

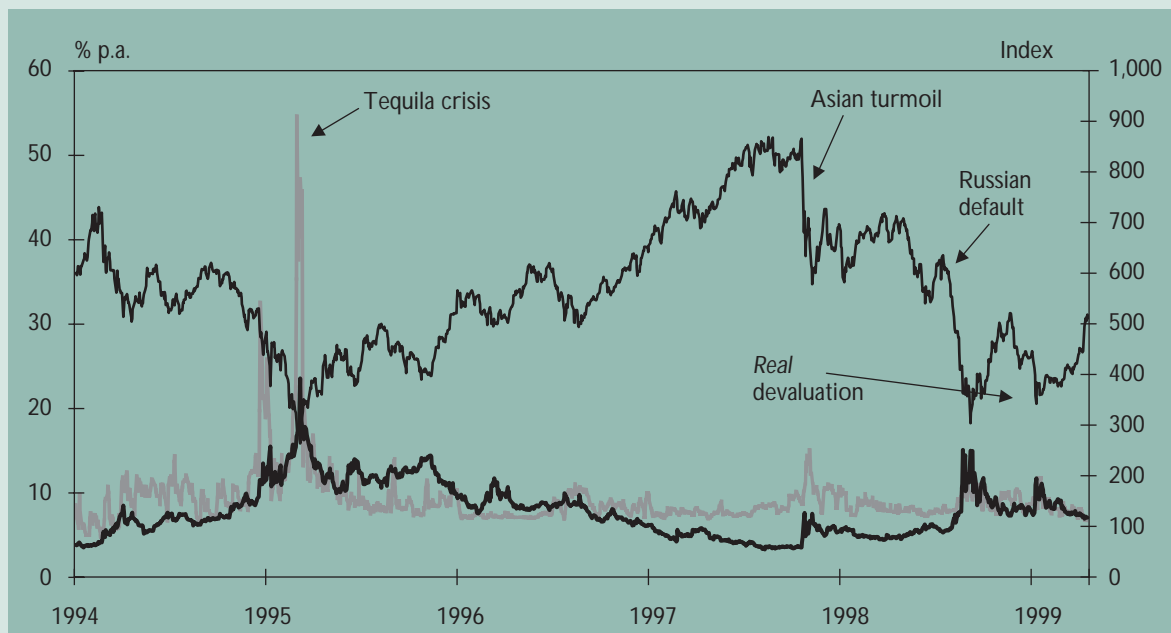
ARGENTINA: IMPACT OF THE REAL CRISIS AND IMPLICATIONS FOR HONG KONG

Following the floating of the Brazilian real in mid-January, contagion effects on Argentina's financial system have been moderate compared with previous crises. In part, this may reflect the substantial improvements made to Argentina's banking and currency board systems, fiscal position, and labour market policies since the 1994-95 tequila crisis. The deleveraging of global speculators may also be a factor, along with the fact that Brazil's problems had been discounted in markets to a large extent.

A large external debt and deteriorating current account position pose the major threats to the Argentine peso peg, especially as the full effects of Brazil's problems are felt on Argentina's exports. Nevertheless, Argentina is relatively closed, with total exports accounting for only 8% of GDP.

Argentina and Hong Kong share a currency board system, thus any loss of confidence in the peso peg could adversely affect confidence in the Hong Kong dollar link. Nevertheless, Hong Kong benefits from its very strong fundamentals, including a large foreign reserve, a strong banking system, long and credible record of prudent policies, and highly flexible economic structure.

Figure 1
Impacts of different crises compared



— 7-day Interbank Rate (LHS)
— Yield Spread of US\$ Denominated Government Bonds over US Treasury (LHS)
— Merval Index (RHS)

Introduction

Since the floating of the Brazilian real on 15 January, the effects on Argentina's financial markets have been moderate compared with the experience during either the tequila crisis in early 1995 or the Russian debt-default crisis in August 1998. The peso has remained stable, while one-week interbank interest rates have only risen to about 12%, below the 13% rate reached last September and far below the peak of over 50% seen during the tequila crisis. The yield spread on Argentinian Brady bonds over US treasuries had widened to about 1150 bps, but remains well below the 1500 bps gap observed last August and the record 2300 bps spread reached in March 1995. The Merval stock index actually rebounded on news of the *real's* float, with gains of 9.2% in the second half of January and an aggregate increase of almost 50% since mid-January.

