

Econometrics versus Contrastives: Alternative Approaches to Explanation in Economic History - a Case Study.

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Introduction.

Since the 1950s what has been known as the 'new' economic history has come to dominate over earlier forms of neo-institutional economic history. New economic history or, as it is otherwise known 'cliometrics', is essentially econometrics in an historical guise. Unsurprisingly, history provides many sources of data sets, and consequently provides a rich data-mining ground for econometricians looking for evidence with which not only to test current economic theories, but also to explain the past. Economic historians of the earlier persuasion have protested vigorously that understanding and explaining the past requires a complex narrative process which draws upon and weighs the multitude of qualitative and quantitative causal factors involved (For example, Hobsbawm 1997, pp95-123). Others have pointed to the Disneyland nature of the numbers crunched by the those wielding econometric models¹. Nevertheless the cliometricians have stormed the intellectual high-ground by means of the simple tactic of asserting loudly and at length that their use of quantitative methods provides a more precise and scientific/analytic basis to their endeavours (Stone, Fogel). From the perspective of an economic historian of the old school, one of the virtues of critical realism is that it has exposed such a range of inherent weaknesses in econometric analysis that further development of the discipline will need to involve a reassessment and updating of more traditional techniques, if real progress is to be made.

Part One: Economics, Econometrics, Economic History and Critical Realism

In the social sciences there are two broad types of explanatory endeavour: theory development and applied explanation. As a first cut this constitutes the rough dividing line between economics and economic history. Economists seek mainly to theorise about the nature of economic systems whilst economic historians usually endeavour to use the theoretical tools developed by economists (and other social theorists) to shed light on historical events and processes. Now of course this dividing line is continually crossed: economists become economic historians the moment they use a piece of theory to try and explain a piece of empirical evidence, and economic historians become economic theorists when the evidence they seek to explain demands of them new theoretical tools and/or explanatory paradigms. Nevertheless, I would argue that the difference in emphasis leads economic historians to be a little more concerned with the realism of the premises underpinning the theoretical explanations they use than do economists, particularly those concerned with 'high' theory. Economic historians, by the nature of their focus, tend also to be much more concerned with context. And for this reason tend also to find themselves needing to address non-economic and/or qualitative causes of the events and processes they wish to explain. This tends to be true even of the cliometricians, although for them, realism and contextualisation often seem to be brought in as afterthoughts. Nevertheless, given the emphasis in critical realism on realistic premises and context, the discipline of economic history is perhaps more compatible with much of the thrust of critical realist analysis than is that of mainstream economics. Particularly since the latter, often relies on highly abstract context-ignorant mathematical modelling approaches using unrealistic (if aesthetically pleasing) premises such as perfect foresight, perfect competition etc.

On the other hand, even when cliometricians use realistic premises and are sensitive to context, they are still likely to provide quite erroneous explanations of historical processes by virtue of faults inherent in the econometric method itself. As Tony Lawson has demonstrated, any attempt to use regression analysis

¹ Platt, Mickeymouse Numbers in World History, 1989.

assumes that the social world is a closed system in which the dependent variable is linearly explained by the independent variables, with an error term that is normally distributed. Such an assumption is heroic when applied to the real world, if the latter is understood as an open system characterised to a large extent by non-linear, organic, holistic and dialectical relationships between variables². Combined with the closed, linear-relationship system assumption, is the *epistemic fallacy*, which assumes that laws are indicated directly by observation of data³. Taken together these assumptions mean that data analysis will readily provide estimates of parameters that constitute sensible approximations of 'true' and invariant underlying parameters. Each of these invariant parameter estimates is then said to 'explain' a certain proportion of the behaviour of the dependent variable over the particular data set.

Of course, if the relationship between a dependent and independent variable really is a simple and straightforward linear relationship then there is no problem. For many things in the physical world this is the case. In engineering, for example, many basic relationships take an ergodic form, with strictly stochastic error terms. Mathematics and physics are full of invariant numbers in the form of constants. Phi and the speed of light being two of the best known. But once this essentially Newtonian mechanistic framework is taken over to the social world, econometrics verges on Pythagorean numerological mysticism. Taken to the extreme, the econometric assumption that underlying the data are a set of invariant linear relationships between the independent and dependent variables, means that the estimated parameter provides us with an estimation of some ideal 'true' number which determined what was happening over the period (apart from the interruption of stochastic noise).

It is of course this notion that the numbers estimated for the parameters in a regression based on past data each approximate some true ideal constant, that underpins the notion that prediction is possible. Once the constants have been found, the future can be accurately predicted from the past. This constant number fetish constitutes the key to any conceptualisation of the social world as an ergodic system.

In their hunt for stable parameters, however, econometricians are continually running into the problem of so-called 'structural breaks'. By definition, structural breaks will be endemic in any open organic system by virtue of the fact that it will be in a constant process of change, evolution and development. This is not to deny that rough regularities in the data exist. Indeed such rough or partial regularities have been defined by Tony Lawson as demi-regularities, to indicate that some pattern may emerge from our data, though often in a disguised or distorted form. This can be due either to the epistemological complexity of the world or the ontological complexity/variability of the underlying causal mechanism, and usually both (ref). Critical realism is committed to a view of the social world, which sees it as not only open but also structured. To be significant in the long run, structures, processes and mechanisms must be relatively enduring. I have argued elsewhere that causal processes may be conceptualised in terms of a hierarchy based on time-space endurance, such that those with the most time-space endurance, will be expressed in robust tendencies, which themselves will give rise to persistent demi-regularities⁴. At the extreme lie basic natural mechanisms such as gravity, and the robust tendency for things to fall. At the other extreme, are latent, weak or transient tendencies, which only appear under highly specific circumstances for particular individuals,

² A linear relationship assumes that small/large changes in the independent variable are always associated with small/large changes in the dependent variable. Any non-linear relationship can see small changes associated with large changes and vice versa. For an interesting discussion in terms of chaos theory see (history and theory). Organic, holistic and dialectical relationships mean that responses may differ with different contexts.

³ Critical realism asserts the mind-independent reality of the often unseen causal structures, processes mechanisms and tendencies that account for empirical data.

⁴ B. Pinkstone, *Persistent Demi-regs and Robust tendencies, Critical Realism and the Singer-Prebisch*

taking, for example, the form of fleeting personal whims. In between lie the structures, mechanisms and tendencies of most interest for an understanding of human history⁵.

The crucial distinction between the econometric approach and that of critical realism lies in the concept of tendency as opposed to that of the invariant parameter. Tendency captures the notion that a causal mechanism may not operate with precisely the same effect at all times. A tendency is simply the qualitative form of activity or effect, often conceived in terms of a direction, to which we expect a causal mechanism to give rise. The degree to which that effect takes place in the domain of the actual is dependent not only upon processes intrinsic to the mechanism but also to the historically specific values which might be taken by the parameters of the mechanism, as well as the operation of other intrinsic or extrinsic countervailing or reinforcing processes. If we were looking for them, we would expect robust tendencies to give rise (in the domain of the empirical) to persistent demi-regularities. But, unless we are dealing with very basic physical or biological laws, with from our perspective virtually infinite time-space extension, we will not expect that the values that we find for a particular demi-regularity, say a parameter, will either individually, or as an average, refer to any ideal underlying value. Rather each value we find in a series must be regarded as the uniquely determined product of the particular interplay of usually non-linear causal processes at work at that time. Moreover, in such a world, any derived average value for a parameter drawn from any time-series or cross-sectional data set, such as that obtained by the ordinary least squares method, will simply be meaningless.

