Reconstruct or Rationalize Agriculture?

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Agriculture in Crisis - Rationalise or Reconstruct
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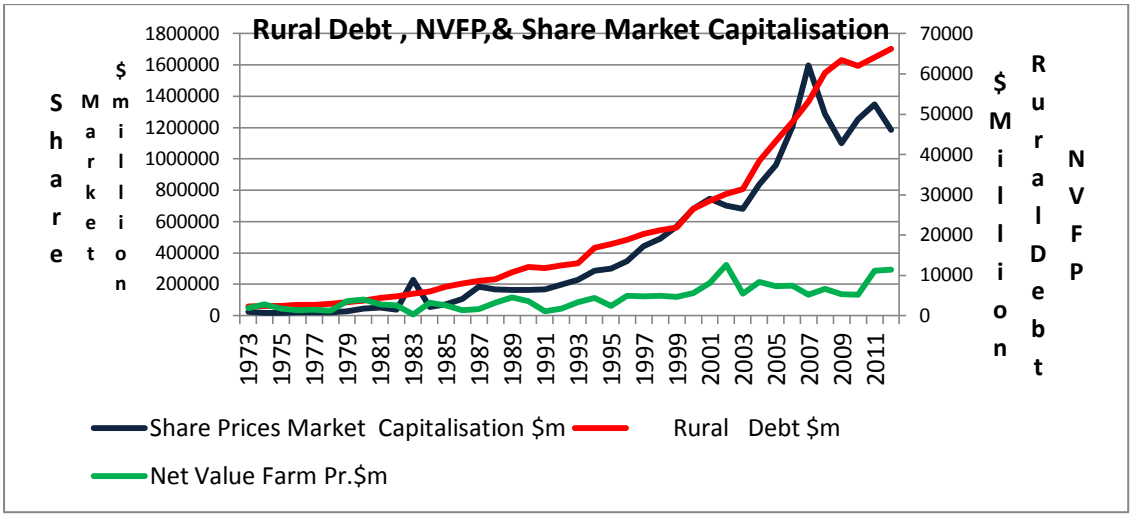
Abstract



The current rural crisis is an entrenched problem of long term policy failure. At the farm level it is characterised by low farm income and historically high levels of debt. Traditionally, the low farm income problem was associated with small scale farming. Supply side economic structural reforms post 1983 has transformed the traditional low income problem from small scale farming to one that now threatens large efficient farmers, their communities, and regions across Australia.

Lending practices of financial institutions in deregulated financial markets has contributed substantially to the current crisis. Debt to equity lending was identified as a problem in the 1994 Senate Regional and Rural Affairs and Transport Committee Report on Rural Adjustment, Rural Debt, and Rural Reconstruction. This issue was never addressed within a policy framework. The farm sector is now paying the price of, at best, policy neglect, or at worst, incompetence on the part of major political parties, their advisors, and peak rural bodies.

For three decades, rural Australia has been reconstructed, adjusted, and now rationalised. Market power has been redistributed from the farm sector to highly concentrated input and output markets. Rationalisation at the farm level cannot address three decades of failed policy. A new policy direction must be found which recognises that redistribution of market power away from the rural sector actually compounded the pervasive force of Engel's Law working in the background in mature economies. Hopefully, this paper can contribute to understanding the failure of policy and encourage exploration of policies to rebuild a prosperous rural Australia. In this process farmers must recognise their role is to reject rationalisation; and, *fight for a new direction*.

Reconstruct or Rationalize Australian Agriculture?

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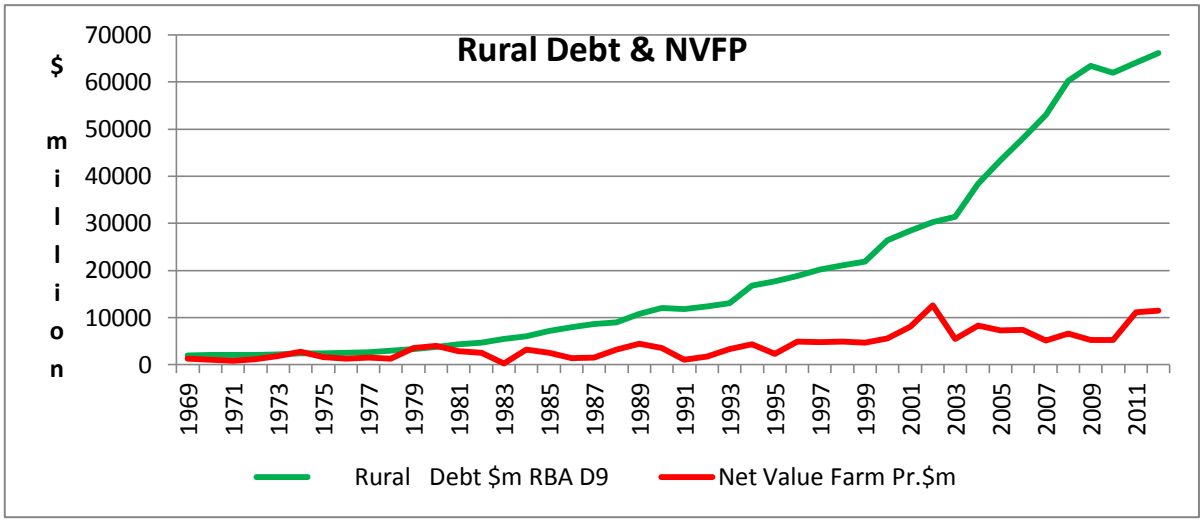
1 Problem Defined: Policy Failure

"*The pace of adjustment in agriculture must continue and accelerate, to unwind the debt build up of the 1980's and facilitate adjustment of farm size*"[i]

New Horizons
A Strategy for Australia's Agrifood Industries
National Farmers Federation 1993

Chart 1



Compiled from: NVFP, ABARE 2012, Commodity Statistics, Rural Debt , RBA online, Table D9

Implicit in the National Farmers Federation (NFF) quotation is rationalisation of agriculture to manage the debt build up of the 1980's. In 1980, debt to Gross Value Farm Production (GVFP) was 32%. By 1990, the policy objective had not been achieved as debt to GVFP had reached 51%. Debt to GVFP peaked at 156% in 2010 before falling marginally to 135.4% in 2012. By any common sense measure, official policy direction enunciated by the peak agricultural political representative body in 1993 had failed. In simple terms, these statistics presented graphically confirm significant agricultural policy failure.

Chart 1 presents the problem from the perspective of an inadequate growth in farm income. Net Value of Farm Production (NVFP) is assumed a general approximation of before tax farm income. No debt amortization is included in the NVFP curve. Any NVFP curve that included an amortization program would be substantially lower on the Y axis particularly post 1993. As these curves are based upon national data published in ABARE Commodity Statistics 2012, empirically we are looking at a national overview of agricultural policy failure. There will be different experiences across the various states, regions, and industries. This paper should be read with this qualification in mind.

Structural reform policy provides part of an explanation that has underwritten agriculture policy failure post 1983. Lending practices of financial institutions becomes a second tier to the problem. Financial behaviour is explored in another section of this paper. However, the behaviour of the curves in Chart 1 is undeniable. NVFP basically flat lines whilst farm debt escalates alarmingly post 1980. Debt amortisation was never a reasonable expectation given a flat lining NVFP curve. Inherent in the behaviour of these curves are constraints upon farm viability, productivity, and profitability.

"*debt is a symptom rather than the cause of more fundamental and deep seated problems in rural Australia*"[ii]

Implicitly then, the shape of the debt curve relative to NVFP suggests over time changing lending practices of rural financial houses. In light of a flat lining NVFP curve, emerging lending practices indicated by the rapidly rising debt curve had to be unsustainable over the long term. It was never a

question of would the farm sector become overburdened by debt; but, when would this occur. It took the Global Financial Crisis (GFC) to finally unravel unsound lending practices of rural lenders identified in this graphical analysis of debt to NVFP.

So the real questions to be answered lie not at the farm gate; but, at the structure and direction of national agricultural policy; and, lending practices of financial institutions. Structural reform of agriculture under orthodox economic policy direction has been supported by all major political parties, media "experts", agro-politicians, and some academics. Academics supporting prevailing orthodox economic policy direction must now live with the reality that they not only failed to understand the real world impact of those policies; but also, have let down the farm sector. Sadly, farmers that pursued the perceived wisdom of national policy makers and their advisors are now paying the ultimate penalty for that folly: insolvency.

According to the NFF in 1993, rural adjustment was designed to overcome the debt build up of the 1980's. Rural adjustment as explained in New Horizons was about farm build up which inevitably meant some farmers became collateral costs of policy as they exited primary production. Exit of farmers was rationalised as being caused by a number of factors including: unsustainable levels of debt, poor productivity or scale of operations. However, there was a hint of an understanding that some sort of "*pervasive economic force*" was driving the need for structural adjustment in agriculture.

"*So long as growth of farm productivity exceeds the growth of demand for food, the greater the increase in farm productivity, the greater the imbalance between the supply and demand for farm products--- can only result in an outflow of labour from farming or lower product prices, or a combination of these effects*" [iii]

This rather vague recognition that there existed some inherent economic force that appeared to influence the supply and demand for agricultural output is an extraordinary admission of just how little formal economic knowledge underwrote agricultural policy. What was described as some "pervasive force" was the operation of Engel's Law in a modern growing economy. This Law has been recognised as an immutable relationship between rising incomes and the demand for food in growing economies since 1856. Yet in 1993, our national agro-political body could only describe it vaguely as some *pervasive economic force*. With this level of economic understanding contributing to policy development, it is no wonder rural Australia is in a state of crisis directly attributable to policy failure.

A policy direction of adjustment/rationalization to counter Engel's Law was always a futile policy direction. Agricultural policy had to fail because thinking at the highest level of policy formulation was confused and uninformed. On the one hand, their implicit acceptance of Say's Law of Markets engendered a belief that rising productivity and structural adjustment could solve the rural problem. On the other hand, they recognised that rising productivity can lead to supply and demand imbalance. Nevertheless, faith in rural adjustment remained unswerving and "*should always be seen as one that is directed at improving the productivity and competitiveness of the agricultural industry*"[iv].

My discussion today will build upon the paper presented at Brisbane *Rural Finance Round Table Conference*, October 17th, 2012. At that Conference, a serious refutation of prevailing agricultural policy direction and its underlying economic philosophy was presented in "Rural Australia: Crisis 2012". In that paper there is a discussion on the conflict between Say's Law of Markets and Engel's Law. In essence, free trade, market liberalization, and labour market reform became the ideological alter for the high priests of supply side economics brought to Australia post 1983 by the Hawke Administration. Agriculture became the sacrificial lamb offered to appease the gods of late eighteenth and early nineteenth century economic theorists. The result three decades later is widespread national dislocation in rural industries, regions, communities and farm families.

