

CHRISTIAN PERSPECTIVES IN ECONOMICS

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Abstract:

I present an agenda of central issues in economics that appear to require reflection from a Christian perspective. These include the issue of the economic system, social transfers, development aid, "ethics of supply", unemployment, and non-economic determinants of economic efficiency.

The last item is treated in greater depth with special reference to Millendorfer's empirical research which deals with "hard observations on soft variables". It is shown that economic efficiency is deeply influenced by non-economic factors, especially Christian values.

I. INTRODUCTION

It has been said that there is no such thing as Christian mathematics. I think that most Christian professors would agree that the issue of "creatively integrating faith and discipline" - the central theme of this conference - does not arise in mathematics. Why and how is this different in economics?

For one thing, the human factor is of central importance in economics. Both economic life and economic science are packed full with issues of human behavior, human preferences and choices, human decision-making, human creativity and policy. All of these call for standards of evaluation, for ethics, and for values. Thus the Christian value system is almost automatically challenged to contribute to these needs.

It is widely accepted that in the past the Christian value system has made decisive contributions to Western culture including economics. And it is widely expected that our destiny will greatly depend on whether or not Christian values will be permitted to shape our future culture as well. Says *Werner Heisenberg*, world-renowned German physicist and Nobel Laureate:

"If in this Western world one asks what is good or evil, what is commendable or to be condemned, one will ever again find the value standard of christianity even where people have long become unable to make sense of the symbols and parables of this religion.

When one day the magnetic force that has directed this compass will have faded away completely then I am afraid horrible things could happen that go beyond concentration camps and atomic bombs".

Against this background it seems quite urgent to think about the future of Christian influence in our culture, especially in economics. In part II of this paper I present an agenda of central issues in economics that appear to require reflection from a Christian perspective. For each item I offer very brief comments and theses which hopefully will stir discussion.

In part III I concentrate in greater depth on a single but especially important item on this agenda: the role of non-economic determinants of economic efficiency.

II. CENTRAL ISSUES IN ECONOMICS THAT APPEAR TO REQUIRE REFLECTION FROM A CHRISTIAN PERSPECTIVE

1. The issue of the economic system

The main contestants are, of course, the capitalist and socialist economic systems. In spite of the breakdown of "real socialism" unfortunately the socialist dream is not dead - especially in the heads of intellectuals. At least this is true in Europe. The question of the right economic system remains alive. Clearly, it is one's concept of human nature that determines one's preferences from alternative economic systems. The biblical view of man as a fallen, sinful creature in need of redemption - but not entirely incapable of good - calls for an economic system that offers scope for self interest and at the same time restricts self interest by moral constraints. Man is not good enough for socialism and not bad enough for unconstrained capitalism. From a Christian view of man, therefore, preference should be given to morally constrained capitalism.

2. Social transfers

From a Christian standpoint social transfers to the weak and unable are a primary moral obligation and necessary constraint on a capitalist system. At the same time Christian realism about human nature will acknowledge and take into account the many dangers of abuse of the social systems. Hence it will not overdo the welfare state and prefer solutions that include incentives to get out from among the needy - especially incentives to work. As St. Paul says: "For even when we were with you, we gave you this command: If any one will not work, let him not eat" (2 Thess 3, 10). The social burden on the productive part of the population should not be allowed to get so heavy that there is no longer a sufficient incentive to be productive and/or economic competitiveness is jeopardized - a problem that Europe is struggling with.

3. Development aid

Development aid is a special form of social transfer and should be subject to similar requirements. By and large, however, actual development aid at the government level has been a dismal failure (*Olasky* 1992). It has ended up in the hands of local elites, has made the rich richer, has subsidized consumption (often for the benefit of Western exporters who dumped their surpluses), and has destroyed jobs (by undercutting local prices of consumer goods). It has failed to invest in the creation of competitive jobs for the poor - in short, it has not accomplished development.

