

Special Report: 1994 Redux?

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Derek Holt (416) 863-7707
derek.holt@scotiabank.com

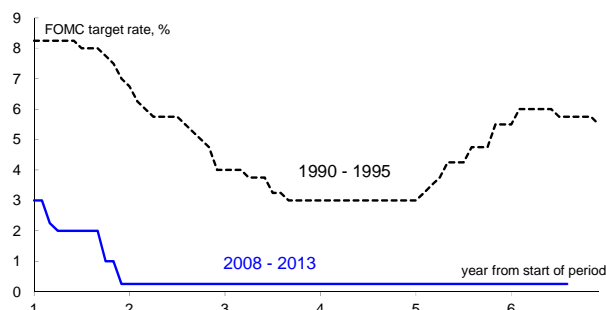
Dov Zigler (416) 862-3080
dov.zigler@scotiabank.com

1994 Redux?

- **The conditions are not yet there, but the time to prepare in advance is shrinking.**

While we don't think that the exact mixture of conditions that surrounded a massive rates selloff in 1994 exists for replication today, that conclusion critically depends upon the success of the unprecedented experiment in providing forward rate guidance currently being conducted by major central banks like the Federal Reserve and the Bank of England and their ability to exit smoothly from a complex array of unconventional policy instruments including asset purchases. The fact that forward guidance at smaller central banks has either met with abject failure over time (like the RBNZ or Riksbank) or was conducted over a much shorter horizon and abandoned before expiring (like the BoC) makes us skeptical of the ultimate success of such policies. In turn, that makes it critical for investors and policymakers to contemplate the potential effects across economies and asset classes should such guidance go awry and lead to earlier policy tightening or a serious market confrontation (recall the man who broke the BoE in 1992). In this *Special Report* we attempt to address these issues by drawing upon a rich variety of expertise across Scotiabank's research and desk strategy groups. The aim is fairly modest: to provide salient observations that then encourage our clients to explore various aspects of this topic with the authors in greater depth — and more importantly to share their insights with us.

Chart 1 Today's Fed Funds Guidance Is Very Different



Source: Federal Reserve, Scotiabank Economics.

First, however, let's recall the blinding speed of adjustment in 1994. After priming markets for a tightening bias since late 1993, the Federal Reserve under Chairman Alan Greenspan began raising the 3% fed funds target rate in February of 1994 and ended when it had doubled to 6% only one year later. By today's standards, in 1994 there was little communication and even less clarity during an era of obfuscation (go [here](#) for the February 1994 FOMC statement). This was done amidst high-profile Fed departures like the Vice Chair (who went to LTCM...) and other key vacancies. It also followed what was then the great thrift crisis and the excesses of the junk bond financing and Latam debt binge of the 1980s after which markets had complacently believed that the hangover would never be cured. The result crushed snoozing bond markets across the curve starting with the Fed jolt and drove US 10s nearly three full percentage points higher to over 8% from October 1993 to November 1994. Just over one year later, the yield on 10s had crashed back down to within 35bps of the late-1993 starting point, and went on a nearly two decade decline as many issues set in along the path toward what became a deeply troubled global economy.

The USD in real effective terms was on a mildly depreciating trend until mid-1995 and well after the Fed started raising rates and then went on an upward tear — appreciating by one-third by early 2002. The S&P500 stock market not surprisingly caught on to rising rates later than bond markets and peaked in early February 1994 when the first hikes began before then losing 9% of its value by early April. The spike in borrowing costs contributed to a rising interest burden facing the US government and was followed by the acrimonious partial government shutdown of 1995-96 during the Clinton administration. The reversal of the carry trade sucked capital out of emerging markets and contributed to the Asian financial crisis of 1997-98 that was all too well aided by misguided policy across many of the affected nations that ultimately even took down relatively stronger peers. Even across developed economies, the Bank of England halted its easing bias and, by September of 1994, joined the Fed in hiking notwithstanding a much higher initial starting point on its benchmark rate. The Bank of Canada followed the Fed hikes in nearly lockstep fashion, only to then encounter the effects of \$10 WTI oil on its resource sector in the late 1990s. The Bank of Japan would remain in easing mode until 1999 when its policy reference rate hit the lower zero bound in the aftermath of the Asian crisis that magnified the popping of the post-1980s bubble.

There are indeed many parallels to today's risks. Against a more sanguine perspective, this implies the risk of much greater market moves if memories of 1994 are to be repeated. So far, US 10s have sold off 100bps since May of this year, stocks have not really reacted as market swings have been significant but there has not been a trend weakening, and the USD in real effective terms has appreciated slightly since May.

Derek Holt (416) 863-7707
derek.holt@scotiabank.com

Dov Zigler (416) 862-3080
dov.zigler@scotiabank.com

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There are, however, many differences today compared to 1994 and that connotes limited time for adjustments in advance of the risks that may lie ahead as the full general equilibrium effects of 2008 are not over yet. For one thing, the tools in the monetary policymakers' tool kit are vastly more complex and diverse than in 1994. This carries high risk in operational terms for executing policy shifts as tools like QE, interest on reserves, asset sales, short-term operations like reverse repos and term deposit sales, forward guidance, and other communications that are all untested in the exit phase and have had mixed successes and costs to date. It is therefore with partial comfort that we stress that forward guidance was not under experimentation in 1994. At least for now, central bankers remain steadfast in their refusal to raise front-end borrowing costs.

Another difference is that the amount of disinflationary spare capacity that existed in the US economy was 4-5 times narrower going into 1994 than today (chart 2). As a consequence, inflation risks were more material in 1994 than now. Containing inflation expectations was more challenging given market memories of US CPI inflation hitting the 5-6% range just a few years before 1994.

What really sparked the Fed to aggressively tighten also had to do with a rapid spurt of job growth such as when the March 1994 payrolls report landed with a gain of over 400,000. That was set against far more limited firing in the early 1990s and nowhere nearly as much slack in job markets as evident in today's U6 unemployment and underutilization measure. Today, job markets have been unable to generate such traction, but the sudden onset of faster job growth is a possibility as evidence that firing is over continues to mount.

Additionally, if one believes in the 'financial repression' thesis that draws a connection between bloated public debt obligations and the need for well behaved inflation-rate-adjusted borrowing costs to pass on the adjustment burdens to savers, then today is vastly different from the mid-1990s (chart 3). Countries like Canada, however, represent the exceptions with still sounder fiscal policies and safety and soundness measures in the financial sector. The US in 1994 was also not contending with the aftermath of the implosion of a bloated shadow banking sector that to this day leaves broad money flat despite Fed balance sheet expansion.

Across emerging markets, the tee-up to 1997-98 was set in the context of higher external debt, lower reserves (and less access given the Bank of Thailand's pledge into forward markets), and inflexible currency pegs. Today's emerging markets are somewhat better off but many have deep internal imbalances with excess private and public debt and have stalled out in reform programs. They also, however, play a vastly greater role in global commodity and capital markets against the relative decline of the US — and with that, their feedback effects upon the world economy are greater than ever. For instance, Greenspan's 'conundrum' remains today via high Treasury ownership by China, but faces topped-out growth in FX reserves in China and Japan.

The institutional features of the US treasury market were also vastly different. The Fed was not engaged in unsterilized asset purchases. Today, Treasuries permeate much of the world's leveraged activities as the base vehicle through collateralization. That means US capital market risks can be exported more readily than ever before, but also connotes a greater set of automatic safehaven-induced stabilizers. Countering this argument is the competing effect of a credit-constraining regulatory landscape through Dodd-Frank and Basel III and growing uncertainties over risks posed by explosive growth in the derivatives market.

We explore various aspects of the issues in the ensuing articles, and we invite you to share your feedback.

Chart 2 US Spare Capacity Paints A Very Different Picture

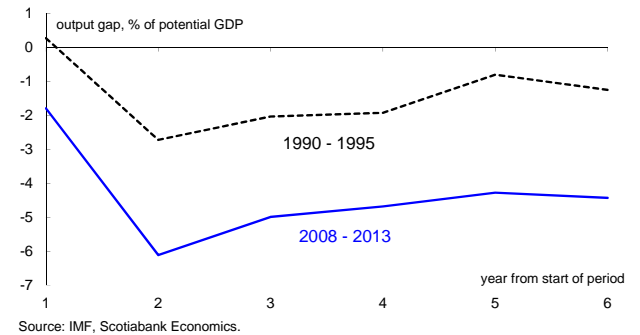
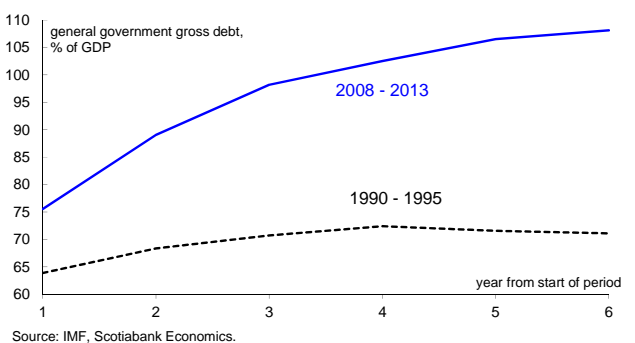


Chart 3 Much Less Government Debt



Aron Gampel (416) 866-6259
aron.gampel@scotiabank.com

Erika Cain (416) 866-4205
erika.cain@scotiabank.com

Adrienne Warren (416) 866-4315
adrienne.warren@scotiabank.com

Carlos Gomes (416) 866-4735
carlos.gomes@scotiabank.com

Now And Then

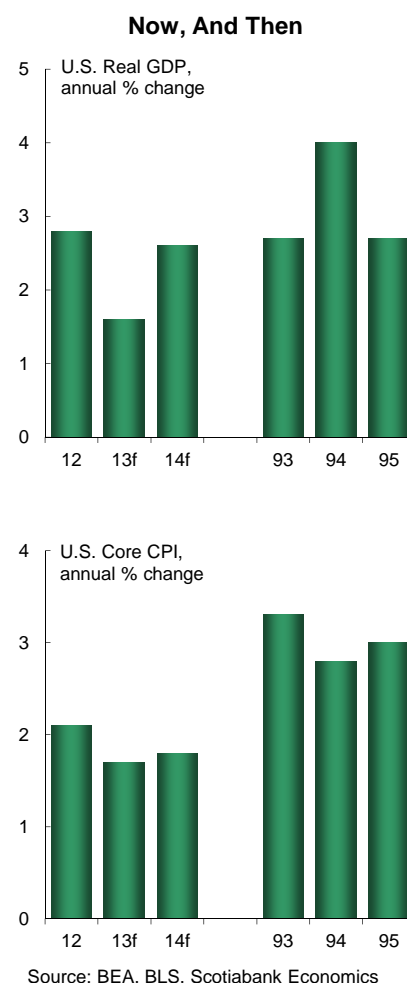
- **The U.S. and global economies are less robust and inflation prone than in 1994.**

There were a number of reasons why the FOMC declined to rein in its policy of non-conventional monetary easing. But a key factor was the growing evidence that key sectors of the U.S. economy were being stressed by the significant tightening in U.S. financial market conditions since May when Fed Chairman Bernanke began his ‘taper talk’. Eventually, the normalization of borrowing costs will occur, but it will require a much stronger and more sustainable growth trajectory in the United States, and higher inflation.

Over the four-month period since May, there has been a significant rise in financial market volatility associated with shifting views on the performance of the U.S. economy, the uncertainty surrounding the prospective tightening in monetary policy, and renewed budgetary concerns with government funding and debt ceiling deadlines approaching fast. The yield on a 10-year Treasury bond jumped a cumulative 137 basis points, briefly touching the 3% level from a low of 1.63%. Subsequently, the yield has slipped back to around 2.65%, in response to the loss of economic momentum in the United States and abroad, as well as the Fed’s decision to defer tapering. Relatively buoyant equity markets had begun to retreat on diminished expectations for growth and profitability, but with the Fed unwilling to aggravate the tightening in financial market conditions, stock markets are once again challenging new highs.

The interest-sensitive housing sector has become the bellwether for the moderation in U.S. growth, particularly since it had been building upon a steady diet of ultra-low borrowing costs and expanding credit availability. The corresponding one percentage point rise in the 30-year U.S. home mortgage rate to around 4½% has resulted in a cooling off in home sales as well as construction after a multi-month revival. A renewed slump in refinancing activity triggered substantial layoffs at a number of financial institutions. Buyer foot traffic for home sales was scaled back, and housing starts moderated from the higher trend established in the later-winter and early-spring. Homebuilder stocks sold off sharply over the summer, but have begun to rebound as of late in response to the ‘stand-pat’ Fed.

Although the Federal Reserve is always more focussed on domestic performance and the repercussions from its policy moves, a negative feedback loop on U.S. exports was also emerging in response to slower growth in many of the emerging market economies that were increasingly being affected by massive capital outflows, weakened local currencies, and policy adjustments needed to stabilize conditions in the fallout from the tapering talk. All of these factors combined to reinforce a sub-par growth trajectory internationally, with the spillover into the United States reflected in the slower pace of private sector hiring, and the lack of fundamental improvement in underlying labour market conditions (i.e. participation rates remain exceptionally low while chronic underemployment persists). U.S. exporters are fairly well balanced across the globe, with shipments heavily-weighted to transportation products, machinery & equipment, and mineral fuels (including refined products).



Aron Gampel (416) 866-6259
aron.gampel@scotiabank.com

Erika Cain (416) 866-4205
erika.cain@scotiabank.com

... continued from previous page

Adrienne Warren (416) 866-4315
adrienne.warren@scotiabank.com

Carlos Gomes (416) 866-4735
carlos.gomes@scotiabank.com

The softening in the pace of overall U.S. activity also reflected the challenges to domestic consumer spending and business investment presented by increasing fiscal restraint this year in the form of increased taxes and sequestered spending. And the potential for more uncertainty is increasing with Washington's pressing need to pass legislation to continue funding U.S. government operations beginning October 1st, and raise America's debt ceiling as well. A compromise will eventually be reached, but the negotiations between the Administration and a divided Congress are generally rancorous even at the best of times.

There have been occasions in the past where similar basis point backups in longer-term interest rates in a relatively compressed period of time eventually turned robust rates of growth into much slower U.S. growth or even recession. This was the case in the early 1980s when Fed Chairman Volcker required prolonged periods of high and rising interest rates to battle and eventually tame high and rising inflation and expectations.

