

# *Case for a World Currency: Is an ANZAC Dollar a Logical Step?*

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Discussion of an ANZAC dollar, and other potential currency arrangements, should be considered within the larger context of global currency developments. This paper extends the discussion of Grimes, Holmes and Bowden (2000) to consider currency arrangements internationally. The history of currencies is examined to show that there is no necessary economic rationale for independent countries to maintain independent currencies. Insights of modern search theories of money, which have been chiefly applied to optimal currency arrangements within a specific country, are applied to international currency arrangements, indicating that multiple currency arrangements are sub-optimal. Trade theory and microeconomic approaches are also discussed, casting doubt on the logic for maintaining separate national currencies.

Once the *prima facie* case is made that a single world currency may be optimal, we analyse whether establishment of an ANZAC dollar is a sensible move. Even if a single world currency is optimal, it does not follow that a regional currency union is optimal: we are into the theory of the second-best, and the picture is inevitably uncertain.

## **A Brief History of Currencies**

The ancient history of money has been documented by a number of writers (see, especially, Einzig, 1966). While clouded by time, a reasonable conjecture of its origins

is as follows. In the third millennium BC, cattle were the standard of value for deferred barter in Mesopotamia and many other locations. How could one best keep a record that I had given you goods to the value of one cow, which I expected to be returned in equal measure in future? Luckily, the Mesopotamians had access to copper and to Nubian gold, yielding metal that could be easily shaped or stamped. Thus the technology was born whereby you could shape and/or stamp a cow's likeness on a piece of metal and give it to me as a sign that you owed me goods to the value of one cow (Quiggin, 1949, p.272).

With this technological leap, I could now pass a small piece of metal to a party whom I had bartered with, and they could present this receipt to a third party to acquire goods from them. Thus a circulating medium of exchange was born, with cattle being the standard of value but with coin being the means of exchange. Over hundreds of years, people's perceptions began to change. Instead of cattle being perceived as the standard of value, gold itself came to be perceived as the standard of value: the receipt had become the numeraire. Changes in perception similarly occurred in succeeding technological revolutions (Simmel, 1978).

With the change in perceptions, states sought to control the sources of gold and, beginning with the Cappadocians of the Assyrian empire in about 2250 BC, began production of state-stamped pieces of metal for monetary purposes (Moore and Russell,

1987, p.8). In the fourth century BC, the Seleucid dynasty began the practice of stamping gold coins with the ruling monarch's head (Morgan, 1965, p.15). Eventually, these coins became legal tender within a ruler's domain and coin supply was monopolised by the king. It was a short step thereafter for the monarch to begin debasement of the coinage to earn seignorage. The monarch could thereby transform metal (initially a receipt for a cow) into something of much greater value to his benefit. The first national currency was borne and, with it, the seeds for inflation and instability. Succeeding national currencies have been created with the same monopoly benefits for the rulers as in this instance.<sup>2</sup>

Perceptions of the value of gold became ubiquitous throughout Europe and surrounding lands - although to many throughout the world, a cowrie shell was of course far more valuable than this worthless lump of metal (Malinowsky, 1922; Quiggin, 1949).<sup>3</sup> In time, as in seventeenth century England, goldsmith-bankers accepted deposits of gold and issued cheques (notes) against these deposits which ultimately also became circulating means of exchange (Court, 1954). As before, the state ultimately commandeered the right to issue bank-notes, hitherto viewed only as receipts for something that was really worth something (Goodhart, 1988). The bank-notes themselves, came to be valued, and the state earned the seignorage through currency issue, the seignorage being the interest saving to government through the issue of interest-free currency rather than interest-bearing debt.<sup>4</sup> The evolution of *national* currencies has therefore been historically more connected to state revenue raising concerns than to any more fundamental economic issues.