Christian realism about the nature of man would call for a concept of development aid that bypasses the channels of corruption and misallocation and goes directly to the poor. It should not support their consumption but rather help them to build micro-enterprises by which they will be able to support themselves and to get out of poverty permanently. Fortunately, this concept is not a dream. "Opportunity International" is a Christian development organization that has already created millions of jobs for the poor and taken them out of poverty permanently. The program includes the implantation of Christian values as well as technical and financial aid and control. Financial aid is granted in the form of credits at market conditions.

4. Ethics of supply

From the Christian standpoint a free market economy urgently needs ethical constraints on what products and services can be offered in the market place. I call this the ethics of supply. Demand alone is no justification for supply. Let me mention just one sad counterexample. I quote the Indian author *Mangalwadi* from his introduction to *Kuyper's* Stone Lectures:

"Today, the decadence of Western civilization is powerfully present on the streets of Amsterdam, where *Kuyper* preached, taught, and founded the Free University. The pornography there is more repulsive and less aesthetic than the erotic art in the Hindu temples of the 8th-10th centuries A.D., when India's overall decline began. Por-

nography is only a symbol of the decline of the West. Let me explain: Holland had become a great nation after its reform in the seventeenth century partly because of the quality of its products - a quality shaped by a "Work-ethic" which was in turn a result of the Calvinistic doctrine of "Vocation" or "Calling". Most citizens tried to do their best because they believed that God had called them to their particular profession and that they had to do everything for God's glory. Since that spiritual source behind Holland's economic strength has now dried up, that nation (great until quite recently) is trying to use unfortunate prostitutes to attract tourists to keep its economy going. That nation has become so blind that in order to save its economy it is embracing a sexual revolution which destroys the stable, monogamous family - another basic source of the strength of the Christian civilizations over against Islamic or Hindu societies".

Christians should be wide awake to the fact that a free market economy is in a position to destroy its own value base which cannot be substituted for by capital and labor.

5. Unemployment

In regard to unemployment Europe is not as fortunate as the USA. Numerous causal factors have contributed to the substantial European unemployment and have been discussed in the literature. Since the steady progress of productivity continuously destroys jobs the central problem is the creation of new jobs. For this to happen much creativity is required. Even if one is not an extreme technology optimist like *Pilzer* (1997) who seems to believe that new technology will always create new jobs in sufficient numbers, one has to admit that creativity is at the heart of the matter. Again, many factors contribute to creativity. But as we shall see in more detail, the Christian value system which now is so much in decline in Europe and elsewhere is of basic importance to creativity. This gets me to my last point.

6. Non-economic determinants of economic efficiency

I have repeatedly alluded to the importance of non-economic values to economic success. I believe that Russia offers a prominent example. Since in Russia the Christian value base has been destroyed deliberately and almost completely no amount of financial aid will be able to get the country out of its economic and social misery. For the remainder of the paper I shall dwell in greater depth on the role of non-economic determinants of economic efficiency.

III. NON-ECONOMIC DETERMINANTS OF ECONOMIC EFFICIENCY

Economics attempts to understand the economic output of a country, a region, or some other economic unit. It has identified labor and capital input as important determinants and has related them to output, e.g. by the *Cobb-Douglas* production function. Of course the specific form of the production function - especially its coefficients - tell a great deal about the efficiency of the transformation process. Economics has had relatively little to say about the determinants of this efficiency. This is not surprising since the determinants appear to be largely non-economic in nature, possibly including such seemingly far-fetched factors as the value system. If this conjecture can be confirmed this would mean that value systems, and especially Christian values should be counted among the important determinants of economic efficiency and prosperity.

Of course, we have heard from *Max Weber* long ago about the correlation between what he called the "protestant ethic" and economic prosperity. More recently, *Berger (1994)* has presented empirical evidence that the phenomenal growth of evangelical protestantism in Central and South America has been accompanied by equally astounding social and economic recovery. As *Berger (1994: 104-105)* says:

"The most careful study of the evangelical phenomenon is the work by the British sociologist *David Martin* and his associates This work clearly shows that conversion to protestantism often brings about nothing less than a cultural revolution These social changes are associated with comparable changes in economic behavior. The evidence demonstrates that the people in these churches begin to practice in their lives the same virtues that *Weber* called the "protestant ethic". (In fact, one commentator on *Martin's* work summed up its findings by noting that "*Max Weber* is alive and well and living in Guatemala"). This is an ethic of discipline and self-denial, hard work, saving rather than consumption, and systematic planning for the future. True, unlike its Anglo-Saxon antecedents, today's Latin American Protestantism is often Pentecostal in character - that is, charged with a highly emotional, even orgiastic style of worship. But this emotionalism does not seem to interfere with - and may even enhance - the new soberness of everyday life".

