Trade and Exchange Rate Regime Coherence: Implications for Integration in the Americas

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Latin America’s trade relationships have been severely strained by the series of uncoordinated currency depreciations within the region since the Asian Crisis spilled over into Brazil in 1999 and by large swings in G-3 exchange rates. Large depreciations, whether forced by capital markets or unilaterally effected for competitive trade reasons, are equivalent to steep increases in tariffs facing trading partners; they damage trade relationships and distort trade-oriented economic growth. The sources of the unfolding regional crisis and its implications for intra-regional trade as well as trade with major external trading partners are examined. Implications for future regional economic integration are drawn.

Keywords: capital flows, contagion, exchange rates, finance, trade, Western Hemisphere.
Introduction

A quintessential “coherence” issue is emerging in today’s global economy: we have two large highly complex systems – trade and finance – which are mutually necessary but adjust over time scales and orders of magnitude that are profoundly different, with the changes in one system driving instability in the other.

The evolution of today’s global system of production of goods and services and the associated pattern of trade occurred under a variety of international exchange rate and payments regimes. Various forms of fixed, floating and intermediate exchange rate regimes have been tried in the context of different historical approaches to domestic economic management and varying international payments arrangements.

The system of monetary management that is gaining favour today is that of floating exchange rates coupled with inflation targeting as an “anchor” for the external value of a currency. From the perspective of an individual economy, this system promises many advantages – it allows flexible adjustment to external “shocks” and to differences in business cycle conditions vis-à-vis trading partners, while avoiding providing markets with specific targets that could become the focus of speculation. At the same time, it appears to be perfectly consistent with a complex multilateral trading system where market supply and demand determine relative prices of traded goods and services. Indeed, this system would be expected both to deliver observed exchange rates that are broadly stable, taking into account the relative rates of growth of costs and prices in a country compared to its trading partners, and to promote correction of external imbalances. Notionally, countries in which the return on capital is equal to the global average would tend to be in current account balance, those offering higher returns would be in some degree of external deficit financed by inflows of direct investment, and those offering lower returns should be in external surplus and exporting capital.

In practical terms, of course, things would be nowhere near as clean and straightforward as the notional model suggests. Individual countries with serious credibility problems because of past policy management mistakes may require an external anchor to stabilize their exchange rates. This was the case with countries such as Argentina and Brazil, which had prior histories of hyper-inflation and currency collapses and opted for external anchors in the 1990s as a short-cut to monetary stability, with considerable initial success. Developing countries that have large non-traded sectors in their economies with prices that diverge widely from world levels could well sustain substantially higher rates of measured inflation as internal prices...
adjust to world levels without creating competitiveness issues for their exports; in such a case, there would be difficult issues to address in defining an internal inflation anchor for the external value of the currency. However, even taking these and other practical issues into account, if the international system of largely floating exchange rates delivered, *grosso modo*, the types of outcomes expected from the pure system – broadly stable real exchange rates that were more or less in line with the fundamentals of the real economy – systemic issues would not arise.

But these are decidedly not the outcomes that we are observing in the global economy – not even in rough first approximation – particularly in the period since the onset of the Asian Crisis in mid-1997. The following sections (a) establish the *prima facie* basis for this claim; (b) briefly set out the underlying reasons; and (c) consider the implications for market integration globally and, through the Free Trade Area of the Americas initiative, regionally.

**The Prima Facie Case**

**Capital Flows**

As is often noted, the volume of capital transactions has grown vastly over the past few decades and now dwarfs the volume of trade-related transactions. Analysis of the expansion of capital flows suggests that, while much is motivated by investment objectives (either as portfolio capital in search of higher returns or as direct investment for purposes of engaging in or supporting real economic activity), much is due to the expansion of mutual cross-holdings of financial assets for risk management – that is, hedging transactions undertaken essentially to offset risk associated with conducting real economic activity across borders. Nonetheless, despite the ancillary nature of a good part of the volume of capital account transactions, because of their sheer volume, the determination of exchange rates is much more likely to emerge from pressures in the market for capital rather than for goods and services.

