Australia's Experience with the Variable Deposit Requirement

This article examines the implementation of the Variable Deposit Requirement (VDR) capital control scheme in Australia in the 1970s. It notes that while capital controls can play a role in certain circumstances, they should not be used as a substitute for addressing underlying policy needs or financial sector reforms of an economy.

The scheme was short-term in nature, and depended on subjective judgements about what level of capital inflow was appropriate at the time, and was unrelated to long-term policy objectives. The VDR was superseded by the adoption of a flexible exchange rate which allowed monetary policy to operate with greater coherence and independence from other objectives, such as industry policies.

BACKGROUND

In recent years, a number of Asian and Latin American economies have experienced large, and at times volatile, inflows and outflows of capital which have affected these countries' ability to effectively conduct monetary policy.

This experience has underscored the need for careful consideration of how capital accounts should be liberalised, and has also renewed the debate about the costs and benefits of maintaining or reintroducing controls on international capital flows.

- In particular, it has been increasingly argued that capital controls may have a possible role in enabling countries to better manage potential financial and economic crises arising from short-term capital flows, provided that the underlying economic and financial institution policies of that country continue to be developed at the same time.
- In the 1990s a number of countries, such as Chile and Malaysia, have imposed capital controls to address capital flow volatility.

Like many developed economies in the 1960s and 1970s, Australia operated a number of capital and, at times, exchange controls. This article reviews the Australian experience with one form of capital control, the variable deposit requirement (VDR).

- Australia introduced the VDR in December 1972 to counter strong inflows of private capital under a fixed exchange rate system. Under the VDR scheme, a proportion of overseas-borrowed funds had to be placed in

Australian dollars with the Reserve Bank of Australia (RBA) in an interest-free, non-assignable deposit account, until loan repayments were made.[1] By raising the cost of overseas borrowings, the VDR in effect acted as a tax on funds borrowed from abroad. The VDR was suspended in July 1977 and has not been resumed since then.

THE ECONOMIC AND FINANCIAL ENVIRONMENT OF THE 1970s

Historically, Australia had experienced current account deficits, with only five surpluses recorded during the twenty-five year period ending fiscal 1972-73.[2] Although typically an importer of capital in the post-war period, a national mining boom saw capital inflow to Australia accelerate sharply in the late 1960s and early 1970s.[3] Foreign direct investment in primary production averaged $225 million in the five years to 1972-73, compared with an average of $100 million in the previous five-year period.

The composition of capital inflow to Australia during this period changed along with its volume. Throughout most of the 1960s the dominant component of capital inflow to Australia had been direct investment.[4] Driving the increase in the late 1960s and early 1970s, however, was not only growth in direct investment but also portfolio capital and institutional loans, with portfolio capital in particular increasing its relative importance in terms of the composition of overseas funds to Australia (Chart 1). Booming stock market conditions, particularly in mining shares, also provided an important boost to capital inflow in this period. Portfolio investment[5] increased from an average of $150 million in the five-year period to 1967-68 to an average of $400 million in the five years to 1972-73. By 1971-72, investment in the mining industry accounted for approximately 14 per cent of total private investment in Australia, compared with just 2.5 per cent in 1963-64.[6] This capital inflow was not accompanied by an increased current account deficit, but rather a sharp

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1. Syntec (1982) *Australian Financial System Inquiry, Commissioned Studies and Selected Papers, Part 2: Macroeconomic Policy : External Policy*, AGPS, Canberra.

2. OECD (1974) *OECD Economic Surveys: Australia*, OECD, France.

3. In just a one year period net capital inflow, defined as the balance on the capital account plus the change in international reserves, more than tripled, from $419 million in 1970 to over $1 287 million in 1971 (*RBA Bulletin*, various editions).

