Editorial — INDEXATION AND THE CAPACITY TO PAY

The last national wage case, which fully adjusted wages to movements in prices for the combined quarters of June and September in 1978, was just as painful a slap in the face to employers as it was to the Fraser Government. The latter’s timetable for winding down inflation (to an annual rate of below 5 per cent in 1979) was set back by several months and Australian employers were handed an inflationary package by an omnipotent wage fixing authority just at a time when a mood of tentative optimism about prospects for the new year was beginning to prevail.

Apparently The Commission under its new wage-fixing guidelines is more willing to apply the principle that price increases, as measured by a single index — the consumer price index (CPI) — are sufficient justification for equivalent corresponding increases in wages and salaries. But although this principle may be acceptable to some economists whose wish is to maintain the purchasing power of those in employment in order to “assist” Australia’s economic recovery, it blatantly disregards conditions in the labour market. Moreover, it pays scant attention to industry’s capacity to pay large increases in wages relative to current levels of profitability and productivity.

It is probably not well enough understood by Australians generally, nor...
indeed by The Commission, that simply maintaining the purchasing power of wage and salary earners in a period of slow economic growth does little in itself to establish the preconditions for sustained economic recovery. The appropriate beginnings of recovery can only evolve out of increasing confidence in the non-inflationary expectations of consumers and investors at home and abroad.

Only time will tell whether the change to six monthly national wage hearings has heightened The Commission’s preoccupation with preserving the real wages of the employed, at the expense of the unemployed and the employed-to-be. Nevertheless, the time is now ripe for putting pressure on The Commission to ensure that in future national wage cases — immediately at the next hearing in May — it will pay greater attention to the economic effects of its decisions. Particularly in this respect The Commission must give due recognition to the old principle of past wage hearings — the capacity to pay.

The capacity to pay

Although the capacity to pay has been employed as a principle of wage fixing procedures throughout the history of Australian conciliation and arbitration in the 20th century, little consensus about the meaning and practical application of the concept has evolved. Today there is still no uniform agreement on a number of critical questions: For instance,

* How the capacity of the economy to afford a given level of award wages at any point in time should be measured.
* What appropriate and relevant economic indicators should be used to measure ‘economic capacity’.
* To what degree this principle of wage fixation should take precedence over other relevant principles such as the necessity to avoid industrial disputes or the need to compensate wage and salary earners for rises in the cost of living.

But in spite of the many difficulties involved in defining, measuring and putting into perspective the capacity to pay, in a period of rising unemployment and intractable inflation, a central wage fixing authority must accept the obligation to evaluate very carefully the degree to which employers are able to absorb higher labour costs within the Federal Government’s anti-inflationary guidelines. This, surely, lies at the heart of an effective and logical national wages policy.

The Employers’ view

In 1978 at the Inquiry into Principles of Wage Fixation, the National Employers Policy Committee emphasized the importance of having a wages policy based upon the capacity of the economy to pay increased wages without inflationary consequences. Employers correctly see rising productivity (output per person employed) as the only source of increased real incomes. It is nonsense to think otherwise; for instance, if wages are adjusted on the basis of rising prices alone, the inevitable effect is a triggering of the general level of prices in the economy which erodes the given value of wages. Further indexation of wages to compensate for these price increases must immediately and effectively initiate a further bout of price inflation and destroy conditions in which real wages can rise.

An increase in labour costs must be paid out of the value of current production. Any student of economics should know that unless existing profit margins are squeezed, prices will rise if increases in labour costs exceed increases in productivity. It is not surprising then and it is fundamentally sound, for the employers in National Wage Cases to argue that in-
creases in consumer prices do not, in isolation from other factors, justify wage increases for their employees. (This is because changes in prices are an indication that costs in the community, many of which will directly affect employers, have risen.) They do not indicate an increased capacity (i.e. greater resources, or more efficient use of resources) of enterprises to absorb costs.

In addition to the fact that the CPI is totally inadequate as a measure of economic capacity, this price index is affected by many factors outside the control of employers. An increase in the CPI may be due to any of the following influences:

* **Imports** — rises in prices of imported goods and services.

* **Government taxation measures** — an increase in indirect taxes such as sales tax on motor vehicles or excise duties on cigarettes and alcohol. The increase in excise duties on cigarettes and alcohol introduced in the 1978-79 Federal Budget contributed substantially to the unexpectedly high rise of 2.3 per cent in the December quarter CPI.

* **Seasonal conditions** — an unfavourable climate may restrict the market supply of foodstuffs and thereby drive up market prices. Rising food prices throughout 1978 substantially contributed to Australia's underlying rate of inflation in that year.