This brief history points to a number of conclusions. Firstly, there is nothing inevitable about national currencies. Under

the gold standard, the world (apart from those still on a cowrie shell standard) operated largely as if it had a single currency. Secondly, perceptions are important when it comes to monetary matters. This observation is directly related to the search theories discussed below: I will only accept a medium of exchange from you if I believe someone else will, in turn, accept it. Thirdly, history demonstrates that once governments monopolise currency control, they have a tendency to inflate excessively. Diminishing, or removing, the power of sovereign governments to inflate should be a goal of policy to achieve a stable monetary standard of value.

### Search Theories of Money

Jones (1976) and Kiyotaki and Wright (1993) have placed money into a search-theoretic framework to demonstrate the value added by a commonly accepted means of exchange. Their papers were originally written in the context of a single country. The insights are, however, applicable to the international situation.

Jones defines a "monetary pattern of trade" as one in which a single currency (money) enters into every exchange, with no other commodity being used for trading purposes other than with money. Costs of using a particular item as money depend on the probability of other agents accepting this item in subsequent trades. As more agents accept a particular item, the probability of finding a partner wishing to transact using this item increases, the cost of monetary trade declines, in turn raising the likelihood of its use. Jones shows, in a dynamic setting, that depending on the initial conditions of the process, a single currency ("pure money") economy may evolve or a multiple currency ("non-pure money") economy may evolve and then remain stable barring perturbations. Jones also shows that if a pure money economy ever does evolve the economy will remain in this single

currency state in the absence of structural changes. Transactions costs are minimised with this outcome.

In an international context, we currently have the operation of multiple currencies, as in Jones' non-pure money outcome. The reason for this retention is, in part, legal - each country has specified its own currency as legal tender. From Jones' analysis, however, we see that it is possible this outcome could also result from customary practices (initial conditions) which ensure that agents in each country transact with one another in the customary national currency. This is privately optimal because doing so maximises the chance of meeting another agent wishing to transact using the same currency.

Jones' work, however, demonstrates that a global optimum entails use of a single currency, and that once a move to establish a single global currency has occurred, there will not be economic pressures to re-establish separate national currencies. The ability for me to transact with a Mongolian in the same currency, knowing that I do not have to convert that currency into another currency, or find someone else willing to accept it, lowers transactions costs and hence raises welfare.

### **Implications from Microeconomic and Trade Theory**

Consider the following question:

*Returns to blacksmiths are reduced as the internal combustion engine increases use of cars and reduces use of horses. Should government:*

- a) *Shore up the price of blacksmiths' services (e.g. through a subsidy) to keep blacksmiths' incomes at earlier levels;*
- b) *Ban, or at least limit, use of cars to restore blacksmiths' returns;*

- c) *Do nothing and let the market dictate that blacksmithing become a declining industry?*

Most economists will plump for c), and indeed we now see few blacksmiths. Now consider the following question:

*Returns to dairy farming are reduced as international demand for dairy products falls below international supply. Should government:*

- a) *Shore up the price of milk (e.g. through an exchange rate devaluation) to keep dairy farmers' incomes at earlier levels;*
- b) *Apply trade bans or other barriers to imported products to compensate for declining dairy returns;*
- c) *Do nothing and let the market dictate that dairy farming become a declining industry?*

Traditionally, macro-economists have answered a). A micro-economist, however, will see a) for what it really is: a form of non-tariff barrier to trade. The devaluation route is no different in intent, or effect, than the move to subsidise blacksmiths' services. Similarly, it is no different than an attempt to impose tariffs to affect trade patterns. In other words option a) is little different from option b), an option that most economists would abhor.

Herbert Grubel (1999) has argued this case in the Canadian context. He attributes Canada's poor productivity performance since the 1950s to use of a flexible exchange rate regime designed to protect domestic commodity producers from declining returns. Instead of exposing producers to changes in world prices of their products as price changes occur, the exchange rate has been used to cushion commodity producers by hiding changing patterns of world demand and supply for these products. Eventually, of course, the real exchange rate must adjust to expose

these industries to the realities of life, but given long term swings in real exchange rates, this may take a decade or more to become apparent. Adjustment to changing patterns of demand and supply for alternative products is delayed greatly compared with adjustments in countries which do not use their exchange rate to bolster incomes of uneconomic producers.