Mc Kinsey has published *Berger's* findings under the heading "Rethinking Economics", and *Berger* has entitled his article: "The GNP and the Gods". Anticipating the objections of economists, *Berger (1994: 97)* says: "...numerous economist assert that, since we are "rational actors" in economic affairs, we must be comparably rational in the other areas of our lives. This naturally leads me to wonder why people who have been so remarkably unsuccessful in clarifying, let alone predicting, the workings of the market place should be trusted to shape our common interpretations of politics and social life". By contrast, integration of a Christian world view into economics seems to

offer a much more trustworthy basis for understanding what is really happening.

Although these observations are quite impressive I must say that the most comprehensive and impressive piece of relevant empirical research is due to the Austrian systems analyst *Millendorfer (1971, 1984)*. I very much regret that his work has not received the amount of attention in the technical community that in my opinion it deserves.

Millendorfer set out to develop a "generalized production function" which would be able to explain the economic output of the different regions of the world. In a worldwide cross-sectional analysis he collected numerous data in order to estimate the production function econometrically. Output was measured by per capita income. Input variables included, of course, the classical inputs of labor and capital, but others as well. *Millendorfer* and his team were not successful in estimating a satisfactory *Cobb-Douglas* production function based on the two classical inputs. Its explanatory value for per capita income was low, the unexplained variance quite high. In the process of searching for additional explanatory variables he finally hit upon the role of education. He developed an index of the level of education and introduced it as an "immaterial" input factor in addition to the "material" factors of labor and capital. This resulted in an extremely high explanatory value of the "generalized production function". After these results had been achieved at the end of the sixties, later investigations have shown that the explanatory value and statistical significance continue to be extremely high.

The final form of the generalized production function may be stated as follows:

$$(1) y = c m^{1/4} e^b [0.5 (m^{1/4}/e^b)^{-\beta} + 0.5 (e^b/m^{1/4})^{-\beta}] + 0.8 q$$

where

- y = per capita income
- m = per capita capital stock (measured by energy indicators)
- b = level of education (measured by a special index)
- q = exploitation of underground resources (special index)

The factors in front of the brackets show the influence of capital and education. The expression in brackets equals one if the effects of capital and education are "in balance":

$$(2) m^{1/4} = e^b$$

Otherwise it is less than one due to a "bottle neck" effect between the two factors. The coefficient *c* is a measure of economic efficiency: clearly it determines what economic output will result from a given factor input. Both coefficients *c* and β were estimated econometrically. While $\beta = 0.6$ is constant over all regions, the coefficient *c* varies geographically.

Millendorfer discovered five geographical areas of significantly different economic efficiency (as measured by *c*

). When he plotted these on a world map he was surprised to see something like a map of religions (see Table 1). In particular, the Christian countries turn out to be the most efficient, i.e. for a given economic output they need the least factor input. *Millendorfer* (1984:71-72) comments these results as follows:

"The explanation of these observations (which were derived from purely economic data) is not easy. *Max Weber* had already attempted to relate higher economic output to the protestant ethic. However, this approach is not applicable to world-wide observations. A possible explanation comes from a very different direction: The economist *Schumpeter* has described a type of entrepreneur who makes a profit precisely because he is not primarily interested in profit. Rather, he views profit as a side effect of his primary activity, the creative combination of the production factors.