2 Production & Debt

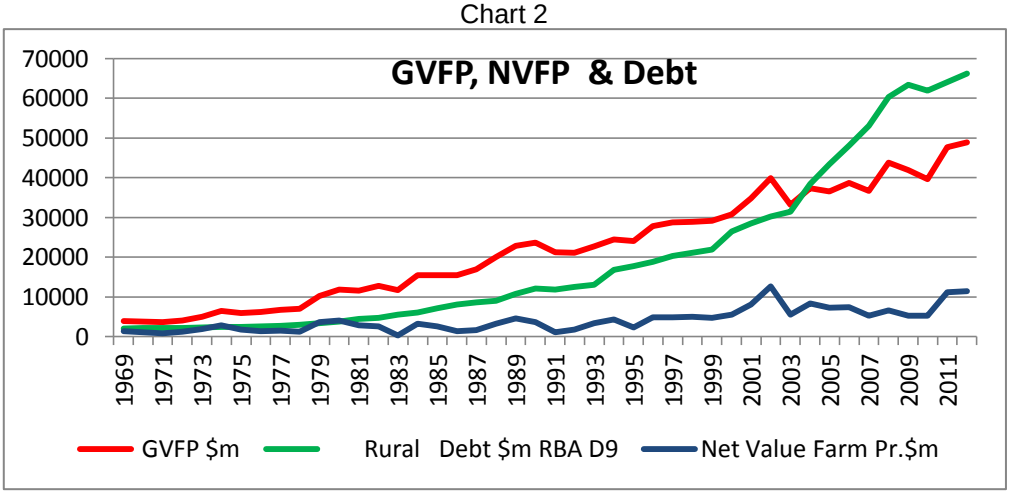
"*The downward trend in real commodity prices need not of itself produce a loss of national income nor a decline in the profitability of commodity producers if the decline in the real commodity or manufactures price is the result of higher productivity*"[v]

Beating the commodity price cycle
NFF, 1995

Rural adjustment *"should always be seen as one that is directed at improving the productivity and competitiveness of the agricultural industry"*[vi]

These two quotations from separate NFF publications show the unswerving faith in defeating the unknown "*pervasive force"* through productivity and competitiveness. Such commitment to a single policy direction carries all the hallmarks of a religious fervour.

Chart 2



Compiled from: NVFP, ABARE 2012, Commodity Statistics, Rural Debt, RBA online, Table D9

Chart 2 confirms that the policy of *productivity and competitiveness in agricultural industry* has been "purchased" through increasing levels of farm debt post 1983. By 2003, agriculture had become Australia's Euro zone debt "cot case". Nevertheless, policy makers remained unchastened despite growing empirical evidence of policy failure. Political parties, academic advisors, and peak ago-political movements continued their ideological drive for efficiency productivity and competitiveness. These non-farm groups relentlessly pursued their supply side economic structural reform of agriculture failing to recognise unmistakeable evidence of pending policy collapse. Farmers and rural communities became the collateral carnage of failed supply side economic ideology.

If anyone questioned the direction of policy, they were either ignored or dismissed with slogans supporting the merits of "free trade, productivity and international competitiveness". In other words, those who could see what was happening at the farm gate, community and regional level were considered as little more than ill-informed nuisances. Consequently, for the first time since the Great Depression, areas of Western Australia are looking at not planting a crop. In other states, different industries are experiencing severe dislocation. An official reality check on the policy direction of productivity, competitiveness and rationalization is long overdue.

The definition of productivity used as the refuge of policy makers, their advisors, and peak agricultural bodies is Total Factor Productivity. Total Factor Productivity is in itself a questionable concept. It is underwritten by a 1920's neoclassical growth model known as a Cobb-Douglas or a Cobb–Douglas type production function. The model assumes growth is derived from population increases and technological change; and, assumes constant returns to scale. Official policy then is directed confidently towards encouraging and assisting research and development to ensure continued growth and prosperity in agriculture.

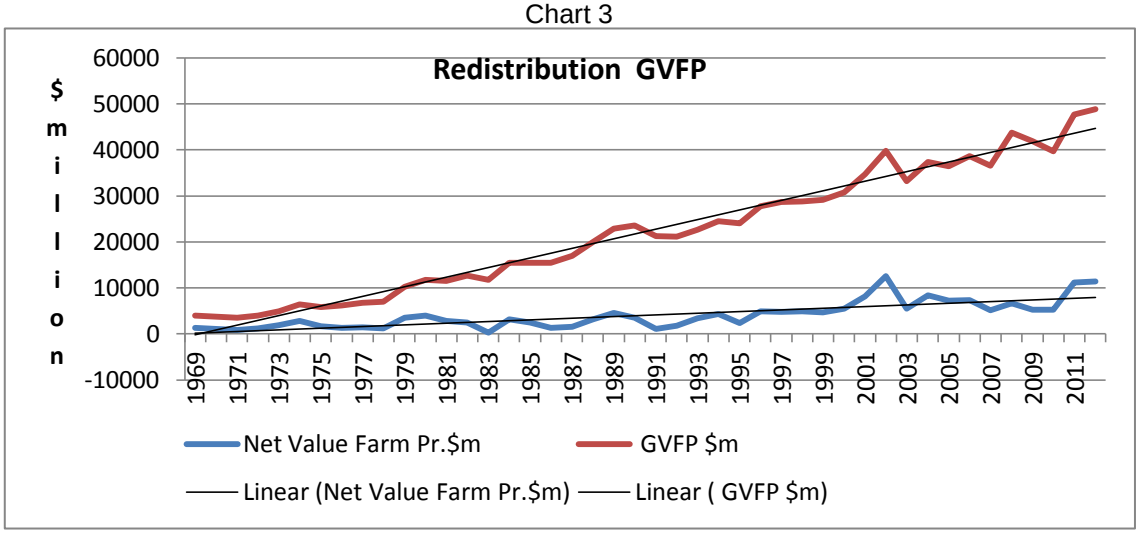
As the growth model assumes constant returns to scale, if inputs are doubled, output doubles. Inherent in the Cobb-Douglas type production function is Say's Law of Markets i.e. supply creates demand. So given supply creates demand, and constant returns to scale, productivity and competitiveness become the only important barriers to a profitable agricultural sector. The real world difficulty for policy based upon Say' Law of Markets is Engel's Law. Keynes had this to say about Say's Law of Markets or supply creates demand:

"*the conclusion that costs of output are always covered in aggregate by the sale proceeds---- has great plausibility",* but, "*is confused with another, indubitable similar looking proposition that the income derived in aggregate by all the elements in the community concerned in a productive capacity has a value exactly equal to the value of the output"*[vii]

Keynes makes clear that the flaw in the theory that supply creates demand is that the market value of final output need not equal cost of production. Consequently, implicitly assuming Say's Law of Markets underwrites Total Factor Productivity makes it a confused growth model in the real world.

The NVFP curve challenges the simplistic belief in productivity and competitiveness. The flat lining of the NVFP curve indicates that growth in GVFP flows to the non-farm sector. In other words farm gate prices have not risen sufficiently to enable an adequate residue to ensure a profitable farm sector. Empirically, Chart 3 confirms a serious redistribution of farm income to the wider community.

Chart 3

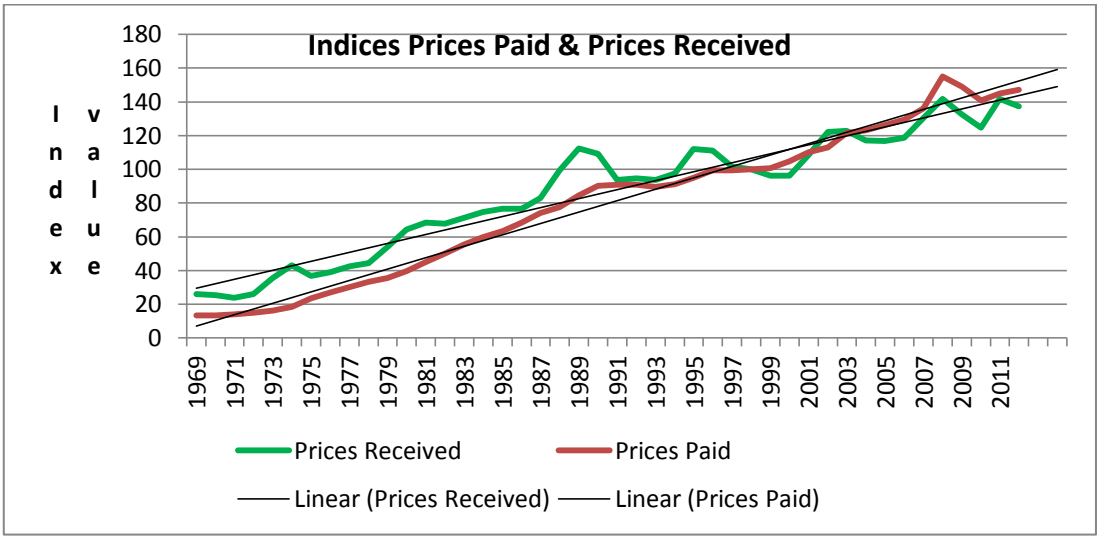


Compiled from: NVFP, ABARE 2012, Commodity Statistics

Redistribution of income away from agriculture is effected by the relationship between prices paid and prices received. There are two factors at work in income redistribution: inflation and market power in input and output markets. As prices rise, inflation redistributes from the economically weak to the economically strong. Monopoly power exercised in input and output markets also redistributes farm income away from producers.

Chart 4 traces out the real world struggle between farm sector input price and output price. Prices received and prices paid changed their relationship from 1989 onwards. This is consistent in the Keating move against industry intervention in the 1988 Budget; and, ongoing structural reform in Hawke's 1991 Industry statement. The next point of interest is 1996 when prices received moved below prices paid. Except for a brief moment in 2002, they remained below prices paid.

Chart 4



Compiled from: NVFP, ABARE 2012, Commodity Statistics

Major decisions with serious cost ramifications for agriculture were taken over 1995 and 1997. Although in the end Australia did not ratify the Kyoto Agreement, it did achieve the greenhouse gas commitment agreed to at Kyoto. By negotiating an abolition of land clearing at State level, the Commonwealth Government met the agreed Kyoto target. Environmental policy has had a negative impact upon productivity growth by limiting factor broadening and factor deepening at the farm level. In other words, underdeveloped land could be neither adequately improved for grazing nor cleared for intensive cropping.

In October 1992, Keating established a national Competition Policy Review. The Review was handed down in August 1993 and became commonly referred to as the Hilmer Report. Between 1995 and 2005, the findings of Hilmer were implemented. On election to office in 1995, the Howard Government implemented the main body of the Report. The downturn in prices received curve in 1995; and, the eventual cross-over of the two price curves in 1997 might well be coincidental; but, it is more probable the behaviour of the two curves was influenced by major policy decisions taken during the mid 1990's.

