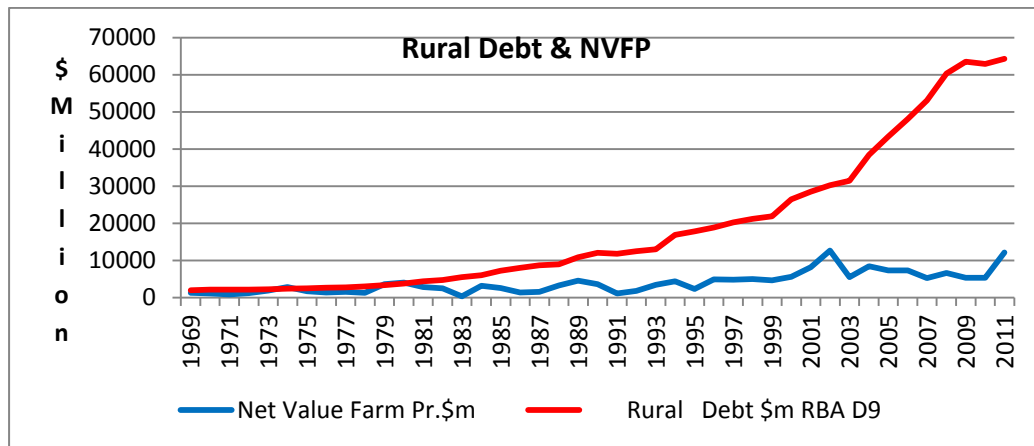


**Rural Australia: Crisis 2012**  
*Ben Rees, B. Econ.; M. Litt. (econ.)*

Paper presented Rural Debt Round Table October 17<sup>th</sup> 2012

*Abstract*



NVFP; ABARE Agricultural commodity statistics, 2011, Australian farm returns, costs and prices, P. 14  
RBA Rural Debt Table D9

*This paper addresses the farm policy questions encapsulated in this graphical presentation of rural debt and low farm income. It is argued that this crisis of debt is the consequence of policy failure. That policy failure is directly linked to the economic policies adopted in Australia post 1983. These policies were the preferred direction of all major political parties, farm leaders, media commentators, and some academics.*

*Post 1983 economic orthodoxy had its beginnings in the USA over the mid to late 1970's. A powerful vested interest group guided by a group of eminent economists from two particular schools of thought developed a preferred policy mix for that period in time described as stagflation. This powerful vested interest group ignited a world-wide movement towards monetarism and market theories. This movement became recognized as supply side economics.*

*There are well known laws and theories in economics which govern the fortune of rural sectors in modern economies. One of the most important laws is Engel's Law. Say's Law of Markets underwrites supply side economics. That supply side economics does not recognise Engel's Law has contributed substantially to contemporary policy failure.*

*Say's theory of supply and demand in orthodox economics conflicts with Engel's Law. They cannot both be correct as they relate to different market structures. This paper provides a discussion of those theories in the hope that a better informed farm sector can develop policies appropriate to farming in the twenty first century.*

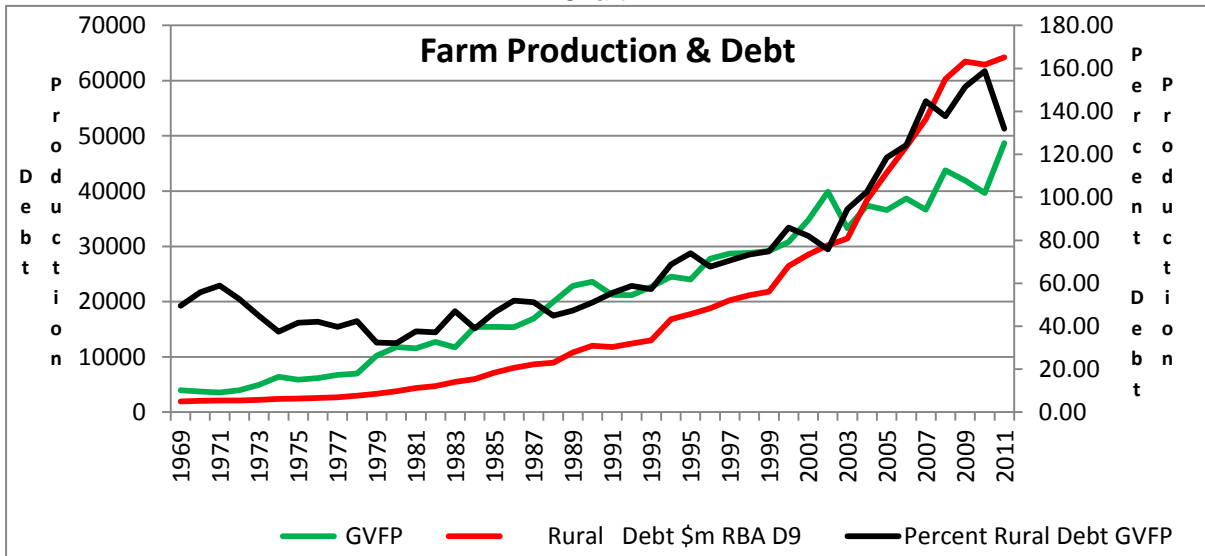
**Rural Australia: Crisis 2012**  
 Ben Rees B. Econ.; M. Litt. (econ.)

