Forty years of agricultural economics scholarship and practice in South Africa: A time to challenge the consensus and refocus our intellectual work

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DRAFT (for comments only)

Forty years of agricultural economics scholarship and practice in South Africa: A time to challenge the consensus and refocus our intellectual work[1]

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"To hold the same views at forty as we held at twenty is to have been stupefied for a score of years, and take rank, not as a prophet, but as an unteachable brat, well birched and none the wiser." -- ***Robert Louis Stevenson***

1. Introduction

The first scheduled annual conference of the Agricultural Economics Association of South Africa was held in October 1962. Today is thus truly a special occasion as we celebrate the 40th annual conference - an important milestone of our discipline. Reaching the age of 40 is a time to celebrate but perhaps also a time to reflect on past achievements and to debate how one should approach future challenges. Certainly not a unique agenda for a conference if one consider just a few of the themes of the past 40 AEASA conferences.

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- 1962 (1st conference) — Evaluation of agricultural economics research since the beginning of the 1920s
- 1978 — Agricultural policy and marketing: Challenges for the agricultural economist
- 1982 — Strategies and assistance for agricultural development in the eighties
- 1987 — Agriculture in Southern Africa – shaping the future
- 1991 — The task and role of the agricultural economist in a normalised agriculture
- 1995 — The role of the agricultural economist in the restructuring process
- 1999 — Agricultural Economics, Farm Management and Agribusiness: Combining strengths and stretching the frontiers
- 2000 — South African agriculture into the new millennium: Institutions and organisations in practice

There are however a number of reasons – apart from the magic number of 40 - why this conference and its theme are special. The conference takes place just 2 weeks after the World Summit on Sustainable Development ended in Johannesburg. Here important global issues were debated with developmental and environmental issues at the centre stage of the debates. The initiative to develop the African continent, the

[1] Presidential Address presented at the 40th Annual Conference of the Agricultural Economics Association of South Africa held in Bloemfontein 18-20 September 2002.

new Partnership for Development in Africa (NEPAD), also put the issues of rural development and competitiveness at the centre of our efforts to improve the livelihoods of our people. The theme of this conference: *"Rural development and competitiveness: Rethinking strategies in a global environment"* is thus very appropriate and timely.

The conferences of the past as well as the various presidential addresses over the 40 years have in a way always debated how agricultural economists can adjust teaching, research and outreach programmes to provide more relevant teaching materials and research output for society. Every generation of agricultural economists and for that matter every conference organising committee think they are living in a time of transition and of course they are right. It is therefore not unusual to be in transition and even more so for us here in South Africa. Although I intend to follow a slightly different approach in my address it would be inappropriate to totally ignore the challenges facing the profession. I therefore expand more on these and other challenges facing our discipline and then question whether we are appropriately equipped to address them. I then highlight some aspects, which I think should enter the vocabulary and "research toolbox" of agricultural economists to enable them to continue to make an important contribution in addressing the various challenges. So in a sense I provide more of a self-critique of our discipline in order to ensure that we remain relevant and appropriately equipped. But, first I briefly reflect on the published work of agricultural economists in South Africa over the past 40 years to reveal the current consensus and to highlight how our research focus has shifted over the years.

2. A brief review of the evolution of agricultural economics scholarship in South Africa

The book on the history of AEASA that we launch at this conference provides a thorough account of how our profession and our institutions have evolved over time in response to new economic, social, political and scientific conditions. From its modest beginnings in the 1920s when the Division of Economics and Markets in the Department of Agriculture and the Departments of Agricultural Economics at the Universities of Stellenbosch and Pretoria were established, the discipline has grown to make key contributions to all spheres of the agricultural and food sector. The discipline has evolved over the years in response to the important economic problems facing the agricultural sector and to developments in economic theory, quantitative methods, and the computational capacity to deal with these problems. The important economic problems of the agricultural sector changed over the decades in response to changes in the macro-economy, political regimes, other legislation, opportunities in world trade, technology, climatic conditions and social conditions. South African agriculture went through several phases of transition – at least one major transition every decade. These phases of South African agriculture are well documented in Brand, et al (1992); Vink (1993) and Kirsten and Vink (1999). Of more importance is to analyse how the agricultural economics profession has responded to these changes. Presidential addresses at the various conferences have made a habit of unpacking the challenges provided by the transitions. This was usually accompanied by new research agendas and research themes for agricultural economists. Cases in point are the addresses by Van Rooyen (1989), Laubscher (1991) and Vink (1993).

The scope of agricultural economics internationally and in South Africa also evolved from the initial focus on farm management, marketing board issues and aspects of agriculture in general to a discipline now also covering the economic problems of food systems, rural communities, natural resources and the role they play in economic development.

Before 1962 scholarly work by agricultural economists were published in a variety of journals amongst others the South African Journal of Economics and it is thus very difficult to track the evolution of the discipline in the early years. However the establishment of the association in 1961 and the birth of Agrekon in 1962 provided a home for the main body of South African agricultural economic literature. Analysing the evolution of the discipline over the last 40 years proved therefore to be a much easier task. By classifying all the articles published in volume 1 – 40 according to the Journal of Economic Literature (JEL) key words an interesting profile of our research focuses over the decades emerges. Applying the JEL key words retrospectively is always a difficult and time-consuming exercise especially since an article can be allocated more than one keyword[2]. Over the 40 years around 1 080 articles were published in Agrekon. The results of the classification exercise are presented in Table 1.