* **Exchange rate fluctuations and tariff rate changes** — an Australian dollar which is depreciating in value against the currencies of Australia's major trading partners may precipitate large rises in the prices of our imports. An increase in tariff rates will raise the prices of imported inputs used in domestic production. It may also raise the prices of Australian products competitive with the imports on which tariff rates have been increased.

* **Government bureaucracies and public service charges** — many government bodies, such as the Prices Justification Tribunal, which intervene in the market-place, impose costs on businesses by directing them to comply with government regulations and controls. Also, increases in service charges of government-run enterprises such as post and telecommunications, municipal authorities and so on, will be reflected in the CPI.

The incidence of rising prices as indicated by changes in the CPI may therefore be due to a combination of factors such as government intervention in the private sector, seasonal abnormalities in markets at home or abroad, rises in international price levels, variations in overseas (or domestic) exchange rates and changes in the Australian Government's protection policy. Rising prices alone do not signify that Australian industries have a greater capacity to afford increasing labour costs, without either subsequent inflationary effects or compression of profit margins.

For employers the only changes in prices which automatically justify wage increases on the basis of industry's capacity to pay are higher profit margins, or a sustained upward movement in export prices which raises domestic prices. The important element is that in both these cases there is prima facie evidence of growth in the financial capacity of enterprises. Hence, higher labour costs may be absorbed without deleterious effects on profits or prices.

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2 The CPI measures quarterly variations in prices affecting a high proportion of the total expenditure of most wage/salary households in metropolitan areas of the capital cities throughout Australia.
The Trade Unions’ view

In its submission to the Inquiry into Principles of Wage Fixing the ACTU put its case on the relevance of the capacity to pay principle to National Wage Cases unequivocally when it said; “In a highly inflationary environment the application of the capacity to pay doctrine is incompatible with the objective of maintaining the real value of wages.”

From the trade unions’ point of view the capacity to pay is clearly irrelevant because increases in the CPI, irrespective of the factors causing the increases, signify erosion in the buying power of wages. Hence in spite of a growing grass roots opposition to full indexation within many unions, trade union leadership, without compromise, demands full and automatic adjustment of wages to the CPI, in order to protect their own real living standards and naturally those of their members!

Many trade union leaders publicly exhibit their poor memories of the fact that in one year, 1974, real average weekly earnings rose by over 7 per cent. Over the longer time span from 1972 to 1978, a period which takes into account Australia’s slow-down in economic growth and the rapid rise in unemployment, the real earnings of the employed increased by 11 per cent. In direct contrast, the company profits share of national income has slumped from a long term average of 18 per cent (between 1968 and 1973) to not much more than 14 per cent in 1978.

Unfortunately in spite of these realities trade union leaders still stubbornly assert that an artificially high level of wages and salaries inimical to economic recovery must be preserved even at the cost of maintaining high inflation and the resulting high unemployment. The effect of increases in labour costs on employment opportunities in the private sector (particularly in small businesses and in labour intensive service industries) is neatly swept under the carpet. Too often union leaders blatantly ignore the employer whose decision to hire labour is based upon the gross cost of the new employee.

The Commission’s view

Judging by its last decision The Commission appears sympathetic to the ACTU position that the capacity of the economy to afford a given award wage is not nearly as important a principle of wage fixation as maintaining the purchasing power of the employed. The one-sidedness of this decision not only reflects partiality on the part of The Commission but also a serious lack of knowledge about Australia’s present economic malaise. For whereas the 4 per cent rise in award wages in December 1978 meant a weekly net addition to income (after tax) of just over $5 to the “average” wage earner, the corresponding increase in total labour costs borne by the “average” employer was probably within the range of $10 to $12 per worker, after taking into account on-going labour costs.

The Commission is far too insensitive to the gap between what the employed person receives in after tax income and what the employer is required to meet in total labour costs after adding on all the “extras” such as sick leave credits, holiday pay and associated loadings, long service leave etc. etc. The effect of continual increases in total labour costs on employment opportunities which are presently growing ever so slowly, should be seen as little short of disastrous.

Centralized wage fixing and labour market realities

The Commission is desperately trying to hang on to its important function of administering a national wages policy. In
doing so it feels a strong obligation to pre-
vent a mass movement away from orderly 
wage fixing procedures. However, whilst 
it is essential for industrial harmony that 
some form of indexation holds together 
(at least in the short term), in granting full 
indexation or anything near it in the 
future, The Commission will be turning 
its back on labour market realities and the 
prospects for employment recovery in 
Australia.

Already pressures for allowing labour 
market forces to exert a greater influence 
on movements in wages and salaries are 
mounting. Militant unions who wish to 
smash the indexation guidelines so that 
they may bludgeon excessive wage rises 
out of employers deserve nothing but con-
tempt. This type of action so obviously 
perpetuates our economic ills rather than 
cures them that one wonders if The Com-
mission should seriously question whether 
it is the deliberate policy of extremist 
union leaders to destroy our market 
economy for ideological purposes.