*Section 1: Financial Crisis*

*“Debt is a symptom rather than the cause of more fundamental and deep seated problems in rural Australia”*

Rural Adjustment, Rural Debt and Rural Reconstruction, 1994<sup>i</sup>

Chart 1



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

This problem of rural debt depicted in this graph is why we are here today. With a debt to output percentage in 2010 and 2011 of 158.7% and 132% respectively, rural Australia is Australia’s Euro area “financial problem”. If rural Australia were a member country of the Euro area, international financial markets would be refusing to fund the sector. Operational finance would be difficult to obtain. Existing debt would be traded on financial markets at prohibitive market rates until the Troika provided “bail out” monies and imposed structural reform.

For the Australian rural sector, the equivalent “Troika” becomes: Federal Government, state governments, and national agro-political institutions. All members of the “Troika” have myopically ignored the developing debt problem in rural Australia. The “rural problem” has been rationalised over time by our “Troika” in terms of farmer lack of skills, prevailing drought, and commodity price volatility. The concern of agricultural policy then collapses to politics rather than economics. Policy becomes preoccupied with maintaining a public image of rural Australia that all is well. Farmers who question policy direction are portrayed as needing mental health counselling, financial counselling; and, need to have faith rebuilt in free and open international markets.

Today we are confronting a rural debt problem brought about by policy failure which can be directly linked to structural reforms driven by economic orthodoxy post 1983. The first hint that all was not well back on the farm came with the 1994 Senate Inquiry into debt and rural adjustment. The Inquiry recognised rural debt as a symptom of a deep seated malaise. That malaise was low farm income historically associated with small scale farming. The current debt crisis does not appear to respect either scale or size. Indeed by 2012, it would seem that size and scale have become the structural weakness in farm policy.

Low farm income is not a new problem in advanced economies. In Australia, it was the subject of considerable discussion and debate over the 1960’s and 1970’s. It appears nothing was learnt from that debate. Whilst the parameters of the 1994 inquiry restricted analysis to debt and adjustment policy,

empirical evidence indicated “*poor profitability, fragile business structures, land degradation and inadequate management skills*” lay at the root of the problem. The Committee recommended that policy should move in the direction of “*skills enhancement, training, professional advice and financial management should become a key component of rural adjustment*”.

Implicit in this solution is purely competitive market failure. One of the assumptions underlying a purely competitive market is perfect knowledge<sup>i</sup>. These comments made by the Inquiry are saying that this underlying assumption of purely competitive markets was not present in rural Australia. By our presence today, it can be accepted ensuing policy achieved little to overcome a traditional rural policy puzzle implicitly defined as market failure. We need to look more closely at the root cause.

Contemporary rural policy has its origin in the 1973 Coombs Task Force Report. Coombs set a policy framework that has lasted just on forty years ago. He argued that rural assistance should be provided on three grounds<sup>iii</sup>

- temporary assistance for abnormally adverse seasonal conditions
- promote or provide time for structural adjustment
- situations in which tariff reductions are not practicable

When the supply side market economics adherents assumed office in 1983, the third principle was eliminated by 1991 with structural reforms that included tariff reform. A Western Australia pilot program suggests that the first principle is facing the reform agenda.

Supply side theorists no doubt believed their policy direction would relegate the low farm income problem to history. Their solution lay in open market competition to force improved efficiency and raise farm productivity. It was assumed this “new economics” would overcome the decline in real farm prices which historically underlay the low farm income problem. The first indication that all was not well with free market theory surfaced in 1993 with a Senate Inquiry into rural debt.