Table 1: Classification of articles published in Agrekon between 1962 and 2001. (% of articles published)

JEL keyword classification	*1960s*	*1970s*	*1980s*	*1990s*	*2000 - 2001*
General	18.8%	11.7%	13.1%	7.6%	8.8%
Aggregate Supply and Demand analysis; Prices	5.1%	6.7%	8.9%	6.2%	2.7%
Micro analysis of farm firms; Farm households and Farm Input Markets	18.1%	22.1%	13.7%	16.7%	22.1%
Agricultural Markets and Marketing; Co-operatives; Agribusiness.	18.8%	16.0%	10.7%	10.1%	13.3%
Agricultural Finance	5.8%	4.9%	14.9%	7.8%	5.3%
Land ownership and tenure, Land Reform, land use; irrigation	1.4%	6.7%	6.0%	8.5%	5.3%
R&D, Agricultural Technology; Agricultural Extension services	8.0%	16.6%	6.0%	7.0%	14.2%
Agriculture in international trade	7.2%	2.5%	1.8%	6.6%	3.5%
Agricultural Policy; Food Policy	13.0%	8.0%	17.3%	16.5%	8.0%
Other	0.0%	0.0%	0.6%	0.6%	0.0%
Risk	0.7%	0.6%	3.0%	3.6%	3.5%
Land	0.0%	0.0%	0.6%	1.8%	0.9%
Water	0.0%	0.6%	0.6%	2.4%	7.1%
Growth and development	2.2%	1.8%	1.2%	2.2%	2.7%
Input-output models	0.7%	1.8%	1.8%	2.6%	2.7%

[2] Here I have to thank Isabel Liebenberg for some research assistance

Accepting that the JEL classification is not really satisfactory and too broad and that errors could enter in such analysis, the results nevertheless reflect no major shifts in the research focus of agricultural economist over the last 4 decades. The standard research areas of farm firms/households; agricultural marketing and agricultural policy continued to dominate. These 3 areas together provided 50% and 43.3% of all articles published in Agrekon during the 1960s and the 1990s respectively. When one considers the description of the JEL categories it does not take much to realise that there has been a shift of focus within the categories which is difficult to pick-up from the numbers presented in Table1. The articles in the 1960s focused largely on farm management issues while articles published in the 1990s and the last two volumes focussed more on the problems of farm households in disadvantaged communities but also on efficiency analyses of commercial and small-scale farmers. The same trend is witnessed in the marketing/agribusiness category where the articles in the 1960s and 1970s focused more on agricultural marketing issues in the context of the marketing board dispensation of the time. In the late 1990s and especially through the last two volumes, articles addressed marketing more in the context of the deregulated environment and with a much stronger emphasis on aspects of agribusiness and supply chain management.

Articles on agricultural policy issues were more dominant in the 1980s and 1990s than in any of the other decades. This is not surprising given that the 1980s were with out any doubt the time of change for agricultural policy in South Africa. The extent and impact of these changes is often underestimated but well documented in Brand et al (1992) and Vink (1993) for example. Given the political changes in the early 1990s, the release of the Kassier report on agricultural marketing in 1992 and the negotiations during the Uruguay Round of the GATT, it is again not surprising that articles on agricultural policy were dominant in Agrekon during that period.

Another noteworthy trend in Table 1 is the sudden surge of articles on agricultural finance during the 1980s. The poor financial position of South African farmers and the high debt burden of agriculture as a result of interest rates reaching 25% were amongst the factors that led to this large number of studies and articles. Again a reflection of how agricultural economists have continuously addressed relevant issues. The problems of the 1980s and the drought of 1991/92 also contributed to more research on risk in agriculture and I have created a separate classification to illustrate how the number of articles on that topic has increased since the 1980s.

Agricultural policy research

It is one thing to discuss the numbers but is another challenge to review the scholarly work and this could certainly take up the rest of the paper. I was fortunate to be involved in a study (Vink, Kirsten and Hobson, 2000), which provides an annotated bibliography of the literature on agricultural policy research in South Africa. For the sake of brevity readers are referred to this report but also to Vink (2000) where he provides an extract of this report. Here he reviews agricultural policy research on the basis of the research agenda he identified in 1993. The survey has showed a remarkably close working relationship between agricultural policy analysts and decision-makers in South African agriculture during the 1990s. As I have illustrated earlier agricultural economists have always been on a continued search for relevance and it seems that we in South Africa haven been very good at ensuring that our discipline remains relevant. Vink (2000) predicted that it might happen that agricultural policy analysts might turn their attention away from policy-relevant research and towards the needs of the private sector or away from policy issues to focus more on disciplinary research. If the figures in Table 1 are to be believed this trend is already happening. This could also be a function of the fact that the ability of government to ensure sustainable development and true economic empowerment has been limited through the institutional and regulatory framework. I therefore argue that this challenge now becomes to a large extent the responsibility of the private sector. This is an aspect on which I elaborate later in this paper. It is in this context which we need to raise the question whether we as agricultural economists can provide meaningful advice and support here?

Small-farmer research

Another illustration of the evolution of our discipline over the years is again reflected in a wonderful piece by Nick Vink, which he presented as his Tomlinson memorial lecture in 2001 (Vink, 2001). Here he provides an account of South African agricultural economists' contribution to small farmer research. Apart from a few early efforts, aspects related to small-farmers and resource poor households, have never been regular features at our conferences and hardly a focus of any research activities. A paper by Tommy Fenyes at the AEASA conference in 1978 changed this and since then papers on this important aspect were presented regularly at conferences. Johan van Rooyen's presidential address in 1989 as well as the Development Bank of Southern Africa's emphasis on Farmer Support Programme provided further momentum to the earlier initiatives. Today the challenge of empowerment of our disadvantage farmers including aspects of land reform is a major area of research of many agricultural economists and an extremely important and relevant research focus.

This brief overview of some of the highlights of scholarship in our association highlighted to some extent how agricultural economics in South Africa always had the luxury of problem solving and applied research. Living up to the challenges facing farmers, agribusiness and rural communities has ensured that our work remained relevant and focussed on the needs of the country and the industry, but took our time away from the "frontier-pushing" research and theoretical work of our colleagues in the US and Europe. In this sense agricultural economics in South Africa often borrowed from these scholars and applied the models and methodologies to local problems. It is in this regard that I add another two interesting trends in agricultural economic scholarship in South Africa that emerged during the last decade:

In pursuit of more "rigour"

The influence from scholars from abroad has also highlighted what many of us perceived as limited quantitative skills and application in our discipline in South Africa. The examples set by leading journals such as the American Journal of Agricultural Economics, Journal of Agricultural Economics, Agricultural Economics, World Development and Development and Cultural Change have put agricultural economists in South Africa in pursuit of more quantitative and perceivably more 'rigorous' output. It is also a function of the fact that after the process of democratisation normal relationships with leading universities and scholars abroad were possible and put many agricultural economists in touch with the latest theories and quantitative methods. As a result there has been a continued jockeying for position in terms of the institution or researcher with the 'best' analytical tools or models. This was despite the fact that data has always been a problem and even more so in the aftermath of deregulation. Analytical work and modelling in agricultural economics are often associated with 'good' or 'solid' and many of us fell in this trap by doing poor research and analysis but with seemingly good mathematics. This is often the problem with economists, which Bromley (1990) highlighted – we offer bad economics as being superior to politics. More 'rigour' (read math!) is often considered to mean more precision and more scientific and more value free and will therefore produce more respect and reward. But in order to do the mathematical analysis economists make many unrealistic assumptions in terms of the new classical economic paradigm. This and other problems will be discussed below when I provide a critique of mainstream economics/agricultural economics.