Effects of these two major policy decisions would have different impacts upon the rural sector. Competition policy would reduce market power of the farm sector thereby weakening their bargaining position in both input and output markets. At the same time, the Trade Practices Act was not strengthened to break up or reduce monopoly power in agricultural input and output markets. This failure to address the market power differential in agricultural input and output markets has had serious consequences for sectoral viability.

The dairy industry is a well known example of conflict between highly concentrated ownership and control of the retail sector and agriculture. In other words with an increasing trend of concentration in input and output markets, the removal of orderly market arrangements in major rural industries does not pass the moral test in economic policy: conflict between self interest and social interest. The Report of the Senate Rural and Regional Affairs and Transport Committee had this to say about competition policy and the dairy industry[viii]:

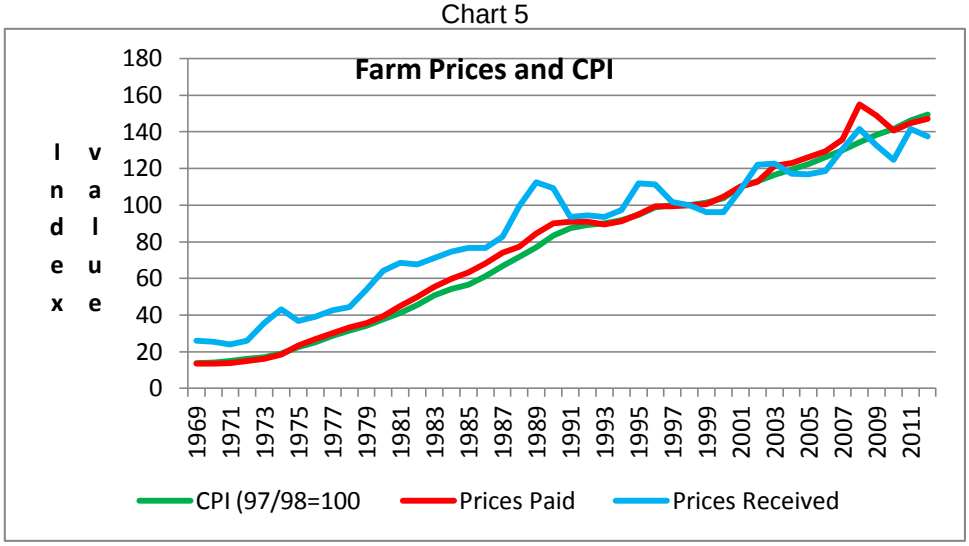
"*there has not been a thorough investigation of the national consequences of deregulation with State reviews being undertaken piecemeal*"

and

"*assessment of the public interest in reviews has been less than comprehensive and appears to favour narrow sectional interest"*

It is reasonable to assume that this criticism of dairy industry national competition policy assessment carried implications for assessments of competition policy in other major rural industries.

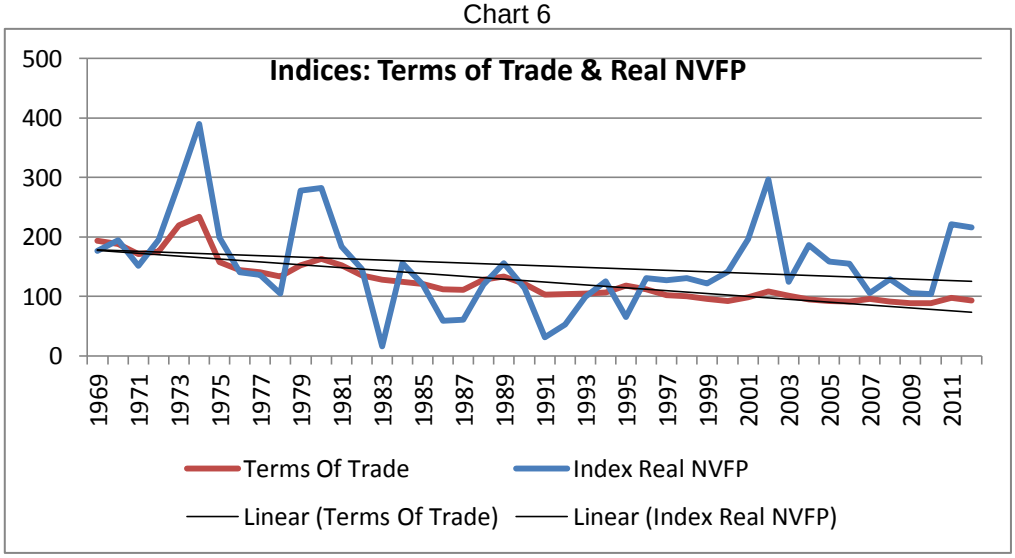
Chart 5



Compiled from: NVFP, ABARE 2012, Commodity Statistics

Chart 5 reflects the impact of inflation on redistribution of income away from the farm sector. From 1996 onwards, the CPI curve is reflective of a trend line through the prices received curve. From 1991 to 2002, prices paid curve follows the CPI curve suggesting price of inputs rose consistently with prices in the wider community. From 2002, the input curve rises above the CPI. It can be inferred that agricultural supplier's exercised their superior market power in setting farm sector input prices. From that point onwards both inflation and monopoly power combined to the detriment to farm sector profitability.

Chart 6



Compiled from: NVFP, ABARE 2012, Commodity Statistics

"*The downward trend in real commodity prices need not of itself produce a loss of national income nor a decline in the profitability of commodity producers if the decline in the real commodity or manufactures price is the result of higher productivity*"[ix]

Beating the commodity price cycle
NFF, 1995

Farm terms of trade consolidate into an index: the ratio of output prices to input prices. Confronted with Chart 6, the NFF restatement of Say's Law in terms of commodities becomes nothing more than empty rhetoric. In 2012, the Real NVFP curve reveals a purchasing power income equal to 1980-81. Except for the brief improvement in 2002, Real NVFP remained below 1981 values for two decades. Faced with redistribution of income away from the rural sector through inflation and mal-distribution of

market power, Chart 6 presents a severe setback for the structural reformers post 1983 and their policy direction of efficiency, productivity and competitiveness. Blind faith in structural reform appears a euphemism for a "scorched earth" policy.

3 Rural Debt

International Experience

Government intervention in rural debt reconstruction and industry support has a long international history. In the USA, rural financial assistance dates back to 1917 with the establishment of farm loan agencies notably Federal land banks and Federal Intermediate credit banks. These two agencies had complementary functions of mortgage issue and provision of working capital respectively. Their roles became indispensible in farm support programs during the Great Depression. Dislocation created by the Great Depression, 1929-33, halved farm income with a subsequent collapse in land values[x].The US Government acted to authorise land banks to lend on "normal farm values" rather than depressed market values. The US Government also established a Federal Farm Mortgage Corporation (FFMC) authorising loans to be issued to 75% of farm value as opposed to a 50% limit by land banks.

Where a farmer was in default to a private creditor, Federal farm loan agencies would negotiate an acceptable settlement enabling a Land bank to take over the mortgage. The creditor received FFMC bonds guaranteed by the US Government in exchange for the mortgage. In exchange for Government bonds, mortgages had their face values discounted. This system is very similar to Brady Bond's employed half a century later during the Latin American debt default crisis of the 1980's. The system applied at farm or international level has a demonstrated record of success.

Australian Experience

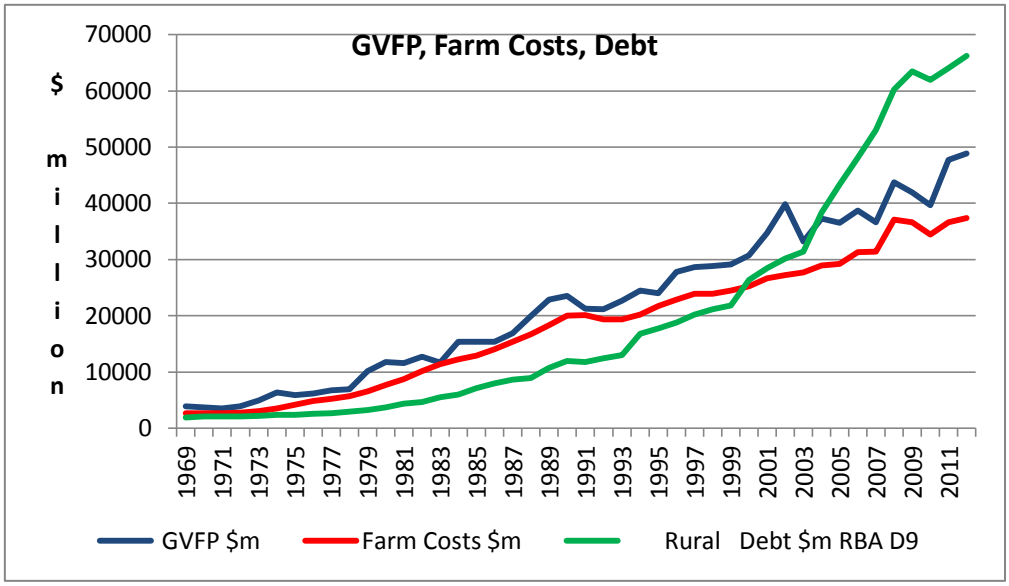
In Australia, the Commonwealth Government began rural debt reconstruction as far back as the great depression. In 1935 a debt reconstruction scheme was established[xi]. For sugar, butter and wheat, Depression policy taxed domestic use of these products and distributed the revenue to farmers[xii]. In the 1970's, a rural reconstruction scheme was implemented to change the historic closer settlement policy to a new direction encouraging efficiency and productivity. Since then, the original rural reconstruction scheme has been revamped a number of times.

From 1977, emphasis changed from rural reconstruction to rural adjustment. By 1992, rural adjustment had shifted focus to embrace productivity, profitability and sustainability. Despite these various policy efforts to restructure the farm sector, by 1993 debt had reached 57.3% of GVFP. This level of debt triggered a Senate inquiry into Rural Adjustment, Rural Debt and Rural Reconstruction. The subsequent Report was published in December 1994. The Report had this to say about rural debt:

"There is little doubt that following deregulation in 1983-84 the banks, in pursuit of market share in the face of heightened competition, made loans based on security levels offered by existing equity but without sufficient regard to the capacity of clients to repay".