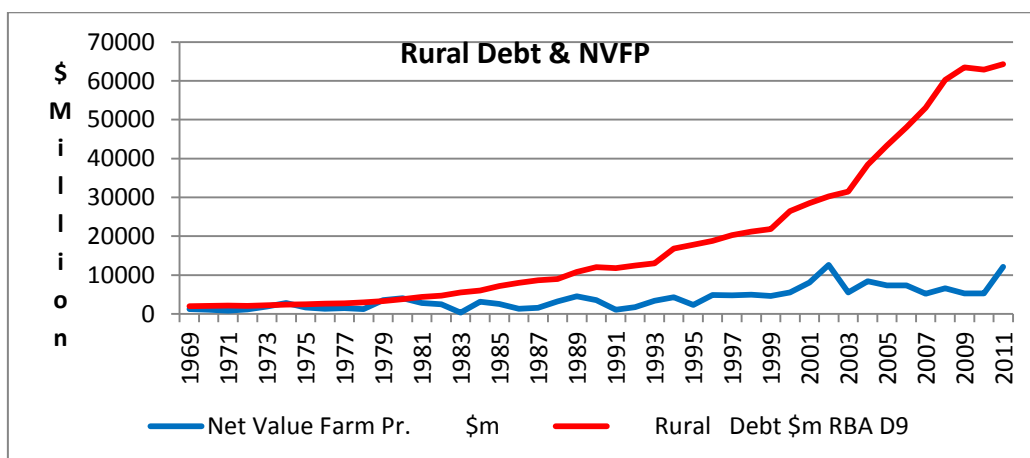
Today, I propose discussion of this debt crisis from two angles: farm debt and low farm income. They are interdependent - not separate issues. The discussion will break into three sections: rural finance, theoretical framework of rural policy, and low income problem.

*Rural Finance*

*“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<sup>iv</sup>

Chart 2



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 Graph 2, 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 a cavalier disregard to farm income capacity represented by the NVFP curve. The importance of the NVFP curve is its approximation of farm income. The NVFP represents GVFP less costs which include depreciation; but, not service payments on debt. The NVFP curve then becomes a loose approximation of before tax farm sector income. Empirical evidence suggests that farm income was not a serious consideration influencing rural lending from the early 1980's onwards. In fact, from 1999 onwards, NVFP appears irrelevant to the growth in farm debt.

The behaviour of these curves is critical. By following the gradient of the two curves, the increasing divergence between debt and NVFP confirms a continuation of the 1993 Inquiry findings: debt to equity ratios as the basis of rural finance. A rising debt curve whilst the NVFP line basically flat lines can be explained only by rising asset inflation underwriting equity or rural land prices. More importantly, the graph shows empirically that debt is a symptom of the underlying malaise. That underlying malaise is low farm income.

There are inflection points along the debt curve which suggest important changes in institutional approaches to rural lending. For example, deregulation of the currency December 1983; emergence of globalised capital markets over the early 1990's; 2003-2008 sharp gradient increase in debt curve whilst NVFP falls away post 2002; 2008 GFC, dislocation in financial markets 2009-2011.

The debt to equity model worked until the GFC disrupted credit markets. Then equity values came under question as asset inflation turned into asset deflation. The occurrence of the GFC drew a line under lending practices that were always unsound long term. Whilst it can be inferred that rural land prices were part of a wider picture of Australian asset market inflation, the "originate to distribute" banking system lending on debt/equity security to rural borrowers would have in itself fuelled land price rises. The role of the "originate to distribute" banking model must accept a level of responsibility for the current debt crisis. Finance based upon debt equity ratios always carried the potential to become a systemic weakness in any globalised reliant financial system.

