Foreign Exchange Risk Management:

Perspectives From Financial Executives

April 2013

Defining and Understanding FX Risk

Overview of Survey Results:

- What is clear according to this study* by the Canadian Financial Executives Research Foundation (CFERF) is that foreign exchange risk is a major issue
- In fact, 90% of organizations surveyed rated foreign exchange management as an important consideration in their business
- Canadian businesses continue to adapt to an increasingly complex currency universe
- For most organizations, foreign exchange risk – and its management are challenges for which there exists an emerging and ever-more sophisticated set of policies, procedures and tools

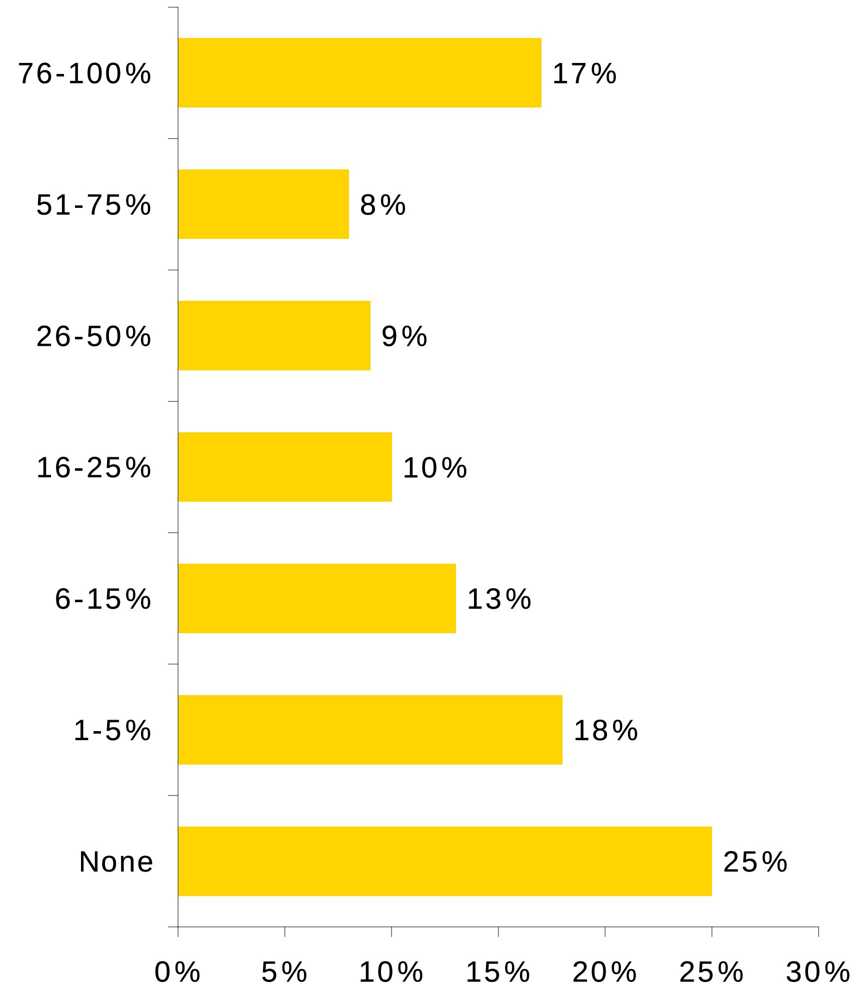
*The *Foreign exchange risk management: Perspectives from financial executives* report is based on the results of an online survey that took place between November 26, 2012 and January 3, 2013, during which time 109 respondents completed the survey.

Defining and Understanding FX risk: Survey Results

Overview of Survey Results:

- Three out of four respondents reported some percentage of their revenue is denominated in foreign currency
- 17% reported that 76% to 100% of revenue is denominated in a foreign currency
- Export credit agency Export Development Canada noted in a recent foreign exchange white paper that Canadian companies that are active in international markets view volatility in the Canadian dollar as the number one constraint to growing exports
- The CFERF foreign exchange risk management study similarly found that organizations consider the management of FX risk to be a critical task
- More than two-thirds of respondents (68%) rated foreign exchange management ‘extremely important’ or ‘important.’ Just 10% rated FX management ‘not at all important.’
- However, only about half actually had a policy or procedure in place to manage risk

What Percentage of Revenue Comes From Foreign-Denominated Currency?



"To take risk is the essence of economic activity….the main goal must be to enable companies to take the right risk…by providing knowledge and understanding of the alternatives"

Peter Drucker, 1974

What is currency risk?

- It is financial risk posed by exposures to movements in the exchange rates between two currencies. Multinational Businesses, Importers, Exporters and Investors are all faced with currency risk
- These risks can have a material financial impact if they are not identified and managed appropriately

What is Risk Management (Hedging)?

- The process of analyzing risks and determining how to prioritize and handle exposures

Types of risk

- **There are essentially three types of risks:**
  - Transactional
  - Economic
  - Translation

Any or all of these exposures can pose fluctuations in value, cash-flow and financial reporting which can materially affect a firm's performance and competitiveness

Before market risk can be managed it must be understood

- Identify:
  - What market risks is the company exposed to, directly and indirectly?
  - Where do the market risks impact the business?
  - What impacts the amount of exposure the company has?