Introducing "New Institutional Economics"

Parallel to the move towards greater rigour has been the increased application of the principles of the New Institutional Economics (NIE) in agricultural economic research in South Africa. Some of the first applications have been in research on rural financial markets (*cf.* Coetzee, 1997) and small-farmer issues (*cf.* Lyne, Thompson, Ortmann, 1996; Matangul, Lyne and Ortmann, 2001; Makhura, 2001). Lately there have also been applications of this framework in the analysis of agricultural markets (choice of outlet) (De Bruyn, et al. 2001) as well as informing the choice of supply chain governance structures in agribusiness (Doyer, 2002). Much of the research applications made use of the Transaction Cost Economics paradigm to explain economic behaviour, choice of organisation forms, etc. The presidential address of Gerald Ortmann last year (Ortmann, 2001) presents a useful overview of the applications of the Coase-Williamson paradigm of transaction cost economics to agribusiness and supply chains in general.

It is important to stress and to remind readers that the NIE is not only about transaction costs economics. It is a vast and relatively new multidisciplinary field that includes aspects of economics, history, sociology, political science, business organisation and law. In Kherallah and Kirsten (2002) I argue that the expansion of economics into these other social sciences, has made NIE by definition a multidisciplinary field of study comprising several branches. It is the use of economic-type methods in politics where economists and political scientists have created the growing field of collective choice, and it is in the study of law that the ideas from economics led to the major field of "law and economics". Economists' ideas and methods also found their way into sociology, demography and into studies of the family and crime. Whereas economists traditionally studied prices, quantities and fluctuations, they now also study the governance structures and dispute-resolution mechanisms of societies. It is to these studies that the label "New Institutional Economics" is attached, but according to Olson and Kähkönen (2000) it sometimes also refers to the expansion of economics as a whole. The influence in other social sciences of the deductive methods of economists has been so far reaching that there is, in some sense, a theoretical integration of the social sciences under one overarching paradigm. Whether this new paradigm will be the new institutional economics, remains to be seen because there is still some debate as to what falls under the NIE banner.

Since my sabbatical period at the International Food Policy Research Institute and the USDA in Washington DC in 2000 my research interests have shifted much more to the applications of the NIE in addressing the problems of South African agriculture. This new focus also stimulated related work amongst graduate students and colleagues in our department. I have also witnessed similar research activities at the Universities of Natal and Stellenbosch.

I do not intend to provide a lengthy discussion about the NIE here since this is largely documented in Kherellah and Kirsten (2001). In the rest of the paper I am trying to go beyond the NIE as we know it and argue for further adjustments in the way we organise our agricultural economic "tool box". Although I argue that the NIE is a fascinating and interesting development, we need to take stock and ask whether we are on the right track and whether we should not adopt other ideas, paradigms and principles and thoughts from other social sciences to address the challenges in South African agriculture. This is the theme of the rest of the paper but first I need to remind us of the traditional critique against mainstream economics.

3. A critique of mainstream economics

South African agricultural economists – and for that matter most agricultural economists in the world – use the neo-classical and welfare economics (known as mainstream economics) as their reference framework. This is mainly due to the nature of their academic training and political orientation (Kassier and Kleynhans, 1989). Consequently much of the theoretical building blocks of agricultural economics suffer the same problem as mainstream economics, i.e. being removed from reality quite often. Although we have been doing work on relevant problems our approaches and research methodology suffer from assumptions and constructs that are not related to the way business and markets are actually working. The economic system is a complex network of markets, organizations, and contractual relationships. While neoclassical economic theory provides a sound basis for our understanding of market behaviour, our understanding of the economic system itself is under-informed due to a lack of systematic, theoretical analyses of how economic exchange is structured and how the surrounding institutional structures (legal, political, and social) affect those decisions.

A series of papers in a recent issue of World Development (Harris, 2002; Jackson, 2002; White, 2002; and Kanbur, 2002) provide additional criticism by showing how mainstream economics, despite its considerable strengths is incapable on its own of adequately addressing central issues of development and how development analysis and policy would benefit greatly from treating other disciplines and methodological approaches as equal partners in tackling tough issues (I expand on this aspect in section 4). The move to more quantitative analysis in agricultural economics, to which I have alluded to earlier, makes the same critique also applicable to our discipline. There is still today the perception amongst (agricultural) economists that quantitative techniques provide more "rigor" than qualitative techniques. Hence it is often felt that economics, with its more rigorous footing, is a sounder basis on which to formulate policy advice (White, 2002). The point here is that quantitative analysis is possible given the models often rely on a set of simplifying assumptions such as that all agents pursue their short term interests, that market transactions are "arms-length" transactions, and the market transactions are impersonal (Kanbur, 2002; Milberg 2001). The new classical economists often profess the concept of the 'atomistic' *homo economicus* and therefore 'economic rationality' to enable them to construct 'models of the economic universe in the image of Newtonian mechanics' (Fullbrook, 2002).

Samuels (1997) provides an additional point of critique by arguing that some danger can be encountered when economists ignore process and mishandle interdependencies between endogenous and excluded variables. The main problem Samuels has with the application and use of mainstream economics in disciplinary (basic and applied) or multi-disciplinary work of agricultural economists is that mainstream economic theory ignore the 'process' whereby a market mechanism move to equilibrium and how that changes. The point he is making (Samuels, 1997:229) is that the pursuit of determinate solutions has led economic analysts to substitute themselves for both actual economic actors and actual economic processes. What happens in reality by real economic actors are excluded and replaced by imaginary, often question-begging and presumptuous constructions by the economic analysts. This constrains to a large extent the practical problem solving and subject matter or issue oriented work of agricultural economists.