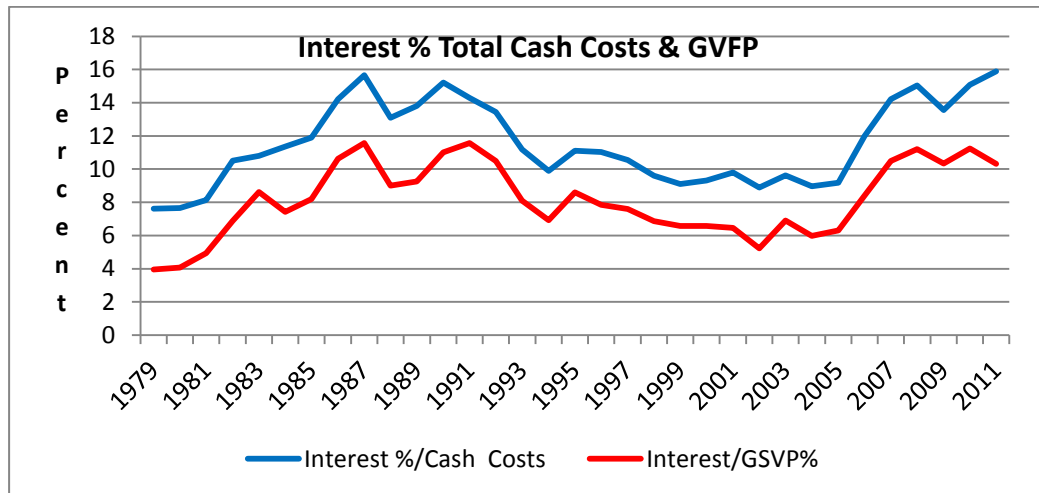
#### *Interest Impost*

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"*<sup>v</sup>

Graph 3 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 3



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 to 15.9%. 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.

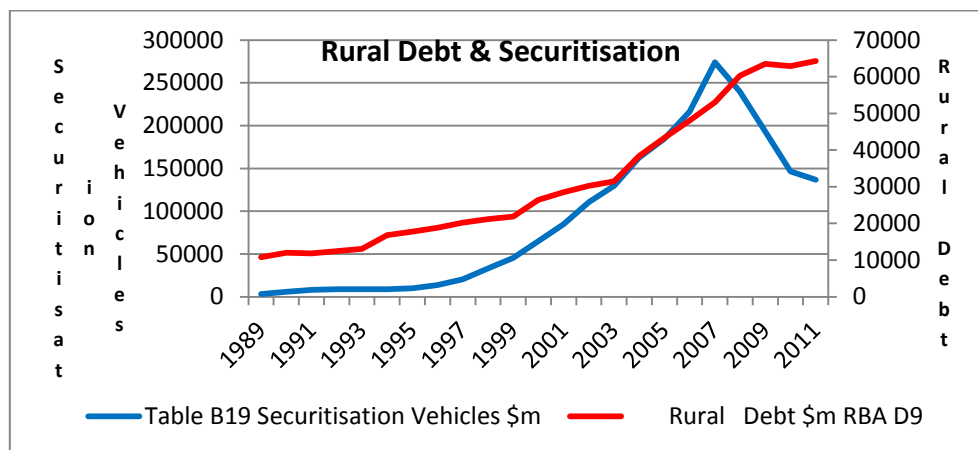
The problem becomes compounded when farmers prepare budgets for production periods. Financiers will look towards containment of costs. This seems somewhat ironic when the major input cost causing management difficulty is one of the financier's own making. Financiers though will be looking towards meeting 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.

#### Securitisation

"Originate to distribute" banking phenomena developed during the period of high interest rates under Federal Reserve Chairman Volker. The regulated traditional banking model found it difficult to compete for deposits as emerging unregulated money market institutions consolidated into legitimate financial institutions. The combination of regulated and unregulated markets in the financial system virtually bankrupted the S&L section 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*"<sup>vi</sup>. 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 model functions by transferring the original loan to a special purpose vehicle which then classifies the loan 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 emergence of non-performing or "toxic asset" within underlying pools of assets underwrote the GFC and the subsequent turmoil in international financial markets. Chart 4 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 4



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

Chart 4 illustrates empirically a linear relationship between rural lending and securitisation. It should be noted that securitisation is 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<sup>vii</sup>. Nonetheless, the behaviour of the curves in Chart 4 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 Australia 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 2 demonstrates the futility of such a sudden change in lending practices. Farm income could not service the levels of debt that had been structured on an assumption that land prices would continue to inflate infinitum. 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.

Government intervention to support the payments system is only part of the solution. The farm 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.

In Australia today, the questionable asset becomes farm valuations, debt levels, and income flows. What is not needed is a public sector "Ponzi" scheme similar to that being pushed by western central banks. 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. Any solution to the Australian farm debt crisis must not be similarly structured. Any solution must fail that is narrowly structured to support rural financial institutions whilst trusting that improved farm prices will arrive and solve the farm income problem. The low income farm problem must be addressed directly.

#### *Comment*

This discussion on rural finance has been a general overview based upon ABARE Australian commodity statistics, 2011. Conclusions therefore are generalisations. The incidence and impact of debt will differ across the various industries that comprise rural Australia. Different seasonal conditions and intensity of those conditions will vary in seriousness among farming districts. Consequently, the role of this overview identifies a need for further research to identify industries and regions most seriously affected.

The other important aspect of this overview is the identification of the changed banking model "originate to distribute". This model was only in its infancy when the 1994 Inquiry published its results. The "originate to distribute" model brings a different dimension to rural finance which did not exist in previous crises. Policies relied upon in the past might well be more inclined to compound this debt crisis than provide the way forward.