On the other hand some very sound ad-
vice of which The Commission might take 
heed, has come from labour economists 
of the National Institute of Labour 
Studies at Flinders University (S.A.). As 
part of a national wages policy the In-
stitute recommended the introduction of 
non-indexation of wages in the non-
market sector, for example in the public 
service, where “job security is the 
greatest”. But non-indexation may be 
more appropriate as a means of 
generating employment in some industries 
in the market sector such as in manufac-
turing and building and construction 
where overall levels of employment con-
tinue to fall. The Institute also recom-
mended the non-indexation of wages for 
youth together with a reduction of penalty 
rates for non-overtime work on week-
ends and after “normal” hours. These 
procedures would be tantamount to 
allowing the market to exert a greater in-
fluence on the level of money wages.

As a guide to wage fixing decisions in 
future national wage cases The Commis-
ion should take much greater account of:

(1) What the effect of labour market 
forces might be in the absence of 
wage indexation and,

(2) The need to lower total labour costs 
or at least retard the rate of increase 
in total labour costs borne by 
employers.

In essence taking into account these 
factors would be applying the principle of 
capacity to pay logically and sensibly. By 
firmly establishing capacity to pay 
guidelines The Commission would be do-
ing the unemployed and the employed-to-
be a big favour. The quicker expectations 
about growth in prices, including the price 
of labour, are adjusted downward, the 
greater the scope for increased output and 
employment without inflationary conse-
quences in this country.
32 YEARS AGO

The following is a statement to the press issued by the Institute of Public Affairs on 12th May, 1947, and published in “IPA Review” Volume 1 No. 3 of the same year.

The Institute of Public Affairs, Victoria, strongly supports the proposal made in the “Herald” on Monday, 12th May, for a peace in industry conference attended by representatives of employers and employees.

It would be futile, however, for such a conference to be held if the respective parties go to the conference table with the conviction that there is no substance or merit in the viewpoint of the other party. Before the conference is held, therefore, the representative organisations of employers and employees should do a great deal of deep thinking and heart-searching and endeavour to frame a policy which will meet the needs of the times in which we live and which will contribute in a major sense toward the creation of a real partnership in industry.\(^1\) It would be a mistake to call a conference before this fundamental preliminary work is carried out.

One of the most important things which a conference should strive to do is to build permanent machinery of consultation between employers and employees at all levels — plant, industry, State and National — so that the area of voluntary agreements and settlement of differences can be widened and arbitration will come to be used not as a first step but only as a last resort. Until employers and employees acquire the habit of conducting their own affairs, without recourse to industrial tribunals or third parties, there is little hope of achieving industrial peace and continuous maximum production.

In the Institute’s view the conference should discuss and attempt to reach agreement on a broad basis on the following subjects:

1. Methods of wage determination.
2. Security of employment and income for the workers.
3. The disposal of profits — including the question of profit-sharing.
4. The provision of information to employees concerning their respective industries.
5. Joint consultation — its scope and purposes.
6. The means of securing reasonable continuity of production in the indispensable community services of transport, fuel, electricity, gas.
7. Means of raising productive efficiency and increasing output.

But what is needed, above all, is a change of heart and of understanding by all concerned in industry. Without this no conference will succeed and good industrial relations will remain a remote ideal.

\(^1\) Editor’s emphasis. Our reader’s attention is drawn to the announcement on the opposite page of our new booklet ‘PARTNERS IN INDUSTRY’ and to the timeless nature of the struggle for improved industrial relations.
New Booklet
PARTNERS IN INDUSTRY

The IPA has published an eight page illustrated booklet called "Partners in Industry". The booklet promotes the concept of better communications at all levels of industry.

"Partners in Industry" has been carefully written to appeal to as wide a cross-section of people in different industries, occupations, and trades as possible, and should provide useful back-up material for commercial and social studies teachers in schools.

Some of the most important points in the booklet are:—

* Managers are now recognising that "planning and doing", whilst they are two different functions, may be done by the same individual at all levels of industrial activity.

* The "them and us" attitude is breaking down. Consultation in the workplace, rather than Government legislation, will be the key to solving Australia's industrial problems in the future.

* Management can be expected to react positively to a better informed, better educated and more affluent workforce. Competent leadership must be encouraged at all levels in enterprises.

* For employees to become more involved in "planning and doing" they must be kept informed by management of forward plans, goals and targets.

* Trade unions are responding to the need for partnership in industry. Reform within the union movement is necessary and union members ought to be encouraged to take more active roles in their own unions.