Much of the work of agricultural economists remains however applied mainstream determinate economics. Without further improvements, applications of mainstream equilibrium economics allow agricultural economists to do price analyses, supply and demand analyses, investment analyses, spatial analyses, comparative static analyses and linear programming. Glen Johnson (1997) also notes that there have been a number of extensions and improvements by agricultural economists to overcome the deficiencies of mainstream economics by developing theories through relaxing the assumptions of fixed populations and skills, technology and institutions. These include theories of human capital formation and induced technical and institutional change. Bacquet (1997) argues that agricultural economists have been successful in making improvements to mainstream economic theory which increased our understanding of agricultural supply response, changes in demand factors for farm production and cash flow and bankruptcy problems of farmers. These and many other extensions of the mainstream theory are very useful. There is therefore tremendous scope for agricultural economists to do basic disciplinary work to remedy the deficiencies of mainstream economics that constrain the usefulness of economics of agricultural economics and limits the ability to tackle the real problems of agriculture and rural communities (Johnson, 1997).

One example of such disciplinary improvements by economists has been the development of the New Institutional Economics (NIE) and especially the application of the NIE in agricultural economics as we discussed earlier. NIE addresses some of the concerns and restrictive assumptions of standard new classical economic theory (mainstream economics) and acknowledges the important role of institutions, but argues that one can analyse institutions within the framework of neoclassical economics. In other words, under NIE, some of the unrealistic assumptions of neo-classical economics (such as perfect information, zero transaction costs, full rationality) are relaxed, but the assumption of self-seeking individuals attempting to maximize an objective function subject to constraints still holds. Furthermore, institutions are incorporated as an additional constraint under the NIE framework. As Langlois (1986, p.5) puts it, "the problem with many of the early institutionalists is that they wanted an economics with institutions but without theory; the problem with many neo-classicists is that they want economic theory without institutions; what the

New Institutional Economics tries to do is provide an economics with both theory *and* institutions."

The changes in agricultural and food markets have also led to a situation where we now find economic actors engaging in transactions rather than a large number of atomistic firms constituting a 'market'. This renders a limited applicability of mainstream economics due to its assumptions of homogeneity and rationality. This also has major implications of how we analyse the problems of market access. It is these types of problems that can only be addressed by the extensions of the neo-classical economic theory such as the New Institutional Economics.

Technological advances, specialization and the rise of impersonal exchange in the late 1800s increased transaction costs in the market place. One aspect from this is the increasing uncertainty about product quality, which increases the likelihood of moral hazard and adverse selection problems as illustrated by Akerlof's (1970) 'lemons problem'. In the market for foods the 'lemons' problem manifested itself in the adulteration (cheapening) and false representation of food products. The applications of the principles of NIE provide us with an understanding why there is a need for increased co-ordination. As a result of the demands from consumers for tailored foods and food safety processors/marketers have avoided traditional spot markets and have engaged in more direct market channels such as market and production contracts, full ownership or vertical integration. These more personal relations and transactions are best analysed by applying the principles of NIE.

It should however be indicated that the NIE is also not without its flaws. In much of the NIE and specifically in the transaction cost economics (TCE) paradigm the 'transaction' is the unit of analysis. The problem is though that the TCE analysis has limited relevance to those that are not in the market – those that are still not able to make a transaction. Traditional transaction cost applications would thus not help us much but we still need to find policy and business solutions for the problem.

For sociologists the rational choice tendency still contained in transaction costs economics, remains a major problem. Sociologists are critical about the fact that economists attribute human interaction to individual rationality and are abstracting away from fundamental aspects of social relationships that characterise economic as well as other actions (Richter, 2001).

To conclude this section I return to the concept of 'self-interest' that drives rational behaviour. Self-interest seeking behaviour of individuals link up with the concept of 'economic man' discussed earlier and assumes that individuals act to maximise profit or maximise utility. In an environment of perfect information the standard theory shows us that the economy will through the working of the 'invisible hand' achieve a competitive equilibrium. But the main defect of a strictly competitive market (even if it can be realised) is its severe moral weaknesses. For even if competitive markets were to produce efficient outcomes (which is highly unlikely), these efficient outcomes would in all probability not be justifiable and also fail to coincide with the allocation that society as a collectivity prefers on the basis of its definition of social welfare as expressed through the democratic process. In an environment of asymmetric information it might be that people are constantly looking for opportunities to steal and to cheat. It is only penalties and sanctions that prevent individuals from doing so. We can therefore understand why Okun (1975) argued that "…the market needs to be kept in its place ... [because] given the chance, it would sweep away all other values, and establish a vending machine society".

It is very easy to adopt the model of uncompromising 'economic man' but Ben-Ner and Putterman (2000) argue that this will ignore the realistic complexities in human behaviour and psychology. They argue that there is no scientific basis for the assumption that self-interest or own-well-being is the only concern of individuals. Ben-Ner and Putterman (2000) list evidence from evolutionary biology and other social and behavioural sciences that suggest individual human beings may be genetically inclined toward concern not only with their own success but also with the success of their offspring and other kin. It is further suggested that individuals will be inclined toward co-operation with others. These are some of the arguments Ben-Ner and Putterman use to show that values of people matter in economics and that it should be endogenised in economic analyses. Ben-Ner and Putterman argue therefore that human values could be an important force to keep "the market in place". This is contrary to Okun's (1975) plea for democratic capitalism where the state has to play a role in such a process.

The subject of values was once considered to lie beyond the purview of economic science but industrial civilisation has now a rising anxiety over it social health and cohesion and now we see the subject of values seeping into economic discourse. The work of Ben-Ner and Putterman (2000) is one of the more recent pieces of literature highlighting this trend. In addition the recent World Food and Agribusiness Forum hosted in the Netherlands in June 2002 had "Food Chains: Connecting value with values" as its theme. Here the values of ecology and ethics and social accountability were discussed and suddenly values have now also entered the business arena. A further illustration of the increasing importance of 'values' is the discussion and agenda points during the World Summit on Sustainable Development held in Johannesburg. It is clear that more changes in economics are on the cards and it could be that economics would become a much 'softer' and humane science thereby getting rid of the label of 'dismal science'.