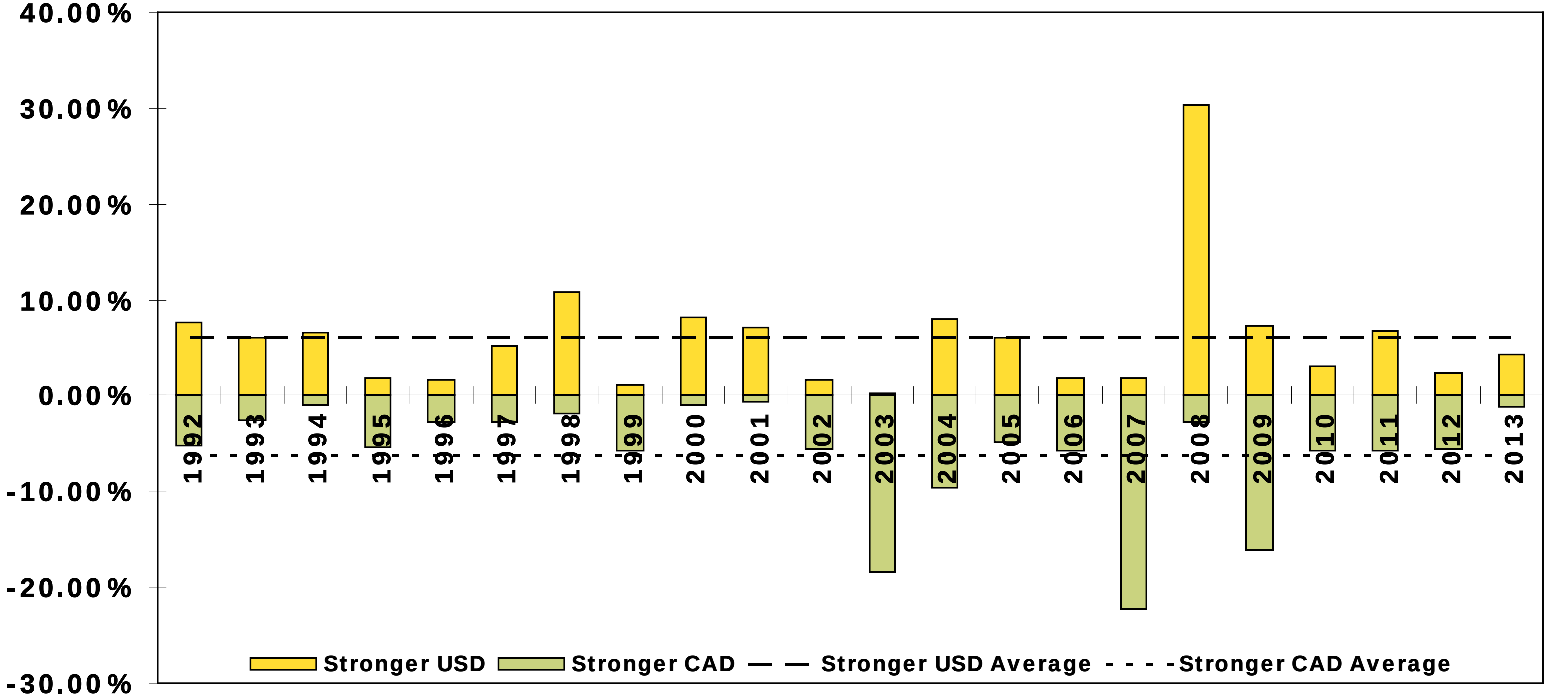
- Quantify:
  - What is the impact of unfavorable market moves on the company?

- Expectations of the market risk impact depends upon:
  - The forecasted exposure
  - The expected/potential market rates

Defining and Understanding FX Risk: USD/CAD Market Conditions

- The chart below shows the maximum swing each year as measured from Jan 1st
- The average annual move in USD/CAD is +6.1%, and –6.2% from start to end of year
- The average suggests a 2013 range of 1.0527 to 0.9302 using a starting point of 0.9920

Percentage Yearly High/Low Swing in USD/CAD Exchange Rate (Swing measured from Jan.1 of each year)



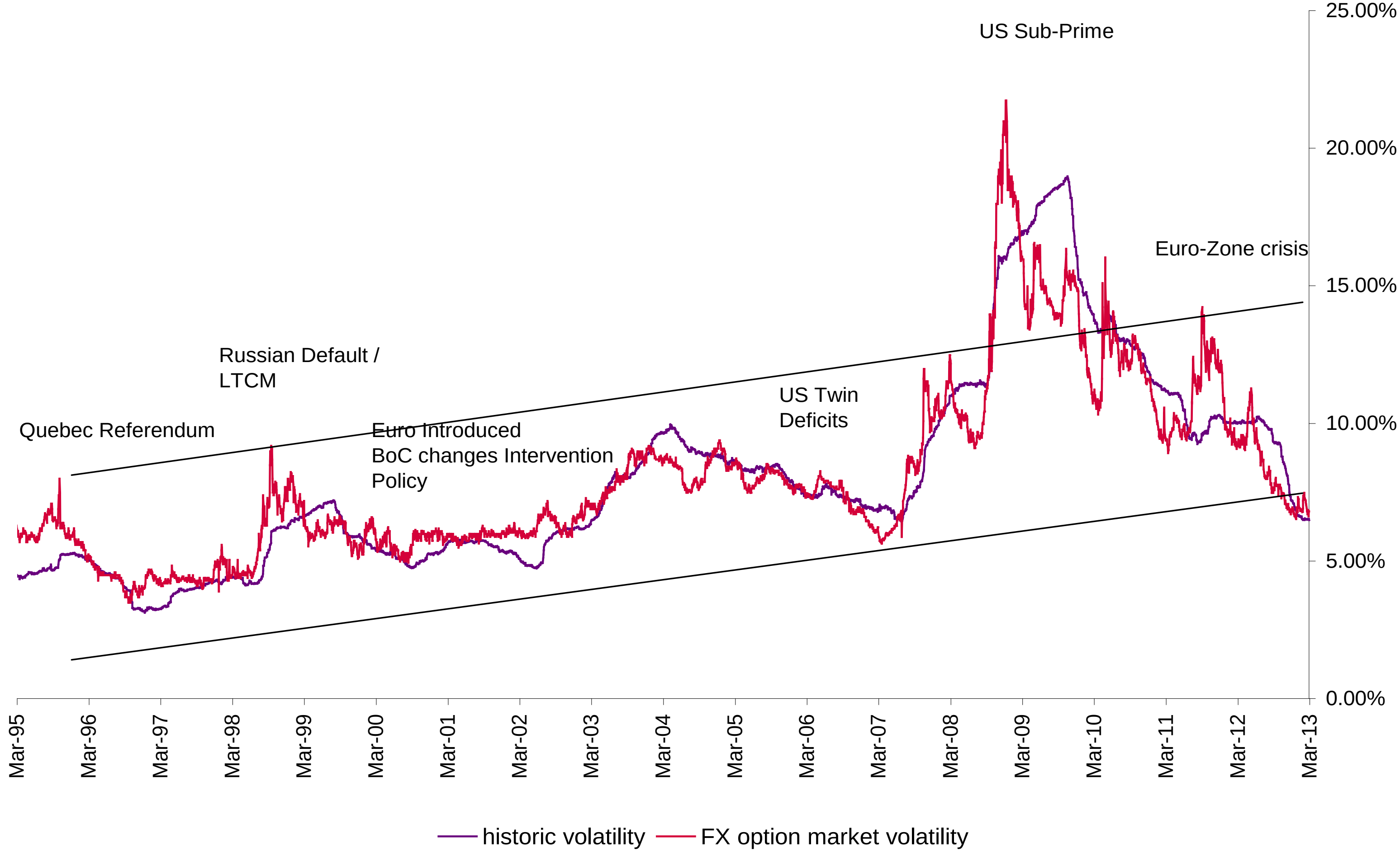
Note: Data updated as of March 25, 2013

Has the Canadian Dollar stabilized?