* Success in improving industrial relations depends largely on the attitudes of leaders in government, management and trade unions. Communication holds the key

We think that many companies, especially those who are contemplating the introduction of company reports for employees, should distribute "Partners in Industry" to their employees.

PRICES
1 to 9 copies: 30 cents per copy plus 20 cents postage per order.
10 to 100 copies: 30 cents per copy inclusive of postage.
Over 100 copies: 27 cents per copy inclusive of postage.
Schools Concession: $5 per class set (30 copies) inclusive of postage.
Sample copies for multiple orders may be obtained now from: The Secretary, Institute of Public Affairs, 289 Flinders Lane, Melbourne 3000 Phone: 63 6558
A CURIOUS MARRIAGE

We have witnessed in the last thirty years a curious marriage between socialism and Keynesian economics. Even those of less radical non-socialist persuasions have engaged in extended periods of flirtation with this post-war phenomenon. One does not have to look far for the reason. Politicians gain power by promising benefits to the people. Deficit financing is a heaven-sent means whereby expensive social reforms can be paid for and delivered. It has been convenient for all politicians, and socialists in particular, to overlook the long-term effects of such activity.

Keynes proposed a policy which was specifically designed to deal with the kind of situation that existed during the Great Depression. It was a deflationary situation.

This means that the value of money was rising — quite the reverse of the inflationary situation that we have today where the value of money is falling.

Prices were falling — not rising as they are today.

Those who had jobs were able to buy more and more goods with their wages — not less and less as they are today.

Keynes’ solution was obvious and basically simple. In a deflationary situation, a government should adopt “inflationary” policies.

An awful lot of nonsense is talked about inflation. The fact is that inflation is one of the most documented of economic phenomena. We know exactly what it is. Every period of inflation in the history of mankind, from the Egyptian Pharaohs to the present day, has been associated with governments cheapening the value of money by increasing the growth of the money supply.

When a government increases the supply of money by spending more than it receives, then that is, by definition, inflationary.

Karl Marx acknowledged that if you double the supply of money you halve the value of money. If prices double and wages double, the wage earner achieves nothing by having twice as much money in his pocket.

To achieve a situation in which the value of money remains constant a government would only increase the supply of money by an amount justified by an increase in national production per head of population — and that means an increase in productivity.

Keynes’ answer to a deflationary situation was very basically this. Governments should spend more than they receive. They should operate a deficit in the budget and thus increase the money supply. They should stimulate the economy by spending, and create jobs to reduce unemployment. Financing the deficit in a deflationary situation by borrowing beyond the current capacity to repay was
justified even though this inevitably leads to further increases in the money supply.

A great disservice has been done to Keynes by his followers in recent years by proposing the same policies in a situation of inflation.

Keynes himself was becoming aware of this before he died. Professor J.B. Condliffe, author of the first six World Economic Surveys for the League of Nations in the 1930’s, knew Keynes and had this to say two years ago:

“If he were alive today I believe he would stand aghast at the use of his theory by the neo-Keynesians. He once rebuked one of these disciples by saying ‘the difference between you and me is that I’m not a Keynesian’. It is the attempt to apply his doctrines in totally different circumstances that has led us into our present dilemmas”.

The truth of the matter was succinctly expressed by the Sydney economist, Roger Randerson, in a recent edition of ‘Forecast’, January 31, 1979:

“Wage increases beyond productivity do not directly cause inflation. They cause unemployment. Governments cause inflation, chiefly by their spending and Budget Deficits. Governments cannot hand anything to anyone without first taking it from someone else. What Governments take must always exceed what they hand out, because a lot sticks with the bureaucracy employed to carry out the redistribution. Such transfers divert resources from the productive to the non-productive and from the more productive to the less productive. When Government expenditures are on a huge scale .... we can be sure that the nation’s production, capital provision for the future and general standard of living are lower than they otherwise would be”.

The Australian Government is almost unique in recognising the flaws in adopting Keynesian policies in an inflationary period, and in pursuing politically unpopular policies to stabilise the value of money and provide the basis for economic recovery. Eventual success will depend on the maturity of the electorate, but at least Mr. Fraser is not totally isolated in world opinion. The Wall Street Journal, August 18, 1976, interviewed several dozen of the most prominent economists in the United States on the causes of the recession and on ways to prevent a recurrence. William E. Simon, Secretary to the US Treasury from 1974 to 1977, summarised the interviews in these words:

“They disagreed about virtually everything save this; that there was much economists did not yet understand .... but I stress here the overriding conclusion to be drawn from their statements: The economists who had been advising our Presidents simply had not know what they were doing. Even retroactively the economists achieved temporary unanimity on only one issue: the need for government to stop deficit spending and to stop inflating the money supply. Economist Burton Malkiel put it delicately: ‘Economics is a very young science. We are learning from our mistakes’. Unfortunately those ‘mistakes’ took the form of speculating with a nation’s survival and restricting its liberty. That was not ‘youth’ at work; it was the very ancient belief that a tiny ‘elite’ had the right to control the means of survival of their countrymen”.