4. Beyond the new institutional economics: Elements of a new paradigm for agricultural economists

The discussion immediately above provided an overview of the standard (and recently expanded critique) of mainstream economic theory and in the process I have already alluded to some extensions of the standard theory. In this section I take this argument further and debate the elements from other social sciences that could be applied to ensure that we as agricultural economists are in a position to address the challenges facing agriculture in Africa and in South Africa in particular. It is therefore appropriate to consider this first in order to provide the context in which to debate the appropriateness of our current conventional wisdom.

4.1 The challenges facing agricultural economists

It will probably not be difficult to develop a long list of challenges and issues that will influence the work of agricultural economists. To name a few:

- The agricultural issues emanating from the world summit on sustainable development.
- The challenge of land reform
- The broader issues of agricultural democratisation in South Africa
- Rural poverty
- The agricultural agenda for a successful implementation of the new partnership for Africa's Development (NEPAD)
- High food prices
- The Doha round of world trade negotiations and the broader issues of globalisation
- The depreciation in the vale of the Rand and its impact the competitiveness of the agricultural sector.

For me to discuss all of these would not be proper because it will take another paper to do justice to all of them. I will briefly run through the issues related to the challenge for agriculture in sub-Saharan Africa since it relates very well to the challenge facing NEPAD and then I will also look at the empowerment challenge in South African agriculture, which incorporates the issue of land reform. The discussion of these challenges will then lead us into the critical assessment of our agricultural economics paradigm.

4.1.1 Pro-Poor Agricultural Growth in Sub-Saharan Africa

Within sub-Saharan Africa 70% of the poor are in rural areas. Alleviating poverty is thus a major challenge requiring interventions to stimulate to political development and economic development. In the literature there is a general consensus that in many of the poor rural areas of sub-Saharan Africa increasing agricultural productivity will have the greatest potential for poverty-reducing growth, either through direct benefits, indirect expenditure linkages or through local consumer benefits. The argument is also that via linkages, growth in the non-farm economy is the most vibrant when farming is thriving. Successful agricultural development will stimulate diversification in the non-farm rural economy. Despite this consensus agricultural growth in sub-Saharan Africa has been disappointingly slow and years of interventions by donors and governments had very little impact. Despite the agreement on agriculture's importance we have seen over the years that agriculture's share of government and development agency investments have been falling. This paradox is what Dorward et al (2002) call the "agricultural investment dilemma". These authors also argue that the policy prescriptions for Africa embedded in what they call the 'Washington Consensus on Agriculture'(WCA)[3] are partly responsible for this problem in African agriculture. The basic policy prescriptions emerging from the Washington Consensus are essentially based on recommendations of decentralisation, deregulation and

[3] The Washington Consensus refers to a set of analyses and prescriptions considered being World Bank/IMF orthodoxy. The Washington Consensus on Agriculture is extracted from reports by the World Bank, UNECA, IFPRI and more recently the IFAD 2001 poverty report. This section is a largely summary from the arguments in Kydd and Dorward (2001) and Dorward et al (2002).

market liberalisation[4]. A key requirement according to the WCA is agricultural systems intensification implying increased productivity through increased technology. Other elements include:

- Expansion of production in non-traditional crops
- Improvement in economy wide policies – mainly through structural adjustment programmes.
- Reviewing barriers to entry in input markets
- Land reform and secure property rights
- Reforms on tax policy is needed
- Better government services in the delivery of public goods and services
- A challenge to OECD governments to reform their agricultural policies to reduce distortion in world commodity markets.

Although many of these prescriptions can be applauded there remain a number of gaps and inconsistencies mainly in terms of institutional analysis (Dorward, et al. 2002). Very little is said about institutions (specifically related to agricultural finance for poor farmers). In addition the WCA writers tend to overstate the advantages of smallholders without taking account of disadvantages smallholders will face in liberalised global markets.

The critique by authors such as Stiglitz (2002), Dorward et al (2002) and Kanbur (1999) is much related to the point of poor institutional analysis. Liberalisation policies and institutional changes are often recommended without taking account of the particular country's systemic approach to dealing with economic co-ordination problems.

To unpack this point we need to distinguish between different forms of capitalism (or different sets of institutions). For our purposes it is sufficient to distinguish between the version of the British-American (BA) world that is based on, and legitimised by, the ideology of *liberal capitalism* and the version of Continental European (CE) countries that is based on, and legitimised by, the ideology of *social democracy* (Terreblanche, forthcoming). In their book *'Varieties of Capitalism'* Hall and Soskice (2001) make a comparable but very interesting distinction between the institutional framework of the liberal market economies (LME) – Britain and America – and that of the Co-ordinated Market Economies (CME) of continental Europe. In the liberal market economies, firms co-ordinate their activities primarily via hierarchies and competitive market arrangements with market relationships characterised by arm's length exchange of goods and services in a context of competition and formal contracting. In co-ordinated market economies there is a greater prevalence of non-market relationships to co-ordinate endeavours with other actors and to construct their core competencies. These non-market modes of co-ordination general entail more extensive relational or incomplete contracting, network monitoring based on the exchange of private information inside networks and more reliance on collaborative relationships.

It is evident from most of the WCA writings that the recommended institutional changes always resemble the institutional framework for most of the liberal market

[4] The flaws in these policy recommendations for many developing countries are well articulated in the controversial book by Stiglitz (2002).

economies (LME) such as Britain and the United States of America. This as well as the links with the previous colonial masters and the main donors has resulted in most of the developing countries in the Poor South (as well as countries that were previously part of the Soviet Union) including Anglo-Phone Africa, imitating the LME or liberal capitalism model. It is, however, debatable whether that model really suits the developmental needs of these countries. (Is this perhaps why lagging countries will never catch-up?). We can make a strong case that if these countries - including South Africa - were to adopt the social democratic version of democratic capitalism, their developmental needs would be much better served. This links to the point Kydd (2002) makes that despite the fact that LME institutional framework can be very effective in certain cases it is true that in many cases it would not apply and be relevant in many other countries.

Polanyi (quoted by Boyer, 1997) demonstrates in his classic 1946 work, *'The Great Transformation'*, that most markets for commodities call for highly sophisticated institutional arrangements for their efficiency and self-adjusting property to be obtained. This again strongly argues the case against liberal market ideologies.