- The "Risk on – Risk off" pattern is expected to continue with uncertainty in Europe and escalating risks of a global slowdown
- Financial markets volatility is expected to continue

CAD per USD Historical Exchange Rate

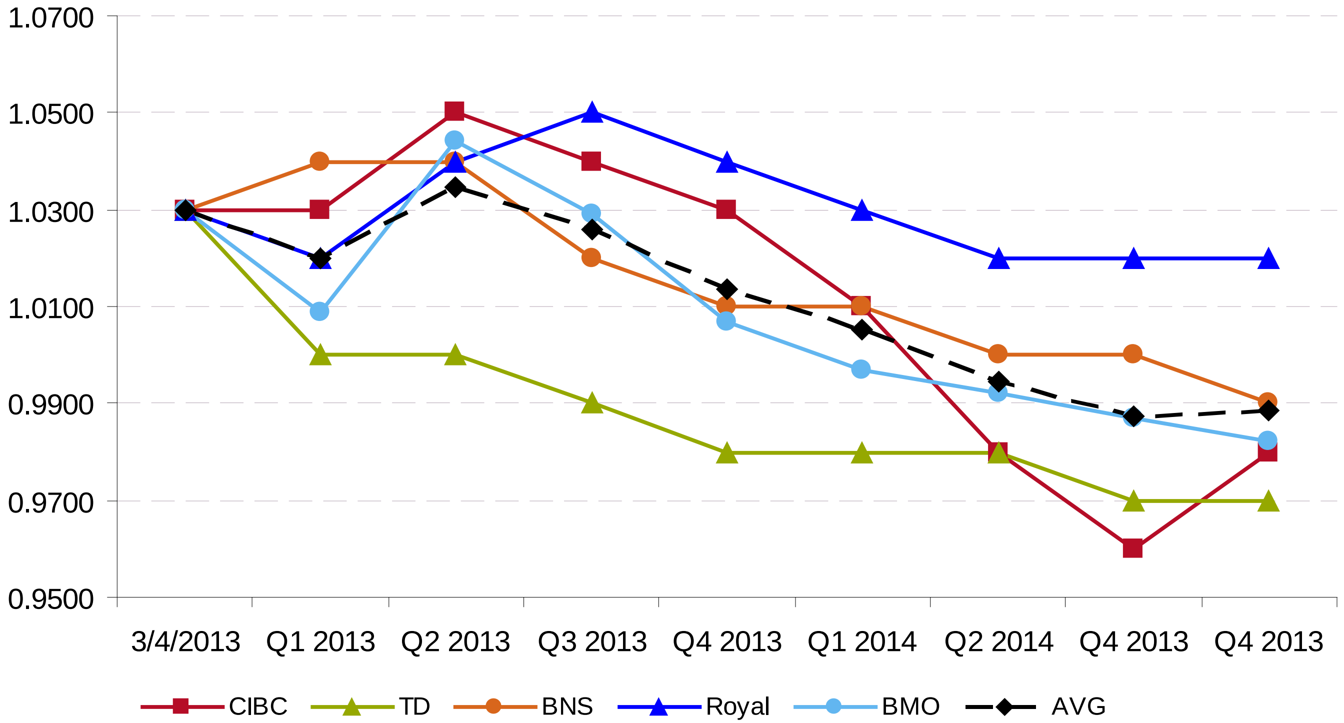
1 YR USD / CAD Volatility



Common ways to measure risk:

- **Notional (dollar) amount**
  - Forecasted exposure necessary for any risk measure
  - Simple
  - Doesn’t tell you about implications to financial results
- **Sensitivity to a static move** (e.g. 10% or 1 cent move)
  - Gives you a gauge
  - Doesn’t tell you what is likely
- **Market forecast / view** (e.g. future expectations of economists)
  - Directional prediction of what will happen
  - Someone’s opinion based on information currently available
- **Volatility measures** (e.g. EBITDA at risk)
  - Provides you with a probability based on market price of risk – view neutral
  - A little more complex to model and calculate

Canadian Multi-Bank Economist Forecasts



	Q1 2013	Q2 2013	Q3 2013	Q4 2013	Q1 2014	Q2 2014	Q4 2013	Q4 2013
CIBC	1.0300	1.0500	1.0400	1.0300	1.0100	0.9800	0.9600	0.9800
TD	1.0000	1.0000	0.9900	0.9800	0.9800	0.9800	0.9700	0.9700
BNS	1.0400	1.0400	1.0200	1.0100	1.0100	1.0000	1.0000	0.9900
Royal	1.0200	1.0400	1.0500	1.0400	1.0300	1.0200	1.0200	1.0200
BMO	1.0090	1.0440	1.0290	1.0070	0.9970	0.9920	0.9870	0.9820
AVG	**1.0198**	**1.0348**	**1.0258**	**1.0134**	**1.0054**	**0.9944**	**0.9874**	**0.9884**

Some key questions to address

- What is the company's appetite for uncertainty?
- What outcomes/aspects of the business are we trying to protect?
- What potential impact can the business withstand?
- For how long does the business need to be protected? How long to adjust the business?
- What are competitors doing?

Panel Discussion

How has your company's focus on FX risk changed in the last five years?

Doing Business In Emerging Markets

Emerging Markets

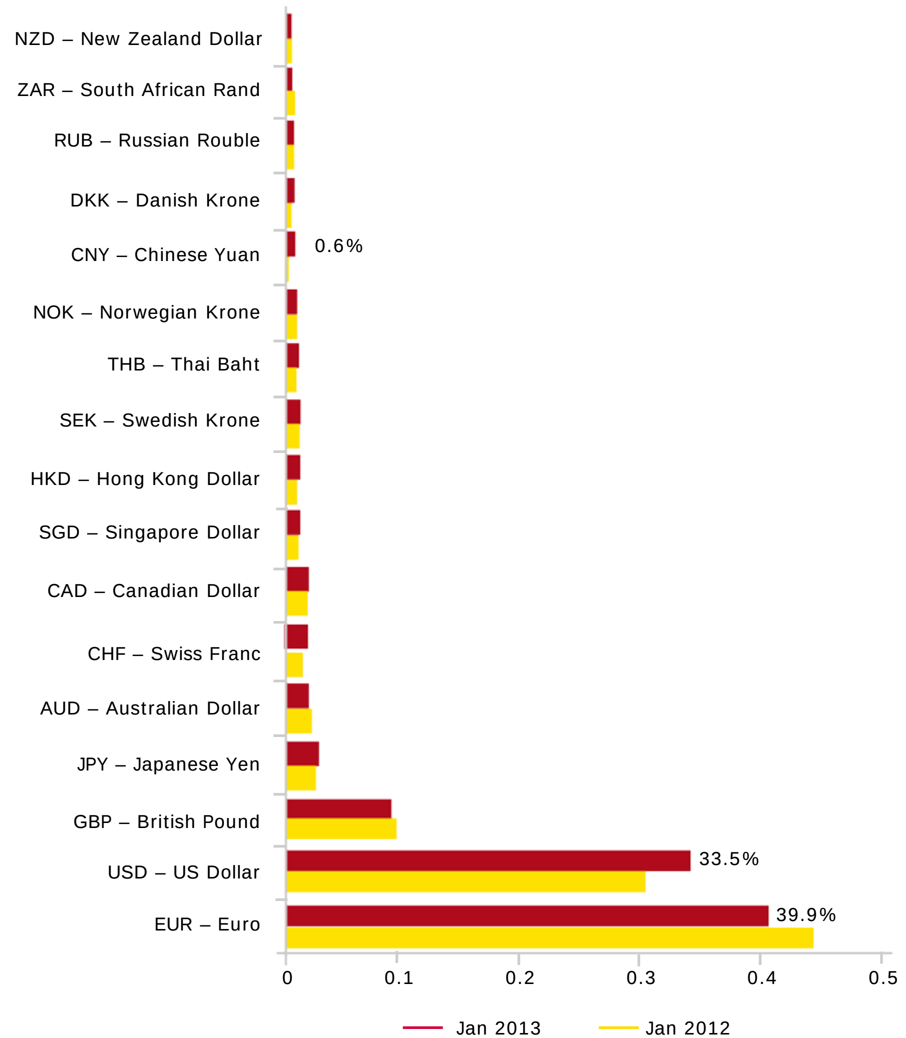
- Global FX market turnover grew 20% in 2010 vs 2007, with average daily volume of US$4.0 trillion. The increase was driven by a 48% jump in spot transactions, which represent 37% of total FX turnover. (Source: BIS)
- USD (85%), EUR (39%), and JPY (19%) hold the dominant market share of daily turnover, although significant increases have been seen in the Chinese Renminbi, Turkish Lira, Brazilian Real, and Korean Won. Each hold around a 1% share (CAD accounts for 5.3%)
- FX markets have become more global, with cross-border dealer transactions accounting for 65% of trading activity, while local dealer transactions represent 35%, it's lowest share ever
- The Canadian government and industry groups have encouraged Canadian companies to lessen their dependence on the US market to expand their trade opportunities into emerging markets. These countries continue to seek new sources of natural resources and goods to further their industrial and infrastructure development

