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Global imbalances: the international monetary system and financial stability

Mark CARNEY
Governor
Bank of Canada

Understanding the link between global macroeconomic imbalances and financial stability is critical not only for understanding the recent financial crisis, but also for what could happen next. The imbalances and financial vulnerabilities that plagued the global economy before the crisis have begun to re-emerge. In a context of deficient global demand and exceptionally low interest rates in many countries, one likely result is excessively risky behaviour in the financial sector. A failure to resolve global disequilibria will ultimately undermine the global recovery and financial stability. Several lines of defence against this outcome are needed, including greater responsibility on the part of households, firms and governments to manage their debts, and enhanced financial sector supervision.

While there were many causes of the financial crisis, its intensity and scope reflected the build-up of unprecedented global disequilibria. For a time, large current account imbalances fostered low real interest rates, subdued macroeconomic volatility and widespread complacency amongst market participants. A stable macroeconomic environment and liquid markets were taken for granted, prompting a search for yield, rising leverage, and dramatic under-pricing of risks. With the international monetary system (IMS) failing to promote timely and orderly adjustment, when it came, the reckoning was brutal. While many, including the Bank of Canada persistently warned about the dangers of global imbalances in the run-up to the crisis, few identified the link between them and financial stability.

Understanding the link between global macroeconomic imbalances and financial stability is critical not only for our understanding of what has occurred, but also for what could happen next. The imbalances and vulnerabilities that plagued the global economy before the crisis have begun to re-emerge. Given the shortcomings of the current IMS and the ongoing strains in the global financial system, these imbalances pose renewed risks to strong and sustainable global growth.

To better understand these risks, this article first explores some of the sources of global imbalances in the lead-up to the crisis and examines how they contributed to financial instability. It then describes how the re-emergence of global imbalances is creating new risks to the global financial system. In light of these risks, the conclusion is self-evident: a failure to resolve global disequilibria will ultimately undermine the global recovery.

1| Global imbalances and financial stability prior to the crisis

The largest peacetime current account imbalances since the beginning of the 20th century reflected a combination of structural changes and policy choices.

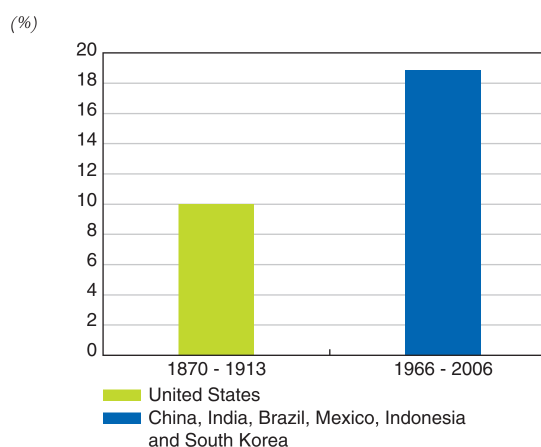
1|1 Structural changes

Two main structural changes drove the re-emergence of global imbalances during the past two decades. First, the integration of China, India and other emerging market economies (EMEs) represented a historically unprecedented, and fundamentally positive, structural shift in the global economy (Chart 1). Never in history has economic integration involved so many people, both in raw numbers and as a percentage of the global population. For example, when North America and the periphery of Europe were integrated during the latter half of the 19th century, their total population was half the size of the then-advanced countries. The comparable ratio for postwar Japan was 10 per cent. Contrast that with China and India today, which alone represent 2.5 times the current population of advanced countries. Adjusted for the percentage of the population in the traded-goods sector, the effective global labour supply quadrupled between 1980 and 2005, with most of the increase taking place after 1990. This trend is set to continue: the globally integrated labour force is projected to double again by 2050 (Carney, 2008).

