

# PSE, Foreign Exchange and Trade

## Key points:

- The two traditional dilemmas of buffer stock policies do not apply to PSE, as it will not create a population explosion and finance is not an issue.
- Any currency adjustment will be a one time adjustment.
- PSE will give business a substantial competitive advantage in world markets.
- Bill's PSE plan can be expected to stabilize and strengthen the currency.
- The benefits of free trade through comparative advantage assume full employment. Through implementation of PSE, Australia will optimize the benefits of trade.
- Consumption won't crowd out investment.
- Interest rate policy should follow Japan's example.

## Introduction

This paper was written in response to questions that were raised at last year's conference. Though they were answered at the time, it was felt that enough people were asking them to put the answers in written form.

## International Trade

Imagine a boat that leaves Newcastle, Australia, filled with coal, and eventually returns with consumer goods and a few intermediate goods. Assuming Australia is a price taker, the quantity of consumer and intermediate goods the ship will bring home is a function of relative world prices for the coal exported and the goods imported, with any trade deficit or surplus describable as a matter of net credit. A trade deficit, for example, implies that the foreign sector, in terms of \$A, sold more to Australia than it purchased. Therefore it ends that period holding more \$A financial assets than it held at the beginning as a result of the exchange of merchandise. This outcome- net accumulation of financial assets in return for goods delivered- is an extension of credit.

Apart from the credit aspect, which will be discussed later, the quantity of exports exchanged for the quantity of imports is not a function of domestic conditions. From a world perspective, the level of the \$A is not a source of concern, nor is the current level of Australian employment. For all practical purposes, the world simply weighs the coal and makes the exchange for the imports at the current relative prices on the international markets.

Therefore, a full employment policy proposed by Bill Mitchell (1998) can not reduce the ability to import at the macroeconomic level. Certainly, with the PSE policy for full employment (Mitchell, 1998, 1999), the composition of imports could change, as individual previously unemployed get employed as PSE workers and increase their purchases of imported goods.

Some economists opposing the PSE policy for full employment suggest that rise in purchases of imports by PSE workers will invoke exchange rate depreciation. The depreciation, in turn, is considered to be inflationary and harmful to the real standard of living of the residents.

This should not be a concern, as the real standard of living is equal to real consumption. Therefore more imports should only add to domestic consumption. One should be more concerned that a policy that reduced imports may decrease the real standard of living.

## **Two problems with buffer stocks**

Another concern seemed to be that with PSE the currency could fall, causing an increase in the various measures of the price level, and that itself would kick off a downward spiral of the currency and continuous inflation. In other words, the concern is that maintaining a buffer stock of labor at a fixed wage could somehow result in the value of that labor continuously falling on the world market.

Perhaps this concern is coming from previous experience with buffer stocks. For example, an unlimited wool buffer stock program at a fixed price could well result in a continuously falling currency. Such a price support program implies that the support price is above what would have been the market price, or else the government wouldn't be accumulating the wool at that price. And supporting this price implies that more wool will be produced than otherwise, further building the stockpile and further increasing government spending. The value of the currency would decline as it would equal the relative value of wool both domestically and on the world markets, unless the government's budget was kept sufficiently tight. By continuously encouraging the production of wool relative to other goods and services the government must keep purchasing more and more wool, and then keep tax liabilities sufficiently high to keep this added spending from increasing the general price level and depreciating the currency. This also results in a transfer of wealth from tax payers in general to sheep farmers.

This is the first classic problem with buffer stocks, as well documented by Benjamin Graham (1944) over 50 years ago. However, it is not a problem with a labor buffer stock. Today, the total supply of labor is not sensitive to price the way wool is. In fact, contrary to the fears of various 18<sup>th</sup> and 19<sup>th</sup> century economists, the opposite has been observed. The population is more likely to grow more slowly with higher wages. Raise the support price of wool and the streets will be infested with sheep. Raise the real wage and people tend to have fewer children.

The other classic problem with buffer stocks is that the programs eventually break down due to financial limitations, particularly when the monetary system was a gold standard. It is similar to the bimetal problem. Buying surplus wool, for example, would generally support excess production and require either a cut in other government expenditures or the loss of the nation's gold stock. And, should the program be

scrapped, perhaps due to taxpayer objection, the buffer stock is dumped on the market causing price of that commodity to fall much more than otherwise, ultimately making matters worse for the producers.