FEI survey shows 42% of respondents are doing business in an emerging market country

Growth in Swift Payments

- While the Euro has seen its share slip, it remains the dominant currency in international SWIFT payments
- The US dollar has increased, partly due to its role in payments to emerging market countries
- While still very small, the Chinese Yuan has risen to 13th place, with a 171% increase from Jan 2012 to Jan 2013. The growth is due to falling government trade restrictions and businesses growing in size where they are no longer reliant on the US dollar

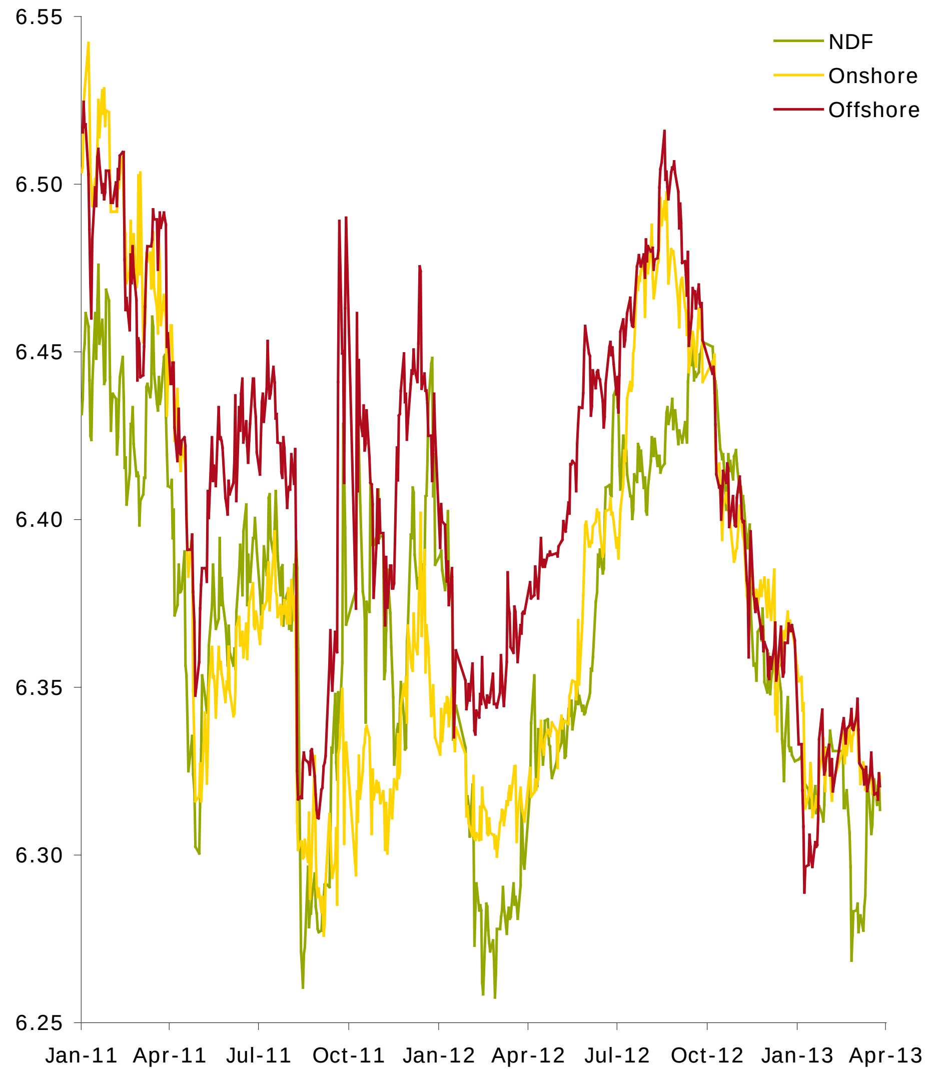
Swift Payments



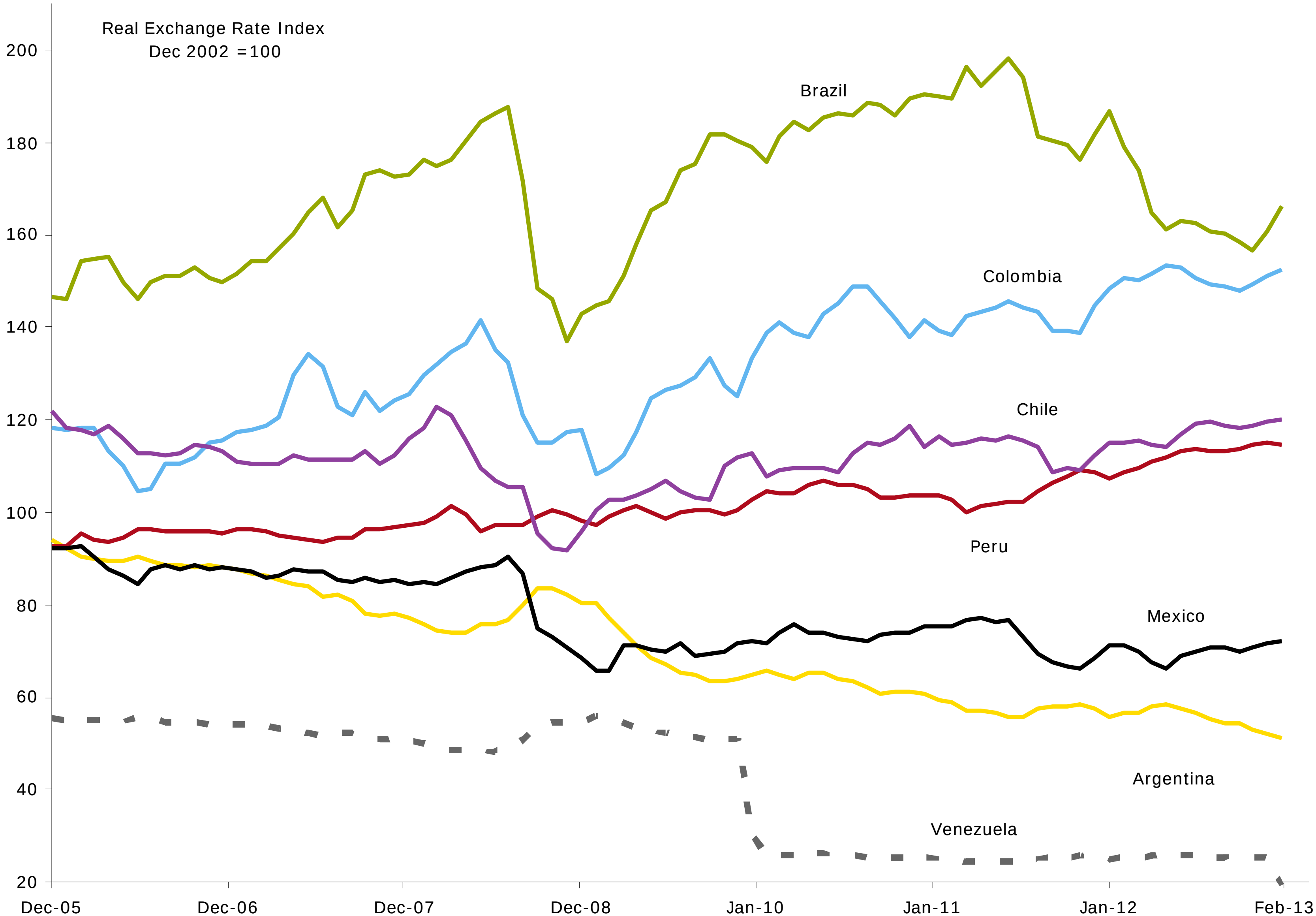
Chinese Renminbi (CNY vs. CNH)

- CNY (onshore) is restricted to trading by entities registered in China. It is convertible under certain conditions and trades within a set trading range
- CNH (offshore) is the same as CNY, but free floating and deliverable. CNH has gained in popularity as markets are more transparent, have less restrictive delivery and trading hours, and there are a greater number of investment products and growing bond market "Dim Sum Bonds"
- As trading in CNH has grown and market acceptance increased, the spread between CNY and CNH has converged, moving spot spread close to zero