Boyer (1997) argues that there a need for institutional transition and organizational innovations that will provide a significant but ancillary role to markets, provided they are embedded in a set of social relations providing trust, loyalty and commitment. Without these basic ingredients markets will not be efficient.

Kydd (2002) continues this line of argument and makes a very strong case that the LME institutions are not appropriate for the development of smallholder agriculture in Africa and it would therefore be unlikely that agriculture would perform its pro-poor role. Thus the institutional challenges required by liberalisation measures within the WCA may be 'taking poor farmers down a blind alley'. For poor farmers in Africa the key challenge is to devise institutional arrangements, which are able to reduce transaction costs and also induce much stronger commitment to investing in needed specific (and co-specific) assets. Kydd therefore argues that the characteristics of poor farmers are such that the liberal capitalistic (LME) institutional framework is unable to solve the very particular co-ordination problems that arise. This notion that the market (central to the liberal ideology) is not always (and especially not in developing countries) the most efficient institutional form for economic co-ordination, is supported by many other scholars (see Hollingsworth and Boyer (1997) for a discussion on this). From this it is concluded that CME-type institutions tend to be more appropriate and needed to develop smallholder agriculture in Africa. Ideally these would be based on deliberative institutions, working horizontally inside a sector and also vertically along the supply chain to ensure a just and fair outcome.

Implications for the agricultural economics paradigm

All these arguments have important implications on how we as agricultural economists get involved in policy prescriptions for the development of agriculture in Africa. It is critical that policy be developed on the basis of an understanding of what are likely to be broad outlines of appropriate institutional arrangements, i.e. arrangements that will be transactions cost reducing and specific asset investment inducing. The question is whether this is enough to make a meaningful difference.

The bottom line is that our research on poverty and the agricultural development challenge in Africa needs to be institutionally informed. The challenge is to be able to provide insights on how to design non-standard institutional arrangements, non-market co-ordination and the role of government.

In the final instance it is important that our institutional analysis take cognisance of the fact that the institutions of a country or a region are *embedded* in the culture in which their logic are symbolically grounded, organisationally structured and politically defended. All the different institutions and structures of a country are integrated into a nation's social configuration (influenced by culture, history) to shape the social system of production (Hollingsworth and Boyer, 1997). The argument is this that the way a nation organises its economic activity and how transactions are taking place is a function of culture and society. Thus it is important that we be sensitive to the social context in which transactions are embedded and that we understand the degree to which social bonds exist between transacting actors. Given that there is a large array of institutional arrangements for effectively organising modern societies, the challenge for us in the African context is to find, and understand, the institutional arrangements that will deliver viable economic performances.

4.1.2 The empowerment challenge in South African Agriculture

Eight years after the political transition from the apartheid regime to a system of representative democracy, South Africa is faced with serious political, social and economic problems. The new governing elite daily encounters problems in consolidating the multi-racial democratic system and in exerting its authority in all matters of state. The viability of the new democracy is threatened by bureaucratic incapacity, by the inability of the state to make meaningful progress in black economic empowerment and by the failure to alleviate widespread poverty and social deprivation it has inherited from the apartheid regime.

The aspects raised here are also specifically applicable to the challenge in agriculture. The challenge of building a 'united agricultural sector' and ridding the sector of its dualism is well articulated in the Strategic Plan for South African agriculture. This is a huge task and is organised on 3 pillars: equity, competitiveness and sustainability. The land reform challenge and the process of establishing successful black commercial farmers are central to the strategic plan.

We all know that we are dealing here with a complex social problem, which cannot readily be tackled by the basic foundations of agricultural economics and a focus on optimisation and maximisation. Kassier and Kleynhans have already made this argument as far back as 1989 and argued for change in thinking. My perception is that apart from the introduction of public choice and some shifts to new institutional economics not much adjustment in the existing agricultural economics paradigm and training has taken place. There is still a tendency amongst the majority of our members to shy away from the key problems of black farmers, the issue of land reform and the burning issue of rural poverty. In general the problem of equity is considered to be second-class and not good enough to get academic accolades from our natural science peers[5].

Another reason for the apparent lack of enthusiasm for these challenges could be related to a general unsympathetic attitude of the elite groups – both white and black – towards the poor and their unwillingness to acknowledge the structural nature of poverty. The indifferent attitude towards poverty – and towards the ongoing violation of the dignity and humanity of the poor – is ultimately based on racial and/or class prejudices that are deeply embedded in South Africa's unfortunate history.

The main problem facing the empowerment challenge in agriculture is that despite the vision of 'a united and prosperous sector' we still live in a divided society. The characteristics of dualism, inequality and the emergence of a 'modern, first world open and capitalist' enclave (Terreblanche, forthcoming) accentuate the 'two-world character' of the South Africa economy: one modern, smart, professional, efficient and globally orientated; the other, neglected, messy, unskilled, downtrodden and thriving on crime and violence. To complicate matters the political and economic developments over the past 30 years have increased the distance between the 'two-worlds' and have destroyed what beneficial interaction might have previously existed between them. South Africa is *en route* to a situation where the only interaction between the 'two worlds' will be at the level of crime, violence and contagious diseases that will be 'exported' daily from the third world periphery into the modern, first world capitalist enclave.

When a society is as multi-cultural and multi-ethnic as ours, when the different groups and socio-economic classes 'share' a divided and conflicting history, when the society is divided between such a variety of groups – some rich and others desperately poor, some powerful and others hopelessly powerless, some highly developed and educated, others undeveloped and uneducated, some employed and many unemployed, some law abiding and many inclined towards criminality and violence – then the decision about what is, and what is not, in society's interest is extremely difficult. In such a situation decisions on what constitutes or defines social welfare cannot be based on slogans or on vague promises about the relationships between economic growth and poverty alleviation and can certainly not be left to the alleged 'wisdom' of a so-called free-market system within the framework of global capitalism.

There is thus an urgent need for a paradigm shift in the minds of those who have to decide on socio-economic policy and chose the appropriate version of the CME institutional framework for South Africa and for South African agriculture. Neither the market nor the state can be left alone with this important challenge. It is our duty as agricultural economists, which operate in business, in farming organisations and act as policy advisors, to develop institutional arrangements that could ensure the integration of the two worlds. In order for us to do this we need some new ideas.

