

# Commentary

Japan is caught in a double economic bind – entrenched deflation and a liquidity trap with monetary policy virtually ineffective. The problems originated several decades ago when the value of the yen began to rise, influenced considerably by US mercantilist pressure. This persuaded Japanese investors to accept low interest rates on their yen assets in the belief that they would steadily appreciate in terms of US dollars. Then, as consistent current-account surpluses saw Japan's dollar-denominated assets accumulate, Japanese investors began to require a negative interest rate risk premium on yen assets for them to hold dollar assets. Japan is unable to influence US dollar interest rates, so this negative risk premium has been achieved by reducing yen interest rates. As US rates have fallen since 1995, it has forced Japanese rates down to zero, and the economy into the liquidity trap. It also means Japanese institutions are no longer willing to accumulate more dollars, so the Bank of Japan (BOJ) must buy these funds — inflating Japan's foreign reserves – to prevent them entering the foreign exchange market, forcing up the value of

the yen and worsening deflationary pressures. Under present policies, this process will continue – and yen rates will remain near zero – until all Japanese private holdings of dollars are exhausted. However, the author argues, an alternate approach would be to eliminate the foreign-exchange risk of holding dollars by maintaining an essentially fixed rate for the yen-dollar exchange rate, in the vicinity of ¥120:US\$1. This would likely require a commercial agreement between the US and Japan and an understanding that the BOJ and the US Federal Reserve would intervene to maintain the agreed upon rate. However, if the target or benchmark rate was clearly announced and credible, the market rate would stay close to it without much need for official intervention. The now stable yen-dollar rate would induce Japanese nominal interest rates to rise to US dollar-rate levels; domestic bank lending in yen would become profitable, enabling banks to deal with their massive bad loans; private investment would rise; and deflationary expectations would disappear. While the transition away from the zero-interest-rate trap would be traumatic, Japan's current financial situation in the liquidity trap is unsustainable.


 A blue silhouette map of Japan is positioned to the left of the title. A small black vertical rectangle with the word "JAPAN" in white capital letters is placed over the map.
 

JAPAN

## *Why Japan should fix its exchange rate at ¥120 to the US\$1*

By Ronald McKinnon\*

Focusing on the level of the yen/dollar exchange rate, whether it be ¥110 or ¥120 or ¥130:US\$1, is the wrong way to look at the foreign exchange problems that Japan faces. More important is to eliminate foreign exchange risk — the fear that the yen/dollar rate will continue to fluctuate widely and could appreciate in the future. To this end, the government should pick some rate in the neighbourhood of today's purchasing power parity, say ¥120:US\$1, and then come up with a credible scheme to hold this new exchange parity into the indefinite future.

\* Ronald McKinnon is the William D. Eberle Professor of International Economics, Stanford University, and Senior Fellow, Stanford Centre for International Development



Asia Pacific  
Foundation  
of Canada

Fondation  
Asie Pacifique  
du Canada

Canada Asia Commentary is published up to 12 times a year and is available by e-mail and on the APF Canada Website:  
[www.asiapacific.ca](http://www.asiapacific.ca)

Day-to-day and week-to-week, the market value of the yen/dollar rate could vary moderately within an informal band around 120. But if the rate started to move sharply away from 120, the government would intervene to nudge it back so that the central rate itself was never in question. Then, if you asked the proverbial man in the street what the yen/dollar rate would be 10 or 20 years from now, the unhesitating answer would be “120 yen to the dollar.”

Why is this goal of a certain *future* yen/dollar exchange rate so important for Japan’s *present* financial health?