In spite of the modest degree of direct pressure on financial markets since mid-January, it is premature to tell how the *real* crisis will affect Argentina over the longer term. Unlike the previous two crises, there are strong direct economic linkages between Brazil and Argentina. This paper attempts to assess the potential impact of the *real* crisis on Argentina and its implications for Hong Kong.

Trade exposure to Brazil and external vulnerability

As mentioned above, a key difference between the current situation and past crises is the importance of direct trade linkages between Argentina and Brazil. Table 1 shows Argentina's trade shares with some major trading partners. It is apparent that Brazil is (by far) Argentina's largest trading partner, accounting for 30% of exports and almost 23% of imports. In contrast, Argentina's trade linkages with Mexico are negligible. As a result, during the tequila crisis, Argentina's trade position was little affected by the economic downturn in Mexico. Indeed, Argentina's current account deficit narrowed from 3% of GDP in 1994 to 1% in 1995 as imports fell sharply, substantially reducing net external financing needs in the first full year of the tequila crisis.

Argentina's current trade prospects look less favourable. The strength of the US dollar has boosted the value of the peso since 1995, while activity in trading partners was weak even before Brazil's difficulties. As a result, the current account deficit widened to an estimated 4% of GDP in 1998. Against this background, the direct impact of the slowdown in Brazil on Argentina's exports is likely to be significant. Suppose, for instance, that Brazil's imports fall by 25% during 1999 – an amount that is broadly consistent with the experience of the Asian crisis countries during 1997-98. If this impact is spread evenly across Brazil's trading partners, Argentina's exports would fall by 7%. Argentina is not a particularly open economy, with a share of total exports in GDP of only about 8%. Nevertheless, direct spillovers from Brazil would reduce Argentina's GDP by over 0.5%, and raise the current account deficit by a similar amount. A mitigating factor is the commodity composition of Argentina's exports to Brazil, most of which represent basic commodities as opposed to high-end manufactured goods. To the extent that Brazil's demand for such commodities is less cyclically sensitive than for other types of imports, the impact on Argentina could be smaller.

A major area of concern is external debt, which rose from US\$77 billion at end-1994 to US\$139 billion in 1998 (including US\$82 billion of public sector debt). Debt service ratio increased

Table 1
Argentina's Major
Trade Partners (Jan-Nov 1998)

	Exports (% share)	Imports (% share)
Brazil	30.2	22.7
European Union	16.8	27.3
United States	7.4	19.4
Chile	7.0	2.3
China	3.2	3.8
Uruguay	2.9	1.6
Paraguay	2.1	1.2
Mexico	0.9	1.9

Source: Direction of Trade Statistics

from 31% of exports (goods and services) in 1994 to about 53% in 1997. Nevertheless, the proportion of short-term debt is small, accounting for less than 3% of the total public sector debt as of end-1998 (Table 2). The government has also secured a US\$2.75 billion loan from the Inter-American Development Bank (IDB) for banking and social safety net reforms. This is on top of a US\$3 billion loan from the World Bank last November and a US\$2.8 billion IMF extended facility granted in early 1998.

While external debt has been rising, official international reserves reached a record high of US\$23.5 billion at end-March 1999, enough to cover over nine months of imports or 99% of the monetary base, up from 80% in 1995.

Improvements in domestic economic fundamentals

While the external position has deteriorated, other aspects of Argentina's economic fundamentals have improved substantially in recent years. Firstly, the **financial system** has been significantly strengthened since the tequila crisis, as indicated by the following developments:

- Consolidation has cut the number of financial institutions by 20% since 1994.
- All but one of the private banks are foreign-owned, holding 40% of total deposits (up from 16% in 1994).
- The average Basle capital adequacy ratio (CAR) for banks increased from 18.2% at end-1994 to 20.1% in mid-1997, considerably higher than the statutory minimum of 11.5%.
- Banks' non-performing assets (before loan-loss provisions) fell from 16.5% of total assets in the second half of 1995 to 11.4% in August 1997 (or from 7.8% net of provisions to 4.7% respectively).
- A high liquidity requirement of up to 20% of bank liabilities was introduced in August 1995