Senate Inquiry 1994[xiii]

Chart 7



Source; ABARE Agricultural commodity statistics 2011, Australian farm returns, costs and prices, P. 14, Farm Debt RBA Table D9, Rural Debt by Lender, online

From the shape of the curves in Chart 7, the findings of the Senate Rural and Regional Affairs and Transport References Committee would appear as relevant to the 2012 crisis as they were in 1994. The curves suggest that little heed was paid to the Report's serious criticism of rural lending practices. More importantly, policy response to curb irresponsible lending was never seriously contemplated. The cavalier disregard to farm capacity to service debt by lenders continued unabated. Note the steep increase in the gradient of the debt curve from 1999. Debt to equity lending appears to have become a strong driver of business in the "originate to distribute" banking model.

Debt to equity lending to fuel asset inflation was a deliberate policy direction world-wide to structure economic recovery from the 1980's-1990's international recession/depression. Central banks simply pumped money into economies whilst governments effected internal devaluations through microeconomic reform to labour and product markets. Independent central banks pursued inflation targets in the real sector such as wage and price increases~~;~~ but~~,~~ ignored inflation in asset markets. This meant that liquidity excess to real sector activity flowed into asset markets. Excess liquidity flowed out through external accounts largely funding imports. Monetary policy impact's upon external accounts was ignored under the monetary model of balance of payments theory which looks at external stability by summing external accounts to show a zero balance. Currency movements were supposed to correct for any imbalance on external accounts.

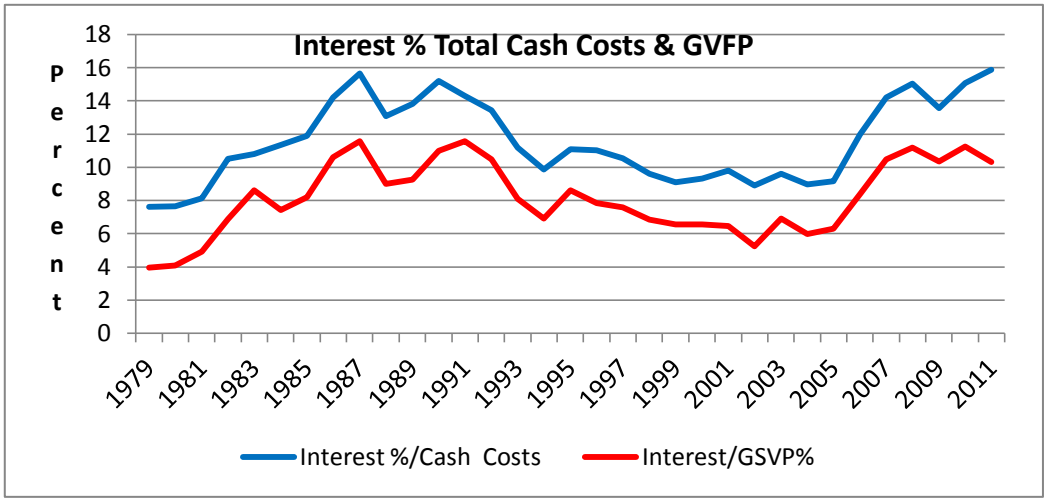
Interest Impost

The 1994 Senate Inquiry had this to say about the interest impost contribution to the debt crisis then confronting national rural policy.

"The very high interest rates of the 1980's, played a significant role in the development of a debt crisis"[xiv]

Chart 8 shows the 2011 interest impost component of farm costs is higher than in 1990. This time however, interest costs are driven by debt levels rather than the level of interest rates. The similarities of the 1994 Report findings on interest impost have returned to haunt policy makers in 2012. In the 1990's, it was thought competition in financial markets would provide the required solution. Empirical evidence suggests that competition became a policy liability. Finance providers appear more concerned with market share than sound lending practices. In this respect, rural lenders behaved no differently to financial institutions in the wider community. Policy reliance upon competition in financial markets has not delivered long term financial stability to rural Australia.

Chart 8



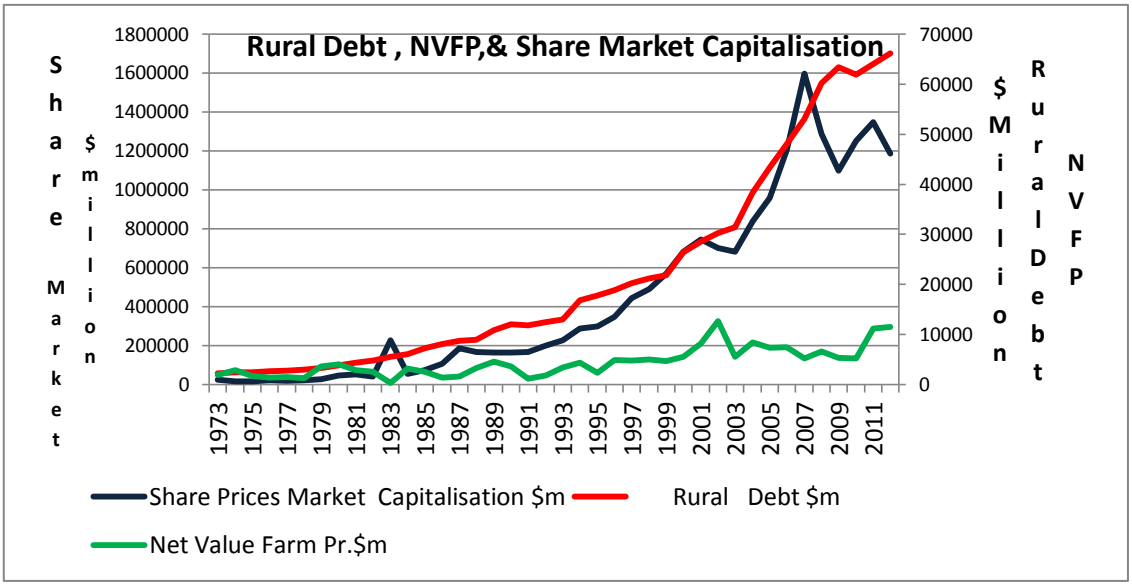
Compiled from ABARE Agricultural commodity statistics 2011 major components of Australian farm costs & Australian farm returns, costs and prices

Over eight years, between 1982 and 1990, the interest component of farm costs rose 87.7%; or, 8.2% annual compound. Over three years between 2005 and 2008, the interest costs component rose 63%; or, 17.7% annually. By 2011, the interest component of farm costs had risen further to15.9%. Over six years, this represents an absolute increase of 72.8%, or 9.6% annual compound, in the most important of farm costs. This rate of increase would be a dangerous escalation in any variable costs. When such escalation of a variable cost occurs as the highest input cost, then the viability of an enterprise becomes threatened. There simply is not time to adjust management strategies to manage a continuous increase in the highest variable cost without disruption to the production process. The short term reaction becomes one of panic and that in itself encourages poor decision making.

The problem becomes compounded when farmers prepare budgets for the next production period. Financiers will look towards containment of costs. This seems somewhat ironic when the major input cost causing management difficulty is one of the financier's own making. Financiers though will be looking towards meeting the parameters of their banking model which has its roots in the late 1970's/early 1980's. High US interest rates over the late 1970's and early 1980's forced banks to look beyond the traditional banking models for survival. A new model evolved which revolved around offloading asset portfolios through the process of securitisation. This new banking model dependent upon securitisation became known as the "Originate to Distribute" banking model.

Originate to Distribute Banking and Securitisation

Chart 9



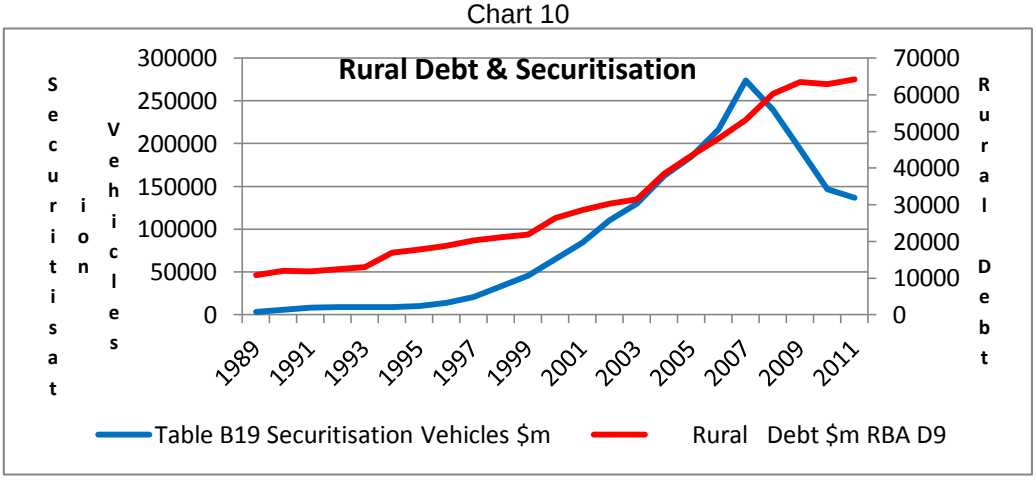
Share market capitalisation from RBA Bulletins 1973-2006 and online, Farm Debt RBA Table D9, Rural Debt by Lender, online

From Chart 9, the link between asset inflation and rural lending can be inferred. Rural lending reflects strongly the wider picture of Australian asset inflation. The changed banking model, "Originate to Distribute", made this possible. The "Originate to Distribute" banking phenomena developed during the period of high interest rates under Federal Reserve Chairman Volker over the late 1970's and early 1980's. Unregulated financial institutions could offer higher market interest rates compared to the regulated banking market. Consequently, regulated traditional banking institutions found it difficult to compete for deposits with emerging unregulated money market institutions. Their response was to develop the "originate to distribute" model

The combination of regulated and unregulated markets in the financial system virtually bankrupted the Savings & Loan (S&L) sector of the US financial system. The S&L collapse was considered to have triggered the "*greatest collapse of US financial institutions since the 1930's*"[xv]. In 1989, the US taxpayer restructured the US financial system with an estimated $640m injection of funds. This decade of turmoil triggered by the Volker period of applied hard monetarism led to the development and consolidation of the "Originate to Distribute" banking model.

The "Originate to Distribute" model functions by transferring the original mortgage to a special purpose vehicle (SPV) which then classifies the mortgage into classes of asset pools. The asset classes are then rated by recognised ratings agencies. Securities based upon these asset pools are subsequently sold into capital markets. The model presented several advantages to the banking sector. Reliance upon deposits for asset growth was considerably reduced whilst capital adequacy ratios became less of a burden. The emergence of non-performing or "toxic assets" within underlying pools of assets over 2007-08 underwrote the GFC and the subsequent turmoil in international financial markets. Chart 10 illustrates the rapidly expanding growth of securitisation in Australia. Rural debt is overlaid from which it is inferred a growing use of securitisation in rural lending.