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[5] The process of peer-rating at the NRF and the procedure of promotion at most universities work against the applied sciences such as agriculture because it is considered not rigours and pure enough. The academic incentive system bias research away from the key problems of society. It is only the funding under the focus areas from different funding organisations, such as the NRF, that ensures that some problem solving research still takes place.

4.2 The case for new ideas and new principles?

In light of changing circumstances in world agriculture and agricultural markets as result of the process of agricultural industrialisation there is the danger that small farmers will be marginalised and excluded from high value markets (Reardon and Barret, 2000). Farmers from previously disadvantage groups of the South African population who were denied commercial farming opportunities under the apartheid regime face a double challenge to enter a very competitive and deregulated domestic market as well as having to deal with the challenges posed by the process of agricultural industrialisation. It is therefore a major challenge in South Africa to prevent marginalisation and exclusion of poor farmers and to find ways to link small growers to high value markets.

The only way empowerment of these farmers could take place is to ensure some form of linkage with agribusiness (including traders, market agents and the traditional range of value adding enterprises in the food chain), which will secure market access for them on a sustainable basis. The related challenge is to ensure the establishment of black-owned business at all levels of the agricultural supply chain.

Some earlier efforts by parastatal development corporations and some agribusinesses to open agricultural markets for poor rural communities are commendable but the challenge of black empowerment in agriculture is so huge that much more needs to be done. Improving on-farm productivity for increased sales could be one way of stimulating commercial activity and thereby linking them to markets. However our experience with development efforts over the years has clearly shown that this approach is not sufficient because access to markets (and finance) seems to be more important for economic success. Poor developed links with markets (and thus with agribusiness per definition) have reduced incentives in agriculture to such an extent that farmers in many cases have abandoned farming activities. This has been a major problem not only amongst farmers of perishable commodities such as dairy, fruits and vegetables but also amongst grains, oilseeds and beef. The lack of market access is often attributed to poor infrastructure and communication. But sometimes it is just poor quality or quite often lack of <u>trust</u> that creates the perception that these farmers' products do not comply with the basic minimum requirements in order for it to be sold.

It therefor becomes quite important for agribusiness in South Africa to develop stronger links with disadvantaged farming communities to ensure that true economic empowerment materialises. It is argued that some special actions from government in collaboration with the business community are needed to tackle this major challenge in South African agriculture.

Non-market co-ordination mechanisms

The background and context provided immediately above provides enough justification for the ideas in section 4.1.1 on the changes in thinking with regard to institutional analysis that is required for more appropriate institutional design to solve the problems of smallholders. The implication of looking at institutions that are more non-market orientated requires that we need to take note of a number of aspects that need to become part of our 'tool box' to help us putting these institutional arrangements together.

Given the context and the understanding that the market will not provide a satisfactory outcome we will have many more personal transactions, between big business and small farmers and between different cultures. There would be very few at arms-length transactions. This is partly a function of poor market access but also a function of the change in food markets and the need for stricter co-ordination. So what are the new ideas we need to take note of in order to deal with this challenge?

The New Economic Sociology and the concept of Intersubjectivity

Following on the critique of the *homo economicus* and the atomostic agent provided earlier, it is necessary that we realise that in dealing with the problem of empowerment we work with different agents - non-atomistic and non-homogenous agents. Each agent is shaped and influenced by social, cultural and economic structures and this needs to be analysed and understood. There is a strong interface between the individual and society confirming the point earlier that economic agents are socially embedded. So what we are arguing is that individuals are not acting individually but act socially or as members of a group. Davis (2001) therefore introduces the concept of the socially-embedded agent by showing how individuals and their institutions and social values influence one another. So when different agents with different social values engage in transactions this could provide interesting challenges for the selection of the co-ordinating mechanism to ensure an efficient outcome.

In mainstream economics it is considered that individual actors (or agents) make independent decisions and are uninfluenced by other actors. In sociology other actors influence actors. As economist began to recognise that actors are influenced by other actors as described earlier we see economics infiltrating sociology under the banner of NIE (Richter, 2001). The New Economic Sociology (NES) paradigm was the response from the sociologists to this infiltration. The NES again take onboard the concept of embeddedness discussed earlier by arguing that 'economic action takes place within the networks of social relations that make up the social structure'.

The NES is critical of the naï ve construct of the NIE by only focusing on transaction costs. They argue that issue of power, trust, embeddenes, social relationships and networks are much more important – especially in the South African context we where we have inequality in (economic) power. The NIE, as we mentioned earlier still focus on economic rationality and ignore issues such as fairness, trust or power. If we just look at how business is done today in South Africa a lot relies on sociality and friendship or just plain good contacts you have made through related activities, such as the church, society, sport, etc. Getting into the 'social network' is not easy for those not sharing the same society and the same culture and these actors are thus often excluded from business deals. The role of culture in economic behaviour should therefore be more understood.

A number of the concepts from sociology such as power, fairness, social networks, altruism and status can become very useful when we have to analyse and provide solutions to the process of economic empowerment.

Social capital and trust

Social capital is also a term that is borrowed from Sociology and has become of increasing interest to economists (Peterson, Robison and Siles, 1999) to explain choices that are made outside the market and that were previously not addressed by neo-classical economics. Robert Putnam's (1993) work on social capital also falls within this framework, but social capital is also incorporated in transaction cost economics as an important element to cut-down on the costs and uncertainty of market exchange thereby increasing the efficiency of transactions. Social capital refers to social connections or networks, norms and trust, all of which can facilitate co-operation in society and ultimately have effects on economic performance (Putnam, 1993; Ensminger 2000). It is now increasingly being recognised that social connections and networks should be studied to explain economic behaviour and organisation.