The polar alternative is to accept each data point in its own right. That is, as representing a particular conjuncture of underlying causal mechanisms, specific parameter values, countervailing and reinforcing factors and contingent elements. This is what narrative history at its best does. The historian first tries to discern what are the significant factors at work in the explanation of an historical process or event. This means eliminating those things that are contingent or accidental, especially if they have no true relevance to the question at hand. Secondly, among the significant factors the historian then attempts to rank causality, in an attempt to reveal what he or she thinks is the prime causal factor, or conjuncture of factors. Thirdly, as is most often the case, if the historian is trying to explain a process, then she/he must take into account the changes in the relative strength of the various factors over time. What is crucial in one instance may be insignificant at another (and *vice versa*). So through the narrative account the historian tries to weave a plausible, step by step tale of the process of interest, which takes on board all relative factors and their relative weights at particular moments (including the length of Cleopatra's nose).

Note that the narrative account by no means rules out the use of quantitative evidence to supplement the story. Indeed the general ontological framework of critical realism even permits the occasional use of linear regression. For despite the argument that by and large the social world is characterised by holistic, organic and dialectical relations, because it is open, it cannot, for example, be totally holistic. In the sense that in a completely holistic system everything is always related to everything else and there are only a finite number of holistically determined paths of development. As Andrew Sayer has persuasively argued, totalising holism is incompatible with a truly open system. A truly open system, by contrast is likely to contain holistic, organic, dialectical and linearly determined sub-systems. For those particular sub-systems where a linear regression is justified by the fact that a robust tendency may be reasonably described by a linear function, with a random error term, its results may also bear significantly upon the explanation of a particular issue⁶. More generally, all forms of descriptive statistics, tables and charts may be used where the

⁵ Of particular interest will be those robust tendencies associated with definitional or characteristic features of a particular mode of production. For example, capitalism may be largely defined by the existence of a market for labour, and the form taken by the labour process under capitalism gives rise to a robust tendency for technological change to save on labour.

⁶ For example, under relatively limited time-space scenarios, where basic physical needs and constraints are involved, the past may be an actuarially reasonably certain guide to the future. IE. Birth and death rates amongst certain social groups in certain times and places etc.

time-space context renders them relevant⁷. Indeed, the work of Lawson suggests that a particular form of empirical evidence, which often takes a quantitative form, and that he has termed 'contrastive', will usually provide the sort of starting point for a critical realist analysis that regression modelling does for mainstream econometrics. As we shall see, however, whilst contrastive evidence points the way to real problems and hence at least the possibility of realistic solutions, the latter, with its inadequate grasp of both epistemology and ontology, leads only up the garden path.

Part 2: Contrastive Explanation

Despite the fact that the world is an open system, it is in fact characterised by remarkable stability. The basic physical structures, mechanisms and tendential laws of the universe have set the scene in which life has developed on this planet, and life itself has evolved according to its own set of laws, constrained and enabled by, but not reducible to, those of the physical universe. Similarly, human society has evolved its own particular structures and tendential laws, within, but not reducible to, those of the physics and biology. The epistemological and ontological complexity of the universe, however, still gives rise to true uncertainty. It seems likely that this is the origin of the desire for stability, which Tony Lawson has suggested may be a fundamental characteristic of human nature (ref). In any event, humans certainly do create and reproduce social institutions that function to stabilise the social environment within which they live their lives. In such a context, surprise and doubt may be seen as emotional states that are dialectically related to the desire for stability: they trigger curiosity and, ultimately, via the new knowledge that satisfied curiosity provides, enhance our capacity to understand our environment and potentially control/stabilise it⁸. On this view then, scientific endeavour might be regarded as a sophisticated, socially developed form of a biologically given survival mechanism⁹.

For Lawson, surprise and doubt are the crucial triggers to scientific investigation¹⁰. Surprise occurs when we apprehend something that does not fit in with what we would expect, given our existing formal or tacit knowledge of the world. So it is not simply a contrast that rouses our attention. For example, 'on average more people go to church on Sunday than on Tuesday' is the sort of contrast we would expect given what we know about the world and the Christian religion in particular¹¹. Rather it is those contrasts that we may not *prima facie* expect. Such as, 'Productivity growth in the UK has usually been slower than that of other major industrial countries'. So it is surprising contrasts that beg an explanation and, Lawson argues, by their very nature, will often indicate something of the tendency involved in producing the contrast, and thereby assist in providing direction to the subsequent research effort.

Now economic history has long made use of a form of the contrastive approach in the shape of comparative historical analysis. In the twentieth century the seminal advocate of this method was one of the foundation members of the French *Annales* school, Marc Bloch. In a 1928 paper he argued that the comparative method was a crucial tool for establishing explanatory relationships¹². He provided numerous examples that showed that comparative analysis could reveal more general causes of historical phenomena than those that might occur to local historians who viewed the phenomena through a single historical focus. The comparative method thus also permitted the historian to judge the extent to which a particular process might be unique to a particular society. In addition Bloch pointed out that the comparative method was an essential aid in the formulation of historical research problems, since results from one area of historical research could be tested against evidence from another. His illustration was the way in which his own

⁷ ref Tony Lawson

⁸ Curiosity would seem to be a survival mechanism characteristic of all intelligent animals.

⁹ Of course the desire for certainty, when it has been satisfied primarily through tradition and religion, has historically often proved a very real block to scientific progress.

¹⁰ Lawson 97, p.210.

¹¹ Lawson 97, p.211.

¹² Published as 'Toward a Comparative History of European Societies', in Frederic C Lane and Jelle C. Riemersma, eds., *Enterprise and Secular Change*, Homewood, Ill. 1953, 494-521.

knowledge of the English enclosure movement sent him on a (successful) search for a similar phenomenon in Southern France during the early modern period.

In an insightful commentary on Bloch's approach, William Sewell Jr. suggested that the common logic running through Bloch's examples is that of hypothesis testing in an environment where experimentation is impossible¹³. In each case, a possible cause B, of phenomenon A, can be checked against other societies where A occurs, in order to try to find whether or not B does as well. The outcome can be acceptance, rejection or modification of the initial hypothesis. Sewell also pointed out that the logic of comparative analysis could be driven beyond that of mere comparison between nations or regions, to that of particular events within the same nation or social system. An important qualification made by Sewell, however, was that the comparative method could not in itself provide the explanations to be tested. This was a task for the 'historical imagination'¹⁴. Which, for a critical realist, may be read as the act of retrodution.