In this context, three developments in the system of international trade and finance stand out as both remarkable in and of themselves and as being salient for the issue of trade-finance coherence:

a) The extraordinary expansion of the U.S. current account deficit: Since 2000, the United States external deficit has exceeded US $400 billion, three to four times its size in the years prior to the Asian Crisis. During this period, the other advanced economies as a group expanded their existing surplus, while the developing countries taken as a group and the countries in transition taken as a
group shifted from deficits to surpluses. While pockets of external deficit remain here and there in the global economy, including notably in Latin America, these are being squeezed. The flood of global capital into the United States is taking place at a time of minuscule yields on U.S. Government securities and while rates of return on U.S. equities are plumbing post–World War II lows and U.S. industry is awash in excess capacity.

b) Japan has a liquidity trap in an open capital market: Japan’s current situation of stagnant spending and investment in a context of near-zero interest rates and aggressive expansion of the monetary base by the central bank corresponds to the so-called liquidity trap. While this concept was originally advanced as a theoretical curiosity in a closed-economy model, the Bank of Japan has offered credible evidence of the actual existence of this effect. The question is how can such a situation arise given an open capital market and a shortage of capital and the very high nominal rates of return on offer in many countries? In theory, Japan should be exporting capital in sufficient amounts to China or elsewhere where profits can be made such that Japan’s exchange rate would fall and rates of return in Japan would rise toward average world levels. But capital remains bottled up (or stuffed into mattresses) in Japan.¹

c) The emerging market crises singled out the best and brightest: In the fall of 1996, the International Monetary Fund (IMF) published a study on the integration into international capital markets of the developing countries. The study differentiated between 21 developing countries that were forging ahead and the rest, which were lagging behind. This list is notable because it does a surprisingly good job of picking those economies that would suffer major economic and financial crises in the coming five-year period out of a police line-up of potential suspects. At the time, there were only 23 countries that the IMF could classify as “industrialized” among the 180-odd countries on the planet. These 21 emerging markets were thus, in effect, the “B+” group of the global economy. The fact that a list of star performers can serve as a roster of crisis countries in the immediately ensuing period is of course more than remarkable; it is in fact profoundly disturbing. However, for the purposes here, what is of primary interest is that the crises were associated with a sudden reversal of net capital flows into these countries. In other words, capital fled those countries, which by comparison with industrialized countries were underinvested and thus offered comparatively high rates of return on capital.²
The proverbial economist from Mars, when informed about these trends, would be immensely puzzled – not less than would a geographer informed that water was apparently flowing uphill.

**Exchange Rates**

At the same time as this remarkable confluence of curiosities in the direction of flow of international capital was occurring, there was sufficient instability in exchange rates to bring considerable popularity to the theory of “multiple equilibria” – that is, the notion that exchange rates might have alternative, perhaps distantly separated, values that allow the international capital markets to clear.

It is instructive to note how the shift from a “good” equilibrium (low interest rates and stable capital inflows supporting growth and development) to a “bad” equilibrium actually is thought to take place. As a result of an external shock or a change in international investors’ perception of risk (due to “contagion” or some other reason), a country faces sharply higher interest rates and is forced to unwind external deficits as capital inflows cease and as money flows out to pay down international debt. Austerity measures to bolster the confidence of international capital markets create fiscal drag that combines with the high real interest rates to deflate the economy. Sharply lower growth and higher interest rates lead to a deteriorating debt dynamic that drives down credit risk ratings, which in turn drives up real interest rates further, and so on around the vicious circle to economic ruin. Thus, from one day to the next, a country could find itself, without change of policy or “fundamentals”, dislodged from one point of external equilibrium and sliding uncontrollably to a distant and decidedly unwelcome new point – often in the context of sharp international criticism over lack of political will to take sufficiently draconian austerity measures or to undertake fundamental restructuring and financial rewiring on the fly in the midst of domestic political crisis. By the same token, of course, a restoration of confidence in the economy that reduces real interest rates could put an economy on a path to climb back to its original “good” equilibrium point. In this circumstance, falling real interest rates stimulate real growth, which in turn works to reduce the burden of financing the debt, improving credit ratings; improved credit ratings in turn lower real interest rates and so on around the positive circle to restored health and presumably a return to the neighborhood of the pre-crisis exchange rate. A plea for improved investor confidence precisely to jump-start such a positive dynamic was recently made in a *Financial Times* article, “Trust Brazil”, by the Governor and Deputy Governor for Economic Policy of the Bank of Brazil.  

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Even when exchange rates are not discontinuously shifting between alternative points of equilibrium, they often diverge from an identifiable point of equilibrium (e.g., purchasing power parity, or PPP) for long periods at a time. For a large number of floating exchange rates, it has been shown that the “half-life” of convergence toward purchasing power parity is in the order of half a decade. In other words, when exchange rates diverge from PPP values, the rate of movement back toward these values is in the order of 15 percent of the distance per year, a pace that has been described as “glacial”.