But it isn't always the case. In the early 1990s, a comparatively severe housing-led recession had already brought inflation and short- and long-term rates down to more manageable levels. With the recovery underpinned by an accommodative monetary policy and pent-up demand, a renewed spurt in U.S. economic activity and a pick-up in inflation as 1993 drew to a close forced the Fed early in 1994 to raise the Fed funds rate six successive times in the span of a year — a cumulative 300 basis points to 6% — to rein in growth and inflation expectations. Bond yields had already begun to edge higher alongside the improving economic outlook, but accelerating growth combined with the unexpected tightening in Fed policy put additional upward pressure on longer-term rates. The yield on the 10-year Treasury bond peaked at just over 8% in towards the end of 1994 after climbing almost 290 basis points.

U.S. economic growth subsequently slowed with a lag, but did not stall or contract, and the Fed eventually refrained from further policy tightening. However, there were quite significant global repercussions. Higher U.S. interest rates triggered financial dislocations in a number of economies. In particular, many emerging market economies were forced to institute policy adjustments domestically to stabilize capital flows, currency weakness, and support economic activity.

But 'back to the future', the Fed wants to keep the liquidity taps opened wide to ensure that longer-term borrowing costs remain at levels that will help promote stronger U.S. output growth. And with good reason — the current pace of economic activity and inflation in the United States (and around the world as well) is far less robust than when the Greenspan-led Fed began to tighten policy in early 1994. Building upon a strong end-of-the-year performance in 1993, U.S. real GDP continued to post solid gains that averaged 4% for all of 1994. In contrast, U.S. output in 2013 will be hard pressed to grow by an average 1.6%, given that economic trends were weakening at the end of 2012 and compounded by sub-par advances so far this year that are likely to continue. Similarly, core inflation trends averaged 2.8% in 1994, just over a percentage point higher than the average gain forecasted for 2013.

Exports By Destination (% share of total exports)				
	Canada		United States	
	1993/94	2012/13	1993/94	2012/13
Canada	NA	NA	22.0	19.1
United States	80.8	75.1	NA	NA
Mexico	0.5	1.1	9.4	14.1
EU	6.0	7.9	24.9	21.5
Japan, South Korea, Australia	5.8	3.5	15.6	8.9
Other Asia	3.1	7.4	18.1	22.6
Latin America	1.5	1.8	8.0	11.6
Middle East & Africa	1.3	1.9	2.0	2.2

Source: Scotiabank Economics

Aron Gampel (416) 866-6259
aron.gampel@scotiabank.com

Erika Cain (416) 866-4205
erika.cain@scotiabank.com

... continued from previous page

Adrienne Warren (416) 866-4315
adrienne.warren@scotiabank.com

Carlos Gomes (416) 866-4735
carlos.gomes@scotiabank.com

A more protracted period of slower U.S. growth, or a renewed U.S. downturn, would have negative consequences for Canada and its international trading partners. Canada is only slightly less exposed to the U.S. economy after a multi-year period of trade diversification. While the share of Canadian exports destined south of the border remains very large, it has dropped from almost 81% in the 1994 period to around 75% today. The share of Canadian exports to Japan, South Korea and Australia has fallen by almost 2½ percentage points since 1994 to a relatively small 3.5% in 2013, though it may well improve alongside the stimulus-fueled rebound expected in Japan.

A slow revival throughout the European Union would also provide some relief since the share of Canadian exports to this region has increased about 2 percentage points since 1994 to almost 8% today. Canada is exposed to a further moderation in growth among the larger emerging economies in the Asia/Pacific region — China, for example — since the share of Canadian exports to this region has increased by over 4 percentage points to around 7½% since 1994. Recent evidence of stabilization in some of China's key indicators suggests that a number of government initiatives to help bolster growth are working. Likewise, the share of Canadian exports going to Mexico and Latin America, another region of relative strength that Canadian companies can tap into during this period of less-than-robust U.S. growth, has increased a percentage point from 1994 to 3%.

Meanwhile, the combination of slower U.S. growth alongside higher longer-term borrowing costs would pose a risk for Canada's interest-sensitive sectors such as housing and consumer durables spending. Housing affordability already has begun to erode due to ongoing house price appreciation and the more recent upward drift in mortgage rates. This affordability challenge will be exacerbated if the reduced momentum in exports and business investment spills over to a much slower pace of hiring and weaker income gains.

Other sectors that are vulnerable include transportation/warehousing because they are directly linked to Canada's export infrastructure to the United States. High export-intensity manufacturing sectors, such as transportation equipment, machinery and computer & electronics would also be impacted, as more than two-thirds of overall Canadian output in these sectors is exported, primarily to the United States. Among Canada's key resource industries, energy and forest products are most closely linked to the United States. U.S.-bound shipments account for virtually all of Canada's oil exports and represent more than 60% of Canada's overall lumber exports.

For the time being, the uneven and generally slow pace of U.S. growth will likely persist. There is considerable uncertainty surrounding the resolution of federal budget issues, the implementation of the Affordable Care Act, and the rate of expansion in the larger emerging market economies. Keeping interest rates low for longer should improve the chances that the U.S. economy will regain stronger traction. The U.S. economy has the potential to become a 'growth' outperformer. There is considerable pent-up demand among consumers, businesses are in a more competitive position to expand their sales both at home and abroad, and the amount of federal fiscal belt-tightening will be winding down.

John Bulmer (416) 866-4212
john.bulmer@scotiabank.com

Mary Webb (416) 866-4202
mary.webb@scotiabank.com

1994 Redux? How Prepared Are The Provinces For A Slower Growth Path?

- **Fiscal repair and broadening growth are well under way, but are longer-term goals.**

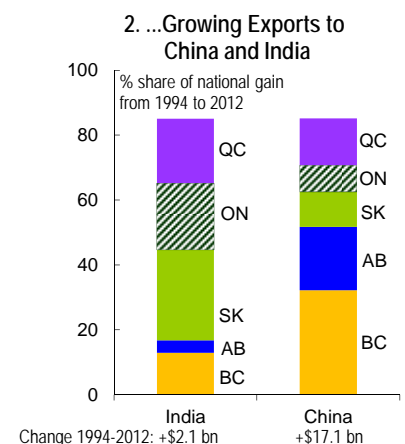
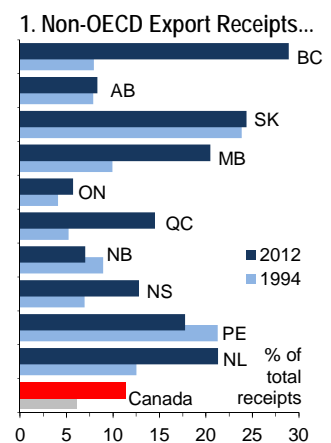
All provinces would be affected to some extent by a further softening in global growth and higher interest rates. The differential impact by province in part would be determined by their respective household balance sheets, housing affordability, and the relative exhaustion of pent-up housing and consumption demand. All regions presently are benefitting from the U.S. economic rebound, but less traction in U.S. housing and consumer spending would constrain industries such as forest products and motor vehicles from the West Coast to Atlantic Canada. Already evident in terms of exports and investment intentions is the sensitivity of Canada's resource-rich provinces to North America's changing energy profile and the unexpected fragility in some global commodity prices since 2011. Partial offsets may be offered by a weaker Canadian dollar, economic diversification such as Manitoba's or major projects largely unscathed by events, such as the federal shipbuilding contracts aiding the economies of Nova Scotia and British Columbia.

A marked pause in emerging markets' near-term expansion, and the resulting rise in excess global capacity, would hamper provincial efforts to diversify their exports (*charts 1 & 2*), steepening a challenge already considered formidable. To date in 2013, China and India account for just 4.8% of Canada's export receipts, and less than 2% for Prince Edward Island, New Brunswick and Ontario. From 2010 to 2012, only B.C., Saskatchewan and Manitoba received more than 20% of their international export receipts from non-OECD countries. If oil & natural gas sales are excluded from provincial international export receipts, Alberta and Newfoundland & Labrador also would join this group. Yet for these five provinces, emerging market sales are concentrated in a few commodities. For Saskatchewan, crops — mostly wheat and canola — and potash account for nearly 89% of its non-OECD export revenue, while paper, wood and coal generate more than 60% of B.C.'s non-OECD receipts. Encouraging, therefore, are the export gains to emerging markets for some higher value-added goods, such as machinery and aerospace, achieved by Ontario and Quebec, as well as several smaller provinces.

Significantly softer-than-expected income growth across Canada might slow but probably not derail federal and provincial fiscal repair plans. For Ottawa and several Provinces, memories of over-extended fiscal positions during the first half of the 1990s are spurring austerity efforts. Notable this time around is the federal government's commitment to regain a budget surplus with no tax hikes, while maintaining scheduled growth in its major transfers to individuals and the Provinces. Across all Canadian governments, the IMF in April estimated that their aggregate budget shortfall and their primary deficit would both be almost halved in 2013 from 2010 levels. Importantly, the IMF expected Canada's gross debt to peak at 87% of GDP this year, above the 2007 pre-recession low of 66½%, but less than the 98% reported in 1994. Among the Provinces, the target of balanced books this year for Saskatchewan, British Columbia, Quebec and Nova Scotia, even if not quite achieved, offers some enhanced flexibility in uncertain times.

As job creation cools, the hurdles in continuing to effectively downsize government and its longer-term obligations are well recognized. Already the burden of fiscal restraint is shifting to expenditure reforms given the hikes to major and minor taxes implemented to date by some Provinces and the steady upward trend in fees. Yet over the next year, a number of factors might limit the fiscal setback if provincial revenue growth

The Provincial Economies:



Source for Charts 1 & 2:
Statistics Canada, Industry Canada.

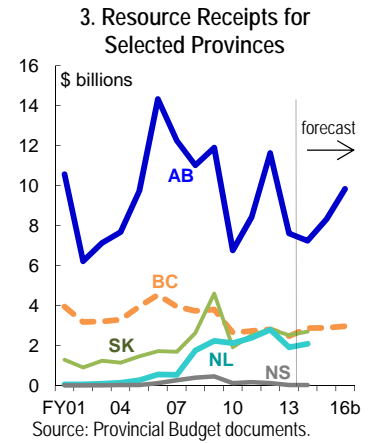
John Bulmer (416) 866-4212
john.bulmer@scotiabank.com

Mary Webb (416) 866-4202
mary.webb@scotiabank.com

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weakened and longer-term interest rates gapped higher. Since the recession, the Provinces have lengthened the term of their debt and lowered their weighted average effective interest rate. For Ontario, for example, this effective rate has dropped from 5.8% in fiscal 2007-08 to just less than 4.1% for fiscal 2012-13. Reining in Canadian public-sector retirement benefit obligations has begun, allowing the majority of Provinces to limit benefits.

With respect to *Budget* estimates for fiscal 2013-14, the Provinces' revenue projections were tempered by the shortfall in receipts that occurred for many last year. Forecast aggregate revenue growth for the current fiscal year is just over 3.0%, with the anticipated rebound in resource receipts restrained (*chart 3*). Ontario, B.C., and Quebec continue to incorporate explicit reserves into their *Budget* estimates. For most of the Provinces, the ongoing process of restructuring expenditures should facilitate balancing economic growth and fiscal repair. These strategies will be fundamental in laying the groundwork for the longer-term reversal of some of the recent debt expansion after budget surpluses are regained.



Derek Holt (416) 863-7707
derek.holt@scotiabank.com

Dov Zigler (416) 862-3080
dov.zigler@scotiabank.com

Emerging Markets Sensitivities To A 1994 Repeat Require Heavy Differentiation

- Interest rate normalization will highlight differentiation within Emerging Markets — with mixed results.

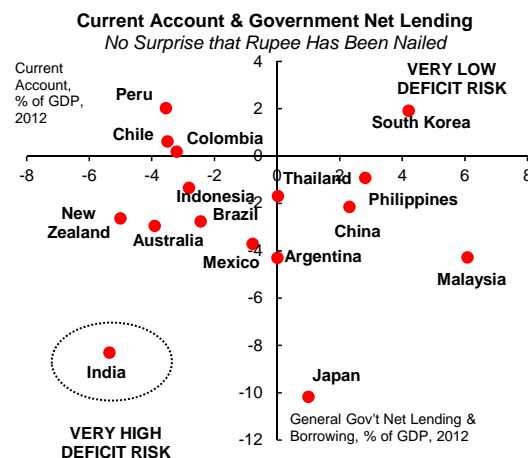
How will emerging market currencies and fixed income markets react to the risk of a repeat of the global bond market rout of 1994? How may they respond to the nearer-term issue of an eventual move by the Federal Reserve to taper asset purchases? Should the Fed even delay tapering due to EM concerns?

Addressing these issues is enormously complex and must be done on a country-by-country basis. This can be done through further dialogue with our various EM specialists at Scotiabank, but our intent in this column is more general. There is a strong need for investors to differentiate across emerging markets instead of treating them as a cohesive group. Effectively doing so raises the opportunity to outperform within the broad EM asset class. That partly stands in contrast to the conditions leading up to the 1997-98 Asian financial crisis that was influenced by the Federal Reserve's policy shift in 1994-95. Back then, EM countries generally had higher external debt and lower FX reserves than today, and rigid currencies pegged against the USD that motivated harsher adjustments in real variables when bond market shocks hit. As we will see in a moment, however, such blanket statements do not necessarily apply across the EM space that is now a divided blend of sound and unsound metrics and policies that will make some countries more susceptible to bond market shocks than others.

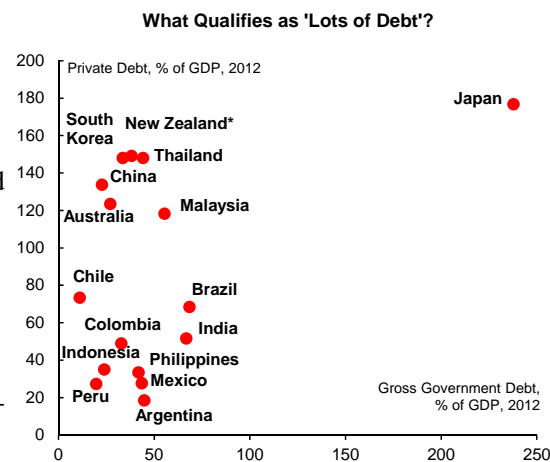
Indeed, because of this, some of the sharpest moves in markets since 'taper talk' arrived in May have come in EM related asset classes but with sharp variations according to the country in question. On the face of things, the implication from the sell-off in EM interest rate products, currencies, and even equity markets has been that the normalization of U.S. monetary policy will harm the full asset class. Our argument is that EM returns have been highly differentiated — and related to diverging underlying economic fundamentals that were masked by the ultra-low interest rate environment globally. There is no catch-all rule for EM returns in a higher interest rate environment — that is, except differentiation.