The implications for New Zealand of this analysis are clear. If, as commonly accepted, commodity prices follow a random walk or something close to it, the desire to use the exchange rate to cushion tradable sector incomes is a mistake. It exacerbates the lack of dynamic adjustment within the economy.

As another way of thinking about the same issue, assume that export log prices fall dramatically. What should government do? An exchange rate depreciation changes the unit of measurement of returns for exporters (and importers). But why choose the exchange rate as the unit of measurement which should change? Another option would be to change the measures of length and volume used in the economy, so changing the New Zealand volume of log exports. Instead of exporting in the standard world measures of cubic metres, we could adopt a special New Zealand unit of length (the "Zetre") whose length alters relative to the metre in real time depending on changing domestic relative to international circumstances. There would be no officially sanctioned relative length of the Zetre; after all, government would not wish to impose a standard contrary to that of the market. The only government intervention would be to decree that the Zetre is the official unit of length to be used in New Zealand. At all times, the varying relative length of the Zetre to the metre (the Z:M) would be quoted by intermediaries, and forward, futures and options contracts could be traded on the Z:M.

The advantage of variable length would be that forestry producers' accountants could show that they were producing just as much timber as before. Even though the volume of timber expressed in cubic metres was down, the volume expressed in cubic Zetres could be maintained if the Z:M were to rise (a depreciation of the Zetre). Forestry producers would no longer have to alter their actions in response to international conditions.

Naturally there is a danger that the Z:M could alter for extraneous reasons, but the existence of hedging markets means that only the naive would be caught out by such an event. Sophisticated businesses would learn not to be caught unhedged, and speculators would use resources to act to drive away any temporary profit opportunities arising from contracts being mis-specified. Small businesses may find it costly to manage the changing lengths, especially if they are trading internationally, but the existence of well-informed intermediaries who can provide length management services at a small cost would arise to assist them.

For some reason, this attractive scenario has never caught on. New Zealand did adopt a quaint imperial system of measurement for many years, but shifted to the world standard metre because a different length standard - even with a fixed parity - was deemed costly. It can be expected, however, that any government maintaining a national currency with a flexible exchange rate will also see the benefits of moving to a unique national measure of length with flexible ratios.

Conversely, those who see some pitfalls in the flexible Zetre may see equivalent pitfalls in a flexible national currency. What may the pitfalls to the Zetre be?

- Firstly, the flexibility of the Zetre buys no benefit. Log exports are still the same

in terms of metres no matter how the Z:M ratio changes.

- Secondly, the flexibility of the Zetre may delay log producers from changing their decisions in response to changes in world markets.
- Thirdly, the costs associated with intermediaries, arbitrageurs and speculators in the Z:M are unnecessary relative to a world in which the metre is used domestically.
- Fourthly, the Z:M may move at times in ways that have nothing to do with "fundamentals" - possibly driven by political uncertainties - in which case spurious signals are sent to domestic producers.
- Fifthly, uncertainty surrounding future moves in the Z:M may deter domestic businesses from embarking on cross-border transactions, both in terms of exporting and importing. Domestic welfare will suffer as a result.

There is no need to elaborate the equivalent pitfalls for a flexible national currency: the concept is just as troublesome. There are two reasons, however, why in practice we may adopt a flexible national currency. The first is that we already have one, and the history of national currencies is long. This is, however, more a description of what is, rather than what should be. Secondly, and more importantly, virtually every other country has one. This, quite simply, means that there is no world currency to adopt. We therefore must move to analysis of second-best situations.

### Choices

Given that there is no world currency to adopt, we have to choose between a number of sub-optimal alternatives:

- i) adopt our own national currency with either a fixed or floating parity to another currency or basket of currencies;

- ii) adopt another country's currency and share their fluctuations with other currencies;
- iii) adopt a federal currency with one or more other countries, with either a fixed or floating parity to another currency or basket of currencies;
- iv) resort to having no national currency, allowing any currency to be legal tender domestically.