The central limitation of the comparative method as it has been explicitly used in economic history is that it has tended to be restricted to very general comparisons of nations over particular time periods. At its worst this can degenerate into little more than an exercise in parallel histories (ref C.Lloyd). The methodology proposed by Lawson, however, not only elevates the comparative process to one of very general relevance to all scientific inquiry, but also emphasises the contrastive side rather than that of similarity. In other words Lawson is not advocating comparison for the mere sake of comparison, similarities are only useful to the extent that they provide a means of holding constant, as it were, background causal processes of less than central relevance to the contrastive at issue. The contrastive methodology directs the researcher to concentrate on surprising differences because it is these that are most likely to point the way to new knowledge regarding causal processes.

Of course what may appear as a surprising contrastive to one person, may not have attracted anyone else's attention before. What is surprising depends to some extent on the standpoint from which an issue is viewed. For this reason feminists have been able to ask new questions, which previous generations of male social theorists would not have thought to ask (Lawson 1999). Moreover, when a surprising contrastive is chosen for explanation, the type of explanation that is retroduted will tend to depend upon the standpoint of the researcher and the conceptual framework that they bring with them. Nevertheless critical realism rejects postmodernist relativism. It insists that the processes that take place in the social world are objective (or intransitive), and that it is possible to establish mind and standpoint-independent truths about the world: subject to the qualification that all human knowledge is fallible. In other words, unlike relativism, critical realism suggests that there are objective truths to be known about the world and that there are methods for establishing which views are better (contain more truth) than others¹⁵.

The criteria that critical realism uses is that of superior explanatory power. I understand this to mean that where theory A and theory B may each explain phenomena C, theory A is superior to B if it is based on more realistic premises than B and, in addition, can coherently explain more about the time-space context of C than can B (Bhaskar 1975,1989; Lawson 1997). In other words, theory A has a wider scope in terms of

¹³ William H. Sewell, JR. 'Marc Bloch and the Logic of Comparative History', *History and Theory*, Vol 6, No.2, 1967, 208-218.

¹⁴ Ibid, p.217.

¹⁵ If an issue involves a debate between one critical realist approach and another, then the dispute can only be resolved in its context. The differences between standpoints will need to be rigorously thought through. This will mean that the realism and compatibility of premises, the relative power of causal processes, the validity of causal connections, the scope of illumination, all will need to be assessed against each other. Hopefully then, the commitment to the same broad epistemological and ontological framework will simplify the matter of contrasting key points of difference that might be resolved by further research and debate. Nevertheless the complexity of the world means that there will inevitably be issues which involve a conjuncture of, on the one hand, an array of different standpoints and, on the other, sets of highly subtle distinctions between the relative weights of various causal processes that call for some fine-grained judgements to be made. In such circumstances, some arguments may never be resolved. That, unfortunately, is a price we have to pay for living in an open, structured, highly complex and interesting universe.

its capacity to deal with a longer time period, or greater geographical area than that of theory B. As well, theory A should deal more comprehensively with causes and the complexity of their interactions, whether they be of a quantitative or qualitative form. I would add that from an historian's perspective, as part and parcel of the above, it is always crucial to distinguish the role of necessary processes from the accidental. For the latter definitely can have a determining role with regard to significant historical events and processes, even if we can't learn much from them (Carr 1981).

The process of focussing on a particular surprising contrastive and then moving to an explanation that accounts for it in the broadest context possible might be termed 'partial holism'. It is partial on two counts. First, because, as noted above, if the world is truly an open system then totalising holism cannot be true. Hence few questions should ever require an infinite or ever expanding regress in explanation. Second, because the focus of our enquiry necessarily places limits on the causal processes at work in the world that it is necessary to invoke in order to reach a satisfactory explanation. So relevance places limits on our field of enquiry. The process is holistic, however, in that it requires us not only to explain our explanation (justify our premises) but also to move forward using deduction, inference, as well as the logic of analogy and metaphor, to show the whole network of relevant interlinking causal processes and events that have given rise to the surprising contrastive of interest.

Now econometrics, when it takes the form of regression analysis, has an entirely different logic. First, because it attempts to carry out its explanations in terms of a set of mathematically defined linear relationships, it needs to produce simplified versions of reality that are mathematically tractable (Lawson 1997). So realism of basic premises may be sacrificed for simplicity. As noted above, this is probably less the case for cliometricians, but nevertheless it remains a problem. Second, because the data sample on which they are working becomes the focus of most of their attention, econometricians are often loath to look beyond it to the broader context from which the 'sample' was drawn¹⁶. Indeed they may even feel that it is inappropriate to speak about a wider data series, which they have not worked upon themselves. As a result, econometricians tend to unconsciously, if not deliberately, blinker themselves and stick to the narrowest context possible. Thirdly, it is often extremely difficult to find quantitative proxies for qualitative factors. As a result, the complexity of causal processes is often done much violence in the name of reducing them to mathematically tractable quantitative measures (A.Sayer 1992). Each of these three problems will be illustrated in the next section, which deals with the explanation of British migration to Australia in the early twentieth century.

Part Three: A Case Study: British Migration to Australia 1900-1930

Australia, like other colonies of recent settlement in the nineteenth and twentieth centuries, has generally followed a deliberate policy of boosting population growth through quite high rates of immigration. In terms of the addition to population growth provided by migration three periods stand out: the 1860s gold-rush, the period 1907 –1927 and the three decades following the Second World War.

A seminal paper analysing the post-war migration program in terms of Marx's Reserve Army of Labour Thesis (RALT) was published in 1975 by Jock Collins. Later work by Andrew Markus, went far towards proving that the initial stimulus to the program was the combination of very tight labour markets and the rise of a militant communist leadership in the Australian Trade Union movement during the late 1940s: as one might expect on the basis of the RALT. I was also aware that work by quite orthodox economists had suggested that the high rate of state-assisted migration in the second half of the 1860s was aimed at relieving labour market shortages and the accompanying strong growth in real wages entailed by the drain of labour to the 'diggins' (Maddock and McLean). I found, however, that very little work had been done on migration to Australia in the early twentieth century, with the exception of one cliometrician, David Pope, who had used the issue as the basis for his PhD and several subsequent publications (refs).

¹⁶ Of course many data bases used in historical work are not samples of broader populations, they are simply a unique populations in themselves.

The most important of the latter was a 1981 paper setting forth an econometric model of migration to Australia over the period 1900-1930 but a paper expanding on and developing some of the ideas put forward in the earlier paper needs to be read in conjunction with it¹⁷.

Pope's Model.

Traditionally historians have dealt with migration in terms of push and pull factors. Econometricians have tended to criticise the approach on the basis that the decision to emigrate is based on an assessment of relative advantages and disadvantages between locations (Baines). I'm not sure that this argument carries much weight. Moreover I would suggest that the push-pull framework largely includes all the measurable economic forces of supply and demand favoured by neoclassical economists as explanans, whilst going beyond them to include a large range of non-economic and qualitative factors. In any event, Pope eschews the push pull approach for one based upon the Marshallian scissors, that is, in terms of equations that explicitly model separate supply and demand functions for migrants to Australia. He also attempts to incorporate in his model key aspects of Australian (but not British) government policy interventions with regard to migration.