Different Fundamentals...

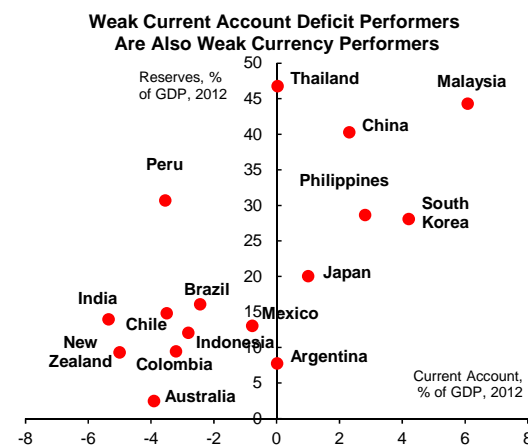
The first sources of differentiation that we would highlight are the so-called twin deficits: current account and fiscal. EM countries have by no means posted uniform performance on these metrics. As chart 1 shows, India is the stand-out in this regard as it is in the worst shape. Its current account deficit — if sustained — would blow through the country's FX reserves inside of three years. South Korea is in relatively best shape. Note that almost all countries in our mixed Asia-Latam EM



Source: IMF, Bloomberg, Scotiabank Economics.



* 2010 Private Debt. Source: IMF, Bloomberg, Scotiabank Economics.



Source: IMF, Bloomberg, Scotiabank Economics.

Derek Holt (416) 863-7707
derek.holt@scotiabank.com

Dov Zigler (416) 862-3080
dov.zigler@scotiabank.com

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sample (with some developed markets tossed in because they too are under pressure) are running government deficits with exceptions including Peru, Chile, and Colombia. The latter have dramatically outperformed the likes of India and Indonesia in the run-up to the taper.

Second, evaluating country risk must also consider leverage in both the private and public sectors (chart 2). Several of the countries in our sample have hardly been lightweights in terms of drawing heavily upon debt markets to feed domestic excesses. While Australia and New Zealand are not without their challenges, the EM space is replete with examples of countries that have very high private debt burdens including Thailand and Malaysia.

A final source of differentiation that we would point to is reserve assets: Many nations retain large stockpiled reserves accumulated during the boom years. Whether those reserves are adequate to defend against speculative attacks depends upon the individual country.

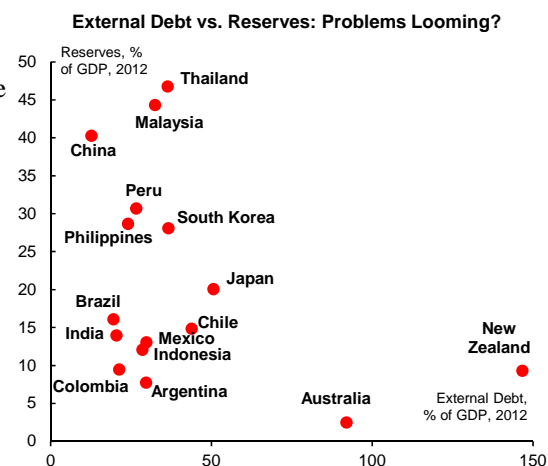
One risk is that countries running large current account deficits and which have modest reserves (in the lower bottom left of chart 3) face the risk of depleting their reserves at a relatively rapid pace and thus potentially making their currencies sitting ducks.

A second risk is that countries that have large external debt obligations alongside small reserves face a potential mismatch on their international balance sheets. Can they continue to finance debt principal that becomes more expensive as the currency weakens? It's all relative, and not all countries have reserve to foreign liability ratios that instill confidence in foreign debt holders (chart 4).

...Different Outcomes

The bottom line is that not all countries have the same economic fundamentals — and those with weaker fundamentals with respect to external assets and liabilities are likely to have a tougher time of things as interest rates rise globally. It is not clear that delaying Fed tapering by a few months would make much difference to some of the more strained EM countries that have not seized upon the opportunity to pursue more aggressive domestic reforms during the era in which Fed policy threw a security blanket over world markets. During the post-Q1 2009 crisis period, ultra-low interest rates in the U.S. made higher yields in EM countries extremely attractive — irrespective of economic fundamentals. Now that developed markets' interest rates are due to rise at some point, why those EM interest rates are so high will matter more, to the benefit of the strong in EM, but also to the detriment of countries with weak external balances. A limit to this argument for differentiation, however, nonetheless resides in how severe a potential bond market shock might become in that deep problems affecting even a small number of the weakest emerging markets could well cause adverse systemic shocks across the whole asset class and imperil even the stronger parties. This entails a bond market shock far in excess of what we anticipate.

For more on these arguments and why we do not think — within limits — that Federal Reserve policy should pay heed to EM imbalances over applying monetary policy to the more specific needs of the large domestic US economy, see our fuller recent paper on the topic [here](#).



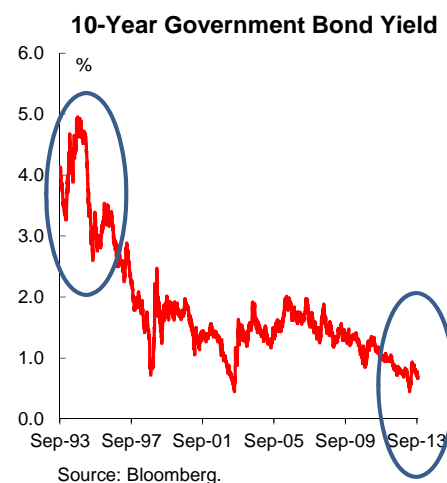
Source: IMF, World Bank, Scotiabank Economics.

Tuuli McCully (416) 863-2859
tuuli.mccully@scotiabank.com

Replay Of 1994 Bond Turbulence In Japan

- Thanks to the current low base of bond yields and improving economic outlook, a 1994-style spike would put only moderate pressure on public finances.

Japan, along with the US and many other advanced economies, was greatly impacted by the 1994 bond market turbulence. The country's bond yields rose significantly in early 1994, with the 10-year government benchmark bond yield jumping by almost 170 basis points (bps) between January and August from 3.3% to 5.0%. According to a working paper by the Bank for International Settlements¹, there is little evidence of upward revisions of growth and inflation expectations being the cause of the turbulence; rather, the developments seem to have reflected the bond market's own dynamics, such as volatility spill-overs from one market to another. Indeed, in 1994, the Japanese economy was experiencing only a modest recovery after bottoming out at the end of 1993, and the country was in the midst of a disinflationary period with the price index dipping into deflationary territory in the following year. In this context, the Bank of Japan did not embark on monetary tightening as did some of its advanced economy peers; in fact, it eased monetary conditions further in the first half of 1995. Against the economic backdrop, it is not surprising that the rapid rise in yields in 1994 was more than reversed in the first half of 1995.



If a 170 bps increase in Japanese bond yields took place today, reflecting successful “Abenomics”, i.e. a return to growth on a sustainable basis and rising inflation expectations, then such a development would not be a cause for concern. However, it would be more worrisome if yields rose without clear economic fundamental reasoning — along the lines of the 1994 turmoil — or because market participants were unloading their holdings of government bonds due to deteriorating sentiment towards Japan's fiscal position; such a rise in bond yields, particularly if prolonged, would put pressure on already weak government finances.

Japan weathered the temporary bond turbulence in 1994 without material repercussions, with the economy continuing to recover through 1996. At the time, Japanese government finances were significantly healthier than today, with the sovereign enjoying the benefits of a triple-A credit rating; today, the ratings are 3-4 notches lower with a high probability of further downgrades. Japan's fiscal deficit, measured by International Monetary Fund standards as the net borrowing ratio, was 3.9% of GDP in 1994, while it is 9.8% today. The primary deficit that excludes interest payments on government liabilities was 2.8% of GDP in 1994, while the corresponding figure today is 9.0%. Gross government debt stood at 83% of GDP in 1994 compared to the current level of 245%. With such a high level of public debt today, a sudden rise in yields, driven by contagion from other markets, would increase the risk of triggering a wider self-reinforcing sell-off which would add to the government's debt servicing costs and deteriorate public finances further, leading to sovereign credit rating downgrades and potentially even to a fiscal crisis. We do not expect this to happen, however, as Japan's economic prospects are improving and the Bank of Japan remains firmly committed to its asset purchase programme to keep long-term borrowing costs low. In addition, the current low level of bond yields (of around 0.7% for 10-year government bonds compared with an average of 4.4% in 1994) provides some buffer against adverse developments; despite the massive burden of debt obligations, interest costs are lower today than in 1994 (0.8% of GDP versus 1.1% of GDP). Moreover, since most of the Japanese government debt continues to be held domestically (the integration of global financial markets has lowered the share of domestic holdings only slightly from 96% to 91% over the past 20 years) and is — to a large extent — routinely refinanced by Japanese banks and insurance companies, we expect that the government will continue to be able to refinance itself at favourable rates.

¹ Borio, Claudio E.V. and McCauley, Robert N.: “The Anatomy of the Bond Market Turbulence of 1994”, BIS Working Paper No. 32, December 1995.

How Would Germany Fare In A 1994 Replay?

- **Weaker economic footing today counterbalanced by sounder fiscal position.**

The rise in German bond yields this year has so far been much less drastic than in 1994. The yield on the 10-year benchmark bund rose by 88 basis points (bps) from May to surpass the 2.0% mark by mid September, though has since eased to around 1.8%. This compares to a roughly 220 bps yield increase to 7.7% from the end of 1993 to October 1994. Although the 1994 episode was longer in duration, if we compare the few months after the first Fed rate hike in February 1994 to the time since the tapering discussion began in May of this year, the 2013 sell-off still appears less severe. But what if yields did continue to climb from current levels in anticipation of the impending withdrawal of monetary stimulus in the US?

Investor-driven bond sell-offs, as opposed to rising yields associated with an improving economic outlook, tend to tighten financial conditions and thus dampen economic activity while at the same time amplifying the burden of interest costs on the public debt. As compared to 1994, Germany is now in a weaker position economically to withstand such a shock; however, the nation's public finances are more favourable. In 1994 Germany was leading a strong European economic recovery following a recession in 1993 (in part caused by aggressive post-reunification monetary tightening). Real GDP expanded by 2.5% in 1994 following a 1% loss in 1993. Today, Germany appears to be on the cusp of another recovery, though it is expected to be relatively modest and remains subject to considerable downside risks (we anticipate average growth of 1% in 2013-14). This lack of growth momentum could exacerbate the negative effects of a surge in bond yields today.

In 1994, the coordinated bond sell-off across developed markets was accompanied by a strengthening of many major currencies against the US dollar (USD). The German deutschmark appreciated by 15% from February-October 1994 as the strength of the European economic rebound outshone the pick-up in the US. This time around, the euro (EUR) has shown an upside bias, but the pattern since May has been less distinct. The euro area is expected to underperform the US over the medium term and, once central banks do begin to raise rates, the Fed will likely lead the European Central Bank (ECB). We thus expect that the course for the EUR will be lower versus the USD in the coming years, which will support German exports and growth.

Another factor to consider is Germany's increased reliance on net trade as an economic growth engine, as well as its increased export exposure to emerging markets. Today exports amount to almost 55% of GDP, while 20 years ago the figure was around 23%, with the merchandise trade surplus measuring roughly €92 billion, compared to €37 billion in 1994. Meanwhile, the share of total exports destined for emerging markets increased from less than 20% in the mid-1990s to roughly 30% in 2013. These structural changes would work to magnify the negative effect of a 1994-style episode, were a widespread bond sell-off to be accompanied by a swift exit of global capital flows from emerging markets in favour of less risky asset classes, sending key trading partners into an economic slowdown.

Although the level of Germany's gross government debt is now higher (valued at 82% of GDP in 2012, versus less than 50% in the early 1990s), the trajectory points down going forward, whereas the trend was upward through the 1990s. Moreover, the budget is currently closer to balance; a small surplus in 2012 will be followed by modest deficits averaging 0.2% of GDP in 2013-14, compared to an average deficit of 2.7% in 1993-94. Finally, the primary budget balance (excluding interest payments) is in a healthy surplus position measuring around 2.3% of GDP, as opposed to 0.9% in 1994. This means that, in theory, German public finances are better prepared to withstand the stress of sustained higher financing costs now than in 1994 because interest costs are proportionately lower. However, coincident bond yield increases in the more debt-distressed countries of the euro area periphery could necessitate additional bailout funding from Germany.

The scope for traditional monetary policy easing is comparatively limited today. In 1994, the Bundesbank (Germany's national central bank prior to the initiation of a single euro area monetary authority) was in the midst of a protracted rate-cutting campaign. Today, the ECB has little room to lower interest rates, but has nevertheless affirmed its willingness to use alternative tools to contain yields directly if need be. Moreover, the ECB has taken pains to stress that policy tightening is a long way off, Fed policy notwithstanding.

Daniela Blancas (416) 862-3908
daniela.blancas@scotiabank.com

A Completely Different Scenario For Latin America Than In 1994

When we study the 1994-95 episode we cannot leave aside the extreme economic conditions that major economies in Latin America went through during those years, particularly Mexico.

In 1994-95 Mexico experienced one of the worst economic crises in the country's history that had spill-over effects — albeit in different magnitudes — throughout the region, commonly known as the “*Tequila effect*”. US Federal Reserve (Fed) monetary tightening was only one part of the equation, exacerbating the Mexican crisis, but was not the main reason for the severe economic crunch. Although some similarities can be found between the years preceding the 1994 turmoil and the current situation, significant structural changes in Latin America over the past twenty years suggest that another Fed tightening cycle will have different outcomes in the region.