The last option raises many issues which we do not have room to discuss at length here (see Selgin, 1988 for further discussion). Two points will suffice. Firstly, government must still specify what it will accept as legitimate for tax payments, and this is essentially equivalent to specifying what constitutes legal tender. Secondly, the search theories reviewed above point to the existence of multiple currencies as being welfare-deteriorating rather than welfare-improving. Such a move therefore goes in the wrong direction in terms of reducing problems associated with the existence of flexible national currencies.

If we rule out option iv), we have the choice of the status quo, or of moving to either of options ii) or iii). In the next section we examine whether a New Zealand move to adopt the AUD as legal tender, under option ii), or the adoption of a federal AZD, under option iii), may be an improvement over the status quo. Because of Australia's dominance relative to New Zealand, these options are economically virtually equivalent.

Discussion proceeds as if the AZD were the feasible option. Political requirements in New Zealand make this a more likely option than adoption of the AUD as legal tender in New Zealand. This is evidenced by a Compaq-NBR poll (*National Business Review*, 2 June 2000, p.16) which showed New Zealand public support for an ANZAC dollar standing at 45% (with 3% giving conditional support and 44% opposed)

versus support for New Zealand adopting the AUD which stood at 29% (with 3% giving conditional support and 59% opposed). Even more relevant to the issue of New Zealand moving to adopt a "world" currency, was that support for adoption of the USD stood at just 11% (with 1% giving conditional support and 82% opposed). Given that the USD is currently the closest thing to a world currency (in terms of its dominance in international trade), this result effectively rules out New Zealand's adoption of this currency choice for the foreseeable future, however beneficial it may be economically. We are effectively left with the status quo option or a move to the AZD (if we can convince the Australians also to adopt it).

### **Analysis of the AZD**

Grimes, Holmes and Bowden (GHB) discuss the potential macroeconomic impacts of a move to the AZD at length. We do not repeat the arguments here except to note that neither the AZD nor the NZD is shown to be distinctly superior to each other at a macroeconomic level over the floating exchange rate period (post-1985).<sup>5</sup>

It makes sense therefore to turn to microeconomic issues. GHB report a survey of approximately 400 businesses which were asked questions about their support for an ANZAC dollar as well as a comprehensive set of questions about their exporting and importing activities and currency management activities. The survey was sent as an attachment to the National Bank Business Confidence Survey and so we cannot be sure that it was representative of all New Zealand firms. It is reasonable, however, to examine the *patterns* of results across different types of firms in the survey.

Before turning to the relative results, it is worth documenting that of the 400 firms that responded to the survey, 58% were in

favour of New Zealand irrevocably adopting the AZD, 28% were neutral and 14% opposed. Interestingly, (full plus conditional) support for the ANZAC dollar amongst people with incomes greater than \$70,000 in the Compaq-NBR poll stood at 62%. This group is likely to be reasonably congruent with business-people answering the Business Confidence survey. Thus the GHB results may, after all, be fairly representative of business attitudes.

Turning to the relative results, perhaps the most interesting aspect - and most indicative of the types of costs that might be expected to arise either through adoption of a flexible Zetre or a floating NZD - are the apparent impacts on export behaviour. Table 1 (see below) breaks down the firms in the survey according to size. According to our earlier discussion, we might expect smaller firms wishing to export (or import) expressing greater concern about a flexible national currency than larger firms. This appears to be borne out in the table. Strongest support for relinquishing the NZD in favour of the AZD comes from firms with 11-20 employees, followed by firms with 6-10 employees.

If we examine export behaviour of firms according to the same size groupings we see that firms report a major jump in export sales as a proportion of total sales at a firm size of around 20 employees. Exports are fairly static for firms of 6-10 employees and 11-20 employees (exports comprise 6-7% of total sales), and then double for the next sized firm (21-50 employees) and increase again for firms with greater than 50 employees.