### Japan is caught in a liquidity trap

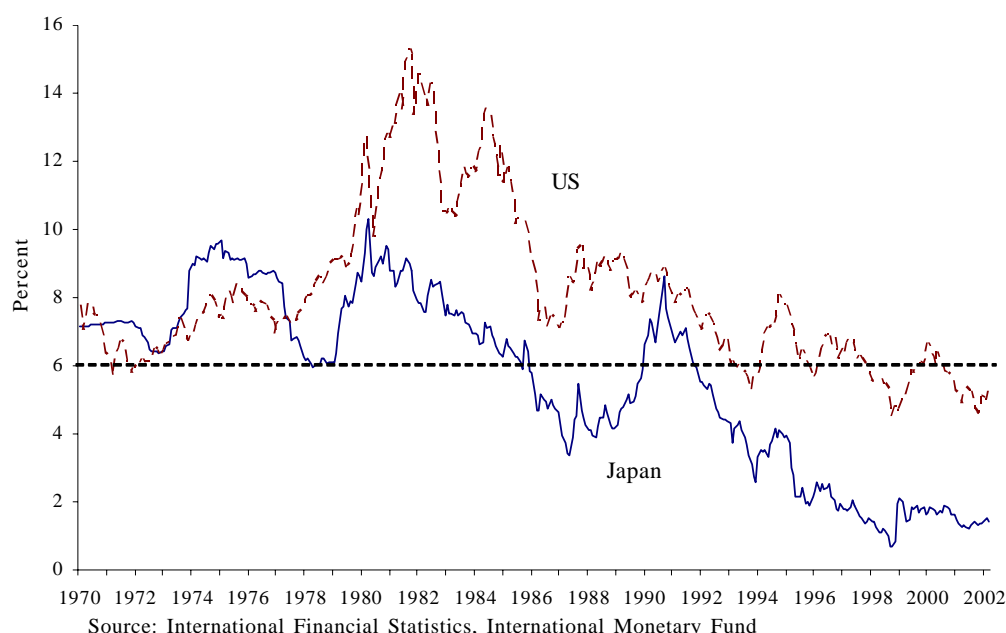
Japan faces two closely related macroeconomic problems:

- The expectation and fear of ongoing price deflation in a broad basket of goods and services, including land prices.
- The Bank of Japan (BOJ), having pushed short-term interest rates on yen assets to zero and long-term rates to little more than 1%, is in a liquidity trap and is helpless to stem the deflation.

### Falling US interest rates hit yen rates

First, consider the nature and origins of Japan’s near-zero interest rates. At first glance, why private investors should hold any interest-bearing yen assets at all seems puzzling. In late September 2003, a Japanese investor can get more than 4% interest if he holds a 10-year US Treasury bond but only about 1.4% on a 10-year Japanese Government bond. The puzzle deepens if one considers US and Japanese 10-year interest rates going back to 1970 (Figure 1). After 1978, in the great crisis under President Jimmy Carter when American officials talked the dollar down against the yen, interest rates on dollar bonds first rose above those on yen bonds. They have generally stayed higher ever since. From 1978 to 2001, nominal interest rates on dollar assets have averaged about 4 percentage points more than those on yen assets. This spread has narrowed since Federal Reserve Chairman Alan Greenspan began lowering short-term US interest rates in 2002, but for 25 years the gap between American and Japanese interest rates has been amazingly persistent. Thus when American interest rates came down in the mid-1990s, Japanese rates were forced toward zero.