The PSE proposal is not subject to this problem either. There is no such thing as excess production of workers due to price supports. Nor, with a floating exchange rate, is there any financial reason to scrap the program once it begins. And even scrapping the program creates less unemployment than at present, as the PSE pool will be smaller than today's pool of unemployed. This is because PSE workers are a more effective buffer stock than unemployed, as they are more readily employable by the private sector.

So perhaps the economists concerned that a PSE program will set off a downward spiral of the currency are assuming the dynamics are the same as those of traditional commodity buffer stock? And I would agree that a traditional commodity buffer stock program that monetizes surplus commodities would be a force capable of depreciating a currency. However, it should be quite clear under closer examination that a labor buffer stock has a very different set of dynamics.

As an additional point of departure from a traditional buffer stock, the PSE buffer stock is expected to be producing useful output while at the same time serving to promote currency stability.

### **Any currency adjustment due to PSE is a one time adjustment**

When beginning a PSE program there is likely to be a 'once off' adjustment of the level of the currency on the foreign exchange markets, provided that the government maintains a credible PSE pool at the initial nominal wage. This adjustment would be anticipated if the selected PSE wage was not 'neutral,' as, in theory, there is a PSE that could be selected that would not result in a 'once off' adjustment of the currency. This same effect would be observed if one converted to any fixed exchange rate, such as a gold standard. Selection of the initial conversion ratio fixes one nominal price and lets all others 'float at market levels.' It would not necessarily be obvious exactly which initial price to use to fix the currency, but once a particular nominal price (of gold or labor, as the case may be) is selected for the buffer stock, the other prices will align over time. Using the current minimum wage should be a reasonably non disruptive starting point. (This is not to imply that an adjustment by the currency in international markets means an error was made in the selection of the PSE wage. There can a variety of political and operational reasons for selecting a wage that is a bit high or one that is a bit low. )

Assume, for example, that a PSE wage of \$A10 per hour was selected, and that it resulted in a downward shift of the currency in international markets. Presumably the initiation of the PSE at the \$A10 wage attracted hundreds of thousands of workers who immediately began getting paid and added to the aggregate level of imports. This drove the value of the \$A down until the quantity of imports returned to the previous level, as determined earlier by the quantity of coal exported. At the macro level, with the lower level of the \$A, the increase in the \$A price of coal generates the income to cover the increased nominal cost of the imports. However, though the volume of imports was the same, the distribution of imports likely changed, as more Australians were competing for the same imports. If, for any reason, imports remain at a higher level than

previously, and exports remain the same or fall, the real standard of living has improved.

Now, for an extreme case of the opposite effect, assume a wage of \$A 5 was selected as the PSE wage. And further assume at that wage there was only a small number of workers accepted PSE employment. For price stability, there needs to be a credible buffer stock of employees readily hireable by the private sector. To increase the size of the buffer stock in this example, the government would need to cut its non-buffer stock spending and/or increase taxes to induce layoffs in the private sector and a general deflation such that the PSE pool would increase in size. Though highly disruptive, and therefore not advisable, this procedure would also increase the value of the \$A in the foreign exchange markets as it's purchasing power would have been increased by the deflation induced by fiscal policy. A reduced trade deficit or even a trade surplus would also be likely, depending on the tax structure, as declining domestic costs would make prices paid overseas more attractive until the exchange rate appreciated sufficiently.

These can't be very large effects, as only perhaps 10% of the workforce is likely to be a PSE worker, and their incomes are, of course, the lowest in the land. Also, as many of the PSE workers were not previously destitute, they may not appreciably increase spending on imports. But nonetheless the assumption is that initially there is an increase in the demand for imported consumer goods that drives down the exchange rate on international markets.

### **PSE will give business a competitive advantage in world markets**

The initial increase in the price of imports will have some impact on the domestic price level. But as that happens market forces just described come into play to stabilize the exchange rate and act against further domestic price increases, with the PSE pool providing a stabilizing influence in this process. Since the PSE wage is fixed in nominal terms, as the \$A depreciates PSE labor becomes cheaper by international measures, decreasing the relative cost of PSE labor both to foreign investors and domestic business. Forces are set in motion for exports to rise as exporters hire labor from the PSE pool to produce for foreigners willing to pay more depreciated \$A for the same goods and services. This reduced cost to business both improves competitiveness of domestic producers and attracts FDI (foreign direct investment).