*Section 2: 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<sup>viii</sup>. Supply side economics is viewed as "a *renaissance of the classical economics of Adam Smith and Jean Baptiste Say*"<sup>ix</sup>. 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*"<sup>x</sup>. 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<sup>xi</sup>.

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 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<sup>xii</sup>. 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<sup>xiii</sup>. As a staff member of a republican Senator Jack Kemp, Bartlett featured in writing the Kemp-Roth Legislation which Reagan signed into law reducing taxation imposts<sup>xiv</sup>. Bartlett also says that supply-siders drew on thinking of Nobel Prize economists: Robert Mundell, Milton Friedman, James Buchanan, and Friedrich Hayek<sup>xv</sup>. 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.

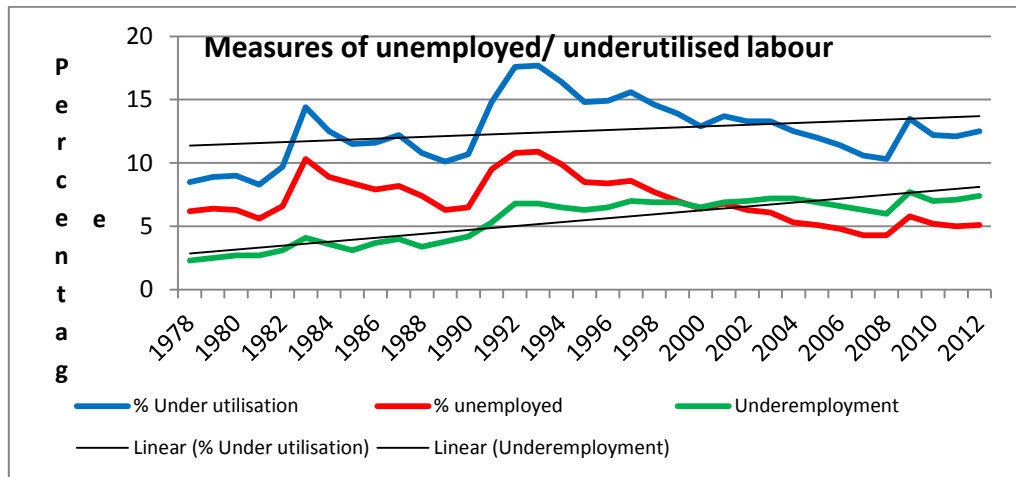
In the *Economists View* reference, Bartlett's New York Times article is highly disappointed in the direction supply side economics had taken by 2007. He argues that the policy direction developed by the original supply-siders no longer existed. The term supply side economics had been overtaken by political 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.

It is worthwhile to consider the performance of economic orthodoxy in the wider Australian community.



Chart 5



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

When Bob Hawke gave his Boyer Lectures series in December 1979, the unemployment rate was 6.1%. The labour force underutilisation rate stood at 8.4%. Hawke claimed that full employment was the cement that bound the fabric of society together; and, the then level of labour market dislocation represented a crisis of unemployment. After three decades of supply side economics, the 2012 August labour force data gives the unemployment rate at 5.1% and the underutilisation rate at 12.5%. This is an indictment of a policy direction rather than an endorsement.

Chart 5 presents the failure of supply side economics to address the most important statistic in a modern economy: full employment. What the graph shows is a three decade plus deterioration in the underutilisation rate from 8.4% to 12.5%. Over the same period, there has been a marginal improvement in unemployment from 6.1% to 5.1%. This represents a structural shift in the labour market from full employment to underemployment. This structural shift hides the reality of an inefficient use of labour. The underutilisation rate is a more accurate explanation of why Australia has a two-speed economy than the mindless handwringing of politicians.

Compare today's claim that full employment lies between 4.5% and 5.5% unemployment with the 1965 Vernon Report. Vernon defined full employment as a range lying between 1%-1.5% unemployment<sup>xvi</sup>. When contemporary dislocation in the Australian labour market is considered alongside the rural debt crisis, it becomes difficult to support economic orthodoxy. It is time supply side economics based upon early nineteenth century theories is questioned and debated in the public domain.

#### *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. In the real world of agricultural production they cannot both hold true. The significance of the conflict is that they both define different market structures. 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.

#### Jean Baptiste Say's Law of Markets<sup>xvii</sup>

*"The means of payment for commodities is simply commodities; all sellers are buyers; double the supply of commodities and you double the purchasing power"*<sup>xviii</sup>.