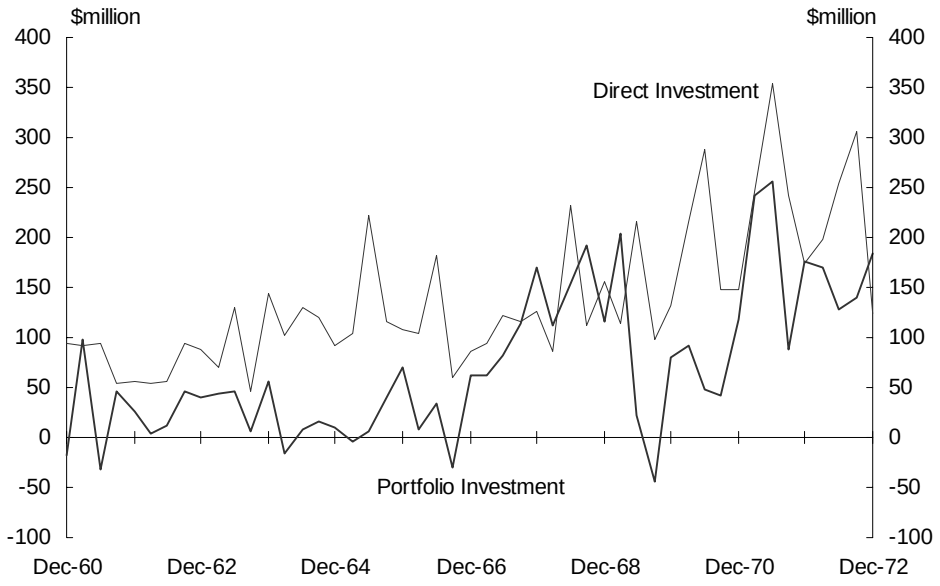
4. During the 1950s the manufacturing sector was the main recipient of direct investment. From the late 1960s, however, the inflow of direct capital was directed increasingly into mining (including oil exploration and development) as well as the tertiary sector (OECD (1972) *OECD Economic Surveys*: Australia, OECD, France).

5. Defined as investment in financial securities which does not confer investors significant control (a 10 per cent ownership has been used as the threshold in Australia) over the invested entity.

6. OECD (1979) *OECD Economic Surveys: Australia*, OECD, France.

accumulation of reserves. Consequently, Australia's international reserves more than tripled between 1970 and 1971, from $343 million to $1,236 million.[7]

Chart 1: Portfolio and direct investments into Australia



Source: Reserve Bank Bulletin and ABS Cat. No. 5302.01.

Apart from booming stock market conditions, the OECD[8] identified three main factors that contributed to the sharp increase of portfolio capital and institutional loans into Australia during the early 1970s: the establishment of a merchant banking sector in Australia; credit tightening; and speculation about a revaluation of the Australian dollar.

There was a considerable influx of merchant banks and other financial intermediaries with international affiliations into Australia during the late 1960s and early 1970s. This emerging merchant banking sector acted to increase both awareness of and access to overseas sources of capital among companies operating in Australia.

The increased inflow of foreign capital occurred at a time when inflation was rising. After averaging 2½ per cent in the preceding decade, the annual rate of increase in Australia's consumer price index increased to approximately 6 per cent in 1971,[9] largely reflecting excess demand and wage pressures. In response, monetary policy was tightened in 1970-71, leading to increases in

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7. *RBA Bulletin* op. cit.

8. OECD (1972) op. cit.

9. ABS Time Series Statistics Plus, Consumer Price Index, all groups, weighted average of eight capital cities.

Australia's relative nominal interest rates. This nominal interest rate rise promoted further portfolio investment into Australia over the short run.

Compounding the growing flow of overseas funds was speculation about a revaluation of the Australian dollar. This speculation emerged after August 1971, when convertibility of the United States dollar into gold was suspended, and continued after the December 1971 currency realignment. In this realignment, the gold parity of the Australian dollar was retained and fixed at a rate representing an appreciation of about 6.3 per cent against the United States dollar.[10] Continued speculation was fuelled by the perception that the Australian dollar still remained undervalued, given the combination of large-scale capital inflow and approximate balance on the current account at that time.

The accelerated capital inflow during the early 1970s; the decreasing share of longer-term foreign direct investment relative to short-term capital (portfolio capital and institutional loans) in the composition of the capital account;[11] the subsequent increased international reserve accumulation and upward pressure on the (fixed) domestic currency presented Australian policy-makers with a series of problems. In particular, how to effectively conduct domestic monetary policy and maintain a sustainable fixed exchange rate against strong capital inflow which was pushing domestic liquidity to exceptionally high levels (thereby adding to inflationary pressures), and placing increased pressure on the capital account.

POLICY OPTIONS

Some policy reaction was required to address the problems caused by large net capital inflows.

One policy option was to substantially revalue the exchange rate within the pegged regime. But while an appreciation might have eased pressure on the capital account of the balance of payments, it would also have reduced the international competitiveness of export and import-competing industries. If capital flows linked to the mining boom proved to be only transient, the exchange rate might need to be adjusted downward again, and the initial appreciation would have been unnecessary.