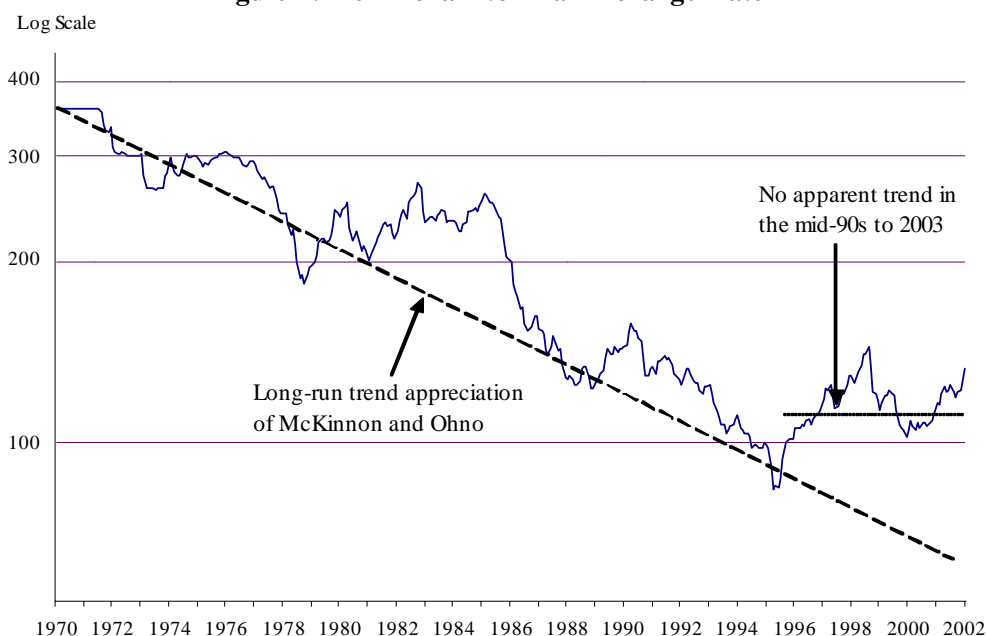
Figure 1: Long-Term Interest Rates



**Investors in Japan  
saw risk in US\$**

For this interest gap to persist, Japanese investors — particularly financial institutions such as insurance companies, banks and mutual funds — must see some kind of foreign-exchange risk that inhibits them from selling yen assets in favour of higher-yielding dollar assets. Figure 2 offers some clues about what that risk might be. Under continual pressure from the US, the yen appreciated all the way from ¥360:US\$1 in 1971, just before President Nixon ended the old system of Bretton Woods fixed exchange-rate parities, to about ¥80:US\$1 in 1995 — more than 4% per year. In 1995-96, when Kenichi Ohno and I wrote our book, *Dollar and Yen: Resolving Economic Conflict Between the United States and Japan*, we hypothesized that, after 1978, the expectation of an ever-higher yen made Japanese investors willing to hold lower-yield yen assets — the principle of what economists call “open interest parity.” This expectation was reinforced by very visible American mercantile pressure (unwarranted and wrong-headed, in our view) threatening Japan with trade sanctions unless the yen continued to appreciate. I still believe that the interest rate gap from 1978 through 1995 is mainly explained by the expectation of an ever-higher trend value for the yen — as shown by the broken line in Figure 2.

**Figure 2: Yen-Dollar Nominal Exchange Rate**



Source: International Financial Statistics, International Monetary Fund

**US introduced  
strong dollar policy**

However, in 1995, US Treasury Secretary Robert Rubin announced America’s new “strong dollar” policy: the US would no longer pressure Japan (or any other country) to appreciate its currency against the dollar. To reinforce the new policy, the US Federal Reserve Bank joined with the BOJ several times in the summer of 1995 to sell yen and buy dollars in order to stop the yen’s appreciation. Today, at around 110-120 yen to the dollar, the yen has depreciated since 1995, but with no real trend, as shown by the wide fluctuations around the solid line in Figure 2. Why then does the interest rate differential shown in Figure 1 persist?

**Trade surplus built  
up dollar holdings**

Because Japan has run current-account surpluses since 1982, it is now a more mature creditor country with a large stock of liquid dollar assets. However, Japan does not lend much to foreigners in yen, except for government-sponsored loans or credits. Thus the financial counterpart of the trade surpluses is a buildup of dollar claims on foreigners that

---

are now much larger as a proportion of Japan's GDP than in the 1980s. Except for direct foreign investment overseas, Japan's dollar claims are highly liquid — either held as official exchange reserves, or privately held in Japanese insurance companies, banks, mutual funds and so on. Then as the yen-dollar rate continues to fluctuate, these private institutions — with balance sheet liabilities in yen — see dollar assets to be riskier and requiring a higher return to hold. To analyze this higher yield on dollar assets, consider an augmented interest rate parity relationship for the interest differential:

$$i = i^* + \Delta s^e + \varphi$$

$i$  is the Japanese long-term nominal interest rate, which is endogenously determined.  $i^*$  is the US long-term nominal interest rate that, for all practical purposes, is given exogenously to the Japanese economy.  $s$  is the yen price of one dollar, and thus  $\Delta s^e$  is expected depreciation of the yen.  $\varphi$  is the risk premium on yen assets compared to dollar assets. From the 1970s to the early 1990s, the interest differential,  $i - i^*$ , was driven primarily by the negative  $\Delta s^e$  term. Since the mid-90s,  $\Delta s^e \approx 0$  and the interest differential has been driven primarily by the  $\varphi$  term, which is also negative.

#### **Institutions need risk premium on US\$**

This negative risk premium on yen assets,  $\varphi$ , is the excess yield that a Japanese private investor demands for holding dollar assets and bearing foreign exchange risk. For a financial institution, fluctuations in the yen-dollar exchange rate result in fluctuations in the yen value of its dollar assets, and hence in the institution's net worth. From the institution's perspective, the dollars are the risky asset because its liabilities are denominated in yen, e.g., insurance companies have annuity liabilities written in yen, banks have yen deposit liabilities to Japanese households, and so on. Thus,  $\varphi$  captures the excess yield, over and above expectations of ongoing yen appreciation, on dollar assets in order to induce the financial institution to hold them.