Even though there is little evidence of realistic non-inflationary policies being...
put into practice, it is encouraging that political leaders around the world are at least beginning to mouth sympathetic sentiments. A joint communique from the economic summit held in London in 1977, attended by President Carter, said, in part:

"Inflation is not a remedy to unemployment but one of its major causes".

In his recent State of the Union Message, President Carter said: "We cannot afford to live beyond our means, to create programs we can neither manage nor finance". And: "America has the greatest economic system in the world. Let's reduce government interference and give it a chance to work".

In Britain there is a Labour Prime Minister who, perhaps too late, expressed his disillusionment with Keynesian economics when he said: "We used to think that you could just spend your way out of a recession and increase employment by cutting taxes and boosting government spending. I tell you in all candour that that option no longer exists and that insofar as it ever did exist, it worked by injecting inflation into the economy, followed by a high level of unemployment. This is the history of the past twenty years".

This confession of Mr. Callaghan's echoes the words of our own former Labor Federal Treasurer, Mr. Hayden, when he tried to repair the damage of the Whitlam years:

"It is not possible to provide more and more government services without ultimately having to pay for them via increased taxes. Restraint needs to be shared throughout the whole community.

There must be a community will to combat inflation".

As Leader of the Opposition, Mr. Hayden now appears to have support from New South Wales Premier, Neville Wran, who has been quoted recently as saying, amongst other encouraging statements, "I've never quarrelled with this preoccupation with inflation".

But if the curious marriage between socialism and Keynesian economics is going through a stormy period, there can be no hope of a final dissolution unless there is a marked change of heart within the trade union movement. Some commentators have noticed a softening of attitudes in Mr. Hawke's recent public statements. There are straws in the wind to suggest an emerging consensus of political opinion. But we lack in Australia an outspoken unionist of Frank Chapple's calibre and in an effort to influence our own unionists IPA has reviewed Mr. Chapple's visit to Australia in this issue of IPA Review.

If the Australian Labor Party really wants to promote "a community will to combat inflation" then they must be politically honest in admitting the disaster of their own Keynesian economic policies — and persuade the A.C.T.U. to do likewise. If ever there was a time for the whole Australian community to back a government's anti-inflationary economic policy, it is now.

We have been through three years of hard grind, and any reversal of Federal economic policy will merely postpone or delay the recovery which is now beginning to take shape and which 'Fraserism' has done so much to bring about.
CHAPPLE AND THE NEW UNIONISM

In 1978 Enterprise Australia was host to Mr. Frank Chapple, General Secretary of Britain’s Electrical, Electronic, Telecommunications and Plumbing Union. Much of what Mr. Chapple said during a number of interviews and seminars, although directly related to industrial relations in Britain, bears relevance to important industrial issues in Australia at this time.

Mr. Chapple’s views, indicative of an emerging market-oriented unionism, are like a breath of fresh air. They starkly contrast the antagonistic approach to industrial relations of the “old” socialists who for so long have tainted the image of British trade unionists abroad.

In an address to the N.S.W. branch of the Electrical Trades Union of Australia, whose counterparts in Britain would be members of his own 420,000 strong union, he referred to the micro electronic revolution in these words:

“You may have to be on your guard against something advocated in the argument going on in Britain — the argument that the problems arising may be solved by reducing hours, or by shortening working life or by lengthening the school age so school leavers leave later, or by lengthening holidays. But the real problem is that anything proposed that raises the unit cost of your products is likely to make your employment problem worse.”

There would be many Australian trade unionists who would not take kindly to this persuasive attempt to counter the move in this country for shorter hours with the same pay. Mr. Chapple showed further insight into the problems raised by the advent of new technologies and was heard to say in a radio interview: “I think we have to concentrate these days on training flexible minds. We have to train workers who are going to work, not in our social services, but in the wealth producing industries. If we concentrate on that we will get the degree of flexibility that’s going to be required in the labour force to meet the challenge of changing technology.”

On the issue of economic control by government Mr. Chapple says: “Successive governments have been forced to take short-term measures to deal with deficits which have prevented long-term solutions to the underlying weakness of the (British) economy. Indeed every time government has acted to deal with a crisis, what it has done has almost guaranteed a bigger and better crisis than before”.

Mr. Chapple goes on to suggest that excessive government control over the economy can lead only to some form of totalitarian regime.