Another option was to move towards a flexible exchange rate regime. While moves towards a flexible rate did emerge in the late 1970s, it was not considered

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10. OECD (1972) op. cit.

11. Commonwealth Treasury (1972) *Treasury Economic Paper No. 1: Overseas Investment in Australia,* AGPS, Canberra. It is noted (p107) that from the viewpoint of economic management, it is important to assess the type and relative extent of short-term capital that is responsible for the strong growth in net capital inflow so that an appropriate policy can be selected accordingly.

a viable option in the early 1970s, when floating exchange rates were only beginning to emerge among some developed economies.

A further option was to implement exchange and/or capital controls to directly stem the flow of funds into Australia. This was the policy response adopted: exchange controls were introduced with the imposition of an embargo on short-term borrowing abroad;[12] and capital controls were introduced with the adoption of the VDR scheme. In addition, this package of measures also included a small further revaluation of the Australian dollar (by around 7 per cent).

THE INTRODUCTION OF THE VARIABLE DEPOSIT REQUIREMENT (VDR)

The VDR scheme was introduced in Australia in December 1972 for foreign borrowings with a maturity exceeding two years (ie to borrowings not subject to the embargo). The scheme required that a proportion of such loan proceeds be deposited in an interest-free, non-assignable account with the Reserve Bank until loan repayments were made. The scheme was not applicable to the financing of normal foreign trade transactions or to borrowings of less than $100 000 in any 12-month period. Further, the VDR applied only to new borrowings and did not generally affect existing portfolio positions.[13]

The VDR was used intermittently and at different rates during the 1970s, and as such, was described by the Reserve Bank as a 'supplementary exchange control'. The 'variable' nature of this control reflected the policy intention that it would be used as a flexible instrument that could be adjusted according to the pressure of continued capital inflows.

When introduced, the required deposit rate was set at 25 per cent of the amount borrowed. In October 1973, it was raised to 33.3 per cent, then reduced to 25 per cent in June 1974, 5 per cent in August 1974, and zero in November 1974. The VDR was resumed in January 1977, with the required deposit again set at 25 per cent. However, provision was made for release on repayment or after three years, whichever was earlier. Also, exemptions were granted for certain classes of investment in the mining and manufacturing sectors. The VDR was suspended in July 1977, and has not been resumed since.

The VDR affected capital inflow through its impact on the cost of investing in Australia. Overseas investors purchasing assets in Australia expect a risk adjusted rate of return (R_{AUS}) which can be decomposed into a risk-free rate of

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12. Short-term borrowing abroad was defined as overseas borrowing repayable within two years (OECD (1972) op. cit.).

13. OECD (1974) op. cit.

return plus a risk premium. To purchase an Australian asset, the investor must forgo an overseas rate of return (R_{ROW}).

It follows that the VDR can vary the rate of capital inflow at the margin by reducing the effective return on Australian assets relative to R_{ROW}. If the VDR = U, the effective risk adjusted Australian rate of return becomes $R_{AUS}(1-U)$. The larger is U, the lower is the effective rate of return in Australia, and the smaller is the encouragement of capital inflow to Australia.

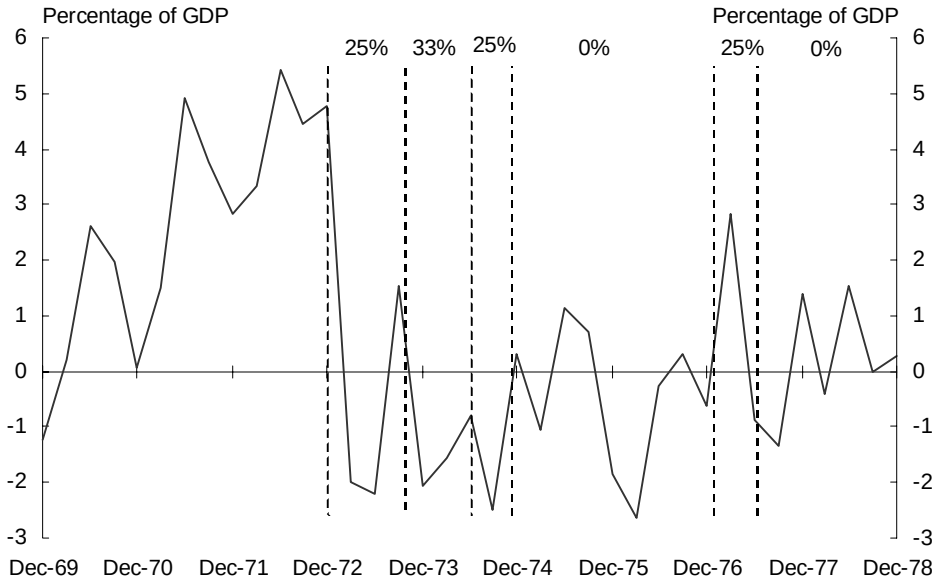
Of note, under the VDR scheme the investment decision is left to the investor to determine by considering the relation between $R_{AUS}(1-U)$ and R_{ROW}. In this sense, the VDR is more of a market-based process than other capital control mechanisms such as exchange controls or embargoes.