Anecdotal evidence from manufacturing suggests that smaller firms shy away from exporting owing to the complexity of managing exchange rate exposures with a small, non-specialist staff. Table 2 (see below) provides some evidence of this. It again breaks down firms by size, but (for

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**Table 1: Survey Results by Firm Size<sup>1</sup>**

<b>Firm Size (No. Employees)</b>	<b>Net Support<sup>2</sup> (%)</b>	<b>Exports/Sales<sup>3</sup> (%)</b>
<b>0 – 5</b>	40	-
<b>6 – 10</b>	48	6
<b>11 – 20</b>	62	7
<b>21 – 50</b>	38	14
<b>&gt;50</b>	38	23

**Notes:**

<sup>1</sup> Source: Grimes, Holmes and Bowden (2000).

<sup>2</sup> % of firms positive to AZD less % of firms negative.

<sup>3</sup> Firms with 0-5 employees have an average export:sales ratio of 28%. This is likely to be driven by responses of farmers who do not export directly. The result is therefore discounted.

**Table 2: AUD Hedging Attitudes and Practices<sup>1</sup>**

<b>Firm Size (No. Employees)</b>	<b>Hedge Costs Low<sup>2</sup> (Net %)</b>	<b>Hedge All<sup>3</sup> (%)</b>	<b>Hedge Some<sup>3</sup> (%)</b>	<b>Hedge None<sup>3</sup> (%)</b>
<b>&lt;25</b>	52	0	20	80
<b>25 – 50</b>	48	30	40	30
<b>&gt;50</b>	76	36	57	7

**Notes:**

<sup>1</sup> Source: Grimes, Holmes and Bowden (2000).

<sup>2</sup> % firms considering AUD hedging costs low less % firms considering costs high.

<sup>3</sup> AUD hedging practices for firms with ratio of Australian exports: total sales >10%.

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sample size reasons) breaks firms into those with fewer than 25 employees, those between 25 and 50 and those with greater than 50 employees.

Relative to large firms, those with fewer than 50 employees find hedging more expensive. More importantly, their hedging behaviour is entirely different. None of the small firms hedge all their AUD exposures and only 20% hedge some of these exposures. By comparison 36% of firms with greater than 50 employees hedge all their exposures and 93% hedge

some or all of their AUD exposures. The middle group's behaviour is in between that of smaller and larger firms. The contrast in behaviour between small and large firms is quite staggering and is consistent with a hypothesis that smaller firms find exchange rate management difficult.

These results are particularly important when it comes to thinking about the dynamic effects of adopting a flexible national currency. While Australia is a small country in world terms, its economy

is seven times the size of New Zealand's. For many firms, especially those of around 20 employees which are on the threshold of exporting, it is the first and easiest export destination. A move from the New Zealand market to the Australasian market greatly enlarges the potential customer base for these firms and hence successful expansion into Australia is likely to result in a significant increase in firm size. This may be to a size where currency management in third and subsequent markets can easily be managed within the enlarged resources of the firm, enabling further international expansion.

Different trans-Tasman currencies appear to act as a non-tariff barrier to exports for smaller firms, many of which choose not to expand into exporting rather than take on currency risk. There is a *prima facie* case, at least, that a policy designed to overcome this artificial barrier to trade is warranted. Rather than address the issue through extra distortions such as publicly provided export credits, the obvious policy measure is to adopt a single currency across the two markets: i.e. to adopt an ANZAC dollar.

### **Concluding Observations**

Adoption of an ANZAC dollar is not an artificial measure to boost trade. It is a measure designed to remove one existing, and apparently influential, non-tariff barrier to trade across the Tasman. The benefit of moving to a single trans-Tasman currency should not be viewed in static terms as engendering a one-off rise in exports to Australia. Instead it is the dynamic aspects that are likely to be most important. New Zealand firms currently stall in size once they saturate the New Zealand market for their product. The fixed cost arising from currency management is a concrete barrier to firm expansion through exporting. This factor acts to reduce the potential to extract

economies of scale through market enlargement. However, it is through engendering economies of scale that productivity is most easily expanded. Our currency arrangements therefore act to forestall productivity growth on an ongoing basis. This is one aspect that renders New Zealand an economic backwater consisting of small, poorly productive firms. Changing currency arrangements may therefore be an ingredient in lifting New Zealand's productivity growth.