Before 1994, major economies in the region, including Argentina, Colombia, Chile and Mexico received significant capital inflows caused by their relatively strong growth prospects coupled with substantial structural reforms. Additionally, a low interest rate environment prevailed in the US and other advanced economies. However, signs of vulnerability started to emerge in many areas of the Mexican economy. The current account deficit was increasing significantly as a result of higher local demand and easy access to credit. The external deficit was mainly financed by short-term capital inflows under a fixed foreign exchange regime (many currencies in the region were pegged to the US dollar). In 1994, an electoral year, social armed conflicts emerged in the south of Mexico and the political scenario turned more volatile after the assassination of the leading presidential candidate. Investor confidence plunged and massive capital outflows ensued — aggravated by the Fed's target rate hikes. Pressure on the Mexican peso increased considerably and foreign reserves dropped by around 80% in one year. The authorities responded with diverse economic policies including a free-floating currency regime, fiscal and monetary restrictions and a US\$50 billion aid package negotiated with the US government, the International Monetary Fund and other global institutions. Mexico contracted by close to 6% in 1995, followed by an expansion of 5.8% in 1996, while inflation averaged 35% in 1995. The Mexican crisis spread across the region. Brazil and Argentina suffered from longer periods of stress, particularly in the financial sector, while Colombia and Chile experienced a more temporary effect.

Nowadays, Latin America is well prepared to face the Fed's eventual liquidity withdrawal and, although the economies may face high volatility in financial variables, particularly in their currencies and bond yields — as observed after Mr. Bernanke's speech in May — macroeconomic fundamentals are stronger now than in 1994.

Foreign reserves in Brazil, Mexico, Chile, Colombia and Peru have been steadily increasing after the 2008-2009 crisis and are currently close to US\$700 billion combined. Additionally, all major economies maintain free-floating currency regimes, which was not the case back in 1994-95. Fiscal and current account balances have been well managed and shortfalls have been financed by longer-maturity capital inflows.

The banking sectors in the major economies enjoy adequate capitalization levels, with non-performing loans ratios well under control. Additionally, regulation in the financial and banking system has improved significantly, particularly after the 2008-2009 crisis. Credit to the private sector, which was one of the main problems during the Mexican crisis, is growing at healthy rates, showing that household indebtedness (possibly with the exception of Brazil) remains in line with output growth, job creation and inflation metrics.

Central banks have earned credibility with more years of experience as independent institutions, improving investor confidence in macroprudential policies. Monetary authorities in the major economies maintain an open and constant communication with market players, improving transparency in the process of policy implementation. As a result of these hard-earned improvements, Latin America is better prepared to withstand monetary policy adjustments by the Fed in the coming years.

Stephen Dafoe (416) 945-4982
stephen.dafoe@scotiabank.com

1994 Redux — Corporates

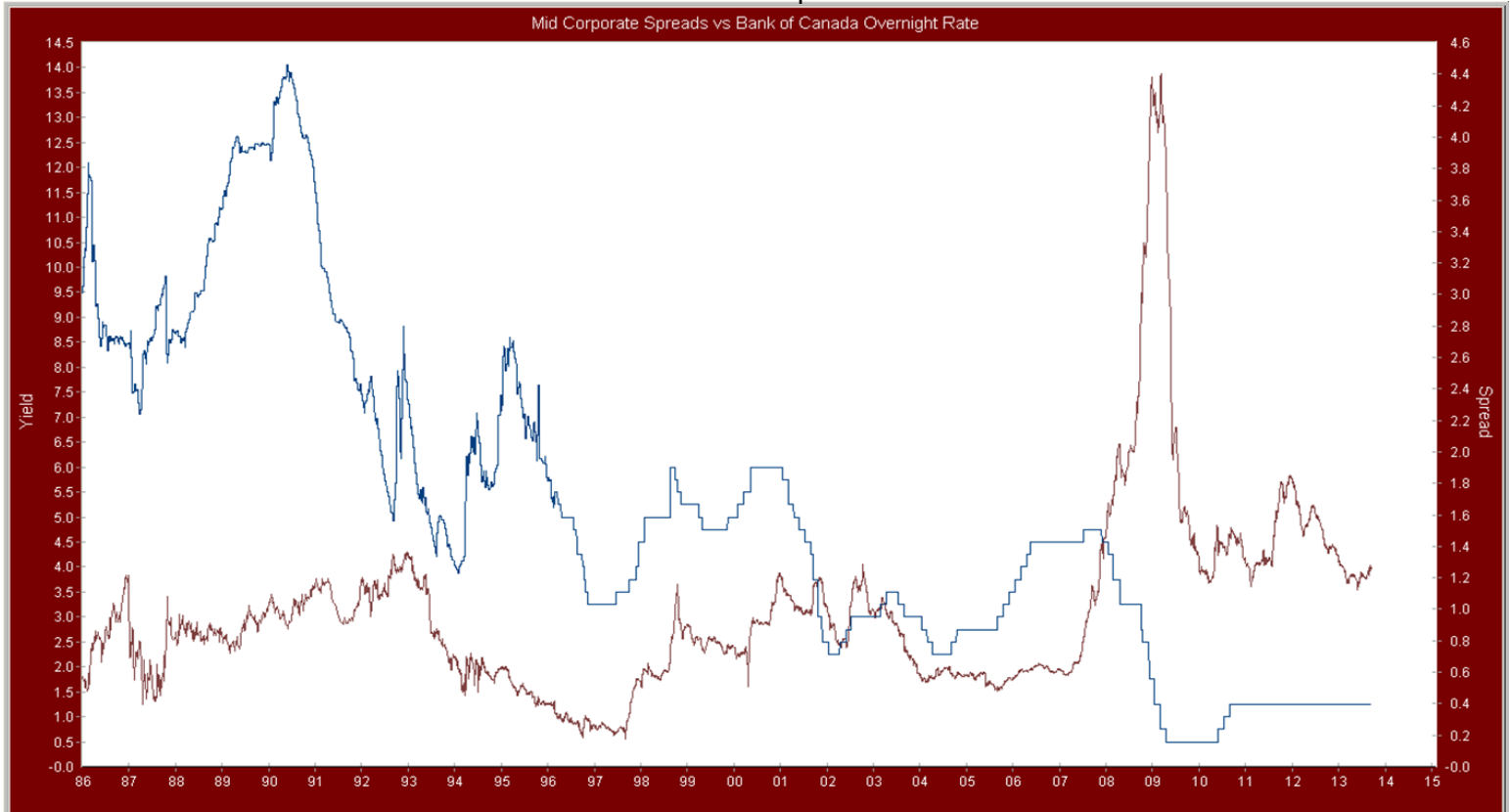
- **Canadian corporate bond spreads reached all-time lows in the wake of the 1994 Fed tightening. Stephen Dafoe points to some very unusual circumstances behind these lows. He does not see a repeat in the cards today.**

Corporate spreads over Canada bond yields reached what we believe were all-time lows in the mid-1990s, as low as between 20 to 30 bps from mid-1996 to mid-1997. We attribute this to two factors that don't prevail today: rapidly improving corporate profit performance; and what was probably an all-time high risk premium in Government of Canada bond yields.

The series "Corporation profits before taxes" (StatsCan series 380-0086) show a slide in profitability that began in Q3 of 1988 turning into a steep and sickening fall by Q4 1989. This didn't begin to turn around until Q3 of 1992. By then, corporate profits were half their level of late 1988, and corporate credit ratios had weakened materially. It took until Q3 of 1994 for corporate profits to rebound enough to overtake the pre-recession peak. After that though, except for some brief downturns, profits kept climbing for the rest of the decade.

During this period of robust upturn in corporate profits, corporate spreads fell to historic lows. From a temporal peak of about 132 bps in January 1993, mid corporate spreads (PC Bond's Mid All Corp Price, series 25019, over Mid Canada Price, series 25011) declined to what in hindsight seems absurdly low levels, in the 20 to 30 bp range, from about July 1996 to September 1997. Then, the 1997 Asian financial crisis, turmoil leading to Russia's default in July 1998, and the September 1998 bailout from staggering losses of Long Term Capital Management, led to corporate spreads shooting back up to reach about 115 bps by October 1998. Later in 1998, spreads moderated, and remained mostly in the 80 to 100 bp range until the end of the dot com boom triggered more financial upset in late 2000.

1994 Redux — Corporates



Source: PC Bond

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In the period following the rise in the Fed funds and BoC rates in February 1994, Canadian government deficit borrowing was in decline, and inflation wasn't a problem. These felicitous trends would normally foster falling government bond yields. However, Canada bond yields remained stubbornly high, in the roughly 7.0% to 9.5% range, until 1997. This reflected the early 1990s downgrades of the Government of Canada by both Moody's and S&P, and a number of provincial downgrades, notably Ontario. The bond market also expressed concern leading up to the October 1995 Québec referendum, and in the sobering aftermath of that near-miss.

The unstated assumption in looking at the corporate spread over the benchmark government bond yield is that the government bond yield represents a risk-free rate, along the lines of CAPM analysis. In more normal times, federal government bonds make a suitable proxy for the conceptual risk-free rate. In the early and mid-1990s, we contend that Canada bond yields very clearly did not reflect a risk-free rate. Hence, we think the spread of corporate bonds must be analyzed in this light. The unusually narrow spread of corporates over Canadas was a comparison between two somewhat risky assets, not a risky asset to a risk-free one. By inference, had there been a suitable risk-free asset in the Canadian market (say, a large and liquid float of U.S. government debt, enough to establish a risk-free yield curve), then Canadian corporate spreads during this period may have appeared much more normal.

Other factors may also be at play. The BBB content of the All Corp bond series was much less than it is today. It's also possible that issuance dynamics in the Canada bond market played a role. As deficits narrowed, both federal and provincial borrowing were in sharp decline. With less overall supply in the bond market, corporate bond spreads may have reflected a scarcity premium for fixed income investments. We think these were likely minor factors, however, and the trend was largely driven by strong corporate earnings and the riskiness of Canada bonds.

Moving to the present question "Would a rise in central bank rates in the next few years signal a new bull market for corporate spreads, akin to post-1994?" Informed by the experience of the mid-1990s, we don't think so.

Neither of the two main drivers of the 1994 to 1997 Canadian corporate bond bull market are present today. Scotiabank Economics' GDP growth forecasts don't call for a repeat of the conditions that led to the spectacular corporate profit growth of the mid-1990s. And while provincial deficits are coming down only slowly, they are coming down, and Canada yields reflect the widespread view that Canada's AAA rating is as solid as almost any rated sovereign. While central bank rates may rise, we think this is merely the unwinding of the extraordinary monetary policy environment of the past 5 years, rather than any act to address incipient inflation during very rapid economic expansion, as was the case in the mid-1990s. We see no reason for corporate spreads to begin to narrow now, in response to expectations of higher Fed or BoC rates over the next few years.

More recently, we recall the middle part of the past decade for another conspicuously low corporate spread environment. These low credit spreads were arguably a contributing factor in fostering the excesses that ultimately brought on the Canadian ABCP default of 2007, and the global financial meltdown after the failure of Lehman in 2008. The ensuing blowout in corporate spreads was truly frightening. We believe that, with this memory still uncomfortably fresh in the minds of portfolio managers, a period of such low corporate spreads (say, below 90 bps from mid-2003, to as low as about 50 bps in late 2005) is unlikely to be repeated soon.

Joe Kogan (212) 225-6541
joe.kogan@scotiabank.com

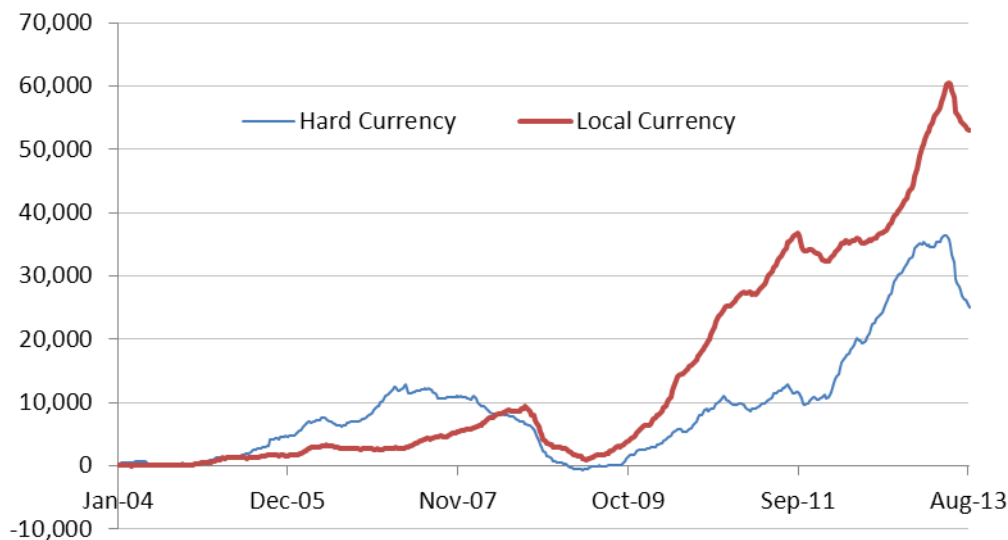
Don't Overestimate The Effect Of Tapering On Latin American Bonds

Emerging Market bonds performed extremely well during the recovery from the global financial crisis. On the external debt front, higher-rated Latin American countries saw their CDS recover quickly to the sub-100bp levels we had seen back in 2007. In late 2010, Mexico made headlines by successfully issuing a 100-year bond, a longer tenor than is available in most developed countries. By the fall of 2012, some observers were pointing to excesses in the market, as evidenced by successful new issuance from a stream of frontier markets like Angola, Zambia, and Bolivia. Latin American corporate issuance grew as well from \$42bn in 2010, to \$50bn in 2011, and a record \$64bn in 2012. As another indication of the tremendous demand for emerging market corporates, concessions on new corporate issuance (difference between primary and secondary market yields) reached zero to negative levels by early 2013.

Developments in local currency markets were even more dramatic. The typical investors for these local instruments, like Latin American pension funds who would hold bonds to maturity, were replaced within a few years by institutional investors from developed countries. In Mexico, foreign ownership of nominal local bonds increased from 20% to 57%, and during some periods, foreign investors were purchasing more than 80% of net local issuance from the government. Yields on the 10Y bond fell from 8% to 4.5%. Peru saw similar inflows, while Colombia and Chile were preparing for the same. Even smaller countries like Costa Rica started to see inflows, for whom even minute allocations from foreign investors could swamp their central banks' hold on local rates and already appreciated currencies.