THE EFFECTIVENESS OF THE VDR

As outlined above, the main objective of the VDR was to reduce domestic liquidity and inhibit large inflows of capital which were making difficult the effective operation of macroeconomic policy. Capital inflow, and its impact on domestic liquidity, are best represented by net capital inflow, defined as the balance on the capital account plus the change in the level of international reserves.

As previously elaborated, net capital inflow to Australia accelerated sharply in the early 1970s (Chart 2). With the implementation of a 25 per cent VDR in December 1972, net capital inflow dropped sharply, falling by around 7 per cent of GDP (or $807 million) in the quarter to March 1973. Although volatile, net capital inflow remained comparatively low throughout the mid-1970s. The suspension of the VDR in November 1974 was accompanied by only a small pick-up in capital inflow.

Chart 2: Net capital inflow into Australia



Source: ABS Cat. Nos. 5302.01 and 5206.46.

Of the components of net capital inflow, portfolio investment and institutional loans (and the upward pressure these were placing on international reserves) were of the most concern to policy-makers in the early 1970s. Immediately following the implementation of the VDR in December 1972, both portfolio investment in Australia and international reserves fell significantly[14] (Charts 3 and 4). Both of these variables remained comparatively low until late 1974. The suspension of the VDR in November 1974 was immediately followed by a sharp increase in portfolio investment. International reserves also increased, but not to the same extent.

Capital inflow picked up strongly in late 1976 and early 1977, following a large (17½ per cent) depreciation of the Australian dollar in November. When the VDR was reintroduced in January 1977, the reaction of international reserves and portfolio investment initially diverged. International reserves actually increased sharply, while portfolio investment initially continued to trend downwards, but then rose sharply before the VDR on new overseas borrowings was finally suspended.[15]

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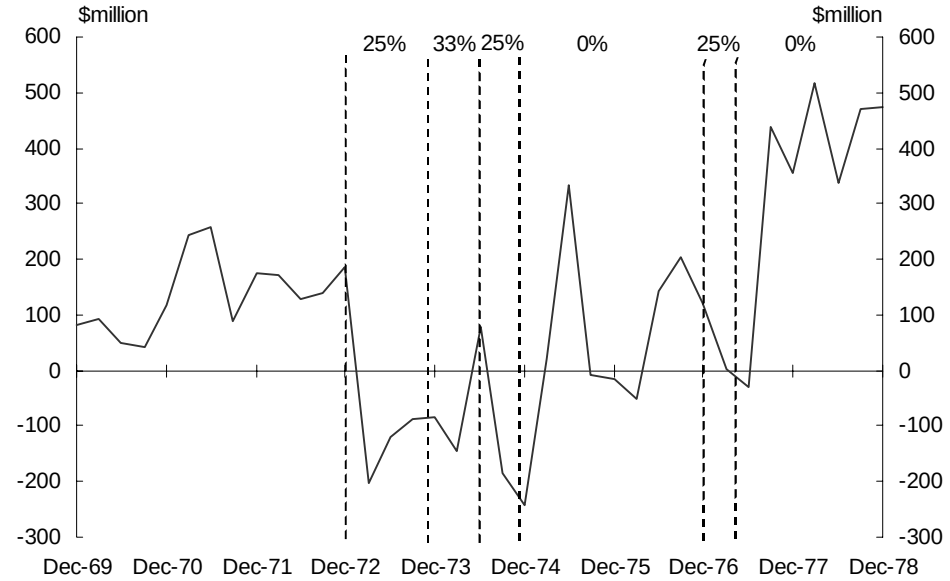
14. A reliable measure of institutional loans for this period is not available.