Chart 10



Farm Debt: RBA Table D9, Rural Debt by Lender, online, Securitisation: RBA Table B19. Online

Whilst it can be inferred from the linear relationship between rural lending and securitisation, it should be noted that securitisation was not confined to rural finance. For a full discussion refer: RBA Table 19 Notes. Table 19 covers SPV's registered to securitize selected Australian assets which are rated by recognised ratings agencies[xvi]. Nonetheless, the behaviour of the curves in Chart 10 suggest that securitisation of rural debt began to become an increasingly important feature in rural finance from 1996 onwards. From 2007 onwards, the "originate to distribute" model faced a collapsing demand for securities. The GFC became the catalyst that exposed underlying rural debt as an unsound financial lending practice based upon ever rising land values.

From 2003 to 2005 it would seem securitisation of rural debt was consistent with that of non–rural finance. From 2005 onwards the two curves begin to diverge. Whilst the rural debt continued its gradient, growth in non-rural securitisation gathered momentum. This raises the question of whether rural debt based securities were losing investor confidence; or, non-rural debt had simply become the chosen investment asset based pool. With the onset of the GFC in 2007, securitisation of non-rural

lending collapsed. From 2008, rural lending begins to slow until in 2009 it flat lines. This suggests that a different attitude to rural lending had emerged and consolidated from 2009 onwards. Curve behaviour is remarkably consistent with interest as a percentage of cash costs rising from 12% in 2006 to 15% in 2008 to reach 15.9% in 2011.

The difficult head wind that made "originate to distribute" banking falter was about confidence of investors in the quality of underlying asset pools. Any asset class that struggled to maintain service commitments ceased to be attractive. Such asset classes became viewed as "toxic". Financier lending standards to such groups of borrowers became the issue. Lack of investor interest in securitised assets structured on unsound lending standards flowed back to impact upon the market value of underlying real assets – the farm. Given the relationship between the Debt and NVFP curves, it can be inferred that rural lending practices were under pressure from 2008 onwards. The weakness in rural debt to equity lending was under question.

For the Australian rural sector, farm market values were under pressure as asset values in the wider community ceased to inflate. Inflated land prices suddenly became recognised as overvalued. Consequently, market value of farm land deflated. Lenders were forced to examine the capacity of farm income to service debt. Solvency of enterprises funded by equity based borrowing became an issue. Chart 1 demonstrates the futility of such a sudden change in lending practices. Historically, farm income could never service the levels of debt that had been structured on an assumption that land prices would continue to inflate infinitum. When the bubble burst, farmers and their accountants were suddenly faced with the question of managing farm solvency. The rural debt crisis was under way.

The impact does not end there. Given the extent of debt equity finance suggested by empirical evidence, the debt crisis becomes an issue for both local and regional communities. Unless this problem is addressed with a view to holding farmers on their farms, there will be flow on effects to local and regional communities and their social fabric. Local businesses, public infrastructure programs, and social support organisations are caught in the deteriorating rural debt crisis. In farming communities, farmers bind rural communities together. Rural Australia cannot withstand another mass exodus of farmers similar to the 1990's. Let the policies of the 1990's become a benchmark of how not to proceed.

In Australia today, the questionable asset becomes farm mortgages experiencing erosion of valuations, unsustainable debt levels, and inadequate income flows. What is not needed is a public sector "Ponzi" scheme similar to that being pushed by western central banks particularly in the Euro area and USA. There appears to be some wishful thinking on the part of central bankers that by supporting speculators trading financial instruments somehow the real sector will resume investment and job creation. This is of course a continuation of the failed 1980's-1990's asset inflation growth model. The asset inflation growth model is not flowing to rural Australia. Farm foreclosures are proof that this model cannot provide a way forward for rural Australia.

The current rural crisis has two strands that must be addressed simultaneously. Firstly, there is the spectre of debt default and farm foreclosures. Simply supporting rural financial institutions with subsidised interest rates will compound resource distortion in rural Australia. The farm financial solution needs to be structured similar to the US Great Depression years. This US model supported both farmers and banks through the difficult times of that period. Eventually, the model proved its worth. More recent models have been used to relieve the payments system of GFC "toxic assets". The contemporary financial solution model has a fundamental flaw. It deals only with systemic financial dislocation. Nothing is done to address dislocation in the real sector from where the questionable assets originated.

Low Farm Income

"as far as community support for government intervention in agriculture is concerned, we suggest that public opinion formulated on knowledge of the actual consequences would often be different from the attitude expressed towards stated intentions"

Gruen[xvii], 1978

The second strand to the contemporary rural crisis is low farm income. This is about distribution of income and how a farm sector remains viable and profitable in a modern growing economy. Failure to

recognise the role of Engel's Law in this process can only compound the emergence of peasant farming in Australia. Any scorched earth program by rationalization will simply "kick the can down the road". An equitable income distribution policy must be developed by public debate. For too long, the expectation has been that if Australian farmers cannot compete with cheap labour countries, consumers have a right to cheaper imports. This policy direction does not meet the moral test.

The moral question

"*The moral problem is concerned with conflict between individual interest and the interest of society*"

Joan Robinson[xviii]

"*In pursuit of self-interest, he (the producer)—is led by an invisible hand to promote an end which is no part of his intentions*

Adam Smith[xix]

The belief in pursuit of self-interest bettering society effectively excludes the question of moral conflict between self-interest and social interest. Free trade simply extends the self-interest philosophy to international trade[xx]. This fundamental belief forms the basis of contemporary orthodox economics.

Despite political rhetoric about inflexibility of markets, the underlying philosophy of Australia's 1980's - 1990's microeconomic reforms were driven by the principle of self-interest structuring economic activity. In the Euro area, contemporary austerity policies are about internal devaluation creating flexible domestic markets allowing self-interest to "do its work". The mess in the Euro area should be enough to make responsible government's re-examine prevailing economic philosophy and their belief in self-interest philosophy. The debacle of Cyprus should send warning signals to all who support contemporary economics and the self-interest solution.

Whilst rhetoric has changed since the 1980's, self-interest remains the foundation of supply side economics. Instead of structural reform a gentler term is being employed: internal devaluation. In essence this means restructuring markets to allow a redistribution of income away from the weakest to the strongest players in the economy i.e. "trickle-down economics". The debilitation facing rural Australia has not just happened. It is the result of nearly three decades of a self-interest policy direction devoid of any pretence to a moral responsibility in economic policy.

"*Frequently professional economists make pronouncements ------rooted in their value judgements that the competitive market solution is best"*

Gruen *1978*[xxi]

Chart 3

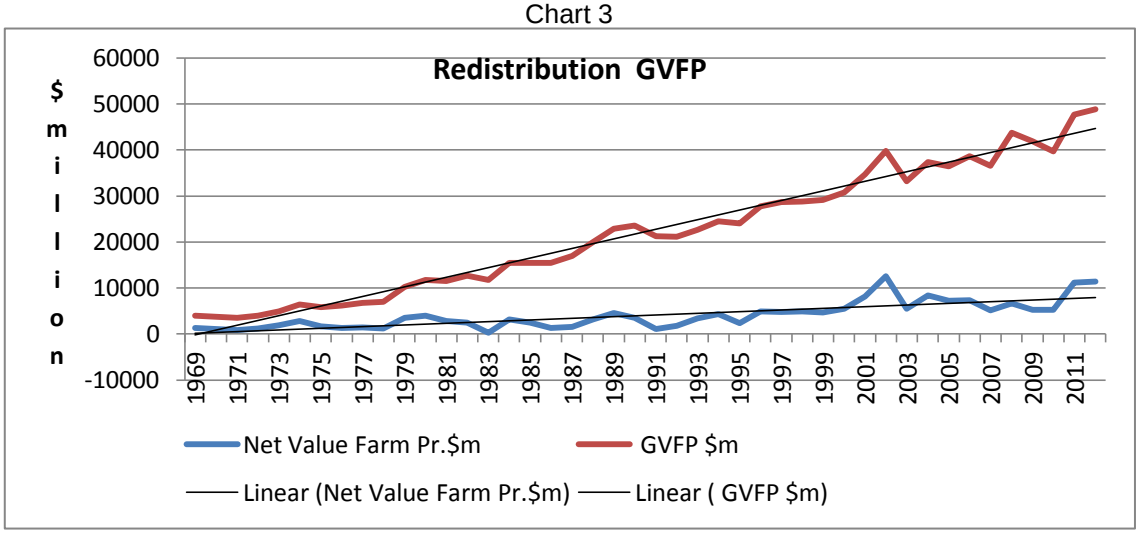
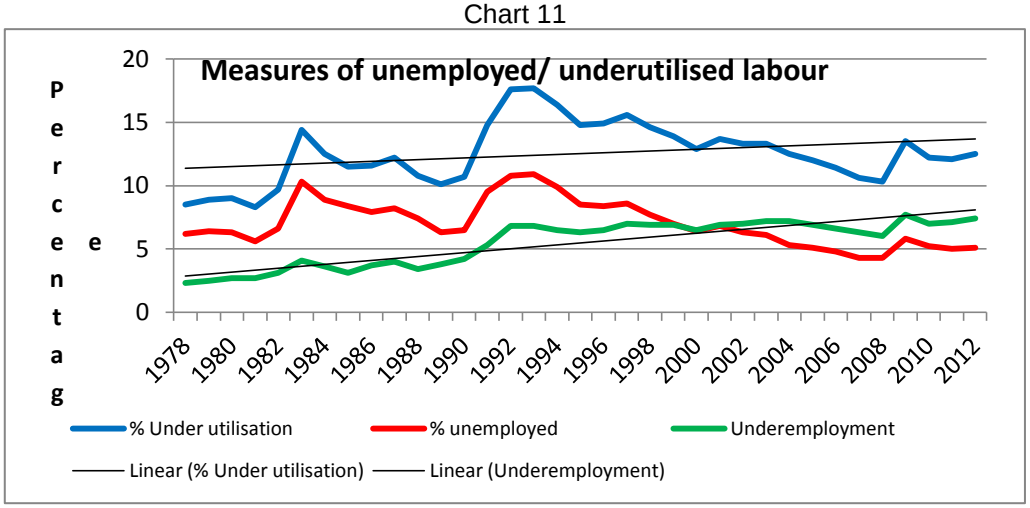


Chart 3, reproduced above, confirms that government restructuring of rural markets without corresponding anti-monopoly polices for the non-farm sector has been immoral. Politically, these structural reforms are supported by the idea that consumer choice must be protected with access to the cheapest product. Monopoly power exercised in output markets need not actually import cheap foreign foods. All that is needed is to threaten rural producers with the option to import cheap overseas product. Farm gate prices are then forced down to an acceptable supply side price in the name of consumer welfare. It is the self-interest of the monopolist that triumphs over social interest.