Second, the global economy has opened dramatically –merchandise exports now make up about 20 per cent of global GDP, compared with about 9 per cent at the height of the last great wave of globalisation. Cross-border capital flows are now roughly 15 per cent

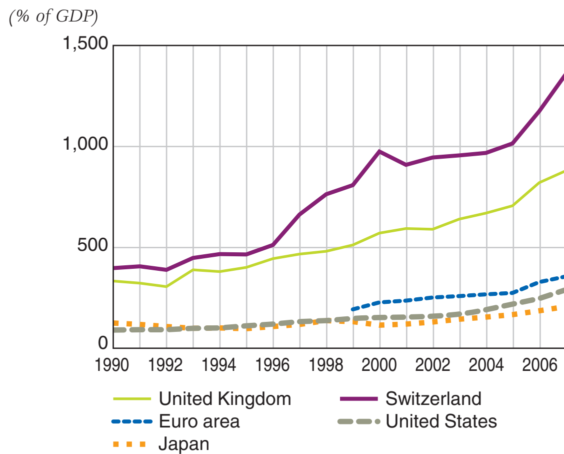
Chart 1
Increase in share of world GDP during peak growth periods: United States and EMEs

(%)



Source: Maddison.

Chart 2
Gross foreign assets and liabilities



Source: Lane and Milesi-Ferretti (2007).

of global GDP, compared with 3 per cent at the turn of the last century (Carney, 2008).[1] Since the 1980s, capital flows among and between advanced and emerging market economies have exploded, leading to large build-ups in cross-border claims (Chart 2). This deeper financial integration has meant that shocks, both real and financial, are now transmitted quickly across financial markets.

History shows that international systems dominated by fixed and/or managed exchange rates seldom cope well with major structural changes. This failure is the result of two pervasive problems: the downward rigidity of nominal prices and wages and an asymmetric adjustment process. In the short run, it is generally much less costly, economically as well as politically, for countries with balance of payments surpluses to maintain them and accumulate reserves than it is for deficit countries to sustain deficits. Countries with deficits must either run down their reserves or deflate their currencies. The only limit on reserve accumulation for surplus countries is its ultimate impact on domestic prices.

Depending on the openness of the financial system and the degree of sterilisation, this impact can be delayed for a very long time (Carney, 2010a).[2] In such an environment, great risks to financial stability can build.

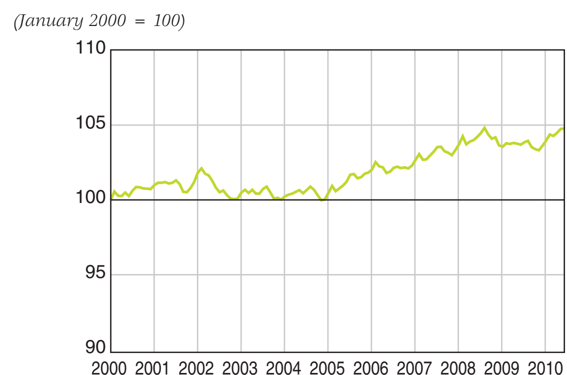
Not surprisingly, the current hybrid IMS, with its mix of fixed and floating exchange rates, has been unable to facilitate the required adjustment between surplus and deficit countries.

1|2 Policy choices

This reflects policy choices of both emerging market and advanced economies. Many EMEs pursued exchange rate policies that effectively thwarted real exchange rate adjustment. Indeed, given the scale of the economic miracle, it is remarkable that the currencies of the BRICs (Brazil, Russia, India, China) have only appreciated 5 per cent in real terms against the G7 over the past decade (Chart 3). EMEs have accumulated massive foreign reserves, concentrated both in terms of holder (the top five countries hold roughly 50 per cent) and currency (two-thirds are in US dollars).

Maintaining undervalued exchange rates requires capital controls and sterilised intervention, both of which are less than fully effective over time. Financial repression maximises the efficacy of sterilisation but at great cost. With the access of firms and households to credit limited as a consequence of sterilisation, structural forces fostering high savings rates were reinforced. The end result has

Chart 3
BRIC real effective exchange rate against the G7



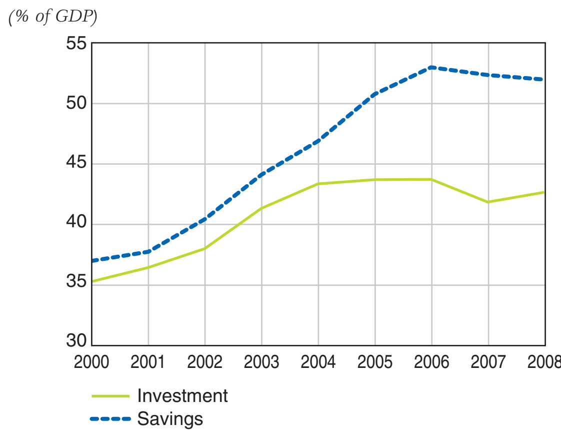
Sources: IMF, Bloomberg, National Statistics Agencies.