National systems of production of goods and services, and the trading system that integrates them and serves to allocate the production of internationally traded items, evolve slowly and undergo structural change and adjustment with considerable economic friction. Businesses must incur sunk costs to establish in a given locale, hire and train local workers, arrange for expatriates to relocate, make arrangements for out-sourcing of components or producer services, and so forth. The decision to locate in a given area involves consideration of numerous factors, which include the fundamentals of the local economy and its exchange rate. Sudden large shifts in exchange rates, which by their nature cannot be anticipated, or sustained divergences from what was understood to be equilibrium, can invalidate the premises on which such decisions are made. It would be cold comfort to a firm to be told that the exchange rate remains in equilibrium – it is just not the equilibrium on which the firm was counting when it made its investment location decision! Or alternatively, that an overvaluation that is squeezing rates of return may be corrected by 50 percent half a decade from now.

Quite apart from the issues surrounding the exchange rates of smaller currencies, there have also been large swings in the exchange rates linking the three major currencies: the dollar, yen and Deutschemark/euro. Over the second half of the 1990s, the yen-dollar parity ranged from only 79 yen per dollar in April 1995 to about 148 yen per dollar in June 1998, a range of over 80 percent. The Deutschemark-dollar parity meanwhile ranged from 1.35 marks per dollar in mid-April 1995 to 2.37 marks per dollar in mid-October 2000 at the trough of the euro’s post-introduction depreciation, a range of over 75 percent. Such large swings can scarcely be explained by changes in the underlying cost and competitiveness of these economies within this time frame, which encompassed a period of quiescent inflation; indeed, from the perspective of the real economy, the movements of these exchange rates can only appear to be random wandering. The problem here is not so much one of multiple equilibria as of no identifiable equilibria at all. Notably, the movements in these
exchange rates have been so great, so difficult to adequately explain in terms of economic fundamentals, and so problematic for business, that the economist who developed the theory of optimal common currency zones, Nobel Laureate Robert Mundell, proposed in 2000 that they be fixed at the arbitrary parities of 1 dollar = 1 euro = 100 yen.5

The United States, Japan and the European Union together account for roughly two-thirds of global production and a sizeable proportion of total trade (both directly on a cross-border basis and indirectly through foreign affiliate sales). The exchange rates that link these economies are unquestionably three of the most important prices in the global economy. They affect not only the mutual competitiveness of enterprises in those economies but also of enterprises in other countries that are linked to these firms through foreign direct investment, as suppliers, or as direct competitors. More deeply, taking into account general equilibrium effects, they affect to some extent the relative values of all other prices in the global economy.

Nor is it any solution, from the perspective of individual companies within an economy, that the authorities simply maintain some semblance of stability of the exchange vis-à-vis a basket that includes these major currencies: even if the effective exchange rate against the basket were stable, each bilateral exchange rate, which is meaningful for each particular exporting or import-competing company, would be subject to large swings, placing potentially great stresses on earnings.

Perhaps even more importantly, for all firms engaged in real economic activity – whether producing for the export or domestic markets – the effect of the sort of exchange rate misalignments and volatility described above is to introduce a considerable amount of noise into the price signals to which they are trying to tune their operations. The great lessons of market economics derive from the information content of prices. What then can be expected from an international economic system in which the noise-to-signal ratio in prices becomes high? The answer surely is no different than the conventional answer given as to the consequence of high and variable inflation, which also introduces a lot of noise into the price system – poor economic performance. In this regard, it might be pointed out that the 1970s marked a turning point for per capita income growth in much of the developing world. In fact, this turning point is rather closely associated in time with the final breakdown in 1973 of the Smithsonian arrangements, the post–Bretton Woods attempt to resurrect a fixed–exchange rate regime.
Contagion

The final piece of the puzzle is the notion of “contagion”. Contagion has been relied upon heavily to explain the sequence of emerging market crises that started in East Asia in 1997 and have continued to this day, now centred on South America. It is actually quite a poor concept, with little in the way of theoretical economic foundation. Even as a metaphor it has little value, since it draws on a biological concept that offers no further insights whatsoever as to what would constitute an adequate response (e.g., there is no counterpart to a virus or bacterium that is transmitted, there is no counterpart to vaccines or antibiotics, and not only is there no economic correlate for the notion of quarantine, but the generally accepted understanding is that trade links should be maintained, not cut off, to help the destabilized countries recover).

There is, however, one very concrete meaning that can be given to the idea of contagion: a large exchange rate devaluation affects the competitiveness of other members of the trading system. Insofar as exchange rates adjust to extents that exceed what is warranted by changes in economic fundamentals (when the leap to a new equilibrium involves “overshooting”), the adjustment is only partly a solution – in part it amounts to passing on the problem to third parties.