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"*<sup>xix</sup>

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 direction 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. Simplistic arithmetic policy seeks to overcome income inelasticity of food by removing a set number of farmers. Individual shares of the "farm cake" rise solving the low income problem. 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 an imperfect market system. The low farm income problem and debt crisis become the perverse policy outcome.

In 1857, Ernst Engel observed budgets and expenditure patterns of a large sample of European families<sup>xx</sup>. 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<sup>xxi</sup>. This Law has been tested over time and is accepted as "firmly established"<sup>xxii</sup>. The Law has been identified as applying to household consumption, national consumption; and, international trade<sup>xxiii</sup>.

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<sup>xxiv</sup>

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 ie. have an income elasticity figure <1

Table 2

### Income Elasticity of Demand: Selected Commodities<sup>xxv</sup>

Butter	0.42
Cheese	0.34
Cream	0.56
Eggs	0.37
Fruit and berries	0.7
Flour	0.36
Meat	0.35

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"*<sup>xxvi</sup>.

*"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<sup>xxvii</sup>

Ricardo based his model on a two country, two commodity and two factors of production. Country A had a plentiful endowment of land whilst the other 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<sup>xxviii</sup> 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.

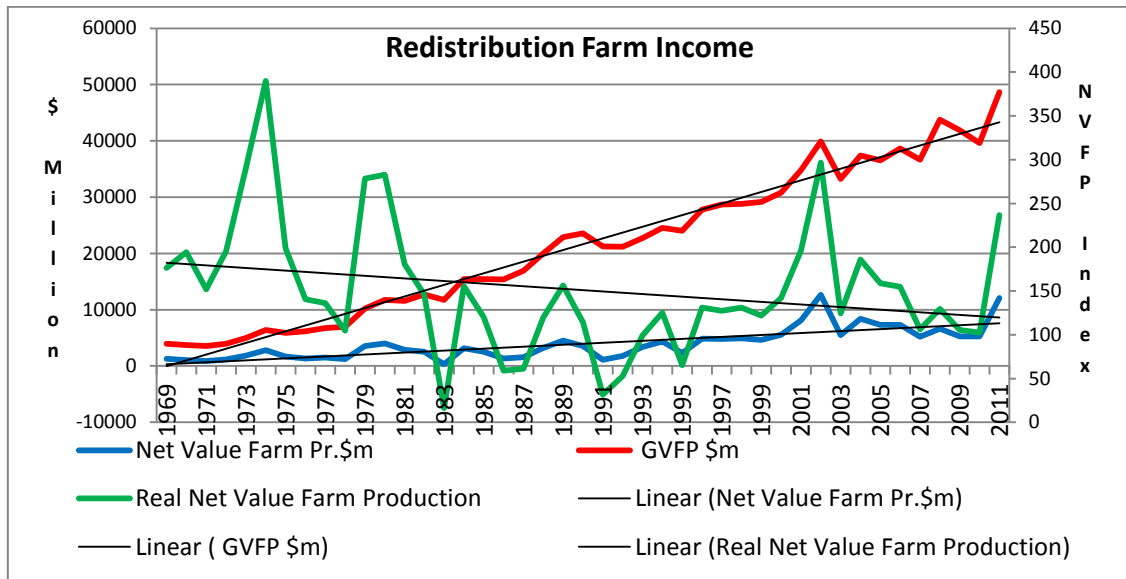
It was in the early 1970's, the term “get big or get out” gathered momentum. Implicitly this is a supply side concept which implicitly assumes economies of scale overcome the entrenched low farm income problem. In 1977, Arnold and Chatterton made this comment on the “get big or get out” solution:

*“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”*  
xxix

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 increasing returns to scale. In reality, empirical evidence confirms rural industries operate under decreasing economies of scale theoretically defined as the Law of Diminishing Proportions<sup>xxx</sup>. The economy of scale solution was always doomed to failure. It was theoretically flawed.

Chart 6 shows empirically that there is an entrenched low farm income problem confronting Australian agricultural policy. Graphical analysis confirms Engel's law whilst refuting Say's theory of supply and demand.