Pope acknowledges that the demand for migrants was not the same thing as the demand for migrant labour, since although market forces might drive demand for the later, '...demand for population was very largely the outcome of collective decision making via the agency of government, and it hardly ever entailed a specific wage bid' (1981:261). Nevertheless Pope proceeds to model the process as a market, with the supply-side constituted by the excess supply of population in the UK, and the demand side by an excess demand for population in Australia. The long-term dynamic of the process being a movement towards long-term, optimal equilibrium in the distribution of population between the two 'regions'. (1981:262).

His supply function (M^s) takes the typical linear form in which the independent variables are:

- RYD = real income differential (unemployment weighted lifetime Aus/UK real income)
- F = psychic cost of moving (varies inversely with the stock of migrants)
- TC = real transport costs per migrant (weighted average fare relative to savings)
- RSC = real search costs (living costs etc, whilst finding work in Aus)
- M^{AL} = a measure of the attractiveness of other destinations (simply absolute numbers of UK migrants to destinations other than Aus each year)
- n = household heads aged 20-45 years
- s = supply
- t = time measured in years
- α = parameters to be estimated
- e = error term.

The inverse demand function that interests Pope is SP^A , government passage assistance per migrant, since this captures the effect of government intervention¹⁸. The independent variables are:

- DEF = Defence spending
- I^G = Public Investment
- EMC = Government response to labour market conditions (unemployment)
- AQ = Demand for farm workers (related to real agricultural production)
- BC = Budget constraint (tax and loan base from nominal and real GDP)
- M = Actual net migrant numbers per year
- T = Dummy variable

¹⁷ D.Pope, 'Modelling the Peopling of Australia:1900-1930, *Australian Economic Papers*, Dec 1987, pp. 258-281 and, 'Some Factors Inhibiting Australian Immigration in the 1920s', *AEHR*, XXIV:1, March 1984.

¹⁸ A glance at Chart 1 indicates that the level of assisted passages drove the overall level of net migration.

Space and relevance precludes a detailed assessment of the mathematical expressions used by Pope to define the relationship of each independent variable to M^s . I will be concerned only to assess the specifications in terms of three primary inadequacies which characterise econometrics from a critical realist perspective: realism, scope and complexity.

The most general question of realism is the issue of whether the process of migration from the UK to Australia should be conceptualised through a Marshallian partial equilibrium focus. In one sense it might be regarded as realistic, since migrants made their own choices to come to Australia and at least part of that choice would have been in market oriented terms, that is, the prospect of higher real wages. But the realism is very narrowly focussed. For, as we shall see, if it was a market, it was a highly artificial market, largely created by and dependent upon the actions of the British and Australian governments. Second, the market focus itself tends to either misrepresent or exclude non-economic and difficult to quantify push factors, which I will show later, constituted probably the most important causal factors underpinning migration from Britain in the early twentieth century. In other words, the Marshallian analysis is fundamentally undermined by limitations of scope/context. Finally, there is the whole problem of attempting to provide quantitative proxies for complex qualitative factors that may be interacting in an organic/dialectical manner.

With respect to the specification of the various independent variables, as far as these can be regarded as independent from each other, there are no outstanding problems with most of those that rely on readily available quantitative data that is directly relevant to the mechanism they attempt to describe. Indeed at an abstract level one might agree that most of them are realistic and would have operated in much the way that Pope assumes¹⁹. RYD provides a reasonable attempt to provide a quantitative estimate of the relative real income returns upon which migrants might base their decisions. This does not, however, protect it from a poor performance with regard to explanatory power. For example, while his model performed reasonably well in terms of confidence levels for the period as a whole it breaks down for any comparison of the pre and postwar sub-periods. Thus he concedes that when migration drops off in the early 1920s his own figures show that the real wage gap between Australia and the United Kingdom actually widened considerably (to around 1.5:1) (1984, p).

TC and RSC also looked reasonable, but both proved insignificant. This result was quite counter-intuitive for transport costs, which Pope blamed on 'statistically unreliable reduced form coefficients.' (1981:279). For the demand equation, I^G , AQ, BC and M were all fairly straightforward as well, in terms of both measurement and the way one might expect them to operate on demand for migrants, either positively or negatively. AQ proved insignificant. I^G and BC involved problems of multicollinearity and along with M were all significant, as one would expect given their fairly direct relationship to the dependent variable, government passage assistance.

The variable that produced among the most significant results for Pope was EMC. As a measure of the influence of labour market conditions on the demand for migrants, Pope has EMC determined by the square of the difference between actual unemployment in a given year and the mean level of unemployment for the period 1901-1930. The idea behind this formulation is that due to Australian government actions on migration, 'the doors were flung wide open following public enquiries into the shortage of labour in 1911-12, but slammed tight in 1930 when governments faced the opposite circumstances.' (1981:266). So his specification tries to capture in mathematical form a typical response by governments to conditions in the labour market. He suggests that governments are simply responding in turn to pressures from employers and unions. That is, when labour markets are tight, employers will press for migration, whilst unions will

¹⁹ Of course, some of the data quantitative data available for the period is quite dubious. Especially that on unemployment, much of which was derived from Trade Union records. See Mitchell and Deane and Ref on Aus.

acquiesce, but when unemployment is high, unions will strongly oppose migration, while the interest of employers will be weakened.

From a Marxian perspective this is reasonable, we might re-interpret this in terms of a tendential law underpinned by realistic premises, at least for societies with long histories of immigration. As it stands, of course, it does require governments in the early twentieth century to respond to a mean derived from data stretching through to 1930, but this just indicates that econometricians really don't worry too much about the realism of their formulations. Nevertheless one might address this problem by instead using the mean of unemployment for (say) the 30 years previous to the particular year concerned. The qualification that a critical realist might add is that in the real world class struggle is not determined in any simple mechanistic way by the distance of unemployment from some mean or perhaps 'normal' level of unemployment to which workers and capitalists have become accustomed. Other factors intervene, in particular political factors and the ideological climate strongly influence class power and militancy. Such countervailing factors may have most effect in non-extreme periods for the labour market and so the smooth, mechanistic response implied by this formula would break down²⁰. Nevertheless we can accept that extreme circumstances will highlight in a contrastive manner the principle mechanisms and tendencies mediating the capitalist state's approach to immigration. My concern is that Pope's formulation using the square of differences from the mean is still not strong enough to capture all the effects (see my discussion below regarding T). Even so, EMC was shown to be significant at the one and five per cent levels of confidence for four different formulations of the demand equation²¹.