In the new millennium,  $\varphi$  gets larger, i.e., more negative, as net dollar assets in *private* portfolios continue to accumulate because of Japan's current account surpluses. In contrast, in the 1980s, dollar claims on the rest of the world were small. So, the risk premium term was small and the interest differential between dollar and yen assets was explained primarily by expectations of yen appreciation —  $\Delta s^e$  in the equation. Since the mid 1990s, however, foreign mercantile pressure for yen appreciation has eased. Today, as Japan's stock of liquid dollar assets has become much greater in the presence of a fluctuating yen-dollar exchange rate, the interest differential is accounted for mainly by the negative risk premium.

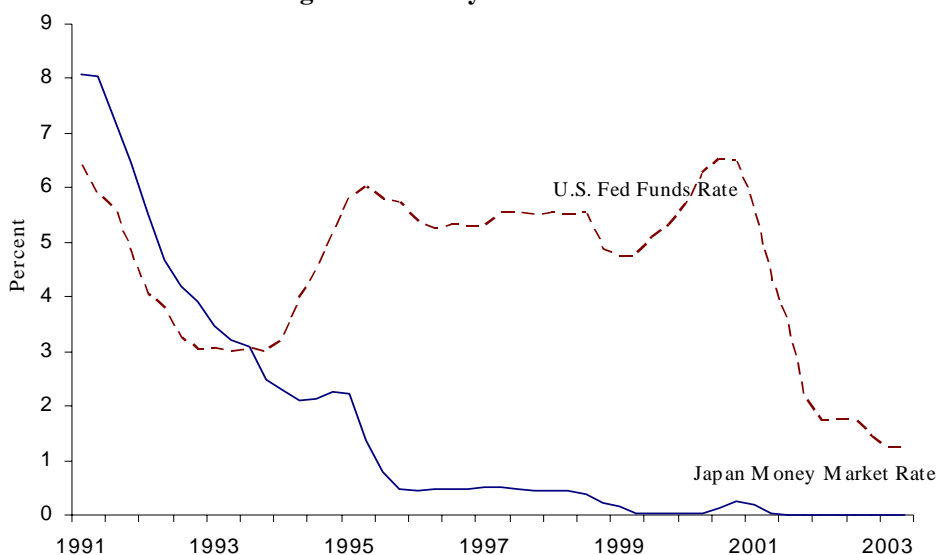
#### **The Liquidity Trap**

#### **When US rates fell, yen rates dropped to 0**

Under the world dollar standard, interest rates on dollar assets are set in US markets more or less independently of what happens in Japan. Thus, the negative risk premium necessary for portfolio equilibrium within Japanese financial institutions is established by forcing yields on yen assets down, rather than forcing those on dollar assets up. From the 1980s into the early 1990s, when American interest rates were 7-8% or more (see Figure 1), the markets could fairly easily establish the necessary differential with Japanese interest rates at 3-4%. However, when American interest rates became progressively lower in the mid-1990s, and then even lower in 2002-2003, the interest differential could no longer be sustained because Japanese nominal interest rates could not be forced below zero.

Figure 3 shows the path of short-term money market rates in Japan and the US. Japanese rates fell to less than 1% in 1996 and effectively to zero from 1999 through 2003. American short rates were 5% or so from the 1990s through 2000, but since then have fallen to a historic low of just 1.25% since June 2003. Thus, as Japanese short rates have fallen to zero, so the spread on short-term interest rates has narrowed from about 4 to just 1.25 percentage points. A similar narrowing of the spread has occurred in 10-year rates. US 10-year long rates now are around 4.2%, while those on 10-year Japan Government Bonds are just over 1.4%. This spread of 2.8 percentage points is now narrower than the average spread of 4 percentage points that had prevailed in the 1980s and 1990s (Figure 1).

**Figure 3: Money Market Rate**



Source: International Financial Statistics, International Monetary Fund

**Institutions do not want to hold dollars**

In the presence of a negative foreign exchange risk premium in Japanese interest rates, the fall in American interest rates has two important consequences. First Japanese interest rates are pushed to zero: the infamous liquidity trap. “Expansive” Japanese monetary policy, i.e., large increases in the domestic monetary base, can no longer affect the domestic economy or halt the ongoing deflation. Second, the differential between US and Japanese interest rates is no longer sufficient to sustain portfolio equilibrium within private Japanese financial institutions. As new dollar claims on foreigners accumulate through Japan’s current-account surplus, insurance companies, banks, and so on become increasingly reluctant to hold them. More and more, these institutions are simply unloading these now excess dollars in the foreign exchange market where the BOJ purchases them to prevent the yen from appreciating. For example, in a desperate attempt to prevent the yen from appreciating, the BOJ has intervened quite massively in 2003 to sell yen for dollars — buying US\$34.4 billion in May 2003 alone. Amazingly, Japan’s official foreign exchange reserves now total well over US\$500 billion.