We see this pattern also in the data on inflows to emerging market bond funds collected by EPFR. Cumulative inflows to the funds in EPFR's survey since 2009 were around \$175bn, whereas in the previous cycle between 2004 and 2007 they were only 25bn. Moreover in contrast to previous years, the majority of the inflows went to local currency denominated funds (Exhibit 1).

Exhibit 1: Inflows to Emerging Market bonds funds



Source: EPFR. Graphs shows cumulative inflows since 2004 in millions of USD.

Once initial talk of tapering emerged in May, emerging market bonds were one of the most affected, widening perhaps two to three times as much as US Treasuries. Emerging Market bond funds saw outflows exceeding \$1bn per week for two months. The combination of price moves and outflows raised concerns among some that “the party was over.” The concern is of course that EM gained the most from low interest rates in developed countries over the past few years because those low rates led to increasing allocations to alternative asset classes; therefore, EM has the most to lose from a tapering of QE. Yet, for many reasons, we believe that view is too simple and misses some of the other drivers and trends.

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First, we believe strong fundamentals in Latin America are just as responsible for investor interest as low US interest rates. Latin American growth rates have been several times larger than those in advanced economies for many years, and growth rates in many of those countries should continue to outperform for the foreseeable future. Debt levels in Latin America are much lower, and budgets are tightly controlled. Similarly, Latin American corporates have benefitted from their country's growth, with significant and consistent increases in revenues and earnings. To see the important role of fundamentals, consider that inflows to advanced economy high yield funds, which should have also benefitted from low interest-rates, have been only one-half of those going to emerging markets.

Second, there is little empirical support for the idea that money flows to emerging markets bonds when developed countries are in trouble, but then reverses when developed countries recover. In fact, history suggests just the opposite. The last cycle of EM inflows from 2004 to 2007 occurred during a time of rising US interest rates and strong US economic growth. That could be because investors were more comfortable increasing their exposure to new asset classes when times were good, or because emerging market countries benefit from developed country growth. For example, one third of the variation in Mexican GDP can be explained by changes in US demand for Mexican exports.

Third, local currency markets actually saw fewer outflows than hard currency funds (Exhibit 1), whereas we would have expected just the opposite if previous inflows had been motivated by low interest rates on US dollars. Moreover, we think the EPFR data actually exaggerates the magnitude of outflows from local currency funds because the survey does not cover certain classes of long-term strategic investors like sovereign wealth funds. Data reported by individual Latam country governments have actually shown small to no decreases in foreign ownership. In fact, in many cases the selling that caused the price drop can be traced to local investors, who sold in anticipation of a mass withdrawal by foreign investors, a withdrawal that so far has not materialized.

All of this is not to say that tapering would not have a significant effect on emerging market bonds. It certainly will, especially during the initial transition and the current period of uncertainty. Instead, we think there are a number of drivers of emerging market inflows, many of them indicative of a long-run and irreversible diversification of portfolios towards this asset class. While those long-term drivers will eventually reassert themselves, EM markets will nevertheless continue to focus on news about tapering in the near-term.

UK: Back To The Future

Déjà vu All Over Again?

10-year Gilt yields have risen by over 125bp since their early-May low point. For the first two months of the sell-off the pace was broadly in line with the one witnessed during 1994, although the upward trajectory has moderated slightly since then (Chart 1). Yields would have to rise by the same amount again in order to match the full extent of the 1994 sell-off.

History Lessons

Our LILI model (Leading Indicator for Leading Indicators) takes account of the broader spectrum of financial conditions — including the exchange rate, equities, money market spreads, the yield curve, etc. Movements in this index have typically been an early warning of subsequent movements in survey data and ultimately hard activity indicators.

The LILI model tightened abruptly during 1994, largely due to the rise in yields. Conditions went from one standard deviation looser than average to one standard deviation tighter than average in the space of just 6 months. In the aftermath of this tightening in conditions, the CIPS survey subsequently plunged from a peak of over 60 down to below 50. In turn the pace of GDP growth slowed sharply (from 1.5% q/q down to 0.4% q/q in 1995).

Conditions have become only slightly less accommodative since May as a result of the rise in gilt yields. Conditions were 2 standard deviations looser than average, but are now 1.5 standard deviations looser than average. That is still extremely accommodative. In the context of the CIPS surveys, this points to only a moderate loss of altitude rather than a 1994-style slump (Chart 2). Essentially, the starting point for financial conditions is somewhat looser now than it was at the time of the 1994 sell-off.

Nonetheless, if we simulate a further 125bp rise in the 10-year gilt yield, the LILI model suggests that conditions would be expected to become even less accommodative, although remaining around half a standard deviation looser than the long-run average. That would point to the CIPS surveys falling down towards low-50 territory — consistent with the pace of GDP growth slowing to just above zero. That would be disappointing, but far from a disaster.

Chart 1: UK 10-Year Yield – 1994 Experience Overlaid on 2013 Sell-off

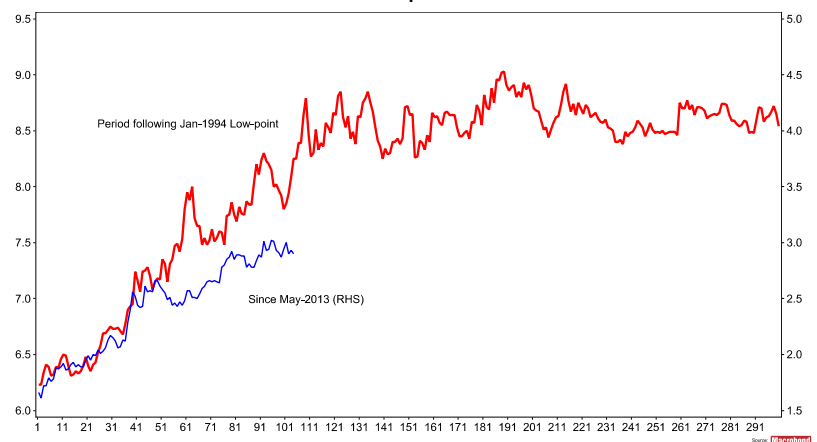
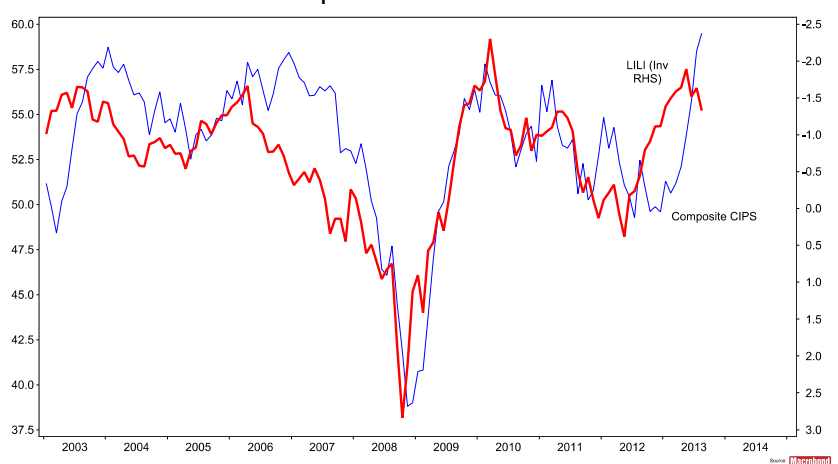


Chart 2: LILI Model vs Composite CIPS



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Then Versus Now

There are various aspects of the current situation that are different or likely to mitigate the effects of a 1994-style sell-off:

- **BoE still prepared to deliver more QE:**

Up until recently the doves on the MPC were still keen on engaging in further asset purchases, particularly if movements in the financial markets posed a threat to the economic outlook. Recent data have pushed the doves back into line with the majority. Nonetheless, the point is that if yields were to rise sharply again and threatened to undermine the recovery, then BoE could easily step in with renewed asset purchases and push yields back down again.

- **Rate hikes a long way off:**

The BoE hiked interest rates aggressively during 1994. Starting in September 1994, the BoE delivered three 50bp rate hikes over a 6 months period — reinforcing the upward move in gilt yields and the tightening in financial conditions. Under the forward guidance regime now, the vast majority of forecasters do not expect the first rate hike for around two years so history is unlikely to repeat itself.

- **Mortgage rates linked to Bank Rate**

A sharp rise in gilt yields and swap rates is likely to push up new mortgage and remortgaging rates which would likely be a dampener on housing activity. However, the vast majority of the stock of outstanding mortgages are linked to Bank Rate (around 70%) and should therefore be immune to the sell-off. As a result, the hit to household real disposable incomes would be relatively limited for as long as Bank Rate remains unchanged — limiting the squeeze on consumer spending. This was not the case during 1994 when Bank Rate rose by 150bp.

What if?

Thinking the unthinkable, what would things look like if history did repeat itself and the BoE hiked interest rates like it did during 1994? The inflation linked bond market is likely to be one area of significant volatility. In particular, UK linkers are based on the RPI measure of inflation, which explicitly captures mortgage interest payments. So while the conventional wisdom is that rising interest rates tends to bear down on inflation, the opposite is true for the UK RPI.

More specifically, if the BoE were to hike Bank Rate by 150bp, we estimate that the associated rise in mortgage rates would add almost a percentage point to RPI inflation almost immediately — other things equal. Clearly, other things are not equal and there are also likely to be more traditional influences on the RPI over a more medium-term horizon. For example, house price inflation would be likely to slump — subtracting a sizeable margin from the RPI — particularly if the starting point is double digit territory. Underlying components of inflation would likely show some deceleration, albeit again after a slightly longer time lag.

If the hiking cycle is synchronised across the major economies then there is unlikely to be a major exchange rate story for the inflation outlook. Nonetheless, the point is that front-dated inflation linked bonds in the UK are likely to outperform the equivalent bonds in the US and continental Europe — particularly during the early phase of any hiking cycle.

Further ahead, this outperformance could easily unwind or even reverse. The significant boost to RPI inflation from the mortgage rate component will only last for as long as Bank Rate is rising. Once that contribution sinks back to zero it will probably coincide with slowing house price inflation or even outright falls. Hence after an initial period of outperformance of 6-9 months, the UK linker market would in all likelihood underperform TIPS and European linkers over the subsequent 6-9 month period. It would be a roller-coaster ride — but not one that we think we are likely to embark on any time soon.

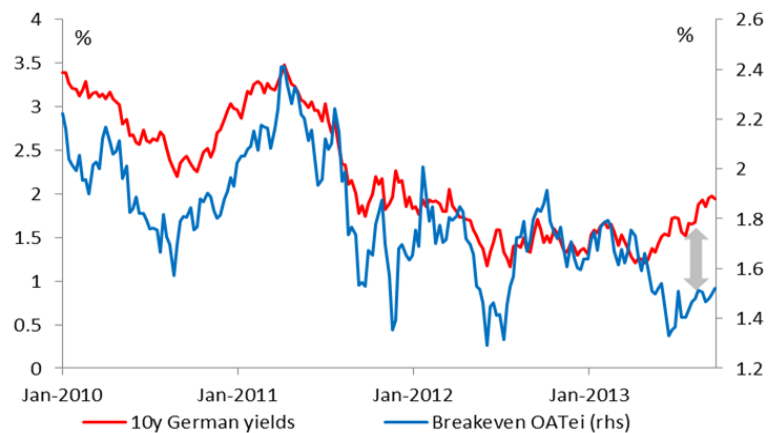
Euro Linkers: A Changing Relationship With Nominals?

In the first phase of rising nominal yields between May and August, Euro breakevens initially moved lower before recovering some ground during the summer months. So, all in all, breakevens are roughly back to levels seen in mid-May before all the speculation surrounding Fed tapering. This lack of reaction from breakevens to the swings in nominal yields could look surprising as, from a medium- to long-term perspective, there is usually a strong positive correlation between the two (in general, higher nominal yields means wider breakevens, and vice versa). This is linked to the fact that higher nominal yields usually reflect changing sentiment regarding the real pace of the economy and therefore a higher inflationary risk, the latter being reflected in wider breakevens.

A traditional strong positive correlation between nominal yields and breakevens!

However, while swings in nominal yields are clearly a strong driver, other factors could also be at play. If higher nominal yields are seen as coming too early or detrimental to the economic cycle, there is a chance that market participants will anticipate a renewed slowing in growth and inflation ahead, weighing on breakevens. This factor could be tracked also by the strong historical positive correlation between breakevens and equity markets.

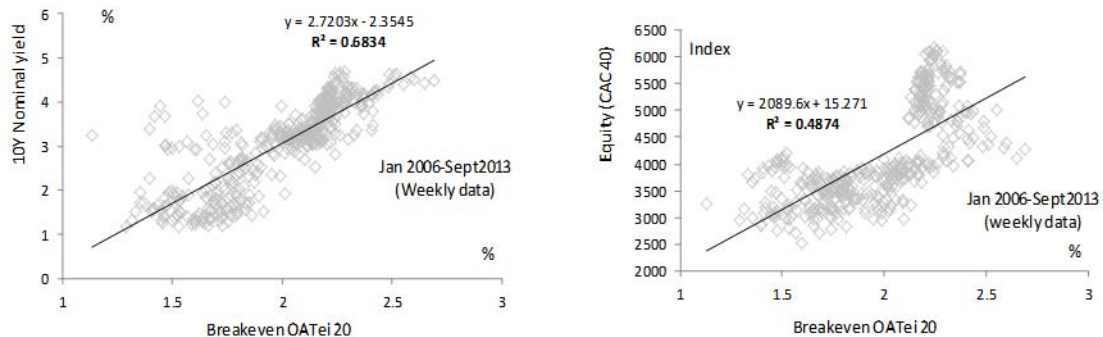
Chart 1: Breakeven OATei 20 & German 10Y yields



But how breakevens would fluctuate in cases nominal yields and equity markets move in different direction? This was the case in 1994 when higher nominal yields pushed equity markets down sharply. Unfortunately, as the Euro Linker market (and also the US) was not in place, there is no history where we can draw lessons for the future. At this time, only the UK Linker market was well developed (in terms of size/liquidity), and its different construction (especially the high sensitivity of RPI to rising rates) makes it a different beast to the Euro market. So, it could be hard to draw strong conclusions for the Euro market. But could the end of 2007/beginning of 2008 period be a possible proxy?