Imports from cheap labour countries cannot meet the moral test. They are about self-interest of the monopoly importers in wealthy nations exploiting poverty and low incomes in underdeveloped countries. In the case of food imports, the end result is that consumers in advanced modern economies are given access to food produced in cheap labour countries that have extremely inequitable distributions of income. Exports from cheap labour countries often exacerbate poverty in these countries whilst depriving domestic population access to high levels of nutrition.

Ultimately, to maintain a flow of cheap food access from low wage countries to consumers in advanced economies, world food production must become dependent upon a shrinking agricultural land mass. This comes about as costs of production in an increasing group of higher wage nations renders agriculture uncompetitive with a decreasing number of low wage nations. Unless consumers in advanced nations accept the social interest test and share rising living standards equitably in modern economies with agriculture, policy protecting the self-interest of consumers might well structure a Malthusian vision of a world unable to feed itself.

Chart 11



Source: labour force underutilisation rate from ABS Labour Force Time Series Spreadsheet table 22 Unemployment data from RBA Statistics online, Table G7

Internal devaluation/microeconomic reform in Australia undertaken over the 1980's and 1990's has not been a success. In his 1979 Boyer Lectures, Bob Hawke referred to the level of unemployment as a crisis likely to destroy the fabric of society. Chart 11 shows that in 1979, the underutilization rate of the labour force was 8.9%. In 2012, the underutilization rate was 12.5%. In February 2013, it stood at 13.4%. Unemployment levels have become meaningless. They do not reflect the underemployed in society. The underemployed and unemployed consolidated into the underutilization rate provides a more accurate picture of labour market inefficiency than the politicised unemployment figure.

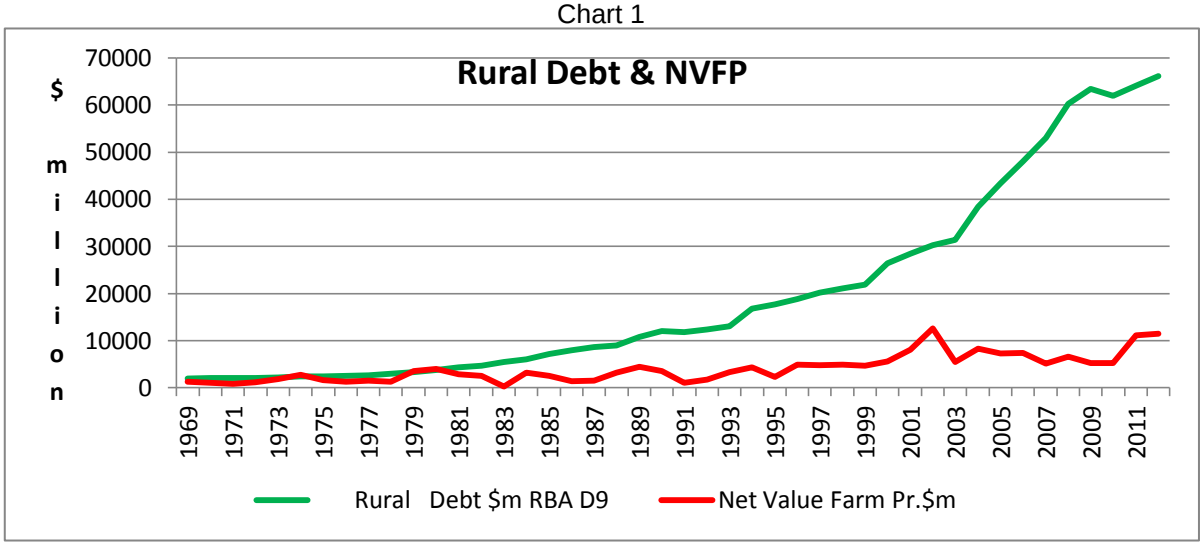
If the 2012 labour force data is used, then Chart 11 confirms that more than 1.25m working Australians are on incomes lower than they would like. This means that structural reforms/internal devaluation has failed both the physical and moral test in economics. The policy direction therefore was about letting self-interest loose at the expenses of the national interest. The moral question was effectively excluded from policy development in Australian structural reforms.

If internal devaluation had been genuine, then industries with high levels of concentration in ownership and control would have been broken up creating a genuine competitive economy. This did not happen. Whilst the farm sector and labour market were micro-reformed, mergers and acquisitions were encouraged and welcomed in the non rural sector. Policy hypocrisy has distorted market power and resource allocation across the whole economy. For example, whilst distaste for protection of

labour markets and food production has been universal across the political and media spectrum, high levels of protection are supported across middle class welfare projects, superannuation, green energy and banking. The superannuation industry is the most highly protected industry in Australia; yet, keeps calling for higher levels of protection. This is self-interest out of control

For the farm sector, it has been forced to accept as little assistance as possible. Valuable drought assistance programs have been wound back. Consequently, drought threatens to decimate rural industries across Australia. Compounding this is the ongoing financial crisis.

Chart 1



Self-interest in banking sector behaviour conflicting with social interests is evident in the reproduced Chart 1 above. Increased lending to a sector unable to meet services payments does not meet the morality test of economics. Governments and their advisors that structured markets allowing financial institutions to engage in "competitive" behaviour chasing market share are just as culpable as the financial sector that simply operated within legislated market structures. Now the community is faced with providing a rescue plan to unwind the consequences of a policy direction based upon self-interest best serving society.

Conclusion

Today, rural Australia is at a cross-road: more of the same or, a new direction. For thirty years, the farm sector has been reconstructed and adjusted by successive political administrations and their advisors. The rural sector has been also bullied by community group spokespeople from the, environment, animal welfare, consumer groups and media. After three decades of this policy advocacy and direction, a prosperous and viable rural sector remains as elusive as it was in the 1970's when closer settlement was abandoned for rural reconstruction[xxii]. Indeed, in 2013, the rural sector faces foreclosures and industry debilitation reflective of the Great Depression. Policy makers would have us believe that it all resides at the microeconomic level due to lack of managerial skills, low levels of efficiency and productivity producing an uncompetitive farm sector.

This current dislocation is not a new crisis. It is an entrenched crisis that began back in the late 1960's and 1970's when agricultural economics was emerging as a discipline in its own right[xxiii]. Agricultural economists argued then that a refocus of agricultural policy should be undertaken away from closer settlement to larger scale operations. This was considered necessary to overcome a low farm income problem associated with small scale farm units. The move to market economics which had its early support in the Coombs Report consolidated a policy decision to reconstruct the farm sector. The introduction of supply side economics and microeconomic structural reforms post 1983 added a further dimension to rationalisation of the farm sector. Some three decades later, a stronger "scorched earth" program of rationalization is being proposed to continue expunging inefficiency, low productivity, and lack of competitiveness. Supposedly, this will revitalised farming and capitalise on long term projections that suggest a strong viable rural Australia in an undefined future.

Three decades of reconstruction and adjustment has slowly debilitated rural Australia. Ultimately it had to implode. Over time, a policy driven crisis lay awaiting a suitable catalyst. The first catalyst

came in the form of the GFC which undermined the liquidity of the “originate to distribute” banking model. A second catalyst came in the form of drought. Two catalysts so close together triggered severe dislocation in the real world of farming. The danger lies in drought being used as the policy maker’s refuge. Drought simply masks underlying policy failure. A new policy direction must be developed. This new policy direction must recognise both Engel’s Law and the moral question implicit in economic policy.

The problem lies in free market macroeconomic policies demanding microeconomic structural reforms at industry level. Over three decades supply side economics embraced post 1983 has not delivered. Instead microeconomic reforms have compounded distortions in distribution of market power to the disadvantage of rural Australia. Farmers, communities and regions have suffered severely at the hands of supply side “economic reformers”. More “scorched earth” medicine at the microeconomic level of farm gate will not address the current crisis.

The overall solution must be dealt with in two stages: short term and long term.

Short term:

- Immediate financial stabilization;
- Short term stabilization of farm gate prices and farm incomes.

Long Term:

- Engel’s Law confirmed in US 2011 study recognised in Australian farm policy;
- The change in banking models since the 1994 Senate Inquiry addressed;
- Small farm low income problem of the 1960’s recognised as an industry low farm income problem affecting large producers;
- Rethink Coombs 1973 “one shoe fits all” policy;
- Policy to recognise different farm structures e.g. hobby, intermediate, and commercial;
- Urgently address monopoly power distortions across agricultural input and output markets;
- Drought policy: WTO , AoA, Annex 22 Article 8, relief from natural disaster.

Appendix A: Major Costs as % Total Cash Costs

Year	Fuel	Fertiliser	Chemicals	Seed/ Fodder	Marketing	Repairs/ Maintenance	Other	Wages	Interest	Other Overheads
	%/Cash	%/Cash	%/Cash	%/Cash	%/Cash	%/Cash	%/Cash	%/Cash	%/Cash	%/Cash
	Costs	Costs	Costs	Costs	Costs	Costs	Costs	Costs	Costs	Costs
79	6.24175	6.958325	3.073732	13.10579	21.87441	10.37149	14.57665	14.12408	7.618329	2.05544
80	7.421625	6.957774	2.943058	15.96289	18.33013	9.996801	15.11516	13.65963	7.661548	1.951376
81	7.722998	7.865489	3.362781	17.08464	14.49131	10.61556	14.77629	13.83585	8.136221	2.108863
82	7.341103	6.776403	3.244023	15.73952	16.74877	9.732068	13.51676	14.30974	10.51304	2.078577
83	7.498128	6.289443	3.123329	21.64937	12.5254	9.305808	13.48807	13.22067	10.7926	2.107177
84	8.149911	6.533809	3.410668	13.48404	17.64823	9.458656	13.92029	13.46421	11.36228	2.567916
85	8.434415	6.67607	3.779972	12.8914	15.90973	9.506347	14.5087	13.27692	11.90409	3.112365
86	7.906856	6.551395	4.118516	12.43375	14.40612	9.288383	13.54592	14.74498	14.21496	2.789122
87	7.467455	6.413226	4.504433	12.67471	14.24806	9.104704	14.0484	13.87269	15.6537	2.300136
88	6.888517	6.662783	5.119056	13.38382	12.7139	10.04879	15.37901	14.53433	13.09255	2.177237
89	5.942596	6.627528	5.277234	12.92237	12.45923	10.48924	15.19896	15.30333	13.81605	1.96347
90	5.920975	6.419275	5.369914	13.09063	11.96506	10.21222	14.949	14.91969	15.2128	1.940439
91	6.521487	5.464576	5.029036	13.67015	12.15447	9.12892	18.24623	13.65854	14.29733	1.829268
92	6.416077	6.198172	5.592882	15.73755	12.46293	9.212517	15.77386	13.49797	13.43744	1.670601
93	6.739726	6.484018	6.045662	14.58752	13.80822	9.619482	15.77473	13.90563	11.19026	1.844749
94	6.362258	7.25449	6.175647	14.21157	13.44763	9.948682	16.49172	14.25822	9.884535	1.965244