This points to a more general phenomenon: It is necessary to view things from a certain distance if we wish to handle them optimally..... In order to fulfill our tasks in an optimal way, we therefore need a value system that affords both serious involvement in and at the same time distance from these tasks. The only value system that leads us to get involved in this world and at the same time to keep at a distance from this world can be found in the Good News, in the gospel. Here

Table 1
Zones of Economic Efficiency
(In Decreasing Order)

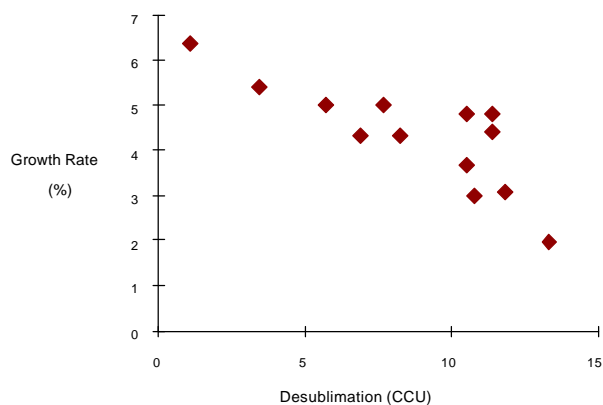
<u>Zone No</u>	<u>Geographical Areas</u>
1	Protestant areas of Central and Northern Europe, North America, Australia, New Zealand
2	Catholic areas of Southern Europe, Orthodox areas, formerly Christian areas around the Mediterranean, Union of South Africa
3	Central and South America, Japan
4	India, China, Indonesia, parts of South America, parts of Africa
5	Parts of Central Africa

we hear about being in the world but not of the world. Here we are called to feed the hungry and give the thirsty to drink in this world, and yet we are told that this world is not our home. This value system produces behavior of serious involvement and of distance. It is this sort of behavior that is the cause of the observed high efficiency in Christian countries. The more we undermine the roots of such efficiency, the more it will fade away, as we can observe at present".

In short, *Millendorfer* saw in the different levels of his efficiency factor *c* the influence of different value systems. The Christian value system turned out to be superior.

While the preceding analysis was cross-sectional, *Millendorfer* also proved the influence of non-economic values on the dynamics of economic processes. He collected data on the economic growth rates of European countries during a certain span of time and brought them together with data on sexual immorality measured by an index of promiscuity. As shown in Fig. 1, he found a strong negative correlation (*Millendorfer* 1984:86-87).

Fig. 1: Correlation of Growth Rates and Desublimation.



He also offers an interesting explanation of the long wave (*Konratieff* cycle) by non-economic factors. Based on empirical sociological and socio-economic studies he argues that quality of family life is a prerequisite of motivation, which in turn causes performance of the socio-economic "system" (see Fig. 2). The entire causal chain drives the quality of life. However, from the empirical studies it can be established that high performance of the economic system has a negative influence on the quality of family life. This results in a negative feedback loop. From the empirical material *Millendorfer* estimates that the time lag of the feedback system is about 30 years. From the theory of servomechanisms it follows that the system will oscillate with a cycle length equal to twice the time lag, i.e. 60 years. This is just about the length of the *Konratieff* cycle (*Millendorfer* 1984:78-79).

What is new in *Millendorfer's* entire work is - in his own words - "the introduction of definitely non-economic variables for explanation of economic phenomena". Hence his important thesis: "To understand economics you have to look beyond economics. We shall see in what follows that this is a general principle for understanding economic relationships" (*Millendorfer* 1984:73). Hence his emphasis on "hard observations on soft variables".

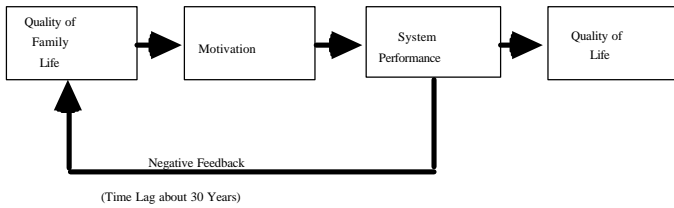


Fig. 2: Konratieff Cycle.

It seems only natural that *Millendorfer's* discoveries have led him to adopt a much broader and more holistic view of societal mechanisms than can be found in traditional economics and related disciplines. His generalized production function (Subsystem I in Fig.3) stresses the **joint** role of energy (capital), information (education), and structure (values) for economic efficiency, as well as the importance of equilibrium between these.