Although the magnitude of the rise in nominal yields at this time was less abrupt than the one seen in 1994, we also had to deal with falling equity markets at the same time. During this period, breakevens actually moved higher, meaning that, at a time of diverging signals, the relationship with nominal yields was stronger than the one with equity markets. Breakevens corrected lower only when nominal yields also plunged in the second half of 2008. Looking to this, we would then conclude that any renewed spike in nominal yields today would favour widening breakevens. However, we think that fundamentals matter and could involve a different reaction than in 2008.

Chart 2: Medium correlation breakeven OATei 20 vs. German 10Y yields & equity



Frédéric Prêtet (00 33) 17037-7705
frederic.pretet@scotiabank.com

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But fundamentals matter!

Indeed, at that time, Euro inflation was accelerating, from 1.9% yoy in the summer of 2007 to a peak at 4.0% one year later. While higher energy prices were the main driver behind this rise, there was also a growing risk of spill-over to the rest of the price chain at a time when core inflation was cruising close to the 2% level. Indeed, while business confidence was already showing signs of softening, the Euro output gap was largely positive with the unemployment rate reaching record lows at 7.3%. So, there was still the perception of a decent resilience of the Euro economy to any slowing in US growth suggested by falling equity markets.

Things have turned since then as Euro unemployment rate reached record highs and the output gap currently is estimated by the OECD to be as wide as -4% of GDP. So, inflationary concerns have given place to deflationary worries. Since the beginning of the year, Euro inflation data has surprised on the downside, slowing from 2.2% yoy last December to 1.3% in August. This trend goes beyond a simple temporary base effect in energy prices as core inflation also slowed over the period from a 1.5%/1.7% range to 1.0%/1.2% yoy.

This structural shift means that the historical stronger correlation of breakevens with nominal yields vs. equity markets could soften or even play in reverse this time. This is what is suggested when looking to the pattern in breakevens since May, which showed a stronger relationship between breakevens with equity markets than nominal yields. Actually, the renewing upward bias in breakevens over the summer months correlated with higher equity markets on the back of a stronger accommodative tone from the ECB but also positive real activity data from the euro area. This has contributed to at least reduce somewhat deflationary worries, even though inflation numbers remained at low levels. However, any renewing upward tensions in European nominal yields through a major spike in the US would come too early in the Euro economic cycle and, contrary to what history teaches us, could push euro breakevens lower in the mirror of falling equities.

Chart 3: 2008 experience!

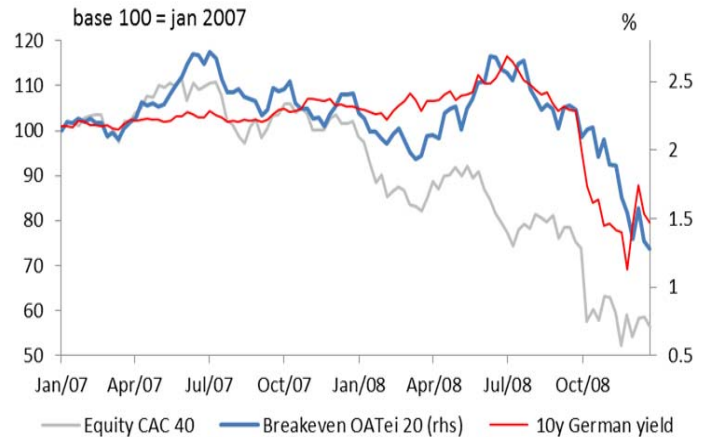
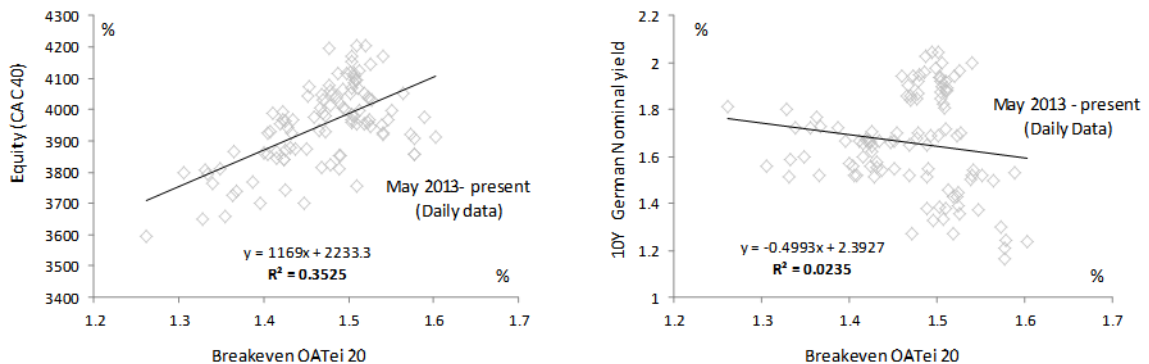


Chart 4: Correlation breakeven OATei 20 vs. German 10Y yields & equity since May 2013



Alan Clarke (44 207) 826-5986
alan.clarke@scotiabank.com

Frédéric Prêtet (00 33) 17037-7705
frederic.pretet@scotiabank.com

ECB: Another LTRO?

Speculation about the possibility of another ECB LTRO has built in recent weeks. Against a backdrop of rising business sentiment, an improvement in the growth outlook and reduced peripheral jitters, this speculation has been a little surprising. The following is a what, why, when and how guide to what the ECB might announce.

The ECB has Been a Master of Verbal Intervention

The ECB's OMT has been a triumph so far. The Governing Council has skilfully used verbal intervention to push down on peripheral government bond yields without having to buy a single bond. Could it be doing the same with the talk of an LTRO? By teasing the market with the possibility of a new scheme — particularly over the next 12 months — it is having an impact on the short end of the curve.

In this context, the following is a selection of quotes which show that the LTRO is an option, but the Governing Council do not appear likely to pull the trigger imminently.

Mario Draghi Quarterly Address to European Parliament

"We are ready to use any instrument, including the LTRO, to maintain short-term market rates at a level which is warranted by our assessment of inflation in the medium-term," he told the European parliament in his quarterly address this month.

From Reuters — BoE Style FLS scheme

<http://uk.reuters.com/article/2013/09/23/uk-ecb-draghi-idUKBRE98M0NQ20130923>

Minutes of a July meeting of the ECB's Bond Market Contact Group, comprising ECB staff and finance experts, show it discussed "creating a special 3-year LTRO similar to the Bank of England's Funding for Lending Scheme where cheaper funding would be provided to banks".

ECB's Coeure

<https://mninews.marketnews.com/index.php/ecb-coeure-ltro-potential-tool-no-specific-talks-yet?q=content/ecb-coeure-ltro-potential-tool-no-specific-talks-yet>

"Coeure said a Long-Term Refinancing Operation, or LTRO, was one of the Bank's possible instruments, but repeated that its use, if required, hadn't been specifically discussed by the Council".

Reuters poll of traders:

13 out of 22 traders expect an LTRO in the next 12 months...

BUT

Only 8 out of 24 expect one before end-13

English Lessons

Perhaps the most plausible strategy from the above would be to create a BoE-style FLS (Funding for Lending Scheme). This scheme makes funds available to financial institutions, with an in-built incentive to increase lending (or at least minimise the reduction in their lending). The UK scheme has not been tapped as heavily as initially proposed. Nonetheless, its mere existence as a backstop has unlocked the wholesale markets and helped to push down lending rates to households.

Addressing poor credit growth

Every month the ECB president indicates in the press conference that unlocking poor credit growth and divergent credit conditions between eurozone countries is a key focus and needs to be addressed. As a result, for at least the last 6 months the market has seen a new LTRO as one possible option.

Alan Clarke (44 207) 826-5986
alan.clarke@scotiabank.com

Frédéric Prêtet (00 33) 17037-7705
frederic.pretet@scotiabank.com

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Previous LTROs have implicitly relied on banks to put on the carry trade — borrowing cheaply from the ECB and investing further out the curve at a higher yield. In effect, this has been akin to the market doing QE on behalf of the ECB, helping to bring down government bond yields. By contrast, if specific conditionality is linked to the provision of additional liquidity, this could more directly influence lending to the private sector. Credit growth in the eurozone relies much more heavily on banks, so a targeted measure such as an FLS style LTRO could be effective.

While this scheme has worked well in the UK and sounds attractive in principle, the ECB does not want to embark on a programme of providing liquidity to finance “unprofitable investment/companies”. This could mean that the ECB proves reluctant to adopt such a scheme at least until it has had considerable time to assess the pro and cons of this option.

Address renewed tightening financial market conditions

A key motivation for a new LTRO would be to reduce tensions in financial markets. More specifically, these could impact banks’ funding costs or the eonia rate in the face of any reduction in liquidity (this was explicitly mentioned at the last press conference).

Up until now there has been little in the way of signs that bank funding cost pressures have intensified. Gradual repayment on previous LTROs seem to suggest that banks are not that worried on this issue and the latest ECB bank lending survey also pointed to lower constraints on funding costs. In particular, the main problem behind lower credit growth has been linked to a very poor economic outlook. Also, thanks to “forward guidance” the eonia rate has remained very well contained.

At this stage, the main risk event on the horizon will be the Asset Quality Review from the ECB with the conclusions to be released in March. The ECB assumed the supervisory role at the end of last year. This could mean that this review of banks’ assets will be stricter (for the sake of ECB credibility) than the two previous ones. In particular it will not want to take the risk of supporting/dealing with a bad bank so soon after taking on the supervisory role. This could spark market concerns that bank stresses will be reignited, in turn pushing up funding costs. This could be a particular issue in countries like Spain where there has been a 20% decline in corporate credit growth. In turn, this factor has weighed a lot on bank profitability in this country.

The ECB president has stressed that he is acutely aware of all the potential stresses that the AQR could induce. In this regard, by stressing the possibility of implementing a new LTRO, the ECB is being pro-active rather than reactive. At this stage, rather like the OMT, the emphasis feels like verbal rather than actual intervention.

If it ain't broke, don't fix it

The ECB’s strategy of verbal intervention has worked wonders — so why not do more of the same? If however the ECB does pursue a new scheme, we believe that it is more likely to err towards a more targeted FLS style scheme. In the meantime, the ECB is likely to announce at next week’s meeting that the program of full allotment of liquidity will go beyond June 2014 and up to December 2014/early 2015.

Any Other Issues

LTRO aside, there is a case for the ECB to highlight concern that the recent strength of the euro is tightening monetary conditions in the euro area and could bear down on the growth outlook. For now, improving business sentiment appears to suggest that this influence is being shrugged off. Nonetheless, if any signs emerge that the stronger EUR is causing problems then it is more likely to push the ECB into acting on rates, rather than through an LTRO.

Guy Haselmann (212) 225-6686
guy.haselmann@scotiabank.com

A 1994-Style Market Rout Could Unfold, But For Different Reasons

- **Investor behavior, market liquidity and Fed policy leave little room for missteps.**

Investors are using the bond market massacre of 1994 as a template for assessing whether the recent May to September rout will get worse. While there are some similarities, such as low inflation, there is much distinction. The 2013/14 rise in Treasury yields could have much farther to go, but for different reasons than those experienced in 1994. Nonetheless, a trip down memory lane is worth a look.

February 4, 1994 is a day well-remembered by bond traders, hedge funds, and the life insurance industry. After the 34th month of economic expansion, Fed Chairman Alan Greenspan unexpectedly nudged the Federal Funds Rate higher by an initial 25 basis points with further hikes following in March, April, May, August and November. 1994 marked the worst bond market loss in history. To put it in perspective, a \$100mm 2-year note position would have lost almost \$7 million by year end.

Unfortunately, 1994 followed a very positive bond market year, when “leveraged carry” was a highly-popular trade, thus wrong-footing investors. One famous and reputable hedge fund manager was found to have sold his 100,000 bund futures position in January 1994 before things got ugly. When asked why he sold them, he simply responded, “Because I could”. I point this out, not to be cute, but rather to emphasize market liquidity. Once the Fed began raising rates, trying to sell securities, especially such a large block, would have been difficult without steep losses.

At the beginning of 1994, the Fed’s official rate was the lowest in history and most major bond markets were trading at 30-year-low yield levels. At the same time, the outstanding amount of non-treasury US fixed income securities was rapidly expanding due to both corporate issuance, and the securitization of loans into bond-like structures. Over the subsequent decade, such non-treasury securities grew from around \$100 billion to over \$1.2 trillion.

ZIRP (zero interest rate policy) has encouraged issuers to capitalize on historically low rates resulting in the doubling of the total amount of all global fixed income securities from 2007 to the present to reach \$260 trillion. This massive increase in fixed income securities means that investors are vastly exposed to interest rate risk; therefore any change in central bank policy will likely lead to a magnified market reaction. This could partially explain why the 10-year note backed up around 140 basis points on the mere hint of a modest change in policy “later in the year”. Moreover, regulation, fewer market makers, and shrinking bank balance sheets means market liquidity is compromised and could worsen when the Fed begins a policy pivot from extreme accommodation.

For the moment, one key difference between 1994 and 2013 is that the FOMC was aggressively raising interest rates 19 years ago. Today, the FOMC is using its “forward guidance policy” to try to keep market interest rates low by ‘promising’ to keep official rates at zero for an extended period. It is believed that this policy combined with promises of gradual changes will help to mitigate an immediate market rout. Unfortunately, investors have pushed financial assets to frothy levels by feasting on cheap money for five years. Therefore, any transition will be difficult to manage. It’s almost inevitable that when the Fed’s policy pivot begins, investors will switch toward pricing in the Fed’s new final destination. Markets can over-shoot, especially when market liquidity is compromised, and when investors are all going the same way as we saw in 1994.

Given the experience of 1994, the apparent disconnect between economic and asset market conditions today cannot be ignored: a dynamic which appears particularly pronounced at the moment.

Many other things were happening in 1994. Wall Street was becoming more complex. Market participants were trying to find ways to use computers, even super computers, to speculate or capture discrepancies on newly devised financial derivatives. In addition, new technologies were fueling globalization through advancing the capability of transferring huge sums of investment dollars across the globe. There was also a general expansion in global investable securities, which in turn interconnected markets and their cross correlations more closely. Some believe the easy flow of capital pushed Mexico into crisis, as well as bankrupting Orange County California.