“... there are no examples of a collective socialist state in existence other than those

1 Enterprise Australia is a non-party political organisation created to improve public understanding of the free enterprise system and its place in Australia’s mixed economy.
that are in the communist bloc and no-one in his right mind that has lived in a democratic society and enjoyed the facilities of democracy and choice could want the communist sort of society. It is futile for socialists to believe that you can have everything controlled by the State and not have to resort to methods of discipline that you see evident in the communist states. My view is that socialists and trade unionists have a choice. We either defend the market system, limited as it is in its existence in a mixed economy, or we have to have the other discipline. And the only other discipline we know is the police state."

Coming from a former communist, such words are heartening indeed to advocates of the free market economy. But Mr. Chapple's more controversial views concern the roles of unions and management in industrial relations; he sees a need for change in the ways in which industrial relations in Britain are conducted: "It is therefore a matter of growing urgency that we find out what we can do better in industry and industrial relations. The penalty for failure at best will be a decline in the standard of living; and at worst the collapse of democratic society".

On the fundamental question of the use of the strike weapon, Mr. Chapple has this to say:

"One thing I am certain of, and I grow more sure of it as I get older, that the strike weapon is largely an anachronism in this modern day and age. It was justified in the early days of trade unions when the faces of the poor were being really ground. I don't know too many trade unionists on strike who are really suffering to the extent needed to use the strike weapon the same way as it was used 150 years ago."

One of the most important reforms that Mr. Chapple sees as a necessary requirement for an improvement in Britain's industrial relations is establishing good effective lines of communication between unions and management. "I think workers certainly have to enjoy a greater deal of worker participation than they now have. But I don't think they support having seats on boards of directors. What they do want is more consultation about their immediate work situation. They require more information about what the company's aims and objects are and they require to be consulted a great deal more often."

Despite the different circumstances in which Mr. Chapple's message applies, few Australians would dispute the relevance of his words to our own industrial relations establishment and to our current industrial problems. Particularly in this respect Mr. Chapple's approach to resolving industrial disputes within a market economy is a most worthy conclusion to this brief review. "The real answer to our problems is improving the quality of consultation, communication and leadership of people running industry and the trade unions. All other answers are short lived in the resolution of industrial relations problems. Nothing will take the place of improving the understanding of what industry is about; what the purpose of work is; how we reached our standard of living; and why we must retain a strong private sector in order to retain choice and political freedom. It's urgent that we take up this task right now."

If Mr. Chapple is representative of an emerging modern unionism, IPA wholeheartedly welcomes its development in Australia.
TECHNICAL ENTERPRISE AND THE
AUSTRALIAN ECONOMY

by

BRIAN GARNER

Professor B. Garner, Ph.D., D.I.C., M.A.C.S., was appointed in
July 1978 to the Foundation Chair in Computing at Deakin University
from the position of Manager Corporate Data Processing at the Broken
Hill Proprietary Company Limited. He brings to the academic field
commercial and industrial experience in computing and management
science developed during his employment with Unilever, IBM Australia
and B.H.P. Dr. Garner is also President of the Australian Computer
Users Association and Chairman of the Academic Committee in In-
formation Science for the Victorian Institute of Colleges.

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The impact of new technology on the structure of the Australian
economy is rapidly becoming a national issue of vital interest to
business and community leaders, partly due to the need to un-
derstand consumer attitudes to rapid change and consequent changes
in their purchasing patterns, but also because of the dire predictions
of massive unemployment in the workforce.

In a recent book by Lecht¹, evidence is presented for the con-
clusion that a new era, based on micro-electronics technology, is in-
deed imminent and that advanced economies are currently in a tran-
sition state. However, in interviews given by Lecht and other industry
spokesmen — James Martin, for example, the new era is not seen as
something to be feared, but is to be regarded as a great challenge to mankind's ingenuity, with unlimited opportunities for economic and social progress in utilising the new advances. Alan Moyes, a senior executive in the IBM Company, has expressed a similar view in recent papers. Nevertheless, the socio-economic implications of the massive structural adjustment anticipated to occur in the eighties has not received detailed study in Australia as yet, although rising levels of unemployment have catalysed new Government initiatives on the important task of creating opportunities to acquire new skills, particularly for young entrants to the workforce seeking work experience prior to their first job. Under these circumstances, the impact of new technology on the Australian economy needs to be defined, particularly the role that new technical enterprises initiated within Australia might be expected to play in catalyzing future economic growth. Urgent attention should also be given to the mechanism whereby personal hardship may be minimised in the traumatic period ahead.