Table 2
Argentina's public sector debt
(end-1998)

	pesos bn
MEDIUM AND LONG TERM	109.1
Bilateral	7.5
Club of Paris	4.5
Other bilaterals	2.9
Multilateral	19.1
IDB	6.3
IBRD	7.4
IMF	5.4
Other	0.6
Private banks	3.6
Government Securities	78.2
in Pesos	7.8
in Foreign Currency	70.4
SHORT TERM	3.3
Treasury	3.3
in Pesos	0.0
in Foreign Currency	3.3
TOTAL PUBLIC DEBT	112.4

Source: Ministry of Economy and Public Works and Services, Treasury Secretariat

to replace the old reserve requirement (which covered only customer deposit liabilities).

- A mandatory deposit insurance scheme was implemented in 1995.
- Mandatory credit ratings are required for all financial institutions and a credit risk bureau has been established by the Banco Central de la Republica Argentina (BCRA) to centralise and disseminate credit information on financial entities.
- The interbank settlement and payments system has been upgraded to an RTGS system, and two automated retail clearing houses have been established.

Another major area of improvement since 1995 involves the strengthening of the **currency board arrangements**. The changes include:

- The redenomination of the central bank's balance sheet into US dollars. This reassured banks of the BCRA's convertibility undertaking and helped to reduce capital outflows¹.
- A contingent repo facility was arranged after the tequila crisis between the BCRA and 13 major international banks to provide US dollar emergency liquidity² to the BCRA of up to 10% of domestic bank deposits. Including the legal liquidity requirement, the banking system is now cushioned by a total emergency liquidity facility of up to 30% of bank deposits. This should comfortably cover capital flight of the scale experienced during the tequila crisis (18% of bank deposits).
- Tightening of pension eligibility requirements, and controlling fraudulent disbursements within the system.
- Efforts to restrict provincial governments' borrowing to limits consistent with their debt-servicing capacity.
- Plans to eliminate distortions in the tax system, promote efficiency in public spending, and privatise remaining provincial banks.

The **labour market** has also become more flexible as privatisation and restructuring has proceeded. From a record high of 18.4% in early 1995, the unemployment rate dropped to 12.4% in October 1998. Yet, there is considerable room for improvement in areas such as lowering entry barriers, reducing severance pay, and raising job assignment flexibility.

Substantial progress has also been made in the **fiscal sector**. Despite recession brought on in 1995 by the tequila crisis and a slippage in meeting the IMF's fiscal target performance criteria in early 1996, the fiscal position improved in 1997. After widening from 0.5% of GDP in 1994 to 2.2% in 1996, the federal government deficit fell to about 1% of GDP in 1998. Recent measures to improve the fiscal position include:

Overall, Argentina seems better prepared now than four years ago to face the external shock from Brazil. In the unlikely event that Argentina abandons its currency board system, either voluntarily or involuntarily, recent government moves suggest that dollarisation of the economy is more likely than alternatives like a free float, managed float, or re-peg.

- Civil service reforms, including the displacement of redundant staff, wage restraint and control on goods and services spending.
- Rationalisation of central government offices.
- Privatisation of the country's transport, postal and telecommunication systems.

Technically, the Argentine economy is already highly dollarised.³ The costs of transition may therefore be less a barrier. Economically, it can substantially reduce the threat of inflated import prices, rising foreign debt service payments, and shrinking domestic demand that normally

¹ Amid the tequila crisis, in an attempt to reassure banks of BCRA's commitment towards convertibility undertaking, the BCRA redenominated all items in its own balance sheet into US dollar, including all commercial banks' deposits kept with the BCRA. As a result, banks had no peso account with BCRA and peso/US\$ transactions between the central bank and commercial banks were confined to cash transactions only. Settlements of all transactions done through the commercial banks' accounts with BCRA are in US dollar, therefore free from peso exchange risks.

² The contingent liquidity facility is arranged through an option to repo Argentine US dollar denominated government bonds or mortgage bonds for US dollar liquidity. The commitment fee of the facility is around 50 bps and the cost of funding is around LIBOR+200 bps.