12 month Onshore vs Offshore Fwd vs NDF

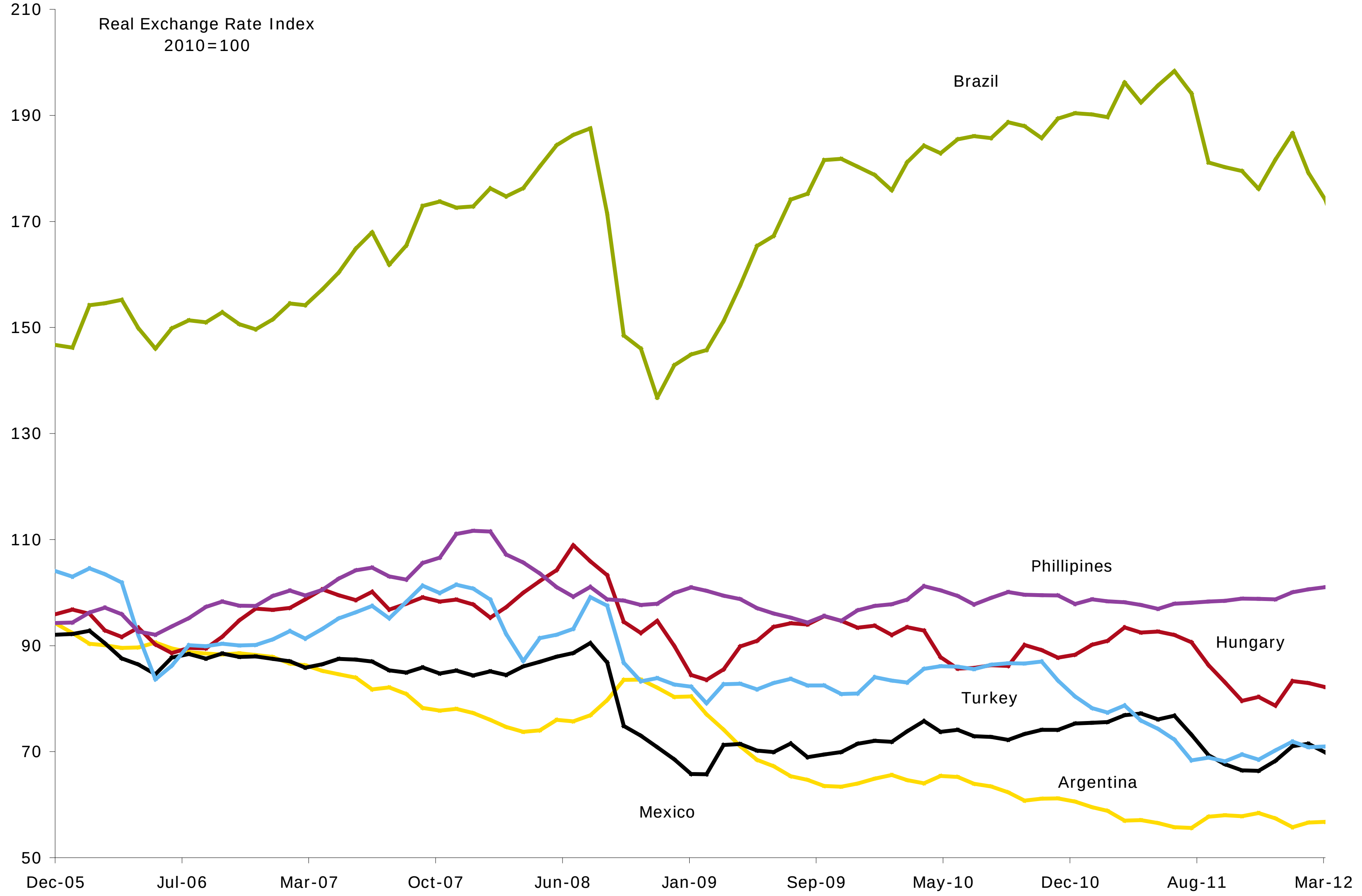


LATAM Currencies: Brazil Strongest, Mexico Weakest



Source: BIS, Bloomberg. and CIBC World Markets

EM Currency performance has been mixed

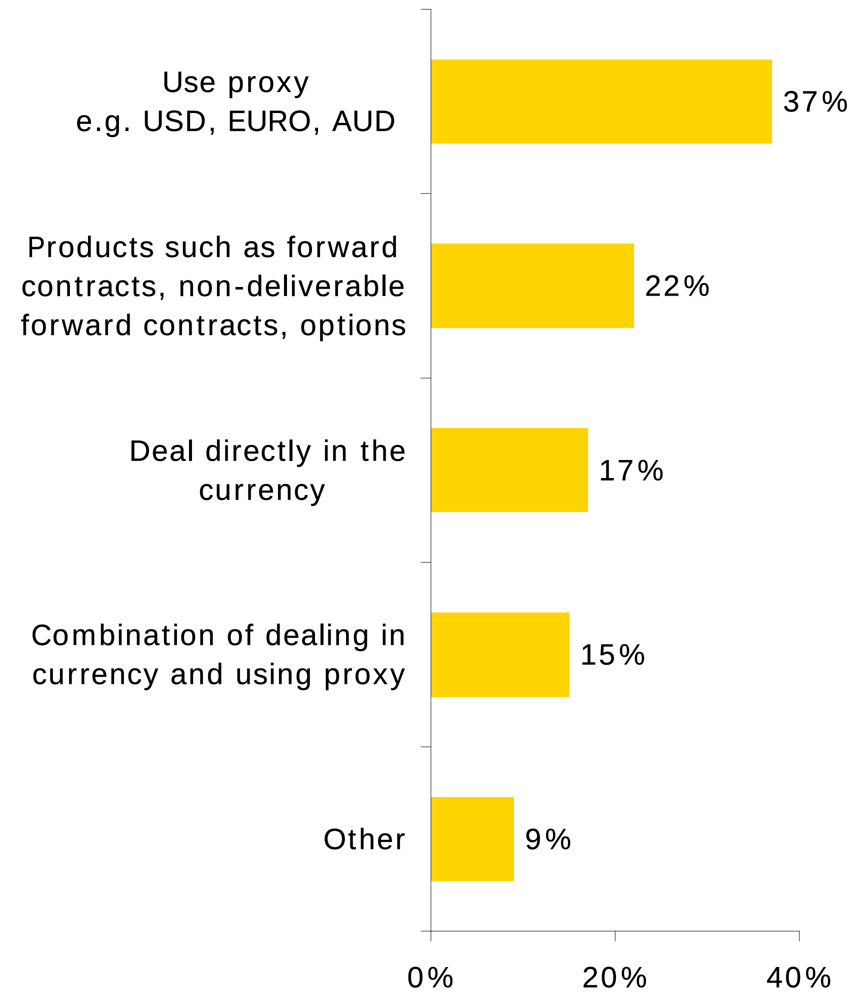


Source: BIS, Bloomberg. and CIBC World Markets

Managing EM FX Risk

- Widely accepted practice of using a proxy currency which is more predictable and has no restrictions