Chart 6



Source; ABARE Agricultural commodity statistics 2011, Australian farm returns, costs and prices, P. 14

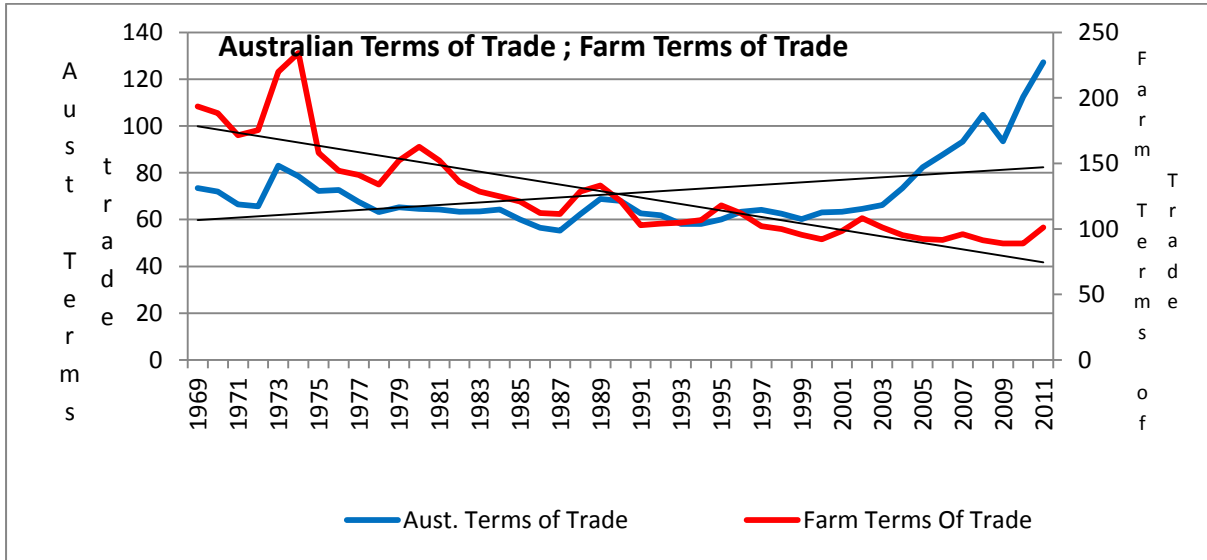
Chart 6 illustrates the historic redistribution of income from the farm sector to the wider community. GVFP and NVFP are in nominal values whilst Real NVFP is a constant priced index.

By excluding the 2010-11 spike in the data base, GVFP grew at the annual rate of 6.4% from 1970/71 to 2009/10. Similarly, NVFP grew at the rate of 4.8%. The purchasing power of NVFP represented by the index real NVFP had a negative growth path of -1%. Herein lies the essence of the low farm income problem. It is not only about a declining share of farm production. It is also about declining purchasing power of that shrinking share of GVFP.

*Terms of Trade*

Market structures feature strongly in the decline of output prices and input costs. The farm sector is assumed one of the few purely competitive market structures remaining in a modern economy. Farmers are price takers rather than price setters. Markets which supply inputs such as chemicals, fertilisers and services to the farm sector are predominantly oligopolistic. Output markets for commodities are similarly structured. GVFP therefore becomes "raided" by both input suppliers and output buyers. The historic exercise of unequal market power is encapsulated in industry terms of trade.

Chart 7



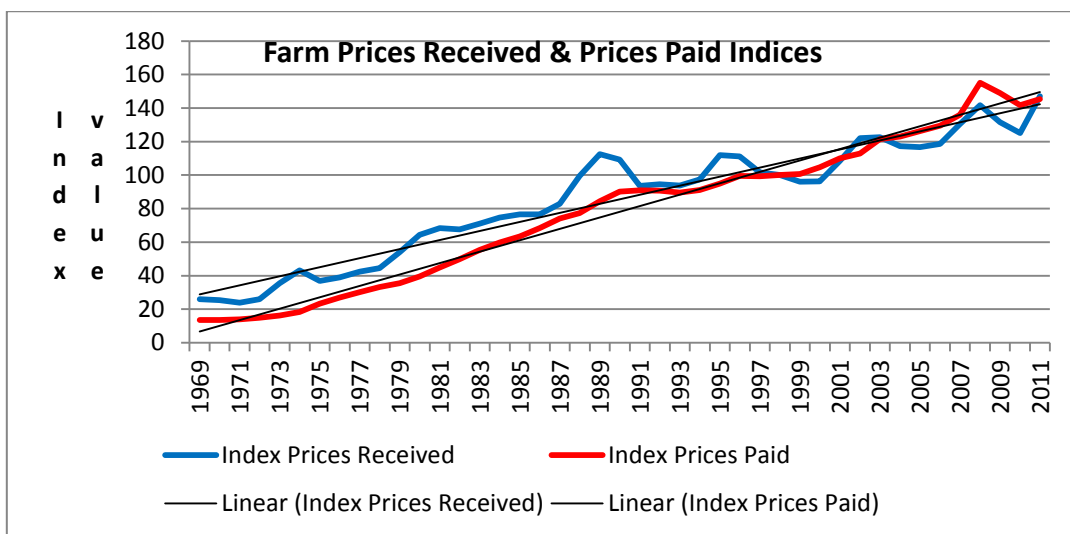
Source; ABARE Agricultural commodity statistics 2011, Australian farm returns, costs and prices, P. 14