Guy Haselmann (212) 225-6686
guy.haselmann@scotiabank.com

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The insurance industry was getting decimated along with many security houses, hedge funds, mutual funds or anyone with fixed income investments. The insurance industry had almost \$1 trillion in bond investments at the end of 1993 and was then hit with massive claims for Hurricane Andrew. Losses exposed the fact that bonds are not really “risk free”: calling government bonds a “fixed income investment” can be misleading to some types of ‘investors’. Today, maintaining official rates effectively at zero for such a long time in a modern economy has raised concerns about unintended consequences. Some critics are concerned about the benefits to Wall Street over Main Street and over the decimation that ZIRP caused senior citizens on a fixed income or on private defined pension plans.

In today’s environment, the capital structure seems to have almost inverted. As risk-free government bonds approach the zero bound, the upside becomes limited, while interest rate risk increases the downside. Therefore, recent bond weakness was due to this a-symmetric risk-reward distribution. Some asset managers were enticed to sell ‘risk-free’ bonds which were perceived as very risky and they preferred receiving their ‘fixed-income’ exposures via dividend paying stocks. The combination of a looming Fed policy shift, a perception change in the risk of fixed income, and the over-weights in equities in the deep-seated belief they are the “least-bad” investment class, could be a toxic mix of systemic market risk. The 2013/2014 period may match the 1994 market carnage, but such would be for different reasons.

Asian FX: Not Quite Out Of The Woods

- **Despite a near-term stabilization, certain Asian currencies with external funding issues are still at risk of being pressured by rising US yields.**

The exchange rate volatility in EM Asia of late has understandably drawn comparison with the Asian financial crisis of the late nineties, causing a not insignificant degree of concern. These comparisons are logical when considering the rapidity of EM Asian exchange rate depreciation, the size of the declines, and the general loss of confidence that was priced in to Asian equity and fixed income markets during some of the more volatile periods in recent months. We have two main messages to relay as it relates to EM Asian FX in the current scenario. The first is that the current situation is rather different in regard to any risk of pan-Asian vulnerability to contagion and financial crisis. Risk is much more idiosyncratic and country-specific this time around and likely to be played out via downside volatility in FX and other asset markets, rather than becoming a full-bore financial crisis triggering corporate default and severe economic contraction. The second is that though the Federal Reserve has disappointed market (but not Scotiabank's) expectations for a September taper, without further monetary tightening measures in Asia to offset rising US yields and the eventual taper, we are still likely to see further pressure on certain currencies more exposed to external funding risks.

On the first point, though we will be constrained by the necessity of brevity in laying out a detailed account of the exact differences between the current state of affairs and the lead-up to the late 90's Asian financial crisis (AFC), suffice it to say the current Asian FX-pressured environment may be best described as having its genesis more in external causes than due to ill-advised domestic economic policies. For instance, short-term external debt in the region is very much less threatening when compared to FX reserves, due in great part to the significant accumulation of reserves during the previous decade, which in most cases far outstrips what could be considered prudentially necessary. Net international investment positions are also much better in most countries, save for India and Indonesia.

By the same token domestic credit growth, while having been robust in a number of countries particularly in the south-east Asian region, is not as much a concern as it relates to external macro stability as it was before the AFC. In the lead-up to the Asian financial crisis, EM Asia's fixed exchange rate regimes and either explicit or implicit government guarantees on external borrowing incited regional corporate borrowers to disregard the build-up of potential exchange rate and maturity mismatch risk, in order to take advantage of cheaper external financing. Most importantly, regional policymakers learned a valuable lesson and have allowed much greater currency flexibility in the post-AFC years. This has ameliorated the risk of sustained, severe exchange rate undervaluation and the potential external and internal imbalances that can ensue as a result.

Interestingly, the build in FX reserves, a positive factor in insulating the region from an economic crisis this time around, also underscores an important feature of the current vulnerability. FX reserve levels in EM Asia are a result of sustained efforts to 'lean against the wind' of appreciatory pressures, particularly against the USD. This had led over time to a view of fundamental undervaluation in a number of EM Asian currencies, or at least that fundamental pressures in recent years remained for appreciation. This not only suggested structural long outright FX positions to currency market speculators, but also created the notion of value amongst foreign investors in leaving a degree of regional equity and fixed income exposures un-hedged. This has been an additional factor that has helped entice inflows during the Fed QE-period, and one that has caused worries of severe outflow (some of which we have already witnessed) now that the QE program appears to be nearing its latter stages. In this way, while the current situation lacks the same set of circumstances that were present ahead of the AFC in terms of real currency over-valuation — relatively high levels of external debt combining with currency and maturity mismatches — the external Fed-taper-driven environment is cause for worry in some externally challenged Asian economies. Particularly those economies that can be argued to have received undue amounts of foreign investment relative to what would otherwise have been the case.

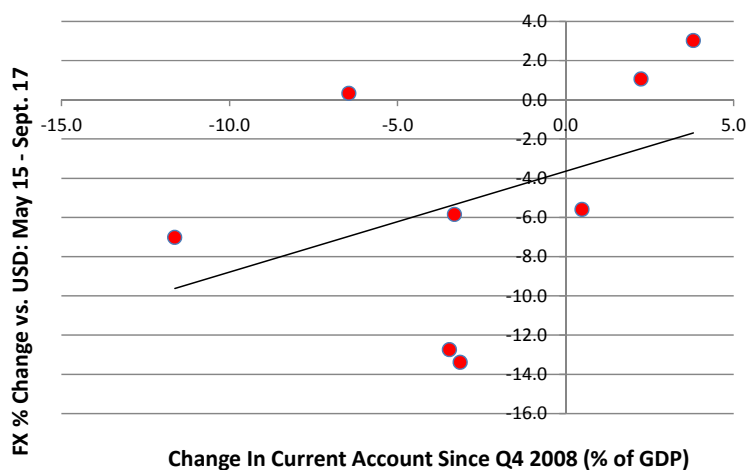
Sacha Tihanyi (852) 6117-6070
sacha.tihanyi@scotiabank.com

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Though the lack of a Fed taper in September may have brought a degree of calm to EM Asia financial markets, we feel that there remains significant vulnerability for a number of currencies. Given that a Fed taper is still in our certain future, we have an expectation that less accommodative monetary policy in the US will once again place strain on those Asian economies facing more challenging balance of payments positions due to rapid deteriorations in current accounts; the era of easy external financing is coming to an end.

External Deficits and Rates of Change

A key metric to consider is not only the degree of a country's external deficit, but also the rate of deterioration in current account positions in recent years. The impact of these deteriorations on currencies has been blunted or delayed by the fact that external funding conditions were generally more accommodative. While countries facing deep and protracted current account deficits (India, Indonesia) are at greatest risk, just as concerning are those nations that have seen rapid deteriorations in surpluses as they cannot be as reliant on the same degree of natural offset to significant capital outflows that may occur during periods of financial market upheaval. This is an issue for countries such as Malaysia and Thailand. Indeed, when looking at the countries that have suffered the largest trend deteriorations in their current account positions since the end of 2008, Malaysia, China, Indonesia, Thailand and India stand out. All but China, thanks to its relatively closed capital account and controlled currency, topped the leaderboard for the worst Asian FX performers in the period beginning mid-May (when the US Treasury curve was rapidly steepening) through September 17th, just before the FOMC meeting — see chart.



	Change In Current Account Since Q4 2008 (% of GDP)	FX % Change vs. USD: May 15 - Sept. 17
MYR	-11.6	-7.0
CNY	-6.4	0.3
IDR	-3.5	-12.7
THB	-3.3	-5.9
INR	-3.1	-13.4
PHP	0.5	-5.6
TWD	2.2	1.1
KRW	3.8	3.0

Source: Bloomberg, Scotia FX

As an illustration as to why a severe deterioration in the current account surplus is as important to consider as a large deficit, consider Malaysia. Compared to the region, the country has by far seen the most substantial trend decline in its current account surplus since the outset of 2009, from near 18% in Q1 2009, to 4.6% in Q2 of this year. This has more acutely exposed the nation to the volatility of capital outflows than during past periods, noting that the volatility in Malaysia's portfolio component of its balance of payments dwarfs the volatility in the current account by nearly 3-times on a standard deviation basis. On this relative basis, Malaysia is the most high-vol portfolio flow country in EM Asia, which compares with China's situation where portfolio flows are only one-third as volatile as current account flows. This illustrates the point that the

Sacha Tihanyi (852) 6117-6070
sacha.tihanyi@scotiabank.com

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static current account position is not necessarily the only feature to consider in assessing external funding vulnerabilities, but also the rate of change in the surplus/deficit and the context of capital account openness. To further support the point, regional FX outperformers in KRW and TWD over our May through September sample period help to prove the benefit that substantial and growing current account surpluses can provide as an offset during periods of financial market stress.

Outlook

Are we now out of the woods then, given the delay of the Fed taper? Not likely, in our view. It is quite reasonable to assume that without significant changes in the external balances of Indonesia, India, Malaysia and Thailand (the currencies most at risk in order of our view to vulnerability), that once we begin to see again upwards pressure on US rates, our select group of countries will see funding conditions and currencies strained. This will of course depend on the pace of taper indicated by the FOMC, and how it relates to expectations for future monetary policy shifts.

However, this will also depend on the monetary policy trajectory from Asian central banks. We have already seen a number caught off guard and not proactive enough in their policy responses aimed at stabilizing exchange rates. India and Indonesia figured most prominently in this group. Aggressive and pre-emptive monetary tightening for countries with external funding risk will ameliorate further downside exchange rate volatility and any loss of economic confidence due to financial market volatility.

Indonesia's case is potentially more manageable in this regard as the non-oil current account deficit can be partially addressed with an easing in strong domestic demand on the back of tighter monetary conditions. India is in a more difficult position as it has been forced to tighten policy in the face of weak growth dynamics, as its current account has been frustratingly unresponsive to a rupee that has depreciated by 18% in real terms in two years. Recently, the RBI eased monetary conditions from economically harmful settings that were put in place to defend INR. It has also undertaken certain temporary measures to incent near-term foreign exchange inflows, however there remains significant heavy lifting to be done by the government in terms of economic reform (with little political will at least until after next year's election). This potentially leaves INR likely to suffer funding strain yet again in the later stages of this year. Malaysia will likely underperform should rising US rates once again pressure emerging markets given the still-high level of foreign participation in its capital markets. Also crucial is the risk event implicit in the late October budget, combined with looming threats from ratings agencies. Thailand, now absent a current account surplus, will also be more exposed to external financial shock as it has in recent months under the rising US yield environment. We see TWD, KRW and CNY remaining safe harbours during this period, insulated by stable or rising external accounts, and likely to outperform.

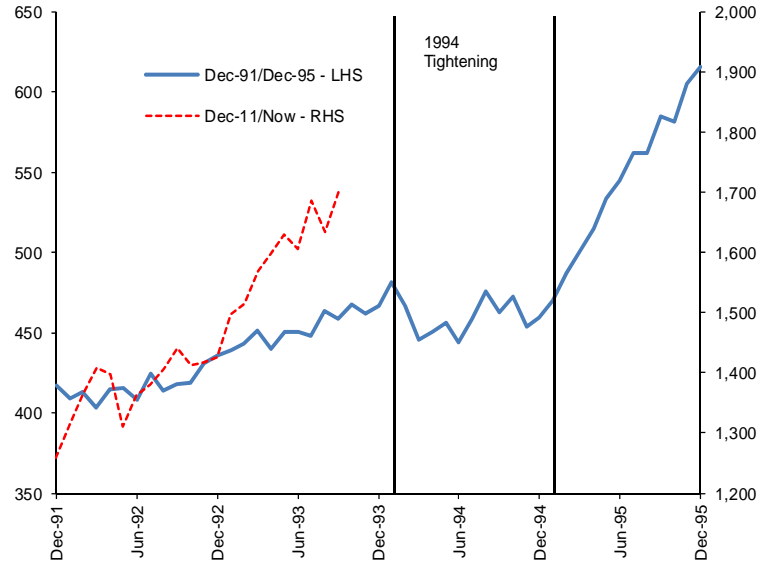
Vincent Delisle (514) 287-3628
vincent.delisle@scotiabank.com

1994 Redux — Revisiting Equities Reaction To A Shift In Fed Policy

Federal Reserve Chairman Ben Bernanke’s decision to push back tapering at the conclusion of the September 17-18 FOMC meeting surprised markets and sent the S&P 500 flying to record levels. Still, with QE tapering likely a matter of time, equity markets could soon be challenged by the shift in U.S. monetary policy. Exhibit 1 compares the S&P 500 behavior in the current cycle (2011-2013) with the 1991-1995 for period. The first steps of tightening tend to weigh on the S&P500.

Although Fed funds increases remain a distant scenario, the Fed’s intentions to reduce the pace of asset purchases will tighten liquidity conditions with meaningful impact on regional and sector equity leadership. Back in 1994, the shift towards tightening surprised investors and the S&P 500 slipped 8.7% from February 3 to April 4 1994. Valuations were the main casualty during the 1994 rate hike cycle and P/E multiples contracted. Once investors realized the new trend in Fed policy was meant to adapt to improving macro conditions, however, the S&P 500 recovered and engaged in a multi-year rally. Fed fund rate cuts from July 1995 to February 1996 also helped fuel the post-95 rebound. From 1995 to 1997, the S&P 500 outperformed emerging markets, cyclicals edged yield sensitive sectors, Large Caps and Growth outperformed. See exhibits 2 and 3.

Exhibit 1: S&P 500 Reaction to the 1994 Shift in Fed Monetary Policy



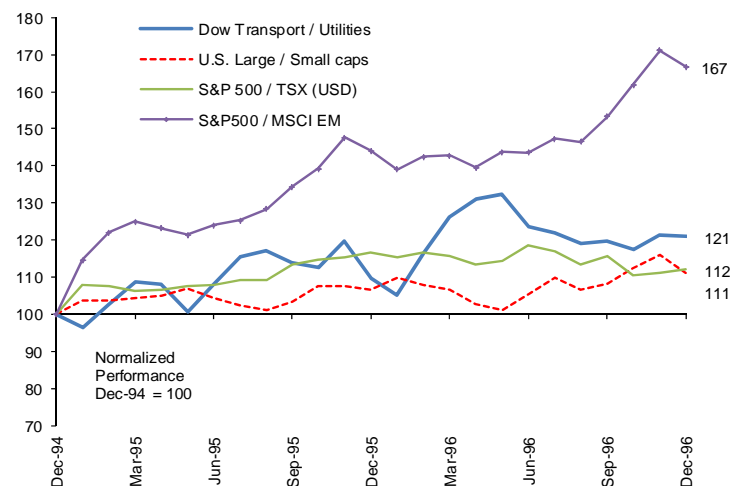
Source: Scotiabank GBM Portfolio Strategy, Bloomberg.