His analysis of the *Konratieff* cycle (Subsystem II in Fig.3) enabled him to see the **joint** role of man's relationship with people (family), things (economic system), and meaning

(motivation). From the standpoint of social psychology, he designates these relationships as personal, functional, and transcendental, respectively. Again, for greater efficiency and stability of societal systems, these need to be in equilibrium - see the *Konratieff* cycle as a special case.

Finally, he can see a third subsystem of "growth-restraining factors" like sexual immorality ("desublimation") that exert a negative influence on the two other subsystems and thus, indirectly, on the efficiency and stability of societal systems (Subsystem III in Fig.3). We have already seen the negative influence of promiscuity on economic growth rates. *Millendorfer* found additional growth-restraining factors in the general areas of the welfare state, concentration in the economy, and social and economic leveling. All of these variables are **individually** negatively correlated with growth rates. Taken together, they yield a very high degree of explanation for the decrease of growth rates (multiple correlation coefficient > 0.99, fiducial probability < 0.01).

As indicated in Fig.3, the growth-restraining factors (among other effects) exert a negative influence on the value structure in Subsystem I and thus change the structural coefficient of the generalized production function in the course of time. As we have seen the societal systems

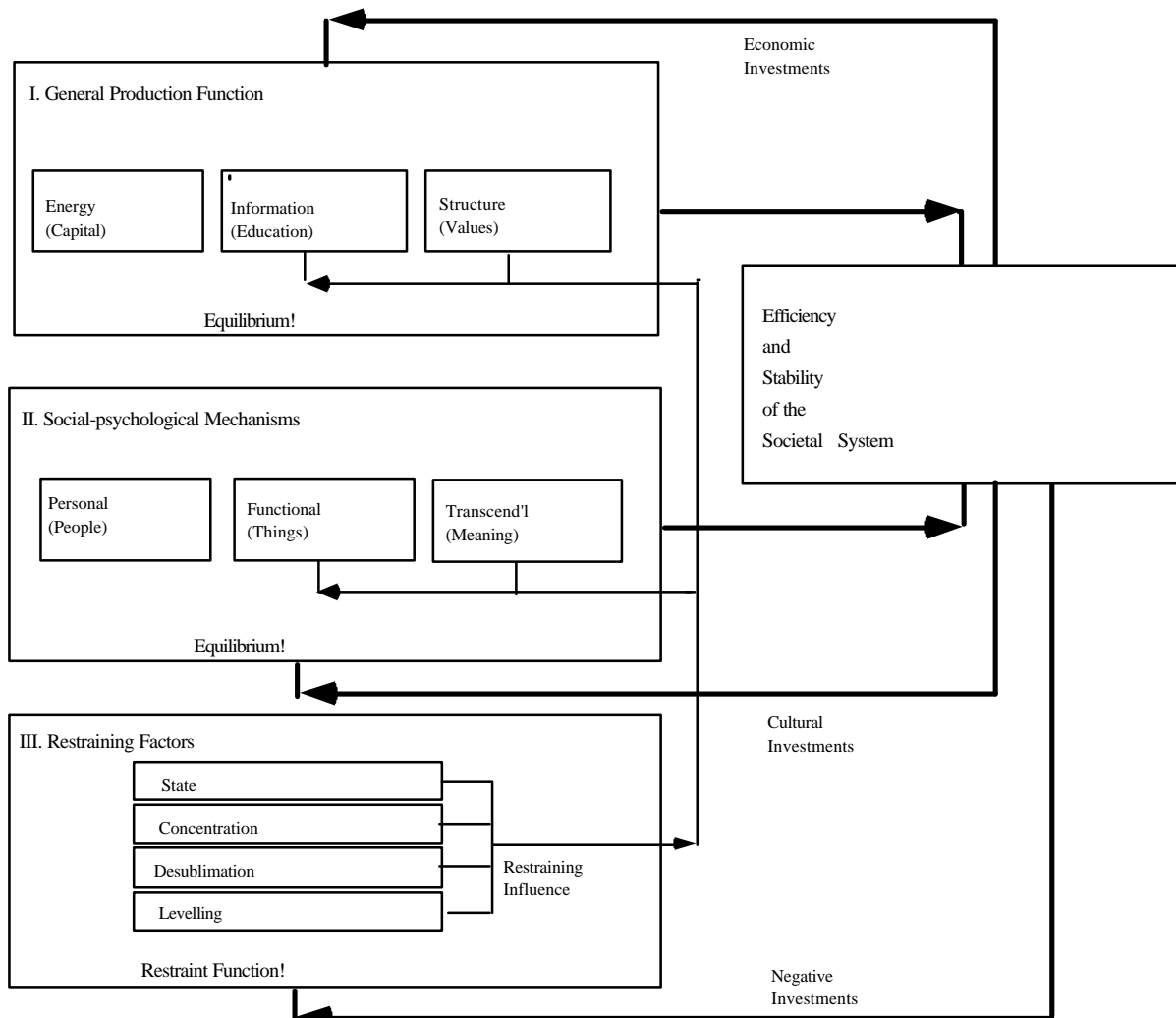


Fig. 3: Systems Analysis of Societal System

are influenced by all three subsystems. But they also feed back into the subsystems by economic, "cultural", and "negative" investments.

Millendorfer's systems analysis has integrated economic and cultural

factors in a balanced way. *Berger* (1994:97) wrote: **"Is there no navigable middle course between "culturalism" (where beliefs and values are supposed to explain everything) and "economism" (where politicians, spouses, and Islamic revolutionaries are all assumed to act in accordance with the logic of investment bankers? Common sense says there is"**. In my opinion *Millendorfer* has come a long way in opening up such a third alternative.