³ Following President Menem's earlier instruction to study the possibility of dollarisation, the central bank, BCRA, announced on 21 January 1999 that it was proposing a treaty with the US to adopt the US dollar as Argentina's national currency and to replace the peso in two to three years time. In terms of readiness of the current system, the US dollar has already been playing an important role as a unit of account and store of value. Currently, substantial proportion of large-value transactions like mortgage contracts is being denominated in US dollar. As at end-February 1998, 54% of total bank deposits in Argentina were US dollar deposits, including a 70% share in time deposits and 26% share of current and savings deposits. This ratio has remained stable since 1995. In 1995, in a bid to reinforce confidence on its commitment to convertibility, the central bank re-denominated its balance sheet in US dollars and eliminated all peso exchange risk in its interbank settlements conducted through its account with commercial banks.

Table 3
Argentina and Hong Kong compared

	Hong Kong		Argentina	
Foreign Exchange Reserves (US\$ bn)	89.5	(Mar 99)	23.5	(Mar 99)
FX Reserves/Monetary Base (%)	349	(Mar 99)	99	(Mar 99)
FX Reserves (no. of months of imports*)	18.3	(Feb 99)	9.5	(Jan 99)
Budget Balance (% of GDP)	-2.5	(1998/99)	-1.1	(1998)
Current Account Balance (US\$ bn)	-6.8	(1997)	-10.1	(1997)
Current Account Balance (% of GDP)	-3.9	(1997)	-3.1	(1997)
External Debt (% of GDP)	n.a.	–	37.4	(1998)
Debt Service Ratio (% of goods and services export)	n.a.	–	53.0	(1997)
Bank capital adequacy ratio (%)	18.6	(Dec 98)	20.1	(July 97)
Bank non-performing loan (% of asset)	7.3	(Dec 98)	11.4	(Aug 97)
Unemployment rate (%)	6.2	(Jan-Mar 99)	12.4	(Oct 98)

* retained imports for Hong Kong.

Sources: Government departments, Bloomberg, CEIC, Datastream and World Bank.

accompany a sharp currency devaluation. While interest rate premium associated with currency risk would disappear, it is unlikely for interest rates in Argentina to fall towards the level in the US due to sovereign and credit risks. As an illustration, the yield spread between US dollar denominated Argentina Brady bonds and US treasuries is roughly 650 bps over the past 15 months.

Implications for Hong Kong

While it is likely that Argentina's exports and economic growth will suffer, the direct economic impact on Hong Kong should be very mild given our limited linkages in trade, production, and investment. The whole Latin American region accounted for only 2.8% of Hong Kong's exports and 0.8% of imports during 1998. Furthermore, the region accounted for less than 0.1% of the outstanding external claims of Hong Kong's banking system at end-January 1999. What could have had a significant impact on Hong Kong was any financial market contagion that the crisis might have generated, given that both economies share the same type of exchange rate system. However, the two systems are supported by different economic fundamentals:

- **Foreign reserve backing.** At end-March 1999, Hong Kong's foreign exchange reserve backing amounted to 3.5 times its monetary base, compared with 0.99 times of Argentina. In absolute terms, Hong Kong's foreign exchange reserves totaled US\$89.5 billion, compared with Argentina's US\$23.5 billion. As a percentage of GDP, the respective ratios for Hong Kong and Argentina are about 54% and 8%.
- **Banking system health.** Banks in both economies maintain high capital adequacy ratios: 18.6% for Hong Kong at end-December 1998 versus 21% for Argentina in July 1997. Both systems enjoy relatively high liquidity ratios (averaged about 50% at end-March 1999 in Hong Kong and 20% in Argentina⁴) and low non-performing loan ratios (7.3% at end-December 1998 in Hong Kong versus 11.4% in August 1997 in Argentina).
- **Fiscal position.** With the exception of this and three other years, Hong Kong has been consistently running a fiscal surplus over the past three decades and maintained no direct public external debt. Accumulated fiscal

⁴ These data need to be interpreted with caution given definitional differences, but should offer broad indications of underlying bank health. In Argentina, a special BCRA credit facility with international banks offers another 10% liquidity protection to the system.

surplus amounted to 35.5% of GDP or US\$59.0 billion. In Argentina, public sector debt amounted to US\$112.4 billion, or 33.1% of GDP.