The problematic variables were those which tried to capture quite complex qualitative factors through some quantitative proxy. Thus the psychic costs of moving (F) are supposed to be offset by the number of people who have previously migrated to Australia, in the previous 10 or 15 years. There is of course some realism in the general notion that the more of your family and friends that have moved the more familiar will be the social environment of the new country. But for Australia the cost and distance of the journey ruled out much of the sort of family or village chain migration that characterised colonies of recent settlement in Africa and the Americas. Moreover, the largest surge in migration occurred over 1908 to 1914, following a hiatus of 15 years in migration as a result of the 1890s depression. So the realism is misplaced, this offsetting factor makes little sense in terms of the actual context of the problem. Further, by excluding social push factors from the analysis, the psychic costs of staying in Britain are not even considered. Pope's formulation of F thus grossly oversimplifies a very complex issue. It remains to be noted that the variable as specified proved insignificant.

Defence spending (DEF) was included as a proxy measure for the 'yellow peril/populate or perish' motive for promoting migration. It was, however, also found to insignificant. This is not surprising, here the premise might have been realistic in another later context, but in the early twentieth century Australia relied almost entirely on the British Navy to solve its immediate defence needs. The real fears were about White Australia's long-term security (refs).

In terms of realism, scope and complexity, the two most problematic variables are M^{AL} and T. The first relies on the absolute numbers of UK migrants to destinations other than Australia each year, which is taken as an index of relative attractiveness. The vagueness of such an index undermines its realism and utility. In the neoclassical approach taken by Pope surely relative attractiveness would mean the monetary costs and benefits associated with other destinations relative to Australia. But Pope rules this out on the basis that 'degrees of freedom preclude testing the hypothesis in this form' and that such an approach 'would embody fearsome problems of aggregation'²². This means, however, that he rules out of his explanation (and thus does not need to come to terms with) several other vital contextual pieces of information. These include the fact that wage rates in the United States were close to double those in Australia prior to the First World

²⁰ In this case continued commitment to the men, money markets ideology would have kept government demand for migrants at higher levels than otherwise in the 1920s.

²¹ A simple chart of Australian unemployment and migration indicates the strength of this relationship in the period.

²² 1981, *Ibid* and p.274.

War, that transport costs to the US were always very competitive compared even with subsidised fares to Australia and that the distance and time of the trip was of course much shorter. Moreover, the pre-war period saw rapidly accelerating migration from Europe (with the remarkable exception of Britain) to the United States, with net gains reaching an absolute peak of 907 000 people in 1913. Yet the share of British emigration that went to the United States crashed: from 63 per cent in 1901 to a low of only 17 per cent in 1912 before recovering during the 1920s to around 50% (Charts 3, 4). Pope's vague index of attractiveness thus insulates his analysis from both a consideration of the broader international context within which migration to Australia was taking place and the puzzle of why, in the face of apparently strong economic incentives, British migrants were increasingly choosing Australia over the United States in the pre-war period.

T is a dummy variable introduced to indicate a structural break during the war (T =0 prior to 1920, 1 thereafter). T turns out to be one of the most significant variables in the regression analysis. It is quite realistic to assume that there would be a structural break during the war but of course a dummy in this context is very open to interpretation. The construction that Pope puts on T is that it represents a contraction in demand for migrants by the Australian government after the war, due to the an increasing concern with the markets for Australia's traded goods (and presumably for the availability of employment for migrants in the export industries). Pope provides no evidence for this speculative view and it is certainly counter-intuitive. Australian governments exerted considerable pressure on the Britain during the 1920s to promote and subsidise migration to Australia under the empire developer's slogan 'Men, Money, Markets' and much emphasis was put on attracting migrant labour to rural closer settlement industries²³. The key change between the pre-war and postwar periods is that unemployment fell to extremely low levels (2-3%) in the decade before the war but rose to around 8-9 per cent during the 1920s. In other words, it appears most likely that the T variable is accounting for part of the effect meant to be captured by the EMC variable. The underlying idea that the problem to be explained is a contraction in demand for migrants after the war rather than the dramatic surge in migration prior to the war, stems from a failure to contextualise the period under discussion within a longer run perspective²⁴. The rate of migration to Australia in the 1920s in fact remained above the long run average trend (0.7%).

Pope's analysis of migration to Australia fails the critical realist test on a number of grounds. With respect to realism, Pope does tend to use realistic premises upon which to base his formulations for those variables that can be interpreted in straightforward quantitative terms. The real problems emerge for his more qualitative and/or vaguely defined variables, especially F, M^{AL} and T. The first two are simply not up to the task required of them, primarily because they obfuscate rather than clarify the complex context of the issues they are meant to represent. As a highly significant dummy variable, T, can of course have any meaning one wishes to place upon it and the one that Pope chooses is counter-intuitive, despite the weight he attaches to it.

It is the econometric approach itself that causes the problems. To begin with, questions of mathematical tractability and 'precious degrees of freedom' force Pope to deliberately exclude from the context crucial questions and causal factors. Yet even if the mathematical problems could be overcome for the quantitative variables, the attempt to grasp complex and highly significant qualitative issues by means of simple quantitative proxies will generally be doomed to failure. The consequence is that the whole analysis is undermined and the only strategy available to the econometrician is that of offering various *ad hoc* speculative qualifications. To be fair to Pope, he points out that his supply function accounted for 75 per cent of the variation in migration whilst that for demand accounted 80 per cent of the variation in government assistance whilst (1981:280). The question raised by this analysis, however, is that given the extensive absences in Pope's specifications, was this just a question of good fitting of equations to a database?

²³ See Drummond for a detailed account of these negotiations from a British perspective. From an Australian perspective Michael Roe also dismisses Pope's argument on similar grounds.

²⁴ This is of course the whole thrust of his 1984 paper, 'Some Factors Inhibiting Australian Immigration in the 1920s', AEHR, XXIV:1, March 1984.

A Critical Realist Approach

As indicated earlier, following Lawson (1997), a critical realist approach to analysis in economic history (as with other social sciences), should begin with an examination of the basic data and simple descriptive statistics relating to an issue and look for the outstanding contrastives. Pope's own work provides such an opportunity. On the second page of his 1981 paper Pope included a Chart of Gross and Net Inflows from the United Kingdom. The Chart indicated that the net inflow had grown from around 10 000 in 1908 to almost 70 000 in 1912, dropping to approximately 30 000 in 1914, and then, following the wartime hiatus, staying at around this level from 1920 until 1927 before dropping off to zero by 1930. Now a cursory glance at the chart would suggest to most people that the central issue to be explained over the period was the enormous surge in immigration from 1908 to 1912. In other words, this provides precisely the sort of contrastive demi-regularity that begs an explanation. Indeed, at its peak the net figure represented a two per cent addition to the total Australian population at that time, more than double the percentage peaks reached after the Second World War. I will argue that this surge can be explained primarily in terms of the role played by the British and Australian states in relation to the particular conditions of class struggle operating before and after the war. The explanation will be as contextually broad as required by this focus and therefore will make explicit reference to the highly significant pieces of contextual and qualitative information left out of Pope's account.