- Often use foreign currency accounts to manage flows in local currencies

How Do You Manage Exposure To Emerging Markets Currencies?



Panel Discussion

How does your FX Policy differ for G10 vs. EM currencies?

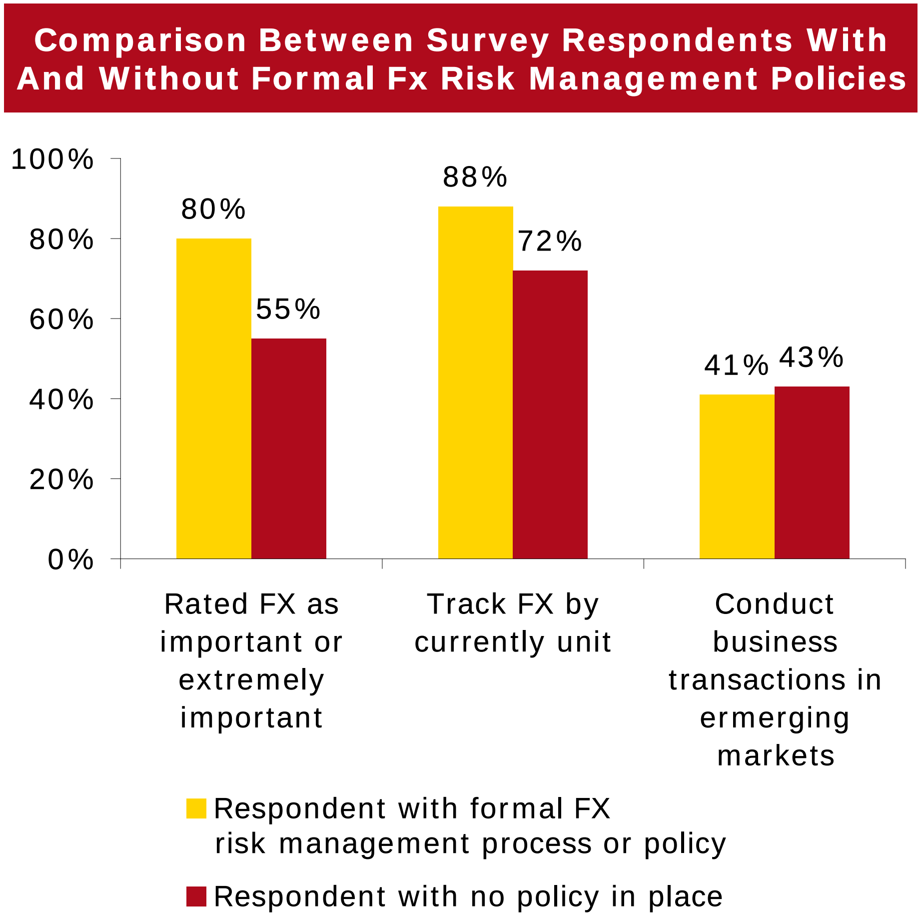
Is there pressure to deal in local currency vs. a proxy?

FX Risk in Action

Who's responsible for FX Risk Management?