Economic Decline or Increased Productivity

Following two decades of unprecedented prosperity, economic prospects dimmed in the 1971/72 recession and began to assume an ominous hue as energy prices quadrupled in 1973, labour costs surged ahead and industry fought for survival in this period of rapid world inflation and static market demand. The viability of many companies was suddenly threatened by an unrealistic cost structure in relation to the prices available for their products. Furthermore, their dilemma was compounded by both continuing inflation and, for those companies with contracts or commitments denominated in other currencies, by floating exchange rates. The groundwork was thus laid in the mid seventies for reduced economic growth worldwide, declining opportunities for new entrants to the workforce and specifically for Australia, the rationalisation of manufacturing industry, unless productivity gains at least equal to those of the principal international competitors (e.g. Japan, Korea, Taiwan, Brazil) could be achieved by other means. The dilemma facing architects of Government policy under those circumstances is discussed in greater depth in Peter Robinson's recent publication.

The greater cause for concern, however, is that public education on the necessary conditions for continued capital growth is not well
advanced. There appears to be little appreciation that to fund even known national commitments (e.g. old age pensions for the present workforce) in future years will require continued growth in business profits and taxable income.

Commitment to rapid productivity growth is thus a practical necessity to meet the expectations of the current generation and to provide a reasonable future for their children.

Technical Innovation to increase Capital Formation

In general terms, the more successful companies in capital accumulation have been in high technology areas (e.g. IBM, Du Pont) and these companies have been innovative in the use of advanced knowledge to generate new technology appropriate to their product and process requirements. This is not to deny the benefits of good management or entrepreneurial flair, and the development of the mining industry in Australia is a tribute to such qualities. However, there is the possibility of instability developing in the capital market as the prospect of real returns (i.e. adjusted for inflation) declines, and the commercial risks increase, e.g.

— currency exchange losses
— possibility of default (i.e. municipal authorities) or interest moratoriums by impoverished nations
— worrying yield patterns in the eurocurrency markets

More particularly, risk capital for new ventures may not eventuate unless new technology and new methods are developed to overcome the barriers posed by current cost structures and social pressures. For example, the development of a mining prospect at a remote site requires extremely high establishment costs to provide the infrastructure (i.e. township recreational facilities and utilities) in addition to the mining equipment and transport operation. The possibility of ore bodies of grades lower than those currently being mined will be more likely if new technology can be employed to produce a unique cost advantage.

The Revolution in Micro-electronics Technology

The seventies will go down in history as a fundamental landmark in technology development due to the perfection of large scale integrated circuit manufacture. Miniaturisation of electronic circuitry has occurred to the point where a silicon chip of about four
millimetres square can now embrace all the functional requirements of a computer. The instruction processing unit in a single chip microcomputer is known as a microprocessor, and the industrial revolution anticipated in the eighties is based on the availability of low cost microprocessor chips for inclusion in any device requiring control functions, information storage and retrieval capability or artificial intelligence.

**Perspectives on the New Industrial Revolution**

Control devices based on microprocessors are predicted to have a dramatic impact on all walks of life. Single chips incorporating multiple logic circuits for data logging and process control are already available for about fifty dollars. Their application in such fields as

- energy management programs e.g. load balancing, electronic fuel injection and combustion control,
- transport maintenance and utilisation improvement, and
- environmental control e.g. water and air emission quality control,

offers the scope for substantial capital productivity gains and improved environmental engineering. More significantly, recent Japanese experience and decisions indicate that the scope for cost and performance improvements using the new technology no longer offer economies of scale but will be greater for new plant, implying that equipment obsolescence rates could increase rapidly in future, with serious implications for depreciation schedules and investment incentives. Socio-economic considerations may also favour small, highly automated plants with superior working environments in future, a view that many economists have recently embraced for reasons other than performance incentives.

The potential for new technology in commerce and public administration is limited only by individual attitudes to current work practices. In central London (United Kingdom) office space is now reputed to be so expensive that filing cabinets cannot be justified. Service companies offer remote filing services and courier acceptance/delivery of required documents. The ubiquitous microelectronic chips will offer new options to management, however: e.g.

(i) Intelligent terminals, no larger than typewriters, but capable of local document storage and retrieval (1000 pages say).
instructions and security locks would be activated by voice recognition chips built into the terminal.

(ii) Communication devices, including the above terminal, capable of providing the following services:
— facsimile transmission of documents
— remote text processing and retrieval
— access to corporate data bases (if permitted)
— access to external information networks
— message routing and storage within the company.

With such facilities available, the computer is effectively recreating a new "cottage industry". Working from home becomes more economic and also more efficient than working from offices. The implications for public transport, freeways and the car industry are considerable, and a new set of social problems are possible as a result of loneliness and isolation consequent on individual reaction to such changes in working patterns. New technology should thus assist Government decentralization policies.