95	6.010196	7.394687	6.112155	16.80172	10.49101	9.487523	16.44218	14.31178	11.10276	1.845989
96	6.009409	8.351459	6.823815	14.81107	12.74217	9.712176	14.85659	13.84997	11.03748	1.800799
97	5.976789	8.510638	7.156673	13.54449	14.13443	9.685687	14.28433	14.42456	10.54159	1.740812
98	6.608679	8.771077	7.274406	14.2038	13.24651	9.772098	14.18922	14.60712	9.602021	1.749356
99	5.837407	9.045608	7.479474	14.11419	13.76774	10.22258	13.83893	14.86878	9.097812	1.727493
2000	6.682952	8.480435	7.392727	13.12163	14.49048	9.909204	13.90515	14.97903	9.32387	1.714523
2001	7.275023	8.359093	7.244547	13.37455	13.92311	9.848056	13.86216	14.62841	9.791458	1.693587
2002	6.734007	8.438819	7.501172	13.74931	14.46959	9.922005	14.23092	14.35025	8.894856	1.704812
2003	6.372898	7.630707	6.498679	20.4352	10.20083	10.02893	13.95749	13.52564	9.622238	1.727391
2004	6.815361	7.311897	6.603131	17.28667	14.28343	9.822608	13.52661	13.69479	8.961679	1.689825
2005	7.025715	7.368044	6.731152	16.98511	13.66531	9.923573	13.82454	13.57376	9.179205	1.719608
2006	8.207798	6.804756	6.457687	14.13011	13.5689	9.607148	13.63166	13.9492	11.99601	1.646729
2007	8.126386	6.13082	5.709534	18.31116	10.14043	9.113082	13.09313	13.50333	14.22025	1.651885
2008	7.823953	9.305321	5.830394	18.94495	9.753105	9.424935	11.22221	11.24674	15.03144	1.416961
2009	7.019246	10.5805	5.607886	16.47004	11.68205	9.638554	12.0169	11.97622	13.55343	1.492724
2010	6.583221	7.165088	4.983085	15.31123	12.90257	10.15562	13.42016	12.74019	15.07104	1.667794
2011	7.002624	7.021593	4.612564	13.20224	12.13683	12.28858	13.55316	12.68692	15.87999	1.621827

Calculated from ABARE Agricultural commodity statistics: Major components of Australian farm costs, various editions up to 2011

Appendix B: *Economics Behind Farm Policy*

Economic Theory

Supply side economics swept the western world like a bush fire over the 1980's and 1990's. Two leading supporters were Margaret Thatcher and Ronald Reagan. Social democratic parties also succumbed to the "new economics" which quickly became contemporary economic orthodoxy. Hawke brought it to Australia, Gonzales to Spain, Mitterrand to France, Lange to New Zealand[xxiv]. Supply side economics is viewed as "*a renaissance of the classical economics of Adam Smith and Jean Baptiste Say"*[xxv]. David Ricardo's Comparative Advantage Theory also features in supply side economic theory. Ricardo was a contemporary of Smith and Say.

The dislocation of the 1970's initiated a search for an alternative economic philosophy to that of J.M. Keynes. This led to a growing "*reliance upon monetarism and neoclassical economics of the market*"[xxvi]. The final form of the search became crystallized by Margaret Thatcher and Ronald Reagan into what became known as supply side economics. The architect of supply side economics was a group of politically powerful vested interest players led by Wall Street Journal editor Robert L Bartley and editorial writer Jude Wanniski[xxvii].

These two financial journalists were among a select group of people interested in influencing economic policy. They met regularly at Michael I Restaurant in New York. Other prominent members of this select group were economists Robert Mundell and Arthur Laffer. Whilst both had lectured at the Chicago School of Economics, Laffer was at that time chief economist for the Office of Management and Budget (OMB). At these meetings Mundell (Nobel Prize winner 1999) would lecture the group on policy. He argued that to beat stagflation, two policy levers were needed. Tight monetary policy was required to beat inflation whilst fiscal policy should cut marginal tax rates to generate economic growth.

Wanniski was a formidable financial journalist. It was Wanniski in his work "*The Way the World Works"* that the modern fear campaign about the use of protectionism has its roots. Wanniski argued that the Smoot-Hawley tariff triggered an ensuing trade war[xxviii]. Bartley modifies this claim by saying that Wanniski was probably right. Bartley explains that the stock market had begun to slide months before the Smoot-Hawley legislation was enacted. Applying "rational expectations" thinking, Bartley felt that investor expectations of the legislative effects might have triggered the "pricking of the share (market) bubble". Despite this tenuous link, the argument that protectionism caused the Great Depression has become a strong defensive instrument against the anti-free trade movement.

Another important original supply side architect was Bruce Bartlett[xxix]. As a staff member of republican Senator Jack Kemp, Bartlett featured in writing the Kemp-Roth Legislation which Reagan signed into law reducing taxation imposts[xxx]. Bartlett also says that supply-siders drew on thinking of Nobel Prize economists: Robert Mundell, Milton Friedman, James Buchanan, and Friedrich Hayek[xxxi]. Mundell and Friedman are recognised Chicago School monetarists. Hayek is from the Austrian School of Thought whilst Buchanan is regarded as being sympathetic to Austrian economics.

In the *Economists View* reference, Bartlett's New York Times article is highly disappointed in the direction supply side economics had taken by 2007. He argues that the policy direction developed by the original supply-siders no longer existed. The term supply side economics had been overtaken by political opportunists who had come to think that any tax cut was supply side policy. The original supply-siders had been concerned with marginal tax rates as a fiscal stimulus policy instrument. By 2007, this was not the case. He thought supply side economics should be given a "decent burial".

The original two lever approach to policy is very evident in the contemporary Euro area fiasco. For example, the problem is now low growth and high debt. Simplistic supply side policy becomes: reduce debt, growth through monetary expansion. The singular failure of economic policy in Europe confirms that supply side policy was a policy mix for a particular time in history. It has outlived its usefulness. After three decades, supply side policies have also failed to solve the Australian low farm income problem.

Important Theories Underwriting Farm Policy

There are two Laws underwriting contemporary agricultural policy: Say's Law of Markets, and Engel's Law. One conflicts with the other. As the two Laws describe different market structures, in the real

world of agricultural production they cannot both hold true. If Say's Law is proven correct, then rural sectors operate in an environment of pure competition. On the other hand, if Engel's Law proves accurate, then the farm sector operates under an imperfect market structure. This theoretical difference is important for development of effective rural policy.

(1) Jean Baptiste Say's Law of Marketsxxxii

"*The means of payment for commodities is simply commodities; all sellers are buyers; double the supply of commodities and you double the purchasing power*" [xxxiii].

J.B Say, (1803)

"*The downward trend in real commodity prices need not of itself produce a loss of national income nor a decline in the profitability of commodity producers if the decline in the real commodity or manufactures price is the result of higher productivity*"[xxxiv]

Beating the commodity price cycle
NFF, 1995

This modern restatement of Say's Law of Supply and Demand is expressed as a theory of aggregate demand for commodities and manufactures. It implicitly assumes:

- flexible factor markets,
- flexible product markets,
- constant returns to scale prevail.

Under this purely competitive theory of supply and demand there can never be market failure. Policy is directed to removing supply side market constraints that impair the free flow of resources in the production process. Once market reform removes impediments, demand responds automatically to absorb increasing supply.

Structural adjustment programs are intended to reform perceived supply side structural impediments. A necessary assumption is that modern industry operates under constant returns to scale. The 2012 debt crisis which respects neither size nor scale is real world evidence of a perverse policy outcome.

(2) Engel's Law

An empirical law of consumption explains why the low farm income is an entrenched feature of a mature growing economy. Because this Law identifies an imperfect market structure, applied orthodox supply and demand theory; and, trade theory must produce perverse policy outcomes. If this Law is accepted, then the farm sector becomes recognised as operating in an imperfect market system. The low farm income problem and debt crisis become perverse policy outcomes.

In 1857, Ernst Engel observed budgets and expenditure patterns over a large sample of European families[xxxv] . Engel found that the income elasticity of the demand for food was low. In other words, the percentage of income expended on food falls as incomes rise[xxxvi]. This Law has been tested over time and is accepted as "firmly established"[xxxvii] . The Law has been identified as applying to contemporary household consumption, national consumption; and, international trade[xxxviii].

A contemporary University of Massachusetts research paper has this to say:

"*Engel's Law continues to be relevant today across countries as well as across households within countries*"

Richard Anker, Jan. 2011[xxxix]

This well understood Law explains why rural sectors decline relatively to the wider economy in modern growing economies. Simplistic efficiency and productivity solutions run into an Engel's Law constraint on both domestic and international policy fronts. The Law offers an explanation of protectionist behaviour by governments in mature economies that wish to remain self-sufficient in food production.

Income elasticity of demand is an established tool in commodity consumption analysis. Historically, income elasticity for commodities is known to be inelastic i.e. have an income elasticity figure <1.

Table 2

Income Elasticity of Demand: Selected Commodities[xl]	
Butter	0.42
Cheese	0.34
Cream	0.56
Eggs	0.37
Fruit and berries	0.7
Flour	0.36
Meat	0.35
Milk and cream	0.07

These commodities are selected from 1953 research by Wold, *Demand Analysis,* reproduced in the reference above. This research confirms Engel's Law, and was available two decades before Coombs delivered his free market rural policy framework. The Law was ignored by Coombs and subsequent "experts" from politics, industry leaders, media, and academia. If the Law holds true in the real world, the "economies of scale" solution is little more than wishful thinking.

The presence of Engle's Law in Australian Household is identified in consumption patterns:

Table 1

Engel's Law Australian Household Final Consumption Expenditure	
Year	Food Percentage
1949/50	24.4%
1969/70	19%
1989/90	15.1%

2009/10	11.1%
2011/12	10.3%

1948/50-1989/90 from RBA Occasional Paper No.8 Table 5.4 p. 198 Percentages restricted to expenditure on food. Tobacco, alcohol etc are excluded (2009/10-2011/12)% calculated from ABS: Aust. Nat. Acc. National Income, Expenditure and product. 5206. Jun. 2012 Table 20, p. 40

(3)Trade theory

The intentions of the Hawke and Keating Administration were made clear in 1986 with the formation of the Cairns Group of free trading agricultural nations. This formally declared to the world that Australia saw Ricardo's comparative advantage as land endowment. Specialisation in agricultural trade was therefore determined.

Contemporary trade theory has its basis in the 1817 work of David Ricardo. In that year he published his theory of comparative advantage in Chapter 7 of his book *"On the Principles of Political Economy and Taxation"*[xli].