Historic real index values of both prices received and prices paid for inputs show the deterioration over time in farm industry terms of trade. The Terms of Trade Index is obtained by dividing the index of prices received to prices paid index. The trend line demonstrates that rural policy has failed the Australian farm sector for over four decades. The contemporary framework of agricultural policy direction based upon free and open markets post 1983 has not achieved any correction in the long term decline in farm terms of trade. This is about unequal distribution of market power.

Overlaying industry terms of trade is the national terms of trade. Historic improvement in Australian Terms of Trade from the early 2000's has had little to no impact upon farm terms of trade. Any review of contemporary farm policy, cannot rely upon Australia's improving trade performance to alleviate the entrenched low farm income problem.

Chart 8 offers an explanation of why farm profitability shows little response to Australia's external performance.

Chart 8



Source; ABARE Agricultural commodity statistics 2011, Australian farm returns, costs and prices, P. 14

Prices received began trending downwards from 1989. This is significant as it was over the late 1980's and early 1990's that Keating began structural reform of the farm sector. Hawke continued the reform in his 1991 Industry Statement with wide ranging removal of industry protection. Oscillations around the trend line confirm an historic unstable pattern in prices received. Prices received have a number of peaks and troughs. It is interesting to note that instability from 1986 onwards is more frequent than prior to 1986. It was in 1986 that Keating made his first alarmist statement about a banana republic and the need for structural reform. His first move in the reform of agriculture was against orderly marketing of two major rural industries: wool and wheat. This was over the late 1980's and early 1990's.

The more stable gradient of the input cost curve suggests that volatility of farm income is about output prices rather than input costs. What is interesting about the input cost curve is increased volatility in costs post 1996 and election of the Howard Administration. It was in 1996 that the RBA was granted independence by Costello. The Howard Administration set about implementing the Keating National Competition Policy which removed remaining orderly marketing arrangements in the rural sector. The second interesting aspect of the cost curve is the trend line intersection with the prices received curve over 2000-01. From that point, the cost curve trend line remains above the prices received trend curve. This should have sent warning signals to both agro-political movements and major political parties.

From 2003 onwards, the actual cost curve intersects prices received and remains above it until 2011. The sharp rise in the prices received curve should be viewed cautiously in terms of potential for revision. It was from 2004 onwards that the interest component of farm costs began to escalate. In 2004, the interest component of farm costs was 9%. By 2008, this had risen to 15%. Except for a slight improvement in 2009, the interest component reached 15.9% in 2011.

Whilst earlier commentators recognised a deep seated farm problem, they appear to have had no understanding of Engel's Law. They understood that a low farm income problem was characteristic of advanced growing economies; but, remained one step short of explaining why farm sectors and farm incomes decline in relative terms over time as economies grow. Entrenched relative decline in the importance of a farm sector leads to all sorts of policy difficulties across both the industrial base and social fabric of non-urban communities. For example, political representation of rural regions decline as the population drift begins to depopulate and de-industrialise communities and regions. It becomes increasingly difficult then to argue for change in rural and regional policy. Consequently, rural decay becomes an inherent feature of the agricultural landscape.

#### *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"<sup>xxx1</sup>*

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.

Engel's Law refutes Say's Law. They cannot both hold true in the real world. The significance of the difference is about market structures. Keynes refuted Say's law in his General Theory of Employment, Interest and Money. The 2011 study by the University of Massachusetts confirms Engel's Law in contemporary times. Early nineteenth century supply and demand theory and trade theory is not a valid basis for farm policy in the twenty first century.

*Conclusions*

The contemporary farm debt crisis is severe and must be dealt with. These issues must be addressed:

- The change in banking models since the 1994 Senate Inquiry
- Financial dislocation flowing from the “originate to distribute” banking model and securitisation
- Low farm income ignored in 1994
- Small farm low income problem of the 1960’s now an industry low farm income problem
- Engel’s Law confirmed in US 2011 study to be recognised in Australian farm policy
- Rethink Coombs 1973 “one shoe fits all” policy
- Set policy time frame recognising different farm structures: hobby, intermediate, and commercial
- Address monopoly market power in both agricultural input and output markets



Ben Rees  
Appendix A

	Major Costs as % Total Cash Costs									
	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

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