Here it is important to appreciate that a large currency devaluation by an important trading partner acts just like a large tariff increase facing a country’s exports combined with intensified price competition facing the country’s import-competing industries (for the latter, the effect would be similar to a sharp expansion of export subsidies by the devaluing country or a sharp unprepared reduction in own-tariff protection). It is destructive of good trade relations on both accounts. The attempt by one economy to claw its way out of trouble following devaluation by expanding exports and compressing imports imparts a new shock to its major trading partners. Depending on the relative sizes of the economies involved, that shock may be sufficient to destabilize one or more of its partners. The trading system then ceases to be a source of wealth creation and becomes the conduit for the transmission of instability.

The Bretton Woods generation of policymakers sought to prevent the beggar-thy-neighbour policies that had contributed to depression and instability in the 1930s. The principal feature of the multilateral system that was spawned by their efforts was a binding on tariff increases to prevent the use of the trading system by one country to pass on its problems to others. Today, it is routinely noted that the transmission of instability following exchange rate shocks to emerging markets flows through trade...
links. In short, precisely what the GATT/WTO system was designed to prevent is now being effected through other channels.

**The Prima Facie Case in Summary**

There is accordingly a fundamental coherence issue between the trading system and the international system of finance in its present form where (a) capital flows vastly exceed trade-related payments and effectively dominate exchange rate determination; (b) exchange rates of smaller currencies are subject to influences that can lead to multiple equilibria starting from identical positions in terms of “fundamentals”, or diverge for extended periods from identifiable points of equilibrium; (c) exchange rates of the major currencies move over substantially wider ranges than warranted by the evolution of their own economic fundamentals, distorting all the prices in the global economy; and (d) the resulting changes in competitive positions of trading partners change trade patterns, imparting frictional costs to slower-adjusting industrial structures and, in some cases, creating sufficiently large impacts on them to effectively constitute a new shock.

**The Underlying Reasons**

The foregoing discussion has restricted itself to pointing out the implications of certain observed features of the behaviour of international capital and exchange rate systems for the system of trade; no attempt has been made to explain why these behaviours obtain. A few words are, however, in order.

The traditional theory of international trade is essentially a story about relative prices. Under given technological conditions, differences in endowments of factors of production across countries result in differing comparative advantages for the production of particular goods and services in particular countries, thereby giving rise to potential benefits from trade. Imperfect substitutability of differentiated products expands the possibilities for gains from trade and helps to explain intra-industry trade; at the same time, some degree of substitutability means that the pattern of trade in differentiated products also responds to changes in relative prices. To better explain the observed patterns of trade, the so-called “gravity” model was developed; this posits that trade is directly proportional to the size of given trading partners (in terms of GDP and population) and inversely proportional to the distance between them in both physical terms (number of kilometres and contiguity of borders), institutional terms (e.g., not in common currency zone), and cultural terms (e.g., no shared
language or colonial heritage, etc.). However, even in gravity models, at the margin, price is the determining factor that drives change in the patterns of trade.

Capital flows are similarly, in theory, explained by differences in nominal returns adjusted for relative inflation rates and risk. Conventional models have been developed to put a price on risk, reducing the determination of capital flows, at the margin, to questions of price as well.

The simple model of market behaviour holds that prices adjust to equilibrate supply and demand. From a given point of equilibrium, a change in supply or demand sets off a process that restores equilibrium, in part due to the operation of “rational expectations”. In terms of systems dynamics, this form of self-correcting market adjustment is the result of a negative feedback loop.

However, whenever expectations about the future play an important role, markets also show evidence of the operation of positive feedback loops. The decline in the price of a given stock can lead to the expectation of further price declines. Those who hold the equity are motivated to sell (expanding the supply available on the market) while others are motivated to reduce the price they are willing to bid (reducing demand). An initial price decline thus prompts further price declines.

It is the interplay of the positive and negative feedbacks that generates the interesting richness of actual behaviours evidenced by markets – periods of stability interspersed with booms and busts and hoarding and dishoarding in the case of goods ranging from oil to toilet paper.

There is no prior way to determine whether a given group of market participants will, at any given point, on balance, see a price decline as a buying opportunity (implying the negative feedback loop is dominant) or a signal to bail out (implying the positive feedback loop is dominant). The future is inherently uncertain and is understood to be so. Any individual market participant operates on painfully thin knowledge of the global economy, relying heavily on highly condensed summaries of reports on individual companies and sectors, country risk assessments, and regional forecasts, while already suffering from information overload. The thinness of knowledge is evidenced by several common effects, including the following:

a) Under conditions of uncertainty, individual market participants seek reassurance for the views they hold both from expert opinion and from the positions that their colleagues take. Their decisions cease to be independent and at times a consensus emerges that leaves the vast majority of market participants on one side of the market, paving the way for very sharp movements in prices. (Commenting on the extreme volatility of exchange rates
during the Asian Crisis, exchange rate theorist John Williamson observed that there had been “an obvious and extreme lack of the sort of stabilizing speculation that theory says one has to rely on to stabilize a floating exchange rate”. 6) This is the so-called “herd effect”.