"Trade between two countries can benefit both countries if each country exports the goods in which it has a comparative advantage"

International Economics, Theory and Policy[xlii]

Ricardo based his model on a two country, two commodity and two factors of production. Country A had a plentiful endowment of land whilst Country B had an abundance of labour. Theory then moved from a position of prohibitive trade barriers to a situation of free trade. Country A specialised in growing cotton whilst Country B specialised in the manufacture of linen. This specialisation in trade was then shown to improve the economic wellbeing of both countries. Ricardo's comparative advantage is recognised as a labour theory of value.

The modern neoclassical model is a little more sophisticated. Three factors of production are used instead of two. Whilst the modern version has three factors of production - capital, labour and land, the model remains a two commodity, two country structure. Theory then moves from prohibitive trade barriers to a situation of free trade. In a modern advanced economy, this model is incomplete and therefore does not reflect the real world of trade between nations.

The contemporary two country, three input model (land, labour, capital) does not have either a financial sector, or a government sector. These fundamental structural imperfections render contemporary free trade theory inappropriate in the real world.

Without a financial system, there is no monetary system. The model presents a make-believe monetary system by imputing a notional price "p" multiplied by wages "w". With no monetary system, what does "p" mean?

- From where does the assumed capital originate?
- Is capital a factory or craft type activity?
- How is the assumed "capital" used in the production process?

As there is no government sector, what decision process exists?

Without a government sector, the model collapses into a tribal barter system in which two tribes exchange goods. In the models, manufactures are exchanged for food.

- How are the exchanged goods distributed amongst the members of the two tribes?
- The model reflects a labour theory of value in which goods are bartered for goods.

When these questions are satisfactorily answered, then perhaps the ideology of free trade will gain some credibility.

Low farm Income: The evidence

The Australian low farm income problem first appears to have been seriously recognised in McKay's Paper[xliii] as far back as 1967. McKay was then the Director of the Bureau of Agricultural Economics. Since then there have been various surveys and discussions on rural policy. The next significant contribution was made by "Nugget" Coombs in his 1973 Report.

It was in the early 1970's, the term "get big or get out" gathered momentum. Implicitly this is a supply side concept which implicitly assumes economies of scale overcome the entrenched low farm income problem. In 1977, Arnold and Chatterton made this comment on the "get big or get out" solution:

"*Get big or get out" has proved quite tragically true for many of those engaged in export agriculture. But we are now only too well aware that "get big" is not restoring the prosperity of our rural communities, although it is maintaining the viability of a particular commodity for the benefit of a few"*

[xliv]

The economy of scale theory was never understood by its supporters. Underwriting economies of scale was an assumption that small farm mergers would produce larger more efficient farm enterprises. It was expected that this would deliver long term profitable growth through increased efficiency and rising productivity. The difficulty for the "experts" assumption is the fact that within economies of scale theory, three different production environments are recognised. Each production environment has its own economies of scale theory. Economies of scale can be constant, increasing or decreasing returns to scale. The "experts" assumed rural economies of scale to be constant returns to scale. In reality, empirical evidence confirms rural industries operate under decreasing economies of scale theoretically defined as the Law of Diminishing Proportions[xlv]. The economy of scale solution was always doomed to failure. It was theoretically flawed.

Comment

Low farm income is not a new phenomenon in mature growing economies. In Australia, it has been known for nearly half a century. Since 1983, solutions have relied heavily upon an abstract theoretical framework comprising Say's Law of Markets and Ricardo's comparative advantage in trade.

Say's Law was never universally accepted. Hansen has this to say on orthodox economics built around Say's Theory of Supply and Demand:

"distrust of orthodox economics------- had been the rule, except for rare intervals, since the days of Ricardo"[xlvi]

J. M. Keynes, in 1936, refuted the tenets and principles of both the classics and neoclassic. Say's Law, he finally "interred" with his consumption function. For the theories of Say and Ricardo to have resurfaced in supply side economics says more about the quality of economists at that time rather than the failure of economic knowledge. In fact the claims of Reaganomics success sit uncomfortably besides the collapse of the US financial system 1981-94. The dismal performance of supply side theorists in the Euro area attempting to overcome the dislocation brought about by decades of applied supply side economics should be enough in itself to force a rethink of contemporary economics.

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[i] NFF, New Horizons: *A Strategy for Australia's Agrifood Industries*, National capital printing, 993,p. 122

[ii]. Senate Rural and Regional Affairs and Transport References Committee, *Rural Adjustment, Rural Debt and rural Reconstruction Report*, Dec. 1994,p. 88

[iii] NFF, New Horizons: *A Strategy for Australia's Agrifood Industries*, National capital printing, 993,p123

[iv] NFF, New Horizons: *A Strategy for Australia's Agrifood Industries*, National capital printing, 993,p. 123

[v] Brennan Paul, *Beating the commodity price cycle*, Sept. 1995, p.7

[vi] NFF, New Horizons: *A Strategy for Australia's Agrifood Industries*, National capital printing, 1993,p. 123

[vii] Keynes, John Maynard; *The General Theory of Employment, Interest and Mo*ney, Volume VII, Royal Economic Society, 1973, p.20
[viii] Report of the Senate Rural and Regional Affairs and Transport Committee, *Deregulation of the Australian Dairy Industry*, Senate printing Unit, Oct. 1999, p.xiv
[ix] Brennan Paul, *Beating the commodity price cycle*, Sept. 1995, p.7
[x] Hart/Kenen/Entine; *Money Debt and Economic Activity*, Fourth Edition, PrenticeHall Inc.,1969,p.137-38
[xi] Senate Rural and Regional Affairs and Transport References Committee, *Rural Adjustment, Rural Debt and rural Reconstruction Report*, Dec. 1994,p.1
[xii] Brown R. J.; new Revised Student Economics, Pat II, William Brooke & Co. Ltd.,1970, p. 238
[xiii] Senate Rural and Regional Affairs and Transport References Committee, *Rural Adjustment, Rural Debt and rural Reconstruction Report*, Dec. 1994,p.34
[xiv] Senate Rural and Regional Affairs and Transport References Committee, *Rural Adjustment, Rural Debt and rural Reconstruction Report*, Dec. 1994,p.34
[xv] Curry Timothy, Shibut Lynn, *The Cost of the Savings and Loan Crisis: Truth and Consequences,* FDIC banking Review , Dec. 2000, p. 26
[xvi] Refer to RBA Bulletin Dec. 2008, Notes Table B19, p. S109
[xvii] Edwards G.W and Watson As; *Surveys of Australian Economics*, Edited, Gruen F.H, George Allen Unwin, 1978, p. 199
[xviii] Robinson Joan, *Morality and Economics*,, Economists View, online, 2007/07, p. 1
[xix] Robinson Joan, *Morality and Economics*,, Economists View, online, 2007/07, p. 1
[xx] Robinson Joan, Economic Philosophy, Penguin Books,, 1976, p. 61
[xxi] Edwards G.W and Watson As; *Surveys of Australian Economics*, Edited, Gruen F.H, George Allen Unwin, 1978, p. 198-99
[xxii] Edwards G.W. & Watson A.S;, *Surveys of Australian Economics*, Agricultural Policy, Ch. 4; Ed. F.H. Gruen; George Allen & Unwin, 1978,p.191-2
[xxiii] Edwards G.W. & Watson A.S;, *Surveys of Australian Economics*, Agricultural Policy, Ch. 4; Ed. F.H. Gruen; George Allen & Unwin, 1978,p.190
[xxiv] Omerod Paul, The death of Economics, faber and faber,1994,p.68
[xxv] Cleaver H. ; Supply Side Economics: The New Phase of Capitalist Strategy in the Crisis; Babylon Metropoli, El Gallo Illustrado, 1981, p. 1;webspace.utexas.edu/hcleaver, 12/07/2012,
[xxvi] Hauge Gabriel, The *International Capital Market and the International Monetary System*, The 1978 Per Jacobsson Lecture, IMF, Washington, Sept., 1978,p.5
[xxvii] Bartley Robert L; *How Reaganomics Made the World Work: We're all supply siders now*, The Arsenal, April 1989,p.1
[xxviii] Bartley Robert L; *How Reaganomics Made the World Work*: *We're all supply siders now*, The Arsenal, April 1989,p.8
[xxix] Reynolds Alan, *'Supply Side' Defined,* Cato Institute, April 2007,p 1
[xxx] Bartlett Bruce; *How Supply-Side Economics Trickled Down*, Economists View,economistsview.typepad.com/2007/04,p.1 25/09/2012
[xxxi] Bartlett Bruce; *How Supply-Side Economics Trickled Down*, Economists View,economistsview.typepad.com/2007/04,p.1 25/09/2012
[xxxii] Cleaver H. ; Supply Side Economics: The New Phase of Capitalist Strategy in the Crisis; Babylon Metropoli, El Gallo Illustrado, 1981, p. 1;webspace.utexas.edu/hcleaver, 12/07/2012,
[xxxiii] Hansen Alvin H.; Business Cycles and national Income, George Allen & Unwin, 1951, foot note 48, p.272
[xxxiv] Brennan Paul, *Beating the commodity price cycle*, Sept. 1995, p.7
[xxxvxxxv] Mansfield Edwin; *Micro-economics Theory & Applictions,*W.W. Norton & Company Inc.; 1969,p.p.91-92
[xxxvi] Koutsoyiannis A.; Modern Microeconomics;Macmillan;1975,p.49
[xxxvii] Kindleberger and Lindert, *International Economics*, Richard D Irwin, 1978,p.60
[xxxviii] Kindleberger and Lindert, *International Economics*, Richard D Irwin, 1978,p.60
[xxxix] Anker Richard, *Engel's Law Around the World 150 Years Later*, Working paper Series ,No.. 247, PERI, University Massachusetts, January 2011,p.p35-36
[xl] Mansfield Edwin; *Micro-economics Theory & Applictions,*W.W. Norton & Company Inc.; 1969,p.p.107
[xlixli] Dept of Geography, University of Washington; web site : faculty.washington,.edu, Sept. 2012
[xlii] Krugman Paul R. ; Obstfeld Maurice; *International Economics Theory and Policy*; sixth edition; World Student Series, 2003, p. 12
[xliii] Edwards G.W. & Watson A.S;, *Surveys of Australian Economics*, Agricultural Policy, Ch. 4; Ed. F.H. Gruen; George Allen & Unwin, 1978,p.192
[xliv] Arnold Lynne, Chatterton Brian; Future Rural policies for Australia, Politics XII, May, 1977, p.p.127-129

[xlv] Koutsoyiannis A, *Modern Microeconomics*, Macmillan 1977,p. 82-84
[xlvi] Hansen Alvin, *A Guide to Keynes,* McGraw-Hill, 1953. P.p 4-5