Pope's own evidence indicates that Australian governments played a committed part in terms of the relative level of expenditure they provided to promote migration in the pre-war period. Pope also noted that this was of period of very tight labour markets in Australia. This gives us a clue to the most appropriate theoretical framework. According to the traditions of neoclassical economists, and many of their forerunners in the eighteenth and nineteenth centuries, problems of either over-full employment or unemployment should always be solved by the smooth operation of market forces. So from this perspective there is no theoretical justification for state intervention to ameliorate conditions. The history of capitalism indicates, however, that states have often intervened either directly or indirectly to address perceived problems in labour markets, especially if the problems became associated with the sort of social upheaval that might threaten the general conditions of capitalist development. Among nineteenth century economists, Karl Marx pointed out that if unemployment fell too low, both capitalists and orthodox economists would soon call for intervention:

'as soon as...adverse circumstances prevent the creation of an industrial reserve army, and with it the absolute dependence of the working class upon the capitalist class, capital, along with its platitudinous Sancho Panza, rebels against the 'sacred' law of supply and demand, and tries to make up for its inadequacies by forcible means'²⁵.

On the other hand, throughout the nineteenth century in Britain, spells of high unemployment also led governments and local authorities to engage in various forms of poor relief²⁶. An equally important response, however, was the spontaneous reaction of middle class people themselves in forming voluntary emigration societies, with the express purpose of solving unemployment problems by exporting the unemployed. This latter phenomena became quite pronounced during the depressed years of the 1880s. Social upheaval in the middle of that decade, for example, saw a huge increase in the activities of, and donations to, such bodies²⁷. The operation of these societies meant that direct state action was less necessary. In addition, through much of the nineteenth century, craft trade unions organised emigration

²⁵ K.Marx, Cap vol 1. Penguin, London 1976. P.794. 'Sancho Panza' being one of Marx's terms of contempt for the political economy promoted by conservative economists.

²⁶ The theoretical justification for this and the idea that governments could and should do something effective about high levels of unemployment had to wait until the publication of Maynard Keynes' General Theory in 1936.

²⁷ Howard L. Malchow, Population Pressures: Emigration and Government in Late Nineteenth -Century Britain, Sposs Inc, Palo Alto California 1979. P.?

societies, with the explicit aim of reducing the supply of labour in their localities²⁸. During the last two decades of the century, however, the growth of mass industry unions and rising influence of radical socialists saw a decline in this activity. Socialists in particular saw emigration as defeatism and pushed instead for reforms at home²⁹.

Although the voluntary emigration societies were not formally part of the state, they may be regarded as at least functionally performing a role that would latter be taken over by the state³⁰. Moreover, from the mid-nineteenth century on, the emigration societies pressed hard for greater state involvement. And initial success came with the creation of the Emigrants Information Office in 1886, under the aegis of the Colonial Office. The EIO expanded its work through the 1890s and in effect became the informational hub for the voluntary emigration societies. These were then able to concentrate their efforts on the practical work of providing not only direct financial aid to emigrants but also general assistance with the organisation of both their passage and their employment on arrival at their destinations. Hence when the sudden upsurge in emigration from Britain occurred in the early twentieth century, there was a well established organisational network in place, with an influential state body at its centre, that had both the capacity and the will to coordinate and shape the general pattern of the emigration process.

The existence of the emigration societies and the EIO does not of course explain the upsurge in migration itself. Before considering the domestic factors that led to the upsurge, however, it is worth considering just how significant it was. Chart 2 shows that emigration from Britain was more than comparable to that during the previous peak years in the 1880s and in fact reached an all-time historical high of at least 268 000 people in 1912³¹. Surprisingly, however, historians have paid very little attention to this striking contrastive. It does not rate a mention in Dudley Baines' otherwise excellent survey monograph, *Emigration from Europe 1815-1930*³². An unpublished PhD of 1951 by Frank Crowley on British Migration to Australia in the period merely refers the fact in passing³³. And even as close to the events as 1929, W.A. Carrothers, who devotes a chapter to 'Emigration and the Empire 1897-1914' fails to note the historical significance of the numbers involved³⁴.

In seeking an answer to why there was such a surge in migration from Britain, the answer that springs from secondary sources is that this was a time of increasing social upheaval which appears to have constituted an immense qualitative push factor. The classic work in this vein is Dangerfield's, *The Strange Death of Liberal England*, written in the 1920s. Dangerfield, a conservative, pointed to a whole range of social stresses that overtook Britain early in the new century. Through his eyes this was a period economic stagnation, rising worker militancy, increasing popularity of socialism, rapid growth for the new Labour Party (despite Lloyd George's social reforms) and a strident campaign by the suffragette movement. The traditional political parties also seemed to be in disarray over the question of Home Rule for Ireland. In addition to this we might add that governments, newspapers and Imperialists were growing increasingly concerned about the prospect of war with Germany.

There is plenty of quantitative evidence to support the view that this was not a particularly good time for ordinary people in England. Real wages fell by around 6 per cent from 1899 to 1904-5 and had only

²⁸ Charlotte Erickson, 'The Encouragement of Emigration by British Trade Unions, 1850-1900,' *Population Studies*, Vol 3, 1949.

²⁹ Howard L. Malchow, *Population Pressures: Emigration and Government in Late Nineteenth-Century Britain*, Spox Inc, Palo Alto California 1979. Pp 150-167.

³⁰ They conform to what Althusser described as ideological State Apparatuses. Get Ref.

³¹ By a revised system of counting heads introduced in 1912, the actual number in 1913 was approximately 304 000. See Michell and Deane, p51.

³² D.Baines, , *Emigration from Europe 1815-1930*, Cambridge University Press, Cambridge 1991.

³³ Frank Crowley, unpublished Phd Thesis, *British Migration to Australia 1860-1914*, Oxford University, 1951. P.?

³⁴ W.A. Carrothers, *Emigration from the British Isles*, Frank Cass, London, 1969. Reprint of 1929 edition.

recovered half of this loss by 1914³⁵. On top of this a recession that began in 1907 saw unemployment reach levels not seen since the 1880s: almost 8 per cent of workers were unemployed in 1908 and 1909 according to Union returns³⁶. Quite strong recovery then saw unemployment fall to 2.1 per cent in 1913, but despite economic growth real wages were still 3 per cent below their late nineteenth century peak at the outbreak of war. This was not for lack of militancy. Union membership rose steadily as did the influence of syndicalist views and radical socialists calling for revolutionary change. The number of disputes grew from an historical low of 355 in 1904 to 1497 in 1914; the highest level ever since records began in 1882³⁷. When the strike wave of 1910 reached its peak, Lloyd George ordered troops in to occupy Hyde Park.

Consequently the period from the turn of the century to the First World War was one which not only promised little for most people in terms of improvements in living standards, it was also fraught with conflict over a whole range of political and social issues. It is hardly surprising then that many English people began increasingly to look to making their homes and futures somewhere where prospects seemed brighter. It should be noted in passing that this was to prove a happy coincidence for Australian governments desperately seeking migrants to ease the pressure of extremely tight labour markets as the Australian economy entered one of its strongest growth surges during the pre-war period.