- Survey clearly shows that the Finance Dept. has the responsibility for recommending and implementing policies and procedures
- In the majority of companies surveyed (54%) said the CFO was accountable; followed by the VP Finance/Director of Finance (24%) and Treasurer (19%) depending on the size and structure of the company
- Most companies have multiple levels of monitoring and compliance within their organization
- Risk Committee is responsible for evaluating the transactional elements of risk management in the firm
- Senior Management is responsible for evaluating the performance of their policy, deciding when or when not to hedge and ensuring their policy is in line with the needs of the business
- Ultimately the Board of Directors approves the overall direction of the policy and ensures management is in compliance

Just over half (51%) of survey respondents have a policy or formal process in place to manage FX risk

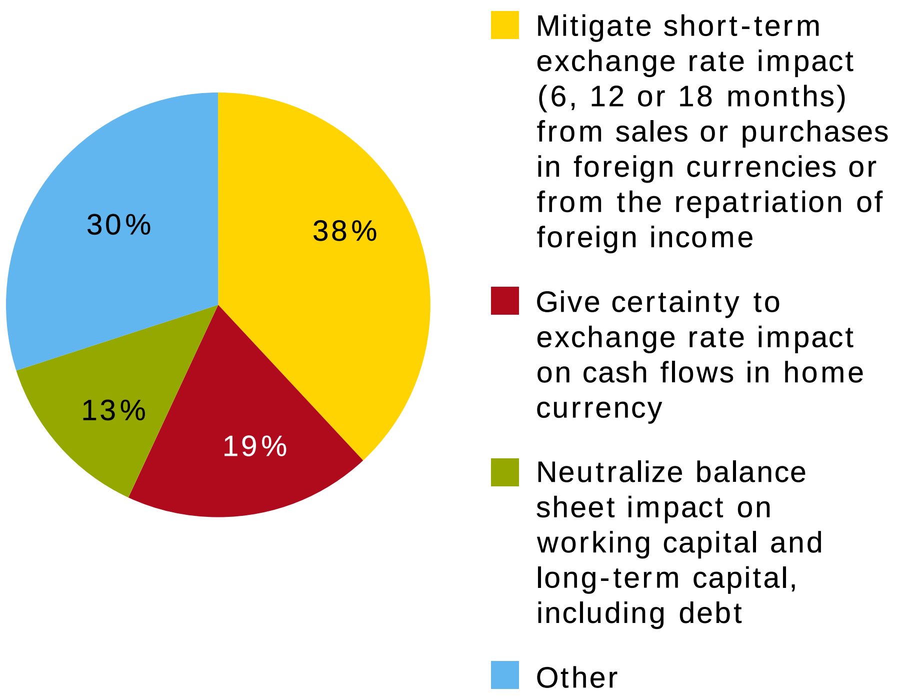


FX Risk in Action: Why Establish a FX Hedging Policy?

Why do more than 50% of firms develop and implement an FX Hedging Policy?

- We note that as international operations have expanded, the focus on foreign currencies and their impact on business metrics have taken on a higher profile in many companies
- They want to reduce cash flow volatility that hits key business metrics like margins and EDITDA and need to ensure consistent funding costs

Purpose Of FX Hedging Policy

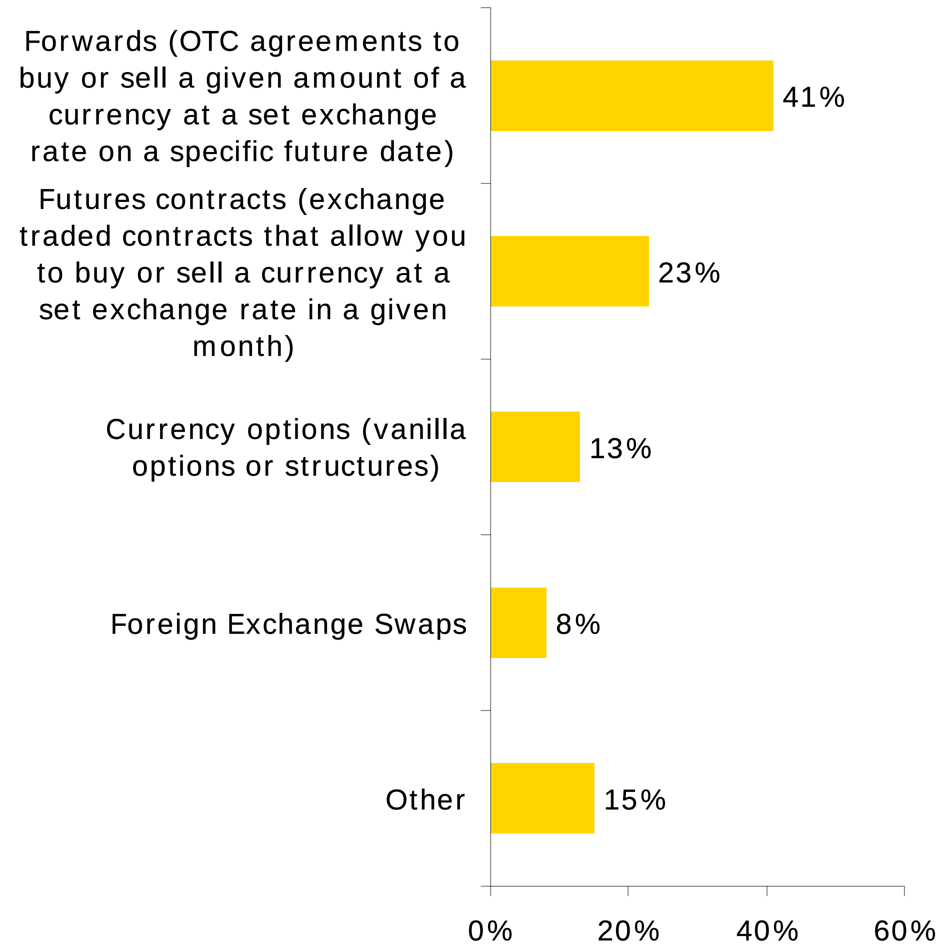


FX Risk in Action: Instruments to Mitigate Risk

As confirmed by the study, the majority of firms hedge their exposures with the use of financial instruments

- Companies recognize that any exposure not naturally hedged may need to be managed by way of a derivative instrument