1 *Remarks by Mark Carney, Governor of the Bank of Canada: "The implications of globalisation for the economy and public policy", presented to the British Columbia Chamber of Commerce and the Business Council of British Columbia, 18 February 2008.* http://www.bankofcanada.ca/en/speeches/2008/sp08-2.html.

2 *Remarks by Mark Carney, Governor of the Bank of Canada: "Restoring faith in the international monetary system", Spruce Meadows changing fortunes round table, 10 September 2010.* http://www.bankofcanada.ca/en/speeches/2010/sp100910.html.

Chart 4
China's investment and savings

(% of GDP)



Source: OECD.

been a "savings glut" in many emerging markets, particularly China since the early 2000s (Chart 4).

The combination of expansionary monetary and fiscal policies in advanced countries following the 2001 recession and high savings rates in East Asia generated significant global imbalances, massive capital flows, and the "conundrum" of very low, long-term interest rates. These low risk-free rates, in turn, fed the search for yield and excessive leverage across the system. The deregulation of housing and consumer finance reinforced a secular decline in private savings.

Vulnerabilities grew from this combination of macro imbalances and micro failings in risk management, supervision, and financial regulation. Low, stable and predictable inflation and low variability in economic activity –especially when associated with exceptionally low and stable interest rates– bred complacency among financial market participants as risk taking adapted to the perceived new equilibrium.[3]

Policy-makers in advanced economies were too slow to recognise and address the looming risks. The overall result was a period of increasingly unbalanced growth, without the real and financial signals necessary to promote timely and orderly economic adjustment. Three years ago, the pressures became overwhelming. Financial systems in advanced economies seized up; virtually every financial asset in the world was repriced; and private demand in advanced economies collapsed.

The policy response to the crash has been an unprecedented easing of fiscal and monetary policy, which has bought time for the necessary adjustments. But a durable solution requires a rebalancing of global supply and demand. This will not happen without changes to the functioning of both the international monetary and financial systems.

2| Re-emerging imbalances and risks to financial stability

2|1 A hesitant recovery

Going forward, the recovery will depend critically on a rebalancing of global demand. This is no easy task, and will rely on the implementation by both advanced and emerging market economies of the suite of policy reforms as set out in the G20 Framework for Strong, Sustainable and Balanced Growth. These include:

- financial sector reform and repair;
- fiscal consolidation, appropriately timed, where needed;
- structural reforms to enhance economic growth;
- more market-determined exchange rates.

Progress is being made: financial sector reforms, particularly new capital and liquidity rules (Basel III), have been agreed and are now being implemented. Fiscal consolidation has begun in many countries. However, progress on growth-enhancing structural reforms has been slower, and exchange rate adjustment is still being thwarted.

Real exchange rate adjustment, in particular, will be critical for the rebalancing of global growth. Adjustments in real exchange rates would be most effectively achieved through movements in nominal exchange rates, allowing relative wages and prices to adjust quickly and symmetrically to restore external balance.

3 *Indeed, risk appears to be at its greatest when measures of it are at their lowest. Low variability of inflation and output reduces current financial VaR and encourages greater risk taking (on a forward VaR basis), as investors stretch from liquid to less liquid markets. In parallel, low and stable interest rates promote larger asset-liability mismatches across credit and currency markets. These tendencies are particularly marked if there is perceived certainty about the stability of low interest rates.*

At present, the international monetary system is sliding towards a massive dollar block. Over a dozen countries are now accumulating reserves at double digit annual rates, and countries representing over 40 per cent of the US dollar trade weight are now managing their currencies. As a result, real exchange rate adjustment is more likely to occur through changes in general wages and prices. The implications for asset prices, output, employment, and thus financial stability, could be considerable, as the absence of nominal adjustment will reinforce inflationary pressures in those economies where exchange rates are significantly undervalued, and disinflationary pressures elsewhere (primarily in the advanced economies).