Before concluding, one might note that similar advantages may accrue through adoption of the US dollar as legal tender in New Zealand. The key, in economic terms, is whether small New Zealand firms would take the initiative to expand into the US market as their first export destination in the way that many now attempt in relation to Australia. If the answer to that were positive, a strong case could be made to adopt the USD, which of course is associated with a much larger market than Australia. That is an empirical question on which, as yet, we have no data. The only data that we do have on this question is the decisive public rejection over adopting the USD (in the Compaq-NBR poll). That result, as much as anything economic, suggests that our attention is currently best placed in pursuing the ANZAC dollar option. Then we can turn our attention to persuading the Aussies to adopt currency union with North America, followed by the whole Pacific Basin and eventually, the entire world!

**VEC**

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## REFERENCES

Court, W.H.B. (1954) *A Concise Economic History of Britain from 1750 to Recent Times*, Cambridge: Cambridge University Press

Einzig, P. (1966) *Primitive Money: In its Ethnological, Historical and Economic Aspects* (2<sup>nd</sup> ed.), Oxford: Pergamon Press

Galbraith, J.K. (1975) *Money: Whence it Came, Where it Went*, London: Andre Deutsch

Goodhart, C.A.E. (1988) *The Evolution of Central Banks*, Cambridge, Mass: MIT Press

Grimes, A., F. Holmes & R. Bowden (2000) *An ANZAC Dollar? Currency Union and Business Development*, Wellington: Institute of Policy Studies

Grubel, H. (1999) *The Case for the Amero: The Economics and Politics of a North American Monetary Union*, Vancouver: Fraser Institute Critical Issues Bulletin

Hayek, F.A. (1976) *Choice in Currency: A Way to Stop the Inflation*, London: Institute of Economic Affairs, Occasional Paper 48

Jones, R.A. (1976) 'The Origin and Development of Media of Exchange', *Journal of Political Economy*, 84(4), August, 757-775

Kiyotaki, N. and R. Wright (1993) 'A Search-Theoretic Approach to Monetary Economics', *American Economic Review*, 83(1), March, 63-77

Malinowsky, B. (1922) *Argonauts of the Western Pacific*, London: Routledge and Kegan Paul

Moore, C.H. & A.E. Russell (1987) *Money: Its Origin, Development and Modern Use*, Jefferson Nth Carolina: McFarland & Co

Morgan, E.V. (1965) *A History of Money*, Harmondsworth: Penguin Books

Quiggin, A.H. (1949) *A Survey of Primitive Money: The Beginnings of Currency*, London: Methuen & Co

Selgin, G.A. (1988) *The Theory of Free Banking: Money Supply Under Competitive Note Issue*, New Jersey: Rowman and Littlefield

Simmel, G. (1978) *The Philosophy of Money* (originally published 1900, translated by Tom Bottomore and David Frisby), London: Routledge and Kegan Paul.

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## **ENDNOTE**

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- <sup>2</sup> Hayek (1976, p.16) comments: "practically all governments of history have used their exclusive power to issue money in order to defraud and plunder the people." Galbraith (1975, p.8) in a rare show of agreement with Hayek, comments: "For profligate or hard-pressed rulers, and these, over time, have been a clear majority of their class, it regularly appeared as a flash of revelation that they could reduce the amount of metal in their coins or run in some cheaper brass and hope, in effect, that no one would notice, at least soon."
- <sup>3</sup> The Chou dynasty of China between the twelfth and third century BC even minted coins in the shape of cowrie shells (Morgan, 1965, p.13).
- <sup>4</sup> In light of this history one can ask when the move to monopolise electronic transactions by the state will occur. On this occasion, a monopoly may not be proclaimed; instead, proposals for a financial transactions tax can be seen as an historically inevitable move to appropriate the savings delivered by the new transactions technology for the purposes of the state.
- <sup>5</sup> The more limited analysis of New Zealand adopting the USD over this period is also inconclusive.