**BOJ buys US\$ to steady yen’s value**

Rather than having an independent domestic monetary policy, the BOJ has been forced for many years to cut interest rates to stem the conversion of dollars into yen. When nominal interest rates on yen assets approached zero, the interest spread narrowed, thus creating portfolio disequilibrium within Japanese financial institutions. Then the rate of dollar-yen conversions became massive, as has been the case so far this year. However, if official intervention efforts to buy dollars and sell yen break down, the yen would appreciate sharply and deflation would intensify. Trapped by this foreign exchange impasse, the BOJ and Ministry of Finance must continue buying dollars on a vast scale.

---

The BOJ has been severely criticized for sterilizing much of its foreign exchange intervention, by not allowing the monetary base to expand by the full amount of its dollar purchases. Sterilization means selling finance bills to the private sector for their dollar assets so that dollar purchases are partially offset and the monetary base does not increase as much as the official intervention. However, this criticism is misplaced. In the zero interest trap, whether or not the BOJ's interventions in the foreign exchange market are sterilized or not has no effect on the economy. The demand for the monetary base, which the BOJ supplies, has become indeterminate (infinitely elastic) at the zero interest rate. The supply of monetary base could be arbitrarily increased or decreased by a quarter and it would not make any difference.

### **The End Game**

#### **Private sector still holds many dollars**

When Japan's private sector runs out of dollar assets, this massive conversion of dollars into yen must end. There is both a stock and a flow problem. Rishi Goyal and I have estimated that Japan's privately held stock of liquid dollar assets is still greater than Japan's current huge stock of official exchange reserves. So official reserves may still have to double before the private sector is depleted — and the negative risk premium in Japanese interest rates is eliminated. But that is not the end of the story. There is also a flow problem. As Japan's current-account surplus continues, the BOJ will have to stay in the foreign-exchange market to buy all the new liquid dollar claims — beyond Japan's outflows of foreign direct investment and official development loans — to prevent the yen from rising. In effect, the BOJ itself will be Japan's dominant international financial intermediary. It would displace private financial institutions, which would no longer hold or acquire dollar claims on foreigners. (This displacement is already occurring in domestic financial intermediation as the postal savings and other government-owned or -sponsored banks encroach on the lending domain of private banks, which see little or no profit in new lending when interest rates are compressed to zero.)

#### **Over time, dollar gap must rise**

Although this effective nationalization of international capital outflows would eliminate the negative risk premium in the equation, foreigners could well complain that the massive accumulation of official exchange reserves was an “unfair” attempt to keep the yen from rising — and that the yen should be allowed to float upward. Such allegations could unsettle exchange rate expectations so that  $\Delta s^e$  in the equation again became negative, i.e., the yen would be expected to appreciate. Thus the interest differential and zero interest liquidity trap would not disappear after all.

### **A Better Way**

#### **Setting a benchmark value for the yen . .**

The low interest rate trap arises out of the foreign-exchange risk from Japan's creditor status in the world economy. When the yen-dollar rate is free to fluctuate, Japanese private financial institutions see too much risk in holding dollar assets. Rather than nationalizing international capital flows, a preferred solution for eliminating the private foreign-exchange risk is to set some long-term benchmark for the exchange rate, such as ¥120:US\$1, and then stick with it. Can this be done credibly?

A bilateral free-trade agreement between Japan and the US could incorporate a monetary pact for stabilizing the yen-dollar rate. Because American mercantile policies before April 1995 were largely responsible for the ever-appreciating yen and the consequent Japanese deflation, an agreement with the US for joint intervention, if necessary, to maintain the rate at some benchmark rate like 120 would gain instant credibility. At the risk of

---

oversimplifying, the proposed economic pact between the two countries boils down to two complementary sets of policies:

(1) A *commercial agreement* limiting bilateral sanctions in trade disputes and preventing (future) pressure from the US to force the yen value higher.

(2) A *monetary accord* to stabilize the yen-dollar rate over the long term.