b) There is a failure to differentiate across different members of a particular class: when one East Asian economy ran into problems, investors bailed out of other “most similar” economies with explanations such as “there is never just one cockroach in a kitchen”. Such statements self-evidently are based not on factual knowledge but on knowledge of one’s own ignorance of the true facts.

c) Investors crowd into standard “safe havens” (Swiss francs, gold, the U.S. dollar) at times of uncertainty; such effects are not consistent with rational economic behaviour by informed investors except in the trivial sense that, if history shows that investors crowd into safe havens in times of uncertainty, it is rational to exploit the expected price movements by joining the herd.

While the presence of these common effects suggests that more and finer detailed information would be one response to this situation (as commonly advocated in discussions of improving “transparency”), this would not necessarily lead to greater stability for several reasons. First, information is feedback. But it is not possible on \textit{a priori} grounds to say whether it will turn out to amplify a positive feedback dynamic or tighten a stabilizing negative feedback dynamic. Second, improved information invites modeling to predict outcomes; these predictions (or averages of such predictions as in the case of consensus market forecasts of high frequency data) then become the focus of anticipatory speculation. While for the most part (assuming the predictions are largely unbiased) the result is low amplitude, high frequency noise in the data, the possibility exists, as happened in the case of corporate earnings statements, that the forecasts will alter the behaviour of data – in the case of earnings statements, corporations began to tailor profit-and-loss statements to meet or beat the street forecasts, in some instances resorting to fraud to do so as the wave of post-Enron scandals revealed. In any event, because markets attempt to extract all useful (that is to say, systematic) information from data, they will always tend to move to the margin of ignorance, that is, to the point where future movements are effectively random from the perspective of any given information base. Third, given information overload, increased flows of information require increased specialization to digest them; a narrow range of expert opinions continues to dominate opinion formation.
There is also a deeper problem: analysis of the past behaviour of markets introduces a self-referential element into opinion formation. The introduction of self-reference into any system makes its behaviour analytically indeterminate. For example, when investors make stock buying and selling decisions solely on the basis of their valuation of the issuer and the earnings prospects of that issuer compared to others, the stock market overall will generate a certain dynamic pattern compared to the real economy. However, when measures of stock market performance such as the commonly quoted indexes are introduced, investors start to study not just the worth of individual stocks but also the dynamics of the system. As we now know, the stock market produces patterns that have certain regularities, which have become the basis for predictions about the future evolution of the system (so-called “technical” analysis). Market participants acting on those predictions can make them come true – the self-fulfilling prophecy. A good example is furnished by analysis of charted stock price patterns: when a market rally breaks at a predicted point of resistance – as the S&P 500 did recently when a rally ended at the “neckline” of a “head and shoulders” pattern – it is impossible to know whether the collapse of the rally reflected some dynamic inherent in the market, the effect of incoming information on the value of individual stocks, or the actions of investors informed by the analysis that the S&P 500 was approaching a point of resistance. Another example is the credit risk rating: the downgrading of a risk by a credit agency changes the behaviour of lenders, who reduce the supply of credit available to that entity. This raises the cost of credit to that entity, which in turn reduces its creditworthiness, leading to further downgrades. Thus we have meta-level analysis affecting behaviour and the evolution of the system at the fundamental level.

Finally, there is the impact of politics and government policies aimed at influencing market outcomes. For example, policy and politics appear to play an important role in guiding the market with regard to the G-3 exchange rate movements. This role is especially visible with regard to the movements of the yen-dollar exchange rate: government intervention served to define the peak of 79 yen and trough of 148 yen for the movements of this exchange rate since 1995. The voicing of concern from the United States, China and others when the yen moved lower at times during 2001-2002 also served to arrest and reverse these trends. While the role of politics may be clear with regard to the specific economic issue on which political influence is brought to bear, the repercussions on the rest of the global economy through general equilibrium effects are much less obvious. But if one currency is
pushed into overvaluation by such effects, other currencies will be undervalued for no
reasons related to their own circumstances that economists would be able to divine.

If market behaviour is fundamentally more complex than assumed, one would
expect theories based on conventional views to be confronted by puzzles. And that is
indeed the case. For example, global markets are far more highly segmented than is
commonly thought. Several of the important puzzles in international macroeconomics
include the following: 7

a) Border effects in trade are remarkably high, even within free trade areas such as
between Canada and the United States (John McCallum’s “home bias in trade”
puzzle).

b) National savings and investment rates are far more correlated than expected
given the apparent extent of capital integration of capital markets, resulting in
constraints on the size of current account imbalances (the Feldstein-Horioka
saving-investment puzzle).

c) Investors have a far greater home bias in their portfolios than would be
expected given international diversification opportunities (the French-Poterba
equity home bias puzzle).

d) There is a high degree of correlation of national income and consumption rates,
indicating a lack of smoothing through international borrowing (the Backus-
Kehoe-Kydland consumption correlations puzzle).