Social capital consists of relationships found in social structure that are appropriable for productive use by an actor. Peterson, Robison and Siles, (1999) adopt the definition of Robison, Schmid and Siles (1999): 'social capital is the sympathy or sense of obligation that a person or group receives from another person or group that may produce a potential benefit, advantage, or preferential treatment from that other person or group beyond that which might be expected in a selfish exchange relationship'. Under this notion of social capital, the basis for mutual interest is the sympathy of obligation of one transacting partner for the other. The origin is the social connectedness of the two parties and from self-interest or authority. The potential of social capital is that each partner will forego opportunistic behaviour and thereby lowering transaction costs. Krug and Polos (2000) also argue that the building of social capital is seen as urgent and crucial investment for new firms where the building of personal relations is more crucial for the survival of a firm than direct access to resources. Here again we emphasise the importance of social networks for successful business and thus successful economic empowerment.

The issue of social capital becomes very important in trying to understand and analyse the many failed empowerment initiatives and failed transactions and linkages between agribusiness and poor farmers in South Africa. These initiatives or transactions often performed poorly because of cultural misunderstandings, suspicion, limited attempts to create effective interpersonal relationships, missed opportunities to understand the nuances of communication, friendship and partnership. Or sometimes it is just a general lack of understanding of how business is done.

The concept of social capital therefore gives an underlying rationale to the importance of studying culture and relationships in our empirical work. This is even more true in the multi-cultural context of South African agriculture and also within the context of our historical legacy where mistrust between different groups have been the order of the day.

In terms of the concept of social capital we can argue that trust is the single most important aspect. It is recognised that trust seems essential to commercial transactions that are not fully controlled by either legal constraints of contracts or the economic forces of markets. From the literature it also appears that trust plays an important part in the formation of relationships. There is literature that links trust with transaction costs by arguing that when exchanges take place in an atmosphere of trust, transactions are less costly to complete. There are now many initiatives in South Africa from donors, agribusiness and economic consultants to build linkages and to make agricultural commodity markets work for the poor. I would argue that the building of social capital is a crucial prerequisite for success in these efforts.

How do we build social capital? Peterson, Robison and Siles (1999) argue that this can be done through repeated transactions between partners. During the transactions expressions of friendship, common values, common goals and mutual respect would all be appropriate for building social capital. Establishing trust will be the key to building social capital. On the other hand trust is an act that evidences the existence of social capital in a relationship. High trust relationships between partners result in less searching for alternative partners, more commitment, etc.

Direct social capital – mentioned here – takes much time and effort to create due to the fact that a lot of attention should be paid on trust over many personal interactions and many economic transactions. Indirect social capital arises from ones reputation for trusting relationship with others (Peterson, Robison and Siles, 1999).

4.3 Synthesis: The case for cross-disciplinarity

The above arguments probably presented a number of fairly foreign and probably provocative ideas. My basic point is that if we as agricultural economists want to become useful by making a contribution to the empowerment process in agriculture we need make some adaptations. First of all we need to urgently start questioning our standard recipes and policy prescriptions for agricultural development which to my mind is largely based on the British-American philosophy of liberal capitalism. The question is whether this approach to development is relevant and appropriate for our circumstances and for our challenges.

I have also made the case for some important sole searching amongst our profession to show a much greater interest and activity in the two main challenges I have singled out in this paper. Some new values and understanding of the principles of humanity and dignity is urgently needed.

Finally, I have made the case for agricultural economists to focus on the strengths of sociology, anthropology and political analysis in order to be better equipped to tackle the challenge of black empowerment in South African agriculture. The point that was made throughout this paper is that economic theory sacrifices far too much relevance in its pursuit of ever-greater rigour. Given the challenges, we need to see stronger efforts to integrate the building of theory in economics with the study of reality. Here some contributions from the other social sciences could be very helpful (Harriss, 2002).

Harris (2002) and Kanbur (2002) make useful arguments to illustrate how cross-disciplinarity (defined as the analysis and methods of more than one discipline) and the combination of qualitative and quantitative approaches can be used to inform policy on development and poverty alleviation much better. These are the challenges in South African agriculture and one can thus make the same case for applications in our profession. Kanbur (2002) warn however that cross-disciplinarity is not easy and there is the danger that we could only pick-up the weaknesses instead of the strengths of each discipline. There are already examples of works applying the principles of cross-disciplinarity or interdisciplinarity. A case in point is Mantzavinos' (2001) book on 'Individuals, Institutions, and Markets' in which he integrates the latest scholarship in economics, sociology, political science, law, and anthropology to offer a theory of how the institutional framework of a society emerges and how markets work within those institutions. These are interesting developments and I look forward to see how we could apply these principles in agricultural economic scholarship in South Africa

5. Conclusion: Implications for research methodology and approaches in agricultural economics

In this paper I briefly reviewed agricultural economic scholarship in South Africa over the last 40 years, with the purpose to highlight potential new avenues for future research. I challenged the theoretical building blocks of agricultural economics and then provided some indication of how the discipline has rectified some of its shortcomings. The introduction of the New Institutional Economics into our discipline has been a major improvement. I have then argued that the challenges facing our profession is so huge that we need think about further adaptation by making more use of other social sciences such as sociology and anthropology. This could help us understand the major complexities of dealing with the challenge of black economic empowerment in agriculture. This will however also be necessary for us to adjust our research paradigm. This argument is well articulated by Doyer and Van Rooyen (2001) when they motivated a research method to study agribusiness supply chains:

'… the complexity of the business and institutional environments facing business firms in the new global economy extend beyond the scope of neo-classical resource allocation economics and should be augmented by a holistic application of various economic theories from a constructivist paradigm. Conventional agricultural economic analysis is bound by the positivistic inquiry paradigm. This paradigm approaches reality with in a deterministic view where clear and linear assumptions apply'.

Given the challenges I highlighted earlier and the challenge for agricultural economic analysis to capture complex business reality and decisions to explain and predict the institutional and governance structures and optimal resource allocation behaviour of firms, makes the combination of a positivist and constructivist approaches to research quite sensible. The combination of these approaches enables a holistic approach to the research problem. Positivism's strong explanatory and prediction capabilities are combined with the strong understanding and reconstructive capabilities of the constructivist approach. Throughout this process qualitative and quantitative data can be used in combination as we have argued earlier.

Since our research work also needs to focus more on structural and institutional issues it seems quite evident that we have to adopt a more eclectic research approach making much more use of case studies. The skills from the other social sciences will desperately be required here to advance our discipline into previously untreated terrain. This is necessary to make sure we make the important contribution to the most important task of building a 'united and prosperous agricultural sector'.

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