**... will end doubts  
over ¥:\$ stability**

Both countries would acknowledge that neither the current-account surplus of Japan nor the current-account deficit of the US can be “corrected” by manipulating the yen-dollar exchange rate. The two governments would agree to have their two central banks intervene jointly to nudge the market rate toward the benchmark, but only do so very actively if the market moved sharply in the wrong direction. For example, in early June 1998, the yen began to depreciate sharply, reaching ¥147:US\$1 by June 16. On June 17, the Federal Reserve and the BOJ jointly and successfully intervened to push the yen back up. In another instance, after the yen had been run up sharply from 95 in January to reach ¥80:US\$1 in April 1995, a concerted official intervention by the Fed and the BOJ and other central banks stopped the run, and follow-up official interventions during the summer succeeded in driving the yen back down.

So official intervention, as long as it is joint intervention to correct a disequilibrium rate, can be effective. But what was missing from these earlier episodes was the announcement of some long term parity for the exchange rate. Thus introducing 120 yen/dollar as the official benchmark would allow private expectations to coalesce around this particular rate. Then, without the need for official intervention on a day-to-day basis, private stabilizing speculation would keep the rate close to 120.

**BOJ would make  
yen value its key**

In the medium-term, however, official intervention must be supported by monetary adjustment — and virtually all that adjustment would be by Japan. Little or no change in the Federal Reserve’s policy of independently targeting the American price level would be necessary or desirable. Because the purpose of long-term stabilization of the yen/dollar rate is to end deflationary pressure and spring the liquidity trap in Japan, the main monetary adjustment would be by Japan. As the centrepiece of its monetary policy, the BOJ would key on the exchange rate of ¥120 to the dollar — just as it keyed on ¥360 during Japan’s famous era of high economic growth from 1949 to 1971.

**Interests rates, bank  
lending would rise**

What would the transition in Japan’s domestic economy look like once the anchor of ¥120 to the dollar was firmly established?

- Nominal Japanese interest rates rise toward American levels. In the short run, holders of long-term yen bonds take a beating as their capital value falls. On the positive side, insurance companies would now have access to higher-yield assets to fund their long-term annuity obligations.

- New bank lending becomes profitable as margins widen with the decompression of interest rates even though bank balance sheets remain in a mess. Now a clean up makes more sense.

- Private domestic investment increases as fear of a sudden yen appreciation and overvaluation is eliminated.

- The BOJ may actually have to contract the monetary base to allow nominal interest rates on yen assets to rise while keeping the exchange rate steady.
- Long-term deflationary expectations decline because of the anchoring effect of the fixed exchange rate.
- Private demand for new housing could surge as the fear of a decline in land values ends as the price level stabilizes.

**Traumatic change  
the key to reflation**

There is no doubt that this transition away from the zero-interest-rate trap would be traumatic. But Japan's current financial situation in the trap is untenable. Because the interest differential between yields on dollar and yen assets is unusually narrow in 2003, this is a good year to implement the stable exchange rate regime. As the economy's financial health improves, the immediate upward adjustments in Japanese interest rates to American levels would be relatively moderate. Of course, there must also be global reflation, particularly in the US, if deflationary pressure in Japan is to be finally quashed. But certainly springing the liquidity trap is an important and necessary condition for Japan to participate in any general reflation on a worldwide scale.



**Canada-Asia News Service**

**Subscribe online at [www.asiapacific.ca](http://www.asiapacific.ca)**

A free e-mail service bringing news of Canada-Asia developments, plus major stories from Asia, to your computer every business day.

*don't be left in the dark...*

The Asia Pacific Foundation of Canada

Canada's leading resource on Asia.



For general information on  
APF Canada publications  
Tel: (604) 684-5986  
Fax : (604) 681-1370  
e-mail: [info@asiapacific.ca](mailto:info@asiapacific.ca)  
or visit our website:  
[www.asiapacific.ca](http://www.asiapacific.ca)

*While every effort has been taken to verify the accuracy of this information, the Asia Pacific Foundation of Canada cannot accept responsibility or liability for reliance by any person or organization on the use of this information. This Commentary may be copied whole or in part and/or re-distributed with acknowledgement to "the Asia Pacific Foundation, Canada's leading independent resource on Asia and Canada-Asia issues". Archive issues of Canada Asia Commentary may be found at <http://www.asiapacific.ca/analysis/pubs/commentary.cfm>. APF Canada is funded in part by the Department of Foreign Affairs and International Trade and the Canadian International Development Agency.*