income, it would have been much easier to tax the consumption of luxuries rather than inventing something as far-fetched as protecting inventions later to sell them as monopolies.

Conclusion: bringing production and institutions back *together*

Long before the 1532 arrival of the Spaniards in Peru, Nicolas Oresme – in his 1355 treatise on the invention of money – complains about another kind of institutional perversion: that money is no longer used only as it was intended (Oresme *c.*1355/1956). Too much money was hoarded as treasure rather than being used in order to foment trade and production, which was the reason money had been invented in the first place. Both the Leonardo Bruni 1413 quote at the start of this paper and Oresme’s insistence on how consciously institutions were made in order to achieve specific dynamic economic goals should stand as an example leading us away from the static neo-classical view of institutions and into the rediscovery of the ‘ancient’ and dynamic institutional school of economics. Here we find an extremely rich literature, covering close to 800 years, on the dynamic role of institutions and production working together to create economic growth and welfare.

I have argued that around the fifteenth century this ‘ancient’ institutional school acquired a dynamic and Schumpeterian character, emphasizing innovations and structural change. Rather than classifying institutional schools by their age, this paper has suggested a different taxonomy: A clearer distinction between institutions that facilitate and lubricate the neo-classical machinery on its path towards equilibrium – Hayekian Institutions – and the institutions that create new knowledge and entrepreneurial opportunities – Schumpeterian institutions – might help creating a separate vocabulary for evolutionary/Schumpeterian economics that facilitates the reconstruction of a theoretical edifice distinct from that of mainstream textbook economics. In order to do this, it is necessary to put not only the study of institutions back to the core of economics, but also how these institutions affect the dynamics of changing modes of production, much as these two elements were combined in the writings of Thorstein Veblen.

The people who in the late 1400s established both patents (in order to make it profitable to create new knowledge) and dynamic tariffs (in order to resettle newly created knowledge and technologies in new nations) obviously had a very clear model of economic development in their heads: a model where the creation and diffusion of new knowledge were at the core of an economic strategy creating wealth. Patents and tariffs, when used for this purpose, are typically *Schumpeterian institutions*. When Adam Smith later exogenized the production of knowledge, and to a large extent also production

itself, from economic theory, economics became catalectics – a science of exchange – and new institutionalism rarely ventures beyond the study of the institutions needed for this exchange to take place and those needed to protect property. These I have called *Hayekian institutions*.

What is so serious about today's situation is that mainstream economics – with catalectics at its very core – generally refuses to acknowledge that institutionalism other than their own 'new' institutionalism possesses a theory. We are, as I see it, back to the perennial fault lines in the economics profession. Ronald Coase's dismissal of 'old' institutionalism is typical: 'Without a theory they had nothing to pass on except a mass of descriptive material waiting for a theory, or a fire' (Coase 1984: 230). The mainstream is back to Ricardo's view that if their doctrines don't tally with the facts that is just 'so much worse for the facts' (Ferguson 1938: 142). In this spirit, solutions to the poverty problems of today are not sought were they are to be found – in the application of inappropriate models of standard textbook economics – but outside economics, in the realm of Providence, climate, disease, and geography.

'The literature is curiously void of attempts to relate the problems of development and underdevelopment and the facts of international inequality to the theory of international trade' said Gunnar Myrdal (1956: 12). By understanding capitalism as Werner Sombart did, as (1) the entrepreneur, (2) the modern state, and (3) *the industrial system*, and coupling this to present trade flows, the mechanism creating and distributing wealth and poverty will be unveiled. However, Adam Smith's reduction of production and trade to a common unity of 'labour' – thereby leaving out the study of production – continues to haunt the economics profession as a nemesis. Therefore peripheral factors like climate, geography and disease are brought back to the core of mainstream development economics. Here the belief in the invisible hand of the market is only overshadowed by a primitive belief in Fate and Providence. These, however, only win the day because the policy instruments that historically have subjugated Fate and Providence by creating industrial systems are today outlawed by the Washington institutions.

Appendix 1. Institutions and policies of Schumpeterian mercantilism

Promoting and Protecting New Knowledge in the Economic Policy of the Renaissance

The Establishment of Scientific Academies

- Bacon's 'New Atlantis': Salomon's House.
- Leibniz: Inspires the establishment of the academies of Berlin, Vienna, and St Petersburg.

Encouragement and Assistance to Inventors

- Bacon: 'Upon every invention of value we erect a statue to the inventor, and give him a liberal and honourable reward'. (Bacon 1930: 272).
- Christian Wolff: 'We should forbid mockery of inventors'.

Diffusion of new Knowledge/Education

- Bacon: 'We have circuits of visits, of divers principal cities of the kingdom; where as it cometh to pass we do publish¹³ such new profitable inventions as we think good.
- Wolff as the 'educator of the German Nation'.