Exhibit 2: Asset Returns – 1992-1996

	Performance (USD; price only)		
	1992/1993	1994	1995/1996
S&P 500	12%	-2%	61%
TSX	7%	-8%	44%
DM	12%	3%	33%
EM	87%	-9%	-3%
Europe	17%	0%	41%
Asia-Pacific	12%	10%	-8%
LatAm	68%	-1%	1%
U.S. Small cap	36%	-3%	45%
Dow Transport	30%	-17%	55%
Dow Utilities	1%	-21%	28%
U.S. Growth	2%	1%	64%
U.S. Value	19%	-5%	58%
Commodities			
Oil	-26%	25%	46%
Copper	-15%	66%	-28%
Gold	11%	-2%	-4%

Source: Scotiabank GBM Portfolio Strategy, Bloomberg.

Exhibit 3: Equity Leadership post-1994



Source: Scotiabank GBM Portfolio Strategy, Bloomberg.

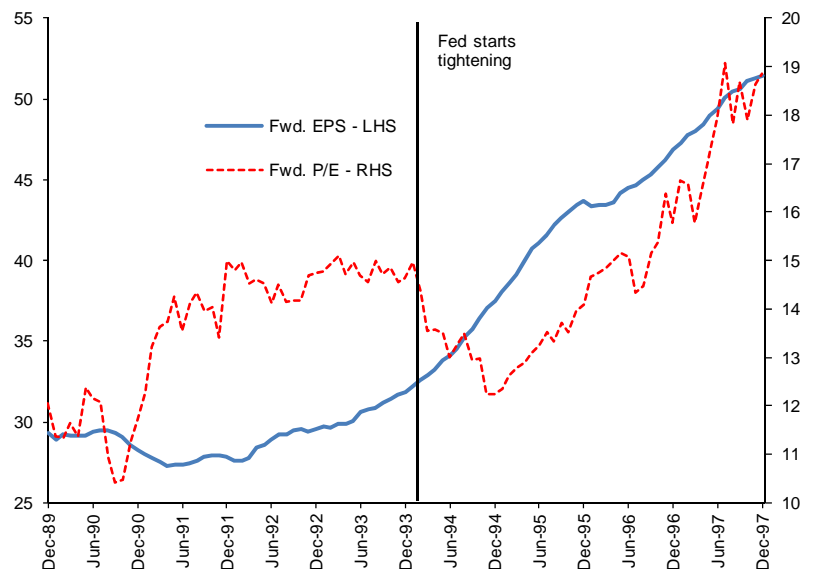
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Equity markets enjoyed strong and broad gains in the '92-'93 period (S&P 500 +12%, TSX +7% in USD) as North America was emerging from recession and the Fed's accommodative stance supported risk appetite. However, optimism was challenged in early February 1994 by an unexpected fed fund increase and North American equities ended the year flat-to-down. In addition to the shift in policy bias (from easing to tightening), the pace of subsequent rate increases (fed funds up 300 bp to 6% over 12 months) negatively impacted bonds which suffered one of their rare yearly losses (U.S. Aggregate Bond Index -2.9%, DEX Universe Bond Index -4.9%).

The 1994 struggle for equities was mainly driven by valuation contraction. The S&P 500 forward P/E declined 1.7x points from the start of tightening to the end, while forward earnings estimates increased 19%. The situation was similar for the TSX (P/E down 4.4x to 11.2x; fwd EPS +30%) and Emerging Markets (P/E down 5.5x to 16.8x; fwd EPS +14%). Exhibit 4 highlights the S&P 500 forward P/E and earnings estimates during the early to mid-1990's. Soon after the last rate hike (February 1st 1995), equity sentiment improved and the S&P 500 embarked on a multi-year bull cycle. A booming economy had set the stage for rising earnings, as evidenced by the S&P 500 forward EPS jumping 16% in 1995, and once sentiment recovered, soaring valuations pushed equities higher. Earnings leadership came from cyclical sectors, which enjoyed higher average EPS growth from 1993 to 1995 relative to defensives and this translated into cyclical outperformance in 1994 and 1995.

Small caps and EM were outperforming heading into 1994, but Fed fund rate hikes triggered a leadership change after 1994. Emerging Markets struggled throughout the whole episode and never managed to engage in a sustained recovery once Fed tightening ended in February 1995. The 1992-1993 period of easy money led to large foreign inflows into EM equity and bonds, leading to an 87% performance by the MSCI EM in 1992-1993. The tide shifted in 1994 as higher U.S. 10-Yr yields (+286bp from low to high) dampened EM attractiveness and made the cost of financing external debt unsustainable for many countries. The Mexican Tequila crisis ensued in December 1994, and although overall EM losses were relatively modest in 1994 (-9%), volatility had increased and the economic consequences paved the way to lacklustre EM gains post-95.

Exhibit 4: S&P 500 Fwd EPS & P/E Ratio



Source: Scotiabank GBM Portfolio Strategy, Bloomberg, Thomson Financial.

What to Expect from Tapering

Although the timing of tapering is currently the main area of debate, we believe the next steps for the Federal Reserve will be geared towards less easing, not more. Hence, the upward normalization in Treasury yields should continue and we expect equity market dynamics to differ from the ones witnessed in the 2H/08-1H/13 period. Cross asset/sector/country correlations have also hovered well above historical average since 2007 and the trend in correlation is expected to decline in coming years.

Vincent Delisle (514) 287-3628
vincent.delisle@scotiabank.com

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Among the similarities with 1994, the shift in the Fed's policy bias alone (from easing to tightening) could challenge risk appetite when tapering is confirmed. Once the Fed undertakes the initial reduction in monthly asset purchases, P/E contraction will likely offset earnings growth as it did in 1994. Large caps should upstage small caps while the S&P 500 could sustain outperformance versus EM. Emerging economies remain vulnerable to rising U.S. yields (and stronger USD) as deteriorating current accounts, weaker currencies, and inflation threats complicate policy. From a sector standpoint, cyclicals leadership over yield sensitive should also prevail.

Among the differences with the 1994 cycle, we believe an extended period of lacklustre bond returns could set the stage for multi-year asset rotation that would benefit equity flows. Although bond returns were negative in 1994, bonds managed to align strong gains in 1995 (DEX Universe +21%), 1996 (+12%), and 1997 (+9.6%) as the secular downtrend in yields was in full force. We believe such a repeat performance from bonds is highly unlikely in an environment of near-record low bond yields and policy normalization. In addition, public equity weightings (institutional and retail) are currently near the low end of their 20-year range. Similar to 1994, equity leadership over bonds is expected to continue. However, absolute equity gains are unlikely to reach the magnitude witnessed in the post-94 cycle. Implementing tapering in an orderly and sustained manner may prove challenging and we expect higher volatility than in 1994. Once tapering starts, the Fed could find it challenging to stay the course as soon as key data starts wavering. The 95-96 S&P 500 rally was driven by both earnings growth and significant P/E expansion with the latter supported by early 1995 Fed rate cuts. Such a powerful combination appears unlikely in coming years.

Na Liu (647) 298-1411
na.liu@cncam.ca

QE Tapering And China

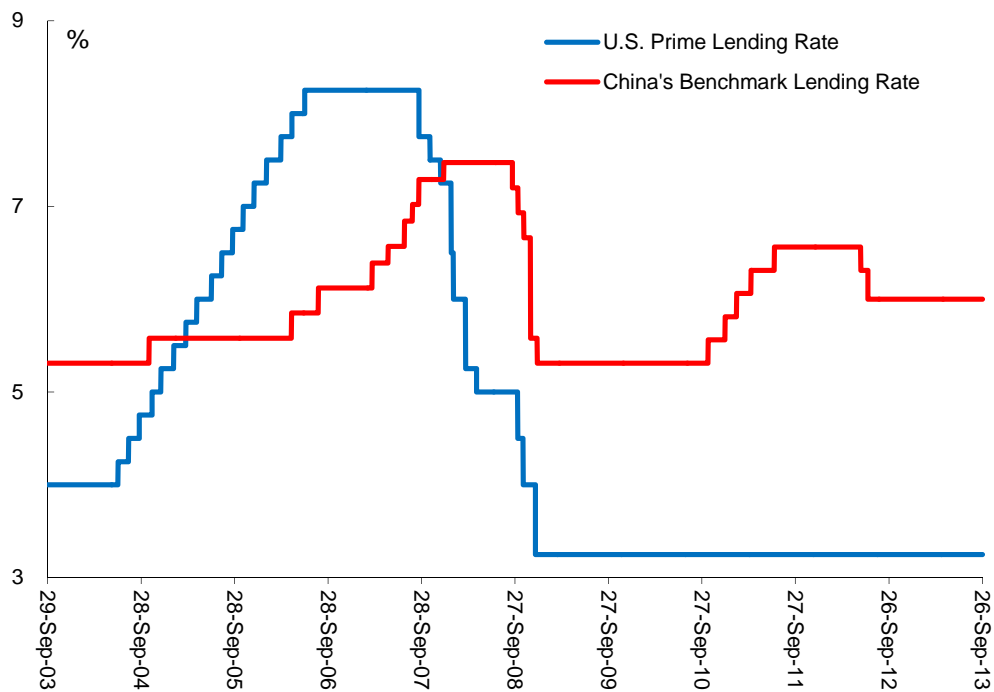
- So the Fed refrained from QE tapering on September 18th. But unless the Fed wants to inflate its balance to infinity, a QE tapering is still likely to arrive on some other day. Over the past weeks, we have been repeatedly asked a simple question — Can China survive QE tapering by the Fed? Even though this question is less relevant now than a few days ago, it will likely become relevant again in the future. So we still want to share our answer to the question: In our view, China not only can survive any QE tapering, but also can differentiate itself from other emerging economies and demonstrate its unique strengths in a potential Fed tapering environment down the road.
- Ever since the Fed hinted in May that it might begin to taper its asset purchase program, several emerging economies have already been penalized by investors. Investors' concern is that those economies had been flooded by the easy money created by the Fed and therefore borrowed too much greenback, which they themselves cannot print, to fund their investment and consumption in the past years. As a result, some emerging economies have been increasingly running current account deficits or capital account deficits, or both. And when the Fed does begin to taper, it will be time for those economies to pay back — when the hot money retreats and investors flee, a long, painful deleveraging process is set to start in emerging economies, some say.
- This dreadful scenario does apply to several major emerging economies, and indeed is already playing out in countries such as India and Turkey. However, it does not apply to China, in our view. In fact, we believe China is probably the opposite of the perceived emerging market syndrome. For instance, as a country China is a net saver, as it has the world's largest trade surplus; China's currency is immune to possible attack, and it is in firm control of its central bank, as the country boasts US\$3.5 trillion in foreign exchange reserves; and China's financial system is not vulnerable to immediate foreign influence, as China's capital account is still under effective control.
- We believe the only valid concern is that China has its own debt problem, and as we have repeatedly warned, China is already in its own deleveraging process. However, it is critical to realize that China's deleveraging process is more likely to be a self-controlled process, rather than a forced-upon one. In fact, the process was started by the Chinese authorities themselves in June and it has nothing to do with the Fed. This is because the debt in the Chinese economy is mostly yuan-denominated and not borrowed from overseas. In other words, the debt is denominated in a currency that the Chinese central bank can print. In the current environment, not all debt is created equal. Domestic debt and foreign debt have sharply different implications for an emerging economy. And for that matter, China's total foreign debt is just some 13.5% of China's foreign exchange reserve. In contrast, India's foreign debt is well over 130% and Indonesia's is over 200%. For China's overall debt problem, if one insists on finding a comparable, it is Japan, not India.
- And even for China's domestic debt, it is still manageable. For instance, Chinese banks have set aside loan-loss provisions of RMB1.57 trillion, or 2.81% of total bank loans. In addition, total capital in the commercial banking system reached RMB8.75 trillion by the end of June. The combination of provisions and capital is sufficient to absorb non-performing loans worth over 23% of outstanding loans, assuming a 20% recovery ratio. As to China's shadow banking system, our calculation shows that even if 30% of debt in the system goes bad and needs outright government bailout, an extremely unlikely scenario, it basically adds 10 percentage of debt-to-GDP ratio for the central government. Given the strong balance sheet of China's central government, adding 10% of GDP worth of public debt is, in Premier Li's words, "safe and manageable." (And, of course, the alternative to adding public debt is to let the People's Bank of China buy the debt, a process called... yes, QE).

Na Liu (647) 298-1411
na.liu@cncam.ca

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- At the end of the day, investors, including “hot-money” investors, will likely leave a country when they believe the country cannot service its debt, or its currency will devalue, or the capital return in the country is simply too low. But in China’s case, we believe it can easily handle its foreign debt and its currency is not susceptible to attack. As to returns, with or without tapering, the “carry trade” is still there — nominal capital return in China is still higher than that in the U.S., no matter to invest the money in government bonds, or to make prime-rate lending, or simply to make a one-year deposit (see Exhibit 1). This is why we actually doubt foreign capital would flee the country in large amounts, even if the Fed actually tapered now.
- Latest central bank data show that China’s financial institutions actually purchased RMB27.3 billion worth of foreign exchange on a net basis in August, reversing the net sales in July and June. In our view, this reversal shows that investors have realized a simple fact: even as the Indian rupee has suffered a downward spiral in the past months, the Chinese yuan has been as solid as a rock and now trades at around its highest level since 1994. The strength of the yuan amid the turmoil of other emerging market currencies apparently has shored up investors’ confidence and has already demonstrated China’s unique strength well before the Fed actually tapers.

Exhibit 1: Interest Rates in China and U.S.



Source: CITIGroup, PBOC.

Corporate Bond Research

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Scotia Plaza 40 King Street West, 63rd Floor
Toronto, Ontario Canada M5H 1H1
Tel: (416) 866-6253 Fax: (416) 866-2829
Email: scotia.economics@scotiabank.com

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