Probably the greatest initial impact of the new technology will be in the unlimited opportunities it offers to entrepreneurs and marketing oriented companies. For example, in new product design, market research and in retail selling initiatives the microprocessor chip can provide the basis for a new generation of consumer products and communication media geared to the education market and leisure industry. Unfortunately, there is little evidence that Australian companies are exploiting such opportunities6, e.g. the "T.V. Games" market. Purchasers of white goods and large expenditure items such as cars, boats and caravans should also profit from innovations designed to improve their control, flexibility and functional scope (e.g. electronic control of car engine performance). A particularly exciting scenario of future consumer communication options is the "wired society" concept adumbrated by James Martin7, in which product information and news are disseminated on request to domestic television terminals via computer networks. Cheap computer power, information storage and communications facilities offer the prospect of an entirely new medium for communicating with consumers, including the distinct possibility that retail orders may be initiated by customers in their homes or at remote sites. The success of the "Computicket" system in the U.S.A., a computer based service for public issue of theatre tickets, in attracting customers is a glimpse,
but no more, of the power of the new medium to change retail marketing. The problems of transferring new technology are, however, often underestimated as evidenced by the failure of the local enterprise. Providing the criterion of improved customer service is met, the potential of new technology to transform retail marketing practices will be realised quickly.

The Role of New Technical Enterprises

The pioneering work in micro-electronics field by the U.S.A., Japan and West Germany has spawned a large number of incredibly successful companies (e.g. INTEL, Hitachi) growing at rates of 40-100% p.a. and maintaining high profitability (i.e. greater than 20% of net sales income). The British Advisory Council for Applied Research and Development is so impressed with the potential of this new industry to revitalise Britain's economic prospects that the Government is infusing large sums of public money into research and development as part of a national development plan.

In the face of such confidence in the dawn of a new era, believed by many to be comparable in significance to the invention of the wheel, the Australian response has been largely negative with emphasis on the problems of accommodating new technology rather than the commercial opportunities available from a crash program of mission oriented research and the provision of risk capital. The strategic reasons for a major Australian initiative to secure an early bridgehead in this vital technology are believed to be very compelling: viz;

(i) Source of new products and knowhow to combat import competition and, thereby, improve the future balance of payments position.

(ii) Basis for new industries capable of generating products of high added value. Assembly operations and quality control can be expected to afford substantial employment openings in the manufacture of new consumer goods, such as specialised games, intelligent terminals, graphics products and scratchpad devices.

(iii) Source of skills and knowhow to facilitate the transfer of new technology in the automation of Australian industries. Operational gaming, for example, can assist in the introduction of a new technology.
(iv) Insurance policy to avoid long term dependence of our defence capability of new skills and products from overseas suppliers.

(v) Stimulus to local manufacturing industry to consider diversification into high technology products (e.g. advanced health care systems using remote medical diagnosis) supported by local skills and research programmes.

(vi) A national capacity to pipe advanced, high quality education and training programmes to individual homes, however remote, portends great changes in social perspective, community experiment and public achievements. Major research initiatives are required, however, such as those instituted at Deakin University, for the development and exploitation of low cost educational technology uniquely suited to off-campus education.

New Technology and the Employment Conundrum

The conundrum faced by all community leaders in discussing the benefits of the “chip revolution” is the reconciliation of two opposing effects:

1. People will be displaced (i.e. transferred or retrenched) as a consequence of automation of existing industries.

2. Given that the use of new technology offers great potential for new industries and improved quality of life, and the evidence for this proposition is substantial, then how may work opportunities be framed and tailored to individual expectation, training and aptitudes?

It is nevertheless essential for Australia to continue to enhance its manufacturing competitiveness in world markets, and consequently, vital for it to adopt new technology. The socio-economic framework within which automation is introduced is clearly of great importance if damaging social friction is to be avoided and personal hardship occasioned by job change is to be minimised. Yet, in a period of economic recession due to the limited appetite of the populace for more goods, recognition is needed of the valuable stimulus to product innovation offered by new technology such as the microprocessor chip, laser devices and fibre optics. The squirrel syndrome of recent years whereby households have saved a large share of their disposable incomes, may yet be changed by radical product innovations in the interest of economic recovery and improved levels
of employment.

Recourse to new policy-forming mechanisms may, nevertheless, be necessary to satisfy the new communication and solution requirements imposed by the complex problems of restructuring industry. The planning experience of countries such as Japan, who have successfully weathered some degree of structural change may well be of value to us. In the short term, some form of fiscal incentives (e.g. tax averaging as for primary producers) and portable superannuation benefits may be worthy of consideration to reduce inflationary wage settlements and induce greater flexibility in work patterns.

It may be concluded that an urgent case exists for strengthening Australia's capability in micro-electronic technology and for establishing an industry advisory body at national level to research and present policy options on a socio-economic framework for the eighties.

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Footnotes

3 P. Robinson: The Crisis in Australian Capitalism; VCTA-Publishing Pty. Ltd. (with the National Times). 1978.