Establishing an Apprentice System

- In England under Elizabeth I (1533-1603)
- In Germany as a result of the teachings of Leibniz and Wolff.

Patent Protection for New Inventions (Venice, fifteenth century)

- Showing a sophisticated understanding of the *appropriability problem* of new knowledge.

State-owned Manufactures as 'Places of Learning'

- Emphasized by Werner Sombart.

Subsidies to Firms in Industries new to the Nation or Region, maximising the Division of Labour

- Serra: the number of different professions as a key factor in explaining the wealth of a city.

¹³ 'Publish' here in its meaning of 'to make generally accessible, to disseminate, offer to the public' (*Oxford English Dictionary*, VI. VIII, pp. 1561-62.)

Tax Breaks and Bounties to Firms bringing in New Technology

- Systematically applied in England, starting under Henry VII in 1485.
- Import of skilled labour.

Travel Restrictions for Skilled Labour

- Under penalty of death for certain skills in Venice.

Prohibition against the Export of Machinery

- In force in England until the 1830s.

Prohibition against the Use of Machinery in the Colonies

- The heritage of this economic policy is still felt in many Third World countries which, like Haiti, are specialised in the economic activities which have not yet been mechanised.

Export Duties on Raw Materials

- ensuring that local manufacturing industries have lower prices on raw materials than foreign competitors.

Import Duties on manufactured Goods, while national Competition insured

- machines seen as a proxy for new knowledge, this measure maximises the flow of capital and labour to activities producing with machines, not manual power.

Strengthening the Navy

- taking advantage of ‘the economies of scale in the use of force’ (Frederic Lane).

Source: Reinert (1999)

Appendix 2. The Economic Stages

From the Standpoint of Production	From Bücher's Standpoint	From Hildebrand's Standpoint	From the Labour Standpoint	From Giddens's Standpoint
1. Hunting and Fishing	Independent Domestic Economy	Truck Economy	Slaughter of Enemies, Woman's Labour, and Beginning of Slavery	Luck Magic Sacrificial
2. Pastoral				
3. Agricultural				
4. Handicraft	Town Economy	Money Economy	Free Labour governed by Custom	Trade
5. Industrial (1) Universal Competition as an ideal	National Economy	Credit Economy	Individual Contract with Increasing Regulation by Statute	
(2) Concentration	(World Economy)		Group Contract and Regulation by Statute	Capitalistic
(3) Integration				

Source: Ely (1903), Reinert (2000a). Ely himself adds 'World Economy' to Bücher's system.

Appendix 3. The New versus the Traditional Paradigm: A Radical and Difficult Shift in Managerial Common Sense

	Conventional Common Sense	New Efficiency Principles and Practices
Command and control	Centralized command Vertical control Cascade of supervisory levels 'Management knows best'	Central goal setting and coordination Local autonomy/horizontal self-control Self-assessing/self-improving units Participatory decision making
Structure	Stable pyramid, growing in height and complexity as it expands	Flat, flexible network of very agile units Remains flat as it expands
Parts and links	Clear vertical links Separate, specialized functional departments	Interactive, cooperative links between functions, along each product line
Style and operation	Optimized smooth-running organizations Standard routines and procedures 'There is one best way' Definition of individual tasks Single-function specialization Single top-down line of command Single bottom-up information flow	Continuous learning and improvement Flexible system/adaptable procedures 'A better way can always be found' Definition of group tasks Multiskilled personnel/ad hoc teams Widespread delegation of decision making Multiple horizontal and vertical flows
Personnel and training	Labour as variable cost Market provides trained personnel People to fit the fixed posts Discipline as main quality	Labour as human capital Much in-house training and retraining Variable posts/adaptable people Initiative/collaboration/motivation
Equipment and investment	Dedicated equipment One optimum plant size for each product Each plant anticipates demand growth Strive for economies of scale for mass production	Adaptable/programmable/flexible equipment Many efficient sizes/optimum relative Organic growth closely following demand Choice or combination of economies of scale, scope or specialization
Production programming	Keep production rhythm; use inventory to accommodate variation in demand Produce for stock; shed labour in slack	Adapt rhythm to variation in demand Minimize response time ('Just-in-time') Use slack for maintenance and training
Productivity measurement	A specific measure for each department (purchasing, production, marketing, etc.) Percent tolerance on quality and rejects	Total productivity measured along the whole chain for each product line Strive for zero defects and zero rejects
Suppliers, clients and competitors	Separation from the outside world: Foster price competition among suppliers Make standard products for mass customers Arm's-length oligopoly with competitors The firm as a closed system	Strong interaction with outside world: Collaborative links with suppliers, with customers and, in some cases, with competitors (basic R&D, for instance) The firm as an open system

Source: Perez (2004)

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