Increased demand from the private sector for labor reduces government spending as the PSE pool shrinks, cutting government spending and thereby stabilizing the economy and acting as a brake on further price increases. Conversely, should the private sector slow, and the PSE pool thereby expand, government policy would be to either reduce taxes or increase non PSE public sector spending to reduce the PSE pool to desirable levels. This commitment to maintain private sector demand is also an attraction to business with long term commitments to a market.

### **PSE can be expected to stabilize and strengthen the currency**

The effect of a PSE policy can be thought of as fixing the exchange rate to the value of PSE labor. It becomes government policy to insure that a credible number of workers

are willing to sell their services at the nominal PSE wage. In a market economy, setting one price is sufficient to 'anchor' the currency, with all other prices, including the exchange rate, allowed to float and seek the market's perception of relative value. What the PSE does is provide an internal means of establishing what the currency can buy. At any point in time, the exchange rate will be linking the nominal PSE wage to international markets.

There are several factors inherent in the PSE proposal that can be expected to strengthen the currency. First, the PSE policy provides an inflation hedge for foreign and domestic investors. A dollar saved today can be expected to be able to purchase about the same amount of PSE labor in the future provided the government maintains a policy of a credible pool and a fixed wage for the PSE workers. This is a feature that no other currency currently offers. Second, as productivity in general increases, and the PSE wage is held constant, the price level can be expected to decline and the exchange rate reflect this same upward bias. Third, the added attraction to foreign investors over the current system will attract foreign direct investment that supports both the currency and the economy. The PSE reduces risk for foreign investment, as it introduces a powerful force for promoting currency stability. Reduced risk means that lower rates of returns become more attractive to foreign investors. This reduced hurdle rate to investment will tend to increase it. Additionally foreigners will be attracted by the ease of hiring provided by a well-organized and maintained PSE pool of workers, not to mention the improved social climate of a nation where there is no unemployment. Reduced crime, delinquency, drug dependence, and family difficulties all contribute to an environment attractive to foreign and domestic business.

## **Consumption doesn't crowd out investment**

It has been suggested that increased imports of consumer goods by PSE workers would mean reduced imports of capital goods and result in a shortage of investment. I would suggest that this is highly unlikely. As consumer spending increases, business will both desire to invest more and be able to pay higher prices for raw materials, labor, and investment capital than the consumer. This is necessarily the case as a simple matter of logic. The more the consumer is willing to pay for a product, the more the investor is willing to pay for the means of producing that product. The notion of consumption crowding out investment is a very unlikely occurrence at best.

## **Realizing the benefits of trade**

When discussing such things as comparative advantage, and other benefits of trade, the classical models assume full employment and 'perfect competition.' They do not include distortions to the model, such as unemployment caused by government taxation and spending policy, which is clearly not a market phenomena. PSE is a form of full employment, though perhaps not in the standard, classical sense. However I suggest this is only because economists have not yet integrated the effects of government taxation and spending of a currency of its own creation into the neo-classical models.

It is generally a benefit to have unemployed do almost anything rather than be unemployed. Therefore, with unemployment, any kind of foreign investment that employs workers is generally a benefit, regardless of how low the wage. PSE, on the

other hand, raises the bar, and sets a minimum nominal wage that, in conjunction with the level of the \$A, will, in real terms, define the public benefit derived from the PSE workforce. Foreign investment that hires PSE labor will occur only when the value of the workers hired from the pool exceeds the contribution they are making as public service employees. This gets Australia out of the international race to the bottom, as nations with unemployed offer their labor at lower and lower prices to multinationals, to the point where the host country benefits only marginally at best.

## **Interest rates**

I suggest that the interbank interest rate be kept at 0% bid, as in Japan in recent years. The continued strength of the yen, the internal yen price level, and the lack of yen credit expansion should put to rest any fears that their interest rate policy per se will generate currency depreciation, rising domestic prices, or run away credit growth. With a buffer stock policy such as the PSE proposal, any risk free interest rate from the government becomes a real rate. And real rates of interest promote a rentier class. This has the effect of reducing the available work force as a matter of policy. I can follow no logic that arrives at the conclusion that this is desirable.

## **External debt**

The last question to be addressed is that of debt denominated in currencies other than the \$A. The government itself has a minimal amount of this type of debt, which, along with a floating exchange rate, probably helped insulate Australia from the crisis in 1998. So the question is aimed at the external currency debt owed by the private sector.