Inflationary pressures in emerging economies

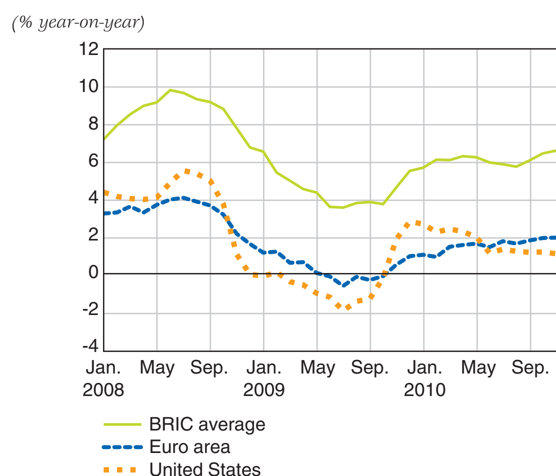
Already, inflationary pressures are rising in emerging economies (Chart 5). Despite divergent growth and inflation prospects, many countries with fixed exchange rates are effectively shadowing US monetary policy, which is not well suited to their circumstances (Chart 6). If this divergence in optimal monetary policy stance persists, the strains on the system will grow.

Disinflationary pressures in advanced economies

In the major advanced economies, disinflationary pressures are evident (Chart 5). These economies have a diminished ability to expand domestic demand, given the fiscal constraints and scale of balance-sheet repair that is necessary. Instead, demand must come from the external sector –as such, advanced countries' international competitiveness needs to be rebuilt through changes to nominal exchange rates or, failing that, lower domestic wages and prices. The dynamic is perhaps most stark in peripheral Europe where the first option is not available. The extent of these dis-inflationary pressures is best exemplified by the fact that monetary policy remains at the effective lower bound in many jurisdictions, and additional unconventional measures have been introduced.

Chart 5
CPI inflation

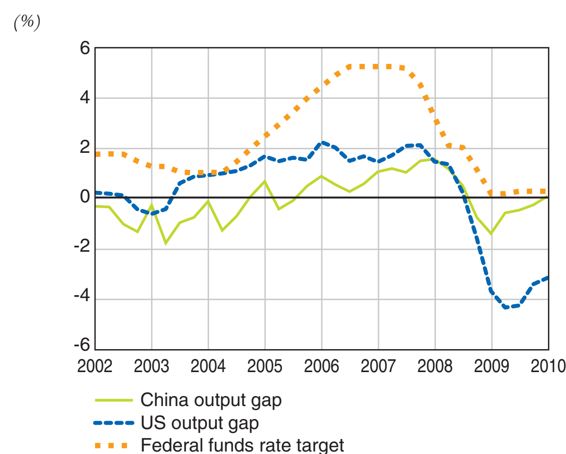
(% year-on-year)



Sources: National Statistics Agencies.

Chart 6
US monetary policy suitable for others?

(%)



Sources: US Federal Reserve, Bank of Canada.

In this environment, the current frustration of adjustment by surplus countries is leading to deficient global demand. This risks creating a similar dynamic to that being experienced in the Euro area, but on a global scale, with sustained weak growth in many countries. The absence of a rebalancing of global demand could have very large costs. The potential costs are huge –up to USD 7 trillion in lost global output by 2015 (Carney 2010a). Needless to say, the consequences for financial stability would be profound.

2|2 Risks to financial stability

The lack of a rebalancing of global growth and an environment of deficient global demand could affect financial stability through a variety of channels, including: the impact of slow economic growth on the financial sector and fiscal sustainability,

the consequences of sustained low interest rates for a broad range of financial participants, and the de-stabilising impact of excess capital flows to EMEs.

Slow recovery, sovereign debt and the banking sector

History suggests that recessions involving financial crises tend to be deeper and have recoveries that take twice as long. In the decade following severe financial crises, growth rates tend to be one percentage point lower and unemployment rates five percentage points higher.[4] The current US recovery is proving no exception, and in Europe we have estimated that the shortfall relative to pre-crisis trend growth could ultimately amount to 40 per cent of European GDP over the long-term (Carney, 2010b).[5] This foregone output hits the financial sector directly by reducing the speed with which banks can repair their balance sheets, keeping credit losses elevated, and muting other sources of revenue.