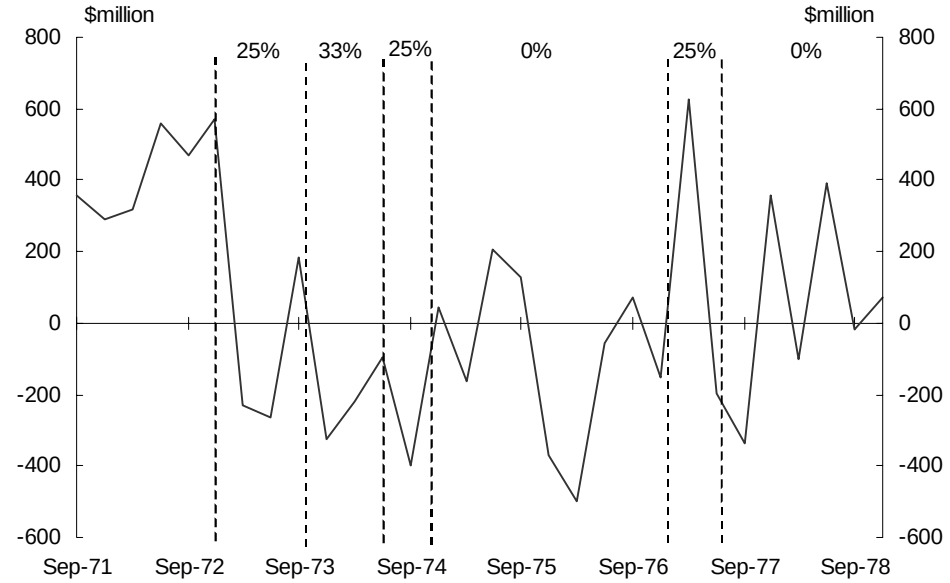
15. Deposits already taken by the Reserve Bank on previously authorised borrowings would continue to be held on the conditions originally advised to the individual borrowers. Also, from July 1977, the embargo on borrowings of less than two years was reduced to borrowings of less than six months.

Chart 3: Portfolio investment in Australia



Source: ABS Cat. No. 5302.01.

Chart 4: International reserves
(Quarterly difference)



Source: Reserve Bank Bulletin.

The above charts suggest that the VDR did contribute to a reduction in capital inflows to Australia. However, the VDR was not operating in isolation. Other policy measures to control inflows, as well as movements in the exchange rate, relative interest rates and the domestic and international economic environments, all would have impacted on investors' decisions to place funds in Australia.

- For example, the late 1972 reduction in net capital inflow would have been assisted by the introduction of exchange controls at that time, as well as the small appreciation of the dollar (reinforced by a further 11 per cent appreciation in February 1973).
- The net capital outflows that occurred in 1975 largely reflected expectations of an exchange rate depreciation, and occurred despite the fact that the VDR rate had been reduced to zero.

Empirical studies on the impact of the VDR are limited. Although studies by Norman[16] and Porter[17] have the caveat of some possible model misspecification, their results generally suggest that the VDR combined with exchange controls was an effective measure to reduce capital inflow by a modest to significant amount.

SUSPENSION OF THE VDR AND DEREGULATION OF THE FINANCIAL SECTOR

In early 1977, large net capital inflows followed the November 1976 depreciation of the currency. Domestic liquidity was increasing so strongly that there were concerns that growth in the broad monetary aggregates could not be kept within the desired range of 10-12 per cent for 1976-77. The VDR scheme was resumed in January 1977. In July 1977, when it appeared that the scheme had been effective in reducing the rate of capital inflow and bringing increases in domestic liquidity under control, the scheme was again suspended.

At the same time, pressures for deregulation of Australia's financial markets arose from market related developments such as financial innovations, technological change and greater integration of world financial markets. Further, there were changed perceptions about the objectives of government policy and the extent to which intervention in financial markets was desirable. In 1979 the Government responded to these concerns by establishing the Committee of Inquiry into the Australian Financial System, chaired by J.K. Campbell.

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16. Norman, P.M. (1975) *The Policy Implications of a Model of Australia's Balance of Payments*, paper presented to the ANZAAS Congress (Canberra).

17. Porter, M. G. (1977) *Capital Movements: A Further Note*, Economic Record.

Completed in 1981, the Final Report of this Committee[18] (the Campbell report) made recommendations for promoting greater efficiency, competitiveness and stability in the financial system. The key recommendations for broad-ranging deregulation of the financial market were met with widespread approval. The Government moved to implement many of the recommendations of the final report, including the key proposal — the floating of Australia's exchange rate.