First we must distinguish two classes of borrowers of foreign currency- true hedgers and speculators. And anyone not borrowing foreign currency as a bona fide hedge that insulates them against currency fluctuation is a speculator, in that their actions have put them in a position whereby their fortune rises or falls with the currency. If they are running a business, and that business is not profitable unless net exposed to the foreign exchange value of the \$A, they are in fact pure speculators and would probably have the same financial outcome by simply taking a speculative position on the currency and closing down the rest of their business.

No doubt there are a lot of businesses and individuals who are therefore speculating on the level of the \$A by borrowing foreign currency, such as the yen. The yen is probably particularly attractive for business to borrow, as interest rates in yen are much lower than \$A. Therefore, any event that results in a lower exchange value for the \$A will result in financial losses for those with external currency debt.

Having the government cater to this group will only increase the practice. This is the moral hazard issue faced by governments around the world. There are ways to discourage the borrowing of foreign currency. One, previously discussed, is for the Reserve Bank to have an interest rate policy similar to Japan and maintain excess clearing balances in the Reserve Bank member's accounts. That would insure a Japan style overnight interbank rate of 0% bid. That would take away the temptation of business to engage in currency speculation via the assumption of external debt. It

might encourage the buying of foreign currency for speculative purposes, but that kind of activity is so overtly speculative that it is not as likely in that case as external debt is currently. A second option is to make sure member banks assign the proper risk assessments to companies exposed to currency fluctuation through external debt, and make any external debt a reporting requirement. That way external debt would both raise the interest rate banks would charge to that borrower and restrict the amount of credit that borrower was eligible for.

In the event of corporate losses in external debt due to currency depreciation the Reserve Bank needs to be aware of the moral hazard issue when bailing out shareholders in any fashion. Financial integrity, financial discipline, and continuity of the business can be maintained when claims by creditors cannot be met, by either voluntary restructuring or forced restructuring in a bankruptcy court. The latter results in the assets of the company being auctioned either to new shareholders who then carry on the business, or to other firms who take over the operations of the various pieces. If there is no interest in continuing the operations of the defunct company the assets are sold for 'scrap value.'

A government held hostage by domestic enterprise with external debt will not be able to act in the best interest of the nation. This is also true for the case where exporters have political control. The PSE proposal requires that the participants be interested in promoting the national interest rather than protecting speculators in foreign debt.

### **Softening the MD (Mosler-Denniss) debt accelerator**

This condition exists in most of today's economies due to the tax structure- particularly the income tax. Beginning with an economy with substantial numbers unemployed workers, in the midst of an expansion, as in the US and Australia today, let us examine what happens financially when the private sector hires unemployed workers. In the first instance the worker's income has increased. At the same time net government expenditures decrease as unemployment benefits drop and income tax liabilities begin to accrue, decreasing non government sector net nominal wealth (also an accounting identity). Therefore through the hiring of the unemployed aggregate demand increases while net nominal wealth decreases.

The increase in aggregate demand results in more hiring and therefore additional decreases in net nominal wealth. The effect is accelerating growth until asset prices collapse and the economy crashes due to a lack of net nominal wealth. The symptoms are strong growth, a declining non-government savings rate, and decelerating profitability.

Japan in the late 80's stands as an example of how the cycle ends. The US today is still in the accelerator mode. The crash could only be softened by immediate relaxation of fiscal policy, which would also accelerate growth and risk severe upward pressure on prices and wages. (Also note that the yen remained strong through most of the 90's, including the period of the stock market decline.)

The PSE proposal modifies this effect. When the non government sector hires from the PSE pool the increase in aggregate demand is not as large as when unemployed are hired, as the income differential is smaller between a PSE worker and the non government job than the income differential between an unemployed worker and the non government job (and the more well trained and productive the pool of PSE

workers, the smaller the aggregate demand differential). Additionally, the drop in government expenditure is larger when a PSE worker is hired by the non government sector than when an unemployed worker is hired. The higher degree of fiscal drag induced by the hiring of PSE workers is therefore a more powerful counter cyclical force than that of hiring an unemployed worker. This aspect of the PSE proposal can be expected to help mollify the accelerate/crash scenario currently in place.

## **Conclusion**

The small open economy is the ideal place to introduce a PSE policy as outlined by Mitchell. In fact, the first nation to implement PSE will gain an advantage over the other nations of the world that will persist until others adopt the same policy.

## **References:**

Graham, B. (1944), **World Commodities and World Currencies**, McGraw-Hill, N.Y. and London

Mitchell, W. (1997), **The Buffer Stock Employment Model in a Small Open Economy**, <http://www.warrenmosler.com>

*Warren B. Mosler*  
*1-4-2000*