As has been painfully reinforced over the past several months, the problems of banking sector weakness and fiscal sustainability can become intertwined. Slower recoveries will place increased pressure on the fiscal positions of the advanced economies, and in some cases raise concerns about their capacity and willingness to support the financial sector if needed. A re-pricing of sovereign risk could also compromise financial stability by introducing market volatility and increasing bank funding costs. Moreover, financial institutions and institutional investors are major holders of sovereign debt, leaving them exposed to turmoil in sovereign debt markets.

Low for long interest rates

To respond to the deflationary pressures emanating from global imbalances, advanced economies have maintained policy rates at extraordinarily low levels, and implemented unconventional measures to provide stimulative monetary conditions. Historically low policy rates, even if appropriate to achieve price stability, create their own risks. Aside from monetary policy, authorities will need to remain as vigilant as they have been in the past to the possibility of financial imbalances developing in an environment of still-low interest rates and relative price stability.

While such measures are essential in the current context, sustained low interest rates can create their own risks that could increase the challenges faced by the financial system and require careful monitoring.

In particular, the conviction that interest rates will be low for long can lead to various types of risky behaviour in the financial sector. In response to low returns on typical financial instruments, for example, financial institutions and investors more broadly are actively seeking riskier investments to boost returns. There is strong evidence of this in a variety of markets. Sustained behaviour of this kind will substantially increase risk profiles and raise vulnerabilities to shocks. Reversals in market conditions would lead to large losses on the part of investors and institutions, with follow-on effects throughout our economies.

The pressures on insurance companies and pension funds, with their longer-term guaranteed returns or benefits, are especially apparent. By reducing yields on assets and raising the net present value of liabilities, a sustained period of low interest rates makes these guarantees harder to fulfill. To address potential shortfalls, funds could move into riskier assets in a search for yield and/or shorten their duration to limit asset-liability mismatches.

In another example, banks have used low short-term funding rates to rebuild capital by investing in long-term government bonds. This strategy is effective to a point, but may diminish the sense of urgency with which banks reduce leverage or write down bad assets.

Past experience has in fact shown that low policy rates facilitate "evergreening," or the rolling-over of non-viable loans. The classic example was Japan in the 1990s when banks permitted debtors to roll over loans on

4 *See Reinhart and Reinhart: "After the fall," Macroeconomic challenges: the decade ahead, Federal Reserve Bank of Kansas City 2010 Economic Policy Symposium available at* http://www.kansascityfed.org/publicat/sympos/2010/reinhart-paper.pdf.
Recent work by the Basel Committee in the context of Basel III reviews the literature on the cost of financial crises, and notes the enormous potential costs in terms of foregone GDP for both advanced and emerging economies alike. See "An assessment of the long-term impact of stronger capital and liquidity requirements" available at http://www.bis.org/pubi/bcbs173.pdf.

5 *Remarks by Mark Carney, Governor of the Bank of Canada: "Bundesbank lecture 2010: The economic consequences of the reforms" Deutsche Bundesbank, 14 September 2010.* http://www.bankofcanada.ca/en/speeches/2010/sp140910.html.

which they could afford the near zero interest payments but not principal repayments. By evergreening loans instead of writing them off, banks preserved their capital, but this delayed necessary restructuring in the industry. Moreover, the presence of non-viable firms limited competition, reduced investment and prevented the entry of new enterprises.

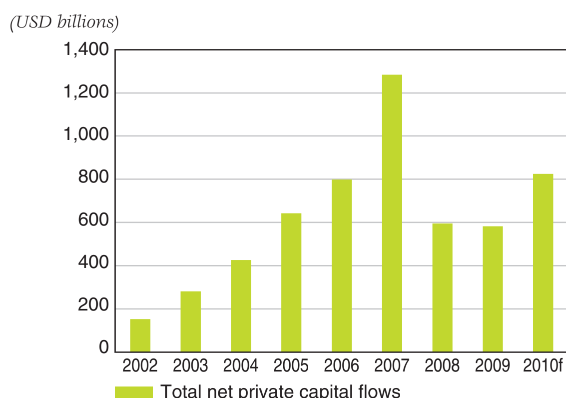
Likewise, household credit tends to expand rapidly in the presence of low interest rates. As a consequence, the proportion of households with stretched financial positions grows significantly. Without a significant change in behaviour, the proportion of households that would be susceptible to serious financial stress from an adverse shock will continue to increase.