Given (a) the vast expansion of trade in goods and services both on a cross-border
basis and, equally, through foreign affiliates during the era of globalization, (b) the far
greater expansion of international capital flows, and (c) spillover effects from traded
sectors within economies to non-traded sectors, the puzzling failure of economies to
meet the expectations of theory in these important respects is itself a warning that the
theory is far from complete.

In a similar vein, there is much evidence of a remarkably slow pace of
convergence of factor prices, even when trade flows are large and rapidly growing.
For example, in common currency terms, U.S. hourly wages in manufacturing grew
by 41 percent between 1988, the year before the Canada-U.S. Free Trade Agreement
(CUSTA), and 2000, while Canadian hourly wages in manufacturing grew 18 percent.
Thus, the gap that existed prior to the CUSTA widened considerably despite the
phenomenal expansion of bilateral trade between the two countries. While this has
become the focus of much Canadian angst over lagging productivity performance and
possible explanations for such a development, 8 it is instructive to note that the gap
between wages in the northern and southern United States took the better part of a century to show a significant degree of convergence, despite the absence of a border, the conducive effect of a common currency, and labour mobility.

To paraphrase Hamlet’s comment to Horatio, there are more things in economic behaviour than are dreamed of in our economic theories.

Implications for Hemispheric Economic Integration

The discussion above has argued that a fundamental problem of coherence between the systems of global trade and finance lies at the heart of the unusual structure of international capital flows of recent years; this unusual structure in turn is associated with the sequence of emerging crises that has been ongoing, almost without interruption, since the onset of the Asian Crisis in mid-1997 and now is centred on the troubled economies of South America. Further, it has been argued that the roots of this coherence issue are intrinsic in the behaviour of markets in a real-world setting and that the coherence issue finds expression when there are significant differences in the adjustment frictions between related economic systems and accordingly in the rapidity and extent of adjustment in these systems. It remains to draw out the implications for regional integration in the Western Hemisphere.

A useful starting point for this analysis is to consider the current extent of economic integration in the Americas. Bearing in mind the steep decay of trade intensity with geographic, institutional and cultural distance, and bearing in mind the realities in these respects which confront trade amongst the nations of the Western Hemisphere, the question might be put: to what extent is there less trade within the region than would be expected, given the geographic, institutional and cultural facts?

Somewhat surprisingly, given what is thought to be a rather low degree of trade orientation in Latin America, the shortfall in the amount of trade compared to the expected amount from gravity models – which inter alia would represent the expected degree of expansion of trade from removal of remaining policy barriers to trade – is actually quite small. Moreover, in the case of both intra-regional trade between developing countries (e.g., intra-MERCOSUR and Andean Pact trade) and extra-regional trade with industrial countries, actual trade of Latin American countries exceeds the expectations of the gravity model. The shortfall in Latin America’s trade is thus more than fully accounted for by “missing” trade with developing countries outside of the hemisphere. While the empirical evidence should not be taken as a basis for pessimism regarding the potential for expansion of trade within the Americas through free trade arrangements (global averages are obviously not a ceiling on
performance and institutional arrangements have a significant positive influence on trade intensity), it should temper expectations. At the same time, the empirical evidence suggests that there are also rich potential trade opportunities for South Atlantic trade, emphasizing the importance to Western Hemisphere developing countries of the multilateral negotiations now underway in the Doha Round.

An examination of the trade patterns of the major Latin American economies shows that, not surprisingly given the geographic and cultural factors that explain trade intensities in gravity models, Latin American trade is oriented in roughly equal measures toward North America, Europe, and other Latin American partners. Mexico is firmly within the U.S. sphere of attraction, with a much smaller trade link to Europe and only marginal ties with other Latin American countries. Brazil is the opposite, with much stronger trade links to Europe and relatively small and equal links to the United States and other Latin American partners. Argentina is oriented mainly to Europe and other Latin American partners. The region’s trans-Pacific links, which are being nurtured by APEC membership of Chile and Peru, are still fairly modest. Overall, however, it is Chile and Peru that are the most diversified in terms of their trade patterns.

Latin America is even more highly integrated into the global economy financially than it is in trade terms. Interestingly, given the propensity for financial crises in this region over the past few decades, the developing countries in the Western Hemisphere comprise the only group that is more open financially than it is in terms of trade.