Although the economic and social situation in England looked bleak and uncertain enough to drive record numbers of people to emigrate, had they followed the path of their forerunners, as migrants are wont to do, they would have made their new home in the United States. The United States was comparatively close, and its standard of living was considerably higher. Not only should this have been reasonably well known in Britain, given the number of people who had relatives there, but also the EIO Handbook on the United States published in 1911, began with a reasonable summary of a report by the Board of Trade on the United States which specifically inquired, 'into working-class conditions of life...' with the object of comparing them with those in Britain for 1908³⁸. There it was noted that:

'Allowing for a slight advance in wages in England and Wales between the dates of the two enquiries the combined ratio [of wages in the United States to those in England and Wales] would be 230:100.'³⁹

The cost of passage to the United States was also quite reasonable in this period. The third class fare varying between one quarter to one-third that of the fare to Australia (ref). Yet in the face of these monetary incentives, the share of British emigration which went to the United States crashed: from 63 per cent in 1901 to a low of only 17 per cent in 1912 (See Chart 3). And this was during a period when total net migration to the US was undergoing its most rapid expansion, rising from a mere 155 000 in 1900 to 915 000 in 1914. So at a time when the Europeans were flooding into the United States, English emigrants were turning away in droves. Indeed, in the peak year of emigration from Britain (1912) only 46 000 people out of close to 300 000 British emigrants chose to go the United States.

Where did all the rest go? Overwhelmingly, they went to the Canada and Australia. Why? Because, as the next part of this paper will show, they were given a highly distorted picture of the advantages of Canada and especially Australia relative to the United States by the chief government body concerned with emigration, the Emigrants Information Office.

The Emigrants Information Office provided the key link between the British government and the private emigration societies. In 1906, for example, The President of the Board was the Secretary of State for the Colonies. The Colonial Office, the Board of Trade and the Local Government Board were all represented

³⁵ Mitchell and Deane, Abstract of Historical Statistics, 1972, pp.334-5

³⁶ Mitchell and Deane, Abstract of Historical Statistics, 1972, p.65

³⁷ Mitchell and Deane, Abstract of Historical Statistics, 1972, p71.

³⁸ Emigrants Information Office, General Information Relating to The United States of America Including a Summary of Consular Reports, London 1911.p5.

³⁹ Emigrants Information Office, General Information Relating to The United States of America Including a Summary of Consular Reports, London 1911.p6.

as well, along with representatives from the private emigration societies, and the Secretary to the General Federation of Trade Unions. There can be little doubt that by the early twentieth century the Office was the single most important and authoritative source of information on conditions overseas for prospective emigrants. In 1906 the EIO was distributing quarterly posters which were exhibited in every Post Office in Britain, whilst free circulars were sent to over 1000 public libraries, urban district councils, educational departments of co-operative societies, emigration societies, Distress Committees and the Local Government Board. In that year alone it distributed 335 000 free circulars⁴⁰. Serious migrants could also obtain much more detailed information by buying the separate handbooks on Canada, the African colonies and the Australia states for 1d each, or on the United States for 3d.

The EIO was supposed to provide dispassionate advice to prospective emigrants⁴¹. Through much of the 1890s this appears to have been the case. With respect to the United States, reports on conditions there were generally quite laudatory, and, the introductory remarks on the United States for all the years from 1903 to 1906 were quite favourable, that for 1906 beginning: 'The year 1906 has justly been termed a wonderful year as far as the trade of the United States is concerned. The commerce of the country has far surpassed anything ever known before.'⁴² During 1907, however, the Australian delegation to the Imperial Conference of that year was highly critical with regard to the work of the EIO and what it regarded as an over-emphasis on Australian disadvantages in EIO handbooks. The EIO was stung into providing a Memorandum to answer these claims and replied that, 'its influence as a matter of fact has been exerted in the direction of diverting emigration from foreign countries to the great British Colonies...'⁴³. Significantly, the report on the US for 1907 shows a marked change in tone. There was an objective basis for this, in that the US economy went into recession, but the comments are scathing and not a little hypocritical, given the comments of the previous year.

'It was recognised by all those in a position to form an independent opinion that this tremendous industrial activity could not last, that it was merely a question of time before a reaction would set in. It became quite evident that the country was living beyond its means.'⁴⁴

Emigrants were also cautioned against emigrating on the grounds of the high unemployment in the US at the time. The changed tone, however, continues throughout the rest of the pre-war period. Comments designed to trigger xenophobic fear begin to appear such as: 'A labourer can find fairly steady work, providing he does not mind working in company and in competition with young single men of the slava and italian races.' (US handbook, 1911, p.39). By 1913 an explicit warning against migration to the United States appeared near the beginning of the US Handbook. It ran to almost four pages and began:

'It is extremely undesirable that young men or women should come to the United States at this time as emigrants, for the difficulty of obtaining positions seems to have increased during the last few years and this, taken in connection with the excessive cost of living, renders it almost impossible for foreigners to obtain employment at the present time in the United States. '(p.20)

In fact the US economy was doing quite well at this time and non-British migration was at an all time high. The article went on to assert that the prevalence of monopolies in the US, was the main cause of the high cost of living there.

⁴⁰ Memorandum on the History and functions of the Emigrants Information Office, Parliamentary Papers, May 1907, Cd 3407. P.6.

⁴¹ 'The Office was from the first, and has remained, under the general supervision of the Colonial Office. It was intended to give information only, and not either to encourage or to discourage emigration.' Memorandum on the History and functions of the Emigrants Information Office, Parliamentary Papers, May 1907, Cd 3407. pp.3-4.

⁴² Summary of Consular Reports, United States 1906-7, EIO 1907, p.17

⁴³ Memorandum on the History and functions of the Emigrants Information Office, Parliamentary Papers, May 1907, Cd 3407. P.4

⁴⁴ Summary of Consular Reports, United States 1907, EIO 1908 p.17

By contrast the tone of EIO Handbooks on Australia turned markedly more optimistic during 1907. Warnings against the difficulties of life in tropical Queensland were dropped after that year, and gradually all negative references to any aspect of life in Australia were removed. For Queensland a concluding section begins to increasingly stress the social wage welfare benefits (pensions, free universal education, workers compensation etc) of life in that State. Whilst all handbooks emphasised the similarity between life in Australian and Britain and the fact that Australia was pursuing the White Australia policy.

From 1907 the last page of the New South Wales Handbook carries the following unqualified praise:

‘New South Wales undoubtedly possesses many attractions to working men. Wages are high, the recognised working day in skilled trades is eight hours and the political and social status of the working class is on a high level. ...The people ... eat and drink and spend more, work less for the necessities of existence, have a larger share of food luxuries, and in a general way get more out of life than the masses of any other country in the world’ (EIO NSW Handbooks, 1907-1913).

With emigrants making decisions on the basis of such biased information, it is not surprising that, despite the strength of the US economy at this time and the flood of European migration this attracted, British migrants went in the opposite direction- to the working man’s paradise⁴⁵.