- **Economic flexibility.** Hong Kong's highly flexible markets are key to its adjustment to external shocks. In particular, its free trade status, open capital account and largely non-unionised labour force should enhance its economic adjustment. In Argentina, entry barriers and other legal rigidities have continued to impede adjustments in the labour market.
- **Depth and sophistication of financial systems.** Being an international financial centre with the world's eighth largest external bank assets, the twelfth largest equity market by capitalisation, one of the world's largest gold markets, and the seventh largest foreign exchange trading centre, Hong Kong has strong and wide connections with the international financial system. This may offer Hong Kong more readily available access to international resources. A deeper market may also help to dampen the volatility of asset prices as price movements would require a larger volume of capital flows. However, this factor could also become a detriment, as it adds to the difficulty in market surveillance and may expose the system to multi-front pressures like the double-market plays experienced in last summer.
- **Currency board arrangements.** Despite similarities in broad principles of the two currency board systems, there are some differences in the details. For example, in Argentina, up to one-third of the asset backing the monetary base may be provided

in the form of US dollar denominated bonds issued by the Argentine government⁵. In the case of Hong Kong, the monetary base is fully backed by external assets, mostly US treasuries and other high quality agency papers. The convertibility undertaking in Argentina is more universal and covers all of the monetary base (currency in circulation and deposits of financial institutions with the central bank), while Hong Kong's undertaking only covers notes in circulation and the aggregate balance (though Exchange Fund paper is indirectly covered). There are also differences in the transferability of the different components of the monetary base in both systems, legal provision of the autonomy of the monetary authorities, liquidity requirements and standby liquidity facilities, denomination of central bank balance sheets, legal and infrastructural barriers to full dollarisation of the systems (see Annex A for a comparison between the currency board arrangements in Hong Kong and Argentina).

Conclusion

It will take some time for the full effect of the devaluation of the Brazilian *real* to be felt on Argentina's economy. Notwithstanding these pressures, improvements in Argentina's economic system since the tequila crisis in 1994-95 have substantially improved its ability of weathering the *real* crisis. Pressures on the Hong Kong dollar heightened temporarily with the *real* crisis. The direct economic linkages with Latin America, however, are minor. More importantly, there are several features of Hong Kong's economic fundamentals and currency board system that distinguish it from Argentina. These differences provide a strong basis for countering possible contagion from Argentina to Hong Kong. ☉

- Prepared by the Economic Research Division

⁵ Details and restrictions of this arrangement are provided in Annex A.

SALIENT FEATURES OF THE CURRENCY BOARD SYSTEMS IN ARGENTINA AND HONG KONG

	Argentina	Hong Kong
Date established	March 1991	October 1983
Reserve Currency	US\$	US\$
Official exchange rate	US\$1 = 1 peso	US\$1 = HK\$7.80
Backing rule	A minimum of 100% backing of the monetary base, as stipulated in the Convertibility Law of 1991.	Full backing of the stock and flow of monetary base. A non-statutory requirement.
Monetary Base	Sum of cash in circulation and deposits of financial entities with Central Bank. The latter refers to the required reserves kept at Central Bank before August 1995 and the reserves kept under liquidity requirement thereafter (see <i>Liquidity Requirement below</i>).	Sum of banknotes and coins in circulation, balance of clearing accounts of licensed banks kept with the HKMA ('the Aggregate Balance') and the outstanding Exchange Fund Bills and Notes.
Assets eligible for backing	As specified in the Convertibility Law, reserves were to be invested in deposits, other interest-bearing transactions, or in national or foreign public bonds payable in gold, precious metals, US\$ or other foreign exchange. The Central Bank Charter allowed a maximum of 1/3 of backing assets to be provided in the form of US\$ denominated government bonds ('Bonex'). The increase in such bond holdings (in terms of market value) was capped at 10% per annum. This provided some room for the Central Bank to finance external debt or budget deficit of the government through purchase of the Bonex to a certain extent.	Entire backing portfolio is made up of US\$ assets. None of these assets are claims on the domestic government. In fact, other than the backing portfolio, the entire assets of the Exchange Fund can be used to defend the Hong Kong dollar exchange rate.
Backing ratio	At end-March 1999, liquid reserves (excluding Bonex holding and assets backing government deposits at Central Bank) was 99.6% of the monetary base. Systemic liquidity, defined as sum of <ul style="list-style-type: none"> • Commercial banks' deposit at Deutsche Bank (to meet Liquidity Requirement) • Commercial banks' liquidity at Central Bank to meet Liquidity Requirement • External repo programme (see External liquidity support below) is around 30% of total customer deposits (peso and US\$) of Argentina	At end-March 1999, in terms of the backing portfolio, the backing ratio stood at around 109.5% of the total monetary base. Taking all foreign currency assets of the Exchange Fund into account, the foreign currency reserves was about 3.5 times of the monetary base.
Separation of accounts	No separate account for currency board operations. However, in calculating the reserves backing for the monetary base, assets backing the government deposits kept at the Central Bank is excluded. Size of government deposits is fairly small and highly volatile e.g. the month-end figure ranges from less than US\$100 mn to over around US\$2 bn.	Currency board accounts set up for monitoring the full backing of monetary base but the entire foreign currency assets of the Exchange Fund can be used to defend the HK dollar exchange rate.