- The Campbell report briefly examined whether it would be useful to re-adopt a VDR scheme during the transitional period in which Australia's foreign exchange market developed. Although the report noted that the VDR appeared to be effective in the short term, it also concluded that there was no case for frequent or sustained use of this instrument, or other instruments like this (such as an inflow / outflow tax). The Committee suggested that capital controls only be:
  - available during the difficult period of transition to a more market-oriented foreign exchange system; and
  - regarded as a 'last resort measure', providing a buffer against external fluctuations which cannot be handled satisfactorily with the available policy instruments. Such controls should not serve as a substitute for prompt and appropriate domestic policies, nor for a realistic market-determined exchange rate.

BENEFITS AND COSTS OF THE VDR

The above discussion notes that the VDR scheme was a more market-based capital control mechanism than some others, and that the VDR rate could be varied easily according to the extent to which net capital inflow was considered too large. In addition, these capital controls could easily be phased out when their usefulness had ended. Another benefit was the fact that export and import-competing industries would not have incurred the loss of competitiveness that may have been associated with an alternative policy response, such as a significant appreciation of the exchange rate.

Despite these benefits, the VDR was essentially a short-term policy instrument. Its implementation depended on subjective judgements about what level of capital inflow was appropriate at any time and what rate of VDR may accomplish the objective.

Further, the VDR was not related to the long-term policy objectives of the economy. As such, it was superseded by the adoption of a flexible exchange rate regime which allowed monetary policy to operate with greater coherence and independence from other objectives such as industry policies, and which

18. Campbell et al. (1981) *Australian Financial System: Final Report of the Committee of Inquiry*, September, AGPS, Canberra.

strengthened the operation of the financial sector, and the economy more broadly, to better cope with changing market conditions.

CONCLUSION: THE RELEVANCE OF CAPITAL CONTROLS FOR TODAY'S ECONOMIC AND FINANCIAL ENVIRONMENT

As outlined above, the financial environment in which the Australian VDR scheme was adopted in 1972 is very different to that operating in most developed countries today. In particular, Australia's financial market was still highly regulated at the time.

Today, the globalisation of financial markets allows very large flows of funds between countries. The availability of overseas funds is generally viewed as a positive for an economy, allowing higher potential investment and real economic activity than otherwise. However, in circumstances where such flows are volatile, and where outflows can be large and sudden, the internationalisation of financial flows has been blamed for causing difficulties for the conduct of domestic economic policy for many countries. The notable example of this is the recent Asian financial market instability.

A number of countries have turned to capital controls as either an adjunct to the operation of monetary and exchange rate policies (eg Chile) or to provide breathing space to domestic policy-makers while investor confidence is restored (eg Malaysia).

In general debate on the issue, it has been asserted that there are two broad conditions in which capital controls can potentially be of net benefit to an economy:

- when an economy's private and public institutions are in the earlier stages of development (eg financial markets are still developing and/or liberalisation of the capital account is being undertaken); and
- when speculative flows of financial capital could inhibit the implementation of economic policies that are of benefit to the domestic economy, either during a crisis period or over the longer term.

Some economists, such as Krugman and Sachs,[19] argue that capital controls can improve welfare if they provide a better environment in which the structure of an economy and its government's economic policies can be reformed or if they mitigate the adverse effects of another market failure.

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19. Krugman, P. (1998) '*An Open Letter to Dr Mahathir*', http://web.mit.edu/Krugman/www/Mahathir.html, 9 January; Sachs, J. (1998), '*Making it Work*', *The Economist*, 12 September.

Expressing the view that capital controls should be applied temporarily during the development process, Krugman[20] has argued that there are four principles for applying capital controls. The controls should: disrupt real activity as little as possible; be **clearly** temporary; be associated with a flexible exchange rate; and be used as an aid to fundamental economic and structural reform, not as an alternative.

An economy may be unable to easily accommodate freely flowing international financial capital if its financial systems are structurally weak and its macroeconomic policy stances are considered to be inappropriate. A steadier and less voluminous flow of financial capital into and out of these economies may allow them to gradually develop more effective public and private sector economic institutions. To this end, capital controls may have a role. However, it would be hoped that the need for such controls would subside as those institutions and practices develop which enable better management of financial positions, and as continuing fundamental economic and structural reform allows a stronger domestic policy framework to operate.

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20. Cited in Wessel, D. & Davis, R. (1998) *'Cash Cowed: Currency Controls Debated As Asian Crisis Takes Toll'*, Asian Wall Street Journal, 7 September 1998.