In the context of the dominant role of the U.S. dollar in international finance, the above considerations set in rather sharp relief the potential for trade-finance coherence problems for Latin America. To extend the gravity analogy, the region is firmly in the gravity well of the U.S. dollar in financial terms; however, in trade terms it is draped over the lip that divides the United States and European gravity wells. In the context of an international financial regime in which exchange rates adjust to the needs of the trading system, Latin America might be basking in the benefits of diversification. In the context of the regime that has been in place since the collapse of the Bretton Woods arrangements, in which exchange rates move over far greater ranges than warranted by the needs of the trading system, the region has been subject to powerful tidal frictions. Argentina is the quintessential example: virtually dollarized financially but oriented in trade terms primarily to Europe and to its South American neighbours, it is subject to major trade pressures if the exchange rates of Europe and South American partners move excessively relative to changes in established relative cost positions. And that, of course, is precisely what happened in the late 1990s.
The point of this paper is not to arrive at the commonplace conclusion that Argentina was destabilized because of its hard peg to the U.S. dollar in the context of exchange rate shocks. Rather, it is to demonstrate that this is one result of a generalized problem of system coherence. A related although somewhat different story can be told about Southeast Asian economies with exchange rates linked to the U.S. dollar but trade and financing also powerfully influenced by Japan and subject to severe pressures when the yen-dollar exchange rate moved.

The conclusion of a free trade agreement in the Americas would be expected to strengthen the north-south trade links in the hemisphere relative to the links to the rest of the world. However, given the considerations above, southern-cone trade and trade with Europe would most likely continue to serve as major factors alongside stronger links to the NAFTA countries. Accordingly, a successful Free Trade Area of the Americas (FTAA) would not resolve the coherence issues outlined above.

At the same time, over the time horizon over which the FTAA is to be concluded and implemented, there is a strong expectation that there will be a fairly significant adjustment of the external value of the U.S. dollar and a correction on its external accounts. Contemporaneously, the euro is generally expected to steadily expand its role as an international currency, supported by the reasonably balanced position of the European Union on its external accounts. And associated with these developments, there would be an expectation of a renewed flow of capital from the money centres to the emerging markets for the same reason that supported the flow of funds to the latter countries in the early 1990s – low rates of return on offer in the industrialized world.

There is the possibility here of a benign scenario, even without any major adjustments of international policy frameworks. The U.S. external adjustment could be gradual, with a period of moderate growth at a lower exchange rate that stimulates exports while dampening imports, resulting in a steady lowering of the current account deficit. The expansion of the euro’s role as an international currency could help stabilize G-3 exchange rate dynamics. And emerging markets might manage renewed capital inflows better than they did when the surge of capital from the core to the periphery in 1992-93 paved the way for the emerging market bust of 1994 and the ensuing Tequila Crisis.

At the same time, there are less benign scenarios that would make adjustments to the international policy framework of some urgency. The benign scenarios emerge from a way of thinking about the global economy that could not have predicted the current distortions – such scenarios are based therefore on unreliable models. As forewarned is forearmed, it is important to consider the possibility that the corrections
might not happen in line with expectations. The current distortions might persist and even worsen. Second, if the corrections do happen, experience suggests they would happen rapidly and with overshooting, again requiring policy intervention (as for example was required at the time of the Louvre Accord to arrest an excessive U.S. dollar depreciation following the Plaza Accord).

Furthermore, there are things that we just don’t know. The dynamics of an increasingly bipolar international capital market remain to be determined. Second, for regions that are multipolar in their trade relationships, it is not clear whether the opportunities to create multipolar financial arrangements will improve the coherence of their trade-finance systems, or will new problems emerge? There is an important research agenda here.

Little has been said so far about North America. There is in fact little to say concerning further regional integration from a trade-finance coherence perspective for the economies of North America. As a consequence of the Canada-U.S. Free Trade Agreement and the North American Free Trade Agreement, there is a fairly advanced state of economic integration already established between the United States and Canada and between the United States and Mexico. Both Canada and Mexico are firmly within the gravity well of the United States both in terms of trade and finance. Both economies are, as a result, very sensitive to U.S. business cycle conditions and to Washington’s macroeconomic policy decisions; however, the exposure to capital market and exchange rate volatility in the broader international arena appears, by the same token, to be considerably mitigated. Both countries have adapted their macroeconomic policy frameworks to the realities of their situations and both have ridden out the period of extraordinary capital market conditions since the mid-1990s in comparatively good shape. Given more stable international exchange rate conditions and a resumption of flow of capital from the money centres to the periphery, both countries would stand to reap the rewards of their past performance in the form of stronger currencies and perhaps even some degree of the convergence of factor prices that strong trade ties promise.