In light of his much more comprehensive and holistic systems analysis he is not surprised that traditional economics has not been able to understand let alone solve some of our most pressing economic problems of the last decades. He believes that his expanded view opens up new ways of understanding and new mechanisms of change. Indeed, as *R.L. Ackoff* used to say: "The world is not divided into departments like universities".

From the biblical standpoint these findings and possibilities are hardly surprising. They fully confirm the Old Testament testimony that God will not only grant spiritual blessings but also pour out earthly blessings on a people that keeps his commandments and values. And in the New Testament St. Paul says: "Godliness is of value in every way, as it holds promise for the present life and also for the life to come" (1 Timothy 4, 8).

BIBLIOGRAPHY

Berger, P.L. 1994:

The gross national product and the gods. In: *Mc Kinsey Quarterly* 1994, 1

Hanssmann, F. 1999:

Christliche Perspektiven in Wirtschaft und Wirtschaftswissenschaften. In: *Beckers, E. et al* (Hrsg): *Pluralismus und Ethos der Wissenschaft*. Verlag des Professorenforums, Gießen, S. 15-32.

Hanssmann, F. 1999:

Christliche Weltansicht für Zukunftsfragen der Wirtschaft. In: *Haupt, R. et al* (Hrsg): *Die Wertekrise*. Hänssler Holzgerlingen, S. 17-52.

Millendorfer, J. 1984:

Hemmfaktoren einer gerechten industriellen Entwicklung. In: *Vereinigung der Politologen an der Hochschule für Politik München* (Hrsg): *Energie und Gerechtigkeit*. Inderdisz. Reihe Nr. 6, Minerva Publikation München, S. 64-101.

Millendorfer, J. / Gaspari, C. 1971:

Immaterielle und materielle Faktoren der Entwicklung. Ansätze zu einer allgemeinen Produktionsfunktion. *Zeitschr. für Nationalökonomie* 1971, 31, 81-120.

Millendorfer, J. / Gaspari, C. 1978:

Konturen einer Wende - Strategien für die Zukunft. Verlag Styria, Graz, Austria

Olasky, M. et al 1992?:

Freedom, Justice, and Hope: Toward a Strategy for the Poor and Oppressed. Westchester, Illinois, USA

Pilzer, P.Z. 1997:

God wants you to be rich. Fireside, New York, N.Y., USA



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