One final group of questions needs to be addressed. What was it about the structural break represented by the war that led in the 1920s to a lower rate of emigration from Britain, a restoration in the share of migration taken by the United States and a decline in the share taken by Australia? Well, first, most historians agree that the persistently high levels of unemployment in Britain in the 1920s reduced the ability of potential migrants to save the necessary fares and this undermined overall volumes. Total numbers were about two thirds of the pre-war peak in the early 1920s, trailing off to very low levels later in the decade (Mitchell and Deane) (refs). With respect to the share taken by the US, the British had seen with their own eyes the ‘Doughboys’, and the relative wealth of the individual American soldier compared to their own. Moreover, the US economy boomed during the ‘roaring twenties’ in a manner that could not be disguised and the US share jumped back to around 40-50 per cent (Chart). Finally, higher unemployment in Australia in the 1920s removed the pre-war urgency of migration as far as the Australian government was concerned, with a consequent reduction in subsidised fares. And it was the latter, as Chart I indicates, that underpinned net migration to Australia.

⁴⁵ For an alternative view of Australia in the period see T.Wheelwright, *No Paradise for Workers*, 1992.

Conclusion

The question of British migration to Australia in the early twentieth century provides, I believe, a good case study for comparing the relative merits of econometric and contrastive analysis as alternative approaches to explanation in economic history. The econometric explanation of British migration to Australia began with a period 1901-1930, then developed a series of linear equations designed to capture the causal processes which were assumed to be at work in the period. In the traditional manner the significance of the various specifications was reported, and a number of cautious conclusions reached about the characteristics of migration in the period. Perhaps the most significant conclusion was that there was an inward shift of the demand function for migrants in Australia during the 1920s for which a speculative answer, based on a possible concern of governments with export markets was provided⁴⁶.

In my criticism of the model I pointed out that whilst many of the specifications for quantitative variables were inadequate in their realism and, moreover, many did not account well for the pattern of migration over the period. My major criticism was reserved for the specifications and quantitative proxies for qualitative variables, such as psychic costs, the index of relative attractiveness and the interpretation of the dummy variable. My conclusion there was that by and large issues of realism, scope and complexity were not dealt with well by the econometric analysis and major explanatory factors were left out of the analysis for reasons of mathematical tractability.

As an alternative approach I reported current research I have been undertaking into the question. I pointed out that Pope's own chart of migration pointed to a surprising contrastive in the form of the striking surge in British migration to Australia over the years 1908 to 1912. Taking this as my entry point into the issues, and armed with a Marxian view of the role of the state regarding the reserve army of labour, I was unsurprised to find that this was a period of both extremely tight labour markets in Australia and extensive government assistance for British migration to Australia.

In line with the partial holism approach I see as characteristic of critical realist methodology, I then proceeded to examine the question from the widest context possible. This led me to conclude that the reduction in demand for migrants in Australia during the 1920s was better understood as simply a return to long run trend as labour market pressures eased. It also led me to examine the wider process of British migration to destinations other than Australia during the early twentieth century. This process in turn then confronted me with another two surprising contrastives: that the period just prior to the First World War represented the absolute peak of migration from Britain⁴⁷ (a happy coincidence from Australian government perspectives) and, secondly; that despite the fact that this was also the period of highest migration from Europe to the United States, British migration to the America's stagnated whilst that to Australia increased dramatically.

The explanations I have tentatively posed to these contrastives both invoke qualitative and difficult to quantify push factors. First, what has been called the Edwardian crisis was a period of immense social upheaval and discontent, which appears to have encouraged substantial numbers of the British people to seek a life elsewhere. Second, the reason so many went to Australia rather than the United States was that the major and only official source of information on the various destinations available to emigrants (the EIO Handbooks) became severely biased against the United States and in favour of Australia. I conclude that the explanation I offer is superior to that of Pope, precisely because it is both more realistic, and confronts and draws upon a much wider and more complex range of contextual evidence than that grasped by his econometric model.

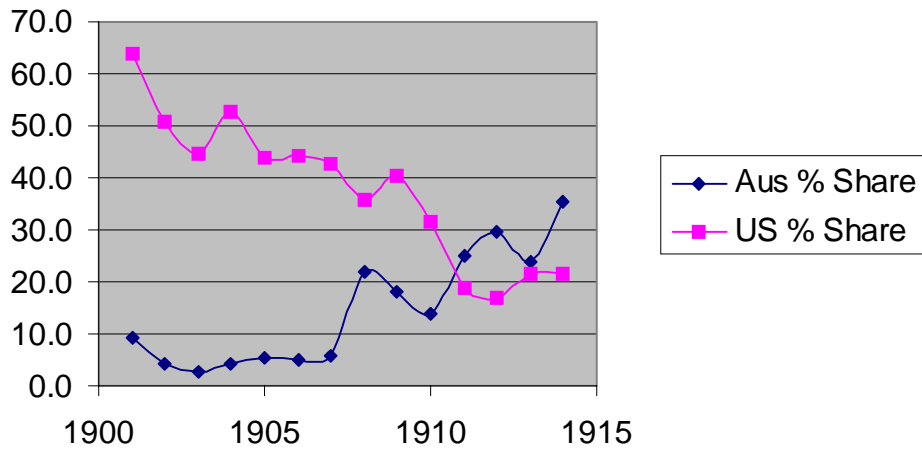
⁴⁶ At least this point is emphasised on the last page of Pope's paper. 1981, p.280.

⁴⁷ Another surprising contrastive is that this period seems to have been neglected by British historians of migration.

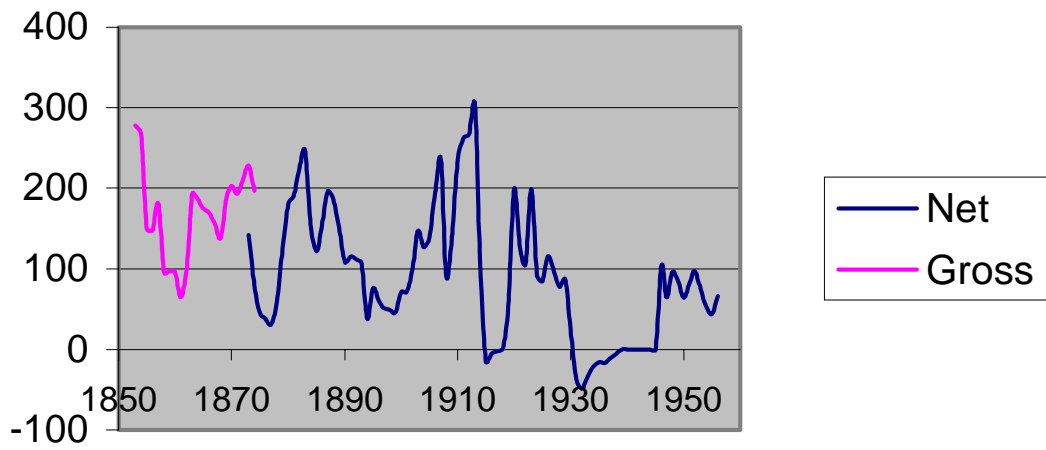
CHARTS

Chart 1 to be supplied.

Aus & US Shares of Brit Emmigration 1901-1914



UK Migration 1853-1956



US % UK Emmigrants 1853-1956