Emerging economies, the search for yield and asset price bubbles

Persistently low interest rates, and modest economic growth in advanced economies, mean that investors are turning increasingly to EMEs in their search for yield. Capital flows to emerging economies, for example, have rebounded sharply in the aftermath of the crisis (Chart 7). Combined with accommodative monetary policy, these flows have led to concerns that asset price bubbles may be emerging in equity or property markets (Chart 8). Wary of boom/bust cycles, many EMEs are trying to contain these pressures by introducing capital controls (perhaps under the guise of macroprudential policy) –but in essence, such measures only serve to introduce new rigidities into the IMS.[6] A more durable response would be to address the current rigidities in the IMS that are contributing to global imbalances.

Chart 7
Total private capital flows to EMEs

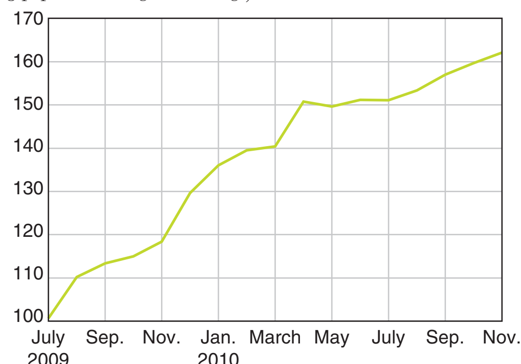
(USD billions)



f: Forecast.
Source: Institute of International Finance.

Chart 8
China: second hand apartment price index

(17 city population-weighted average)



Source: Soufun and Bank of Canada calculation.

3| Moving forward

Experience suggests that prolonged periods of unusually low rates can cloud assessments of financial risks, induce a search for yield and delay balance-sheet adjustments. There are several defences.

The first is built on the decisions of individuals, companies, banks and governments. Extraordinary measures are only a means to an end. Ordinary times will eventually return and, with them, more normal interest rates and costs of borrowing. It is the responsibility of households to ensure that in the future, they can service the debts they take on today.

Similarly, financial institutions are responsible for ensuring that their clients can service their debts. More broadly, market participants should resist complacency and constantly reassess risks. Low rates today do not necessarily mean low rates tomorrow. Risk reversals when they happen can be fierce: the greater the complacency, the more brutal the reckoning.

6 *The record of capital controls is not encouraging, as they are often evaded over time.*

The second line of defence is enhanced supervision of risk-taking activities. Stress testing in major economies should focus on excessive maturity and currency mismatches, look for evidence of forbearance (such as ailing industries receiving a disproportionate share of loans or the loosening of standards for existing debtors) and analyse the impact of sharp moves in yield curves.

These efforts will be aided by the imposition of the new Basel III regulations. Measures, including a leverage ratio, new trading book rules and liquidity standards, will help curtail excessive leverage and maturity transformation.

The third line of defence is the development and selected use of macroprudential measures. In funding markets, the introduction of through-the-cycle margining can help curtail liquidity cycles. In broader asset markets, counter-cyclical capital buffers can be deployed to lean against excess credit creation. Importantly, following the agreement of G20 leaders in Seoul, the Basel Committee endorsed this framework.

These lines of defence are imperfect responses to a difficult global environment. The best policy is to address the underlying disequilibria. Countries need to implement the policy reforms set out by the G20 Framework for Strong, Sustainable and Balanced Growth, and its Mutual Assessment Process. This includes fiscal consolidation, greater exchange rate flexibility for EMEs, implementing structural reforms to increase growth, and continuing financial sector reform and repair. These measures, combined with vigilance on the part of financial sector supervisors, and the need for market participants not to become complacent, are the best means to ensure that the recovery endures.