	Argentina	Hong Kong
Convertibility Undertaking	<p>Convertibility Law in 1991 specified one way convertibility undertaking. Central Bank was obliged to sell US\$ for peso at the official exchange rate of US\$1 = 1 peso.</p> <p>Bank reserves at Central Bank were re-denominated into US\$ in 1995. This represents a strong form of convertibility undertaking. Indeed, with the dollarisation of this component, transactions under the convertibility undertaking is confined mainly to cash transactions.</p>	<p>Certificates of Indebtedness, which are cover for bank notes, are issued and redeemed at the official rate of US\$1 = HK\$7.80.</p> <p>Convertibility undertaking in respect of Aggregate Balance, originally set at US\$1 = HK\$7.75, has started moving to 7.80 gradually by 1 pip per calendar day since 1 April 1999.</p>
Access to convertibility at the monetary authorities	In principle, general public; in practice, only financial institutions and exchange houses.	For bank notes – only note issuing banks For Aggregate Balance – all licensed banks
Reserve/liquidity requirement	Liquidity requirement (LR) replaced the reserve requirement in August 1995. This applies to most monetary liabilities of the banks. The LR can be met by deposits with the Central Bank (in the form of reverse repos carrying interest rate comparable to US money market rate) or deposits in Deutsche Bank in New York (max. of 80% of total LR). The reverse repo rate forms the floor of interbank rate.	No statutory reserve requirement on banks, but there is a statutory minimum 25% liquidity ratio requirement. The clearing accounts of licensed banks kept with the HKMA are mainly for settlement of interbank transactions and transactions between banks and the HKMA.
Discount window facilities	Banks may obtain overnight liquidity from Central Bank using Argentine government bonds as collateral for repo purpose. Discount rate, presently at 9%, is a penal rate and forms the ceiling for interbank rate.	Banks may obtain overnight liquidity from HKMA using Exchange Fund paper as collateral for repo purpose. A two-tier discount rate system is devised with regard to percentage threshold of the Exchange Fund papers held by the banks. Base rate, the foundation upon which discount rate is calculated, is computed with reference to the simple average of 5-day overnight and 1-month interbank rates, subject to a floor of a certain adjustment factor above the US Fed Funds Target Rate.
Lender of last resort	Convertibility Law of 1991 prohibited the Central Bank from acting as a lender of last resort. But Central Bank Charter (1995) gave some flexibility to Central Bank to help troubled financial institutions through extended repos during the Tequila Crisis in 1995. (As a result of the repo and rediscount facilities provided to banks in 1995, the Bonex holding of central bank increased substantially. That explained why the maximum limit of Bonex as reserve backing was extended from 20% to 33.3% in 1995.)	The Exchange Fund Ordinance stipulates the use of the assets of Exchange Fund for defending the Hong Kong dollar exchange rate and for the maintenance of stability and integrity of the monetary and financial systems in Hong Kong. The provision of liquidity to individual banks in stress will be determined on a case by case basis.
External liquidity support	External repo lines set up with international banks to provide contingent liquidity to the Argentine financial system during crisis. US dollar government bonds and particular types of bank loans, eg. loans to provinces guaranteed by federal tax revenues, and mortgage loans are eligible collateral. Central Bank tries to maintain an external liquidity support of up to 10% of total customer deposits.	Bilateral repo lines has been set up with 10 Asian central banks/monetary authorities using US dollar government securities to provide liquidity on a bilateral basis. This helps to enhance the liquidity of the foreign reserves of the currency board with minimum risk.