Conclusion

Since the mid-1990s and particularly since the onset of the Asian Crisis, the global economy has witnessed the emergence of a remarkable state of affairs in the international capital market: a concentration of net capital flows into the capital-rich United States, the bottling up of capital in Japan despite non-existent returns on investment in that country and desperate requirements for capital elsewhere (and thus
the observed curiosity of a liquidity trap in the context of an open capital market), and
the drying up and reversal of capital flows to the underinvested emerging markets. These conditions have been associated with wide swings in G-3 exchange rates and a rolling wave of exchange rate instability in the emerging markets. This instability has been transmitted to the real economy through trade links, as overshooting exchange rates play the same role in altering the competitive positions of nations as beggar-thy-
neighbour tariff policies did in the past. Industrial structures and trade patterns adjust over much longer time frames and with much higher frictional costs than do capital flows and exchange rates. This is the core of the trade-finance coherence issue that has emerged given the way that the international economy has evolved since the collapse of the Bretton Woods arrangements in 1971.

The trade-finance coherence issue is of considerable importance in relation to the project for hemispheric integration in the Americas because, although South America is firmly in the gravity well of the United States in financial terms, its individual economies have highly diversified trade orientations, with some being in the gravity well of the European economy. Importantly, these observations lead to the conclusion that tightening monetary arrangements on a hemispheric basis, as is being mooted in the context of the dollarization debate, is not likely to be helpful as long as South American trade patterns remain diversified and as long as G-3 exchange rate stability is not assured.
**Endnotes**

* This paper was prepared in a personal capacity; the views expressed are those of the author and, as per the usual disclaimer, are not to be attributed to the Department of Foreign Affairs and International Trade or the Government of Canada.

1. For a discussion of this issue and its connection to Japan’s decade-long economic slump, see Dan Ciuriak, “Japan’s Malaise”, [www3.sympatico.ca/ciuriak](http://www3.sympatico.ca/ciuriak).

2. The conventional wisdom on this issue emerged as a leap to the conclusion that the reversal of capital flows was due to a sharp rise in the perceived risk of emerging market investments; the corollary of this was that the risk-adjusted rates of return available on offer in those countries plunged, implicitly below those on offer in the money centres. For a critique of this conventional wisdom, see Dan Ciuriak, “Revisiting the Asia Crisis and its Challenge to Conventional Wisdom”, [www3.sympatico.ca/ciuriak](http://www3.sympatico.ca/ciuriak). For a discussion of the changes in global capital markets that accompanied this event see, Dan Ciuriak, “Japan, the Fed and the Asian Crisis”, [www3.sympatico.ca/ciuriak](http://www3.sympatico.ca/ciuriak).


5. This proposal was put forward by Professor Mundell in a number of fora; for example, see the transcript of the IMF Economic Forum discussion of “One World, One Currency: Destination or Delusion?”, November 8, 2000.


7. These and other puzzles are summarized by Maurice Obstfeld and Kenneth Rogoff in "The Six Major Puzzles in International Macroeconomics: Is There a Common Cause?" *NBER Macroeconomics Annual 2000.*

8. It is only a minor digression to draw out the links between this specific puzzle and the trade-finance coherence issue developed in this paper. Analyses of the U.S. productivity surge in the second half of the 1990s have tended to focus on the role of the new economy and other developments that might have had temporary or permanent effects on U.S. long-run growth potential. Normally, increases in long-run growth potential are linked to increases in national savings rates since this is what sustains a longer-run increase in capital formation, which in turn accounts for increases in the economy’s capital-labour ratio, generating higher labour productivity and supporting higher wages and per capita incomes. The surge in U.S. productivity, however, came at a time when the United States was increasingly dis-saving as reflected in its widening current account deficit. The U.S. investment boom was thus in good measure financed by inflows of capital from abroad, which is not normally considered a particularly sustainable basis for
growth. Moreover, since this investment boom coincided with a declining profit share of GDP post-1997 and a decline in rates of return to capital (as evidenced by historically low interest rates and earnings/price ratios on equities), it is curious that it was in any sense interpreted to be indicative of an increase in long-run potential growth. Indeed, it would appear that the latter conclusion was actually more of an assumption made to explain the capital inflows! Canada, of course, became a net capital exporter over the course of the second half of the 1990s and indeed helped finance the U.S. investment boom that accounted for the productivity surge in that country. Seen in this light, the issue of divergence in productivity growth between Canada and the United States becomes part of the broader issue of the hard-to-explain structure of capital flows in this period. Most likely, however, it has little to do with anything specific to Canada.