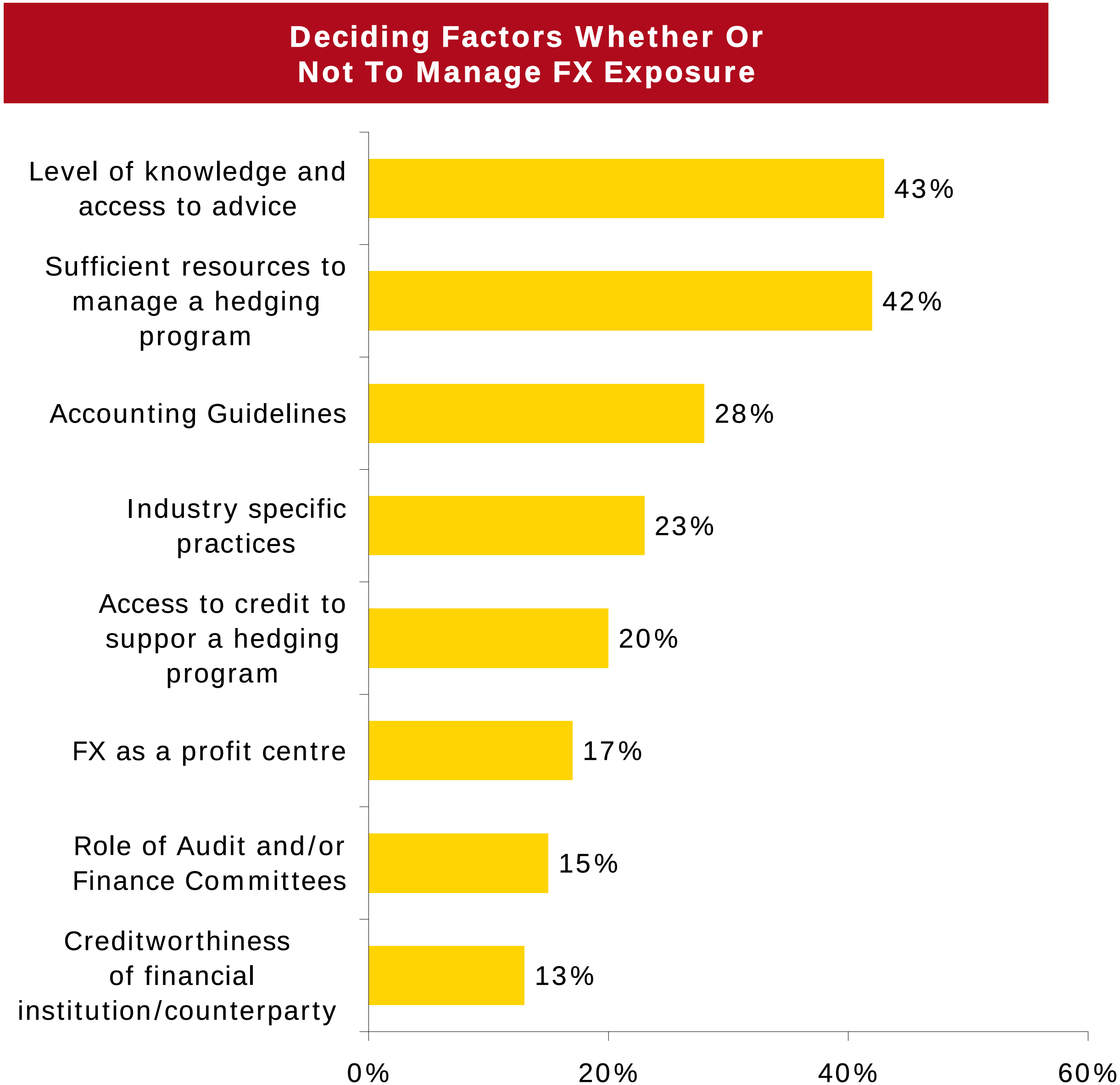
Financial Instruments Used To Mitigate Risk



Derivative Products change a company's risk profile and have differing risk / reward characteristics

- Let it float
  - Exchange in the spot market
- Lock it in
  - Fixed price forward contract
- Insure it
  - Purchased option
- Combination of lock it in and insure – Option based strategies with different risk/reward scenarios
  - Collar
  - Expandable Forward
  - Ratio Collar
  - Variable Rate Forward
- Structured Hedging Solutions
  - Structured solutions can be designed to provide either perfect or partial protection while allowing for participation in a potentially favourable spot movement
  - Certain strategies are designed to "boost" the forward rate available and can be tailored to take into account the client's risk appetite and/or market views.
  - e.g. At-Maturity Variable Rate Forward, Conditional Forward, Fade-In Forward

FX Risk In Action: To Manage Risk or Not…and How



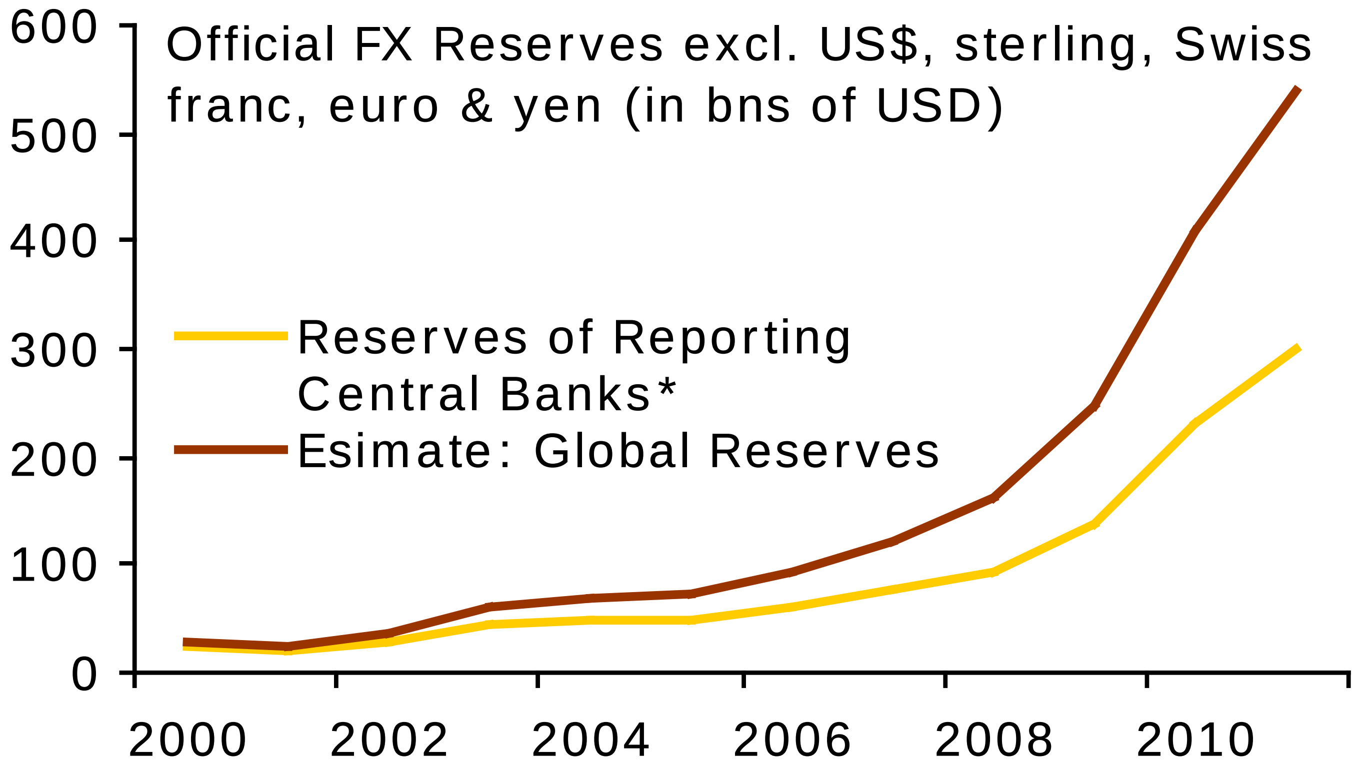
Observations:

- Public companies are more concerned with accounting treatment/Income Statement volatility and therefore favour simple strategies like Forward Contracts. The FEI survey has 64% of companies using either OTC Forwards or Exchange traded futures contracts
- Private companies are more open to alternative hedging strategies. Focus is more on economic performance than reducing Income Statement volatility
- Lack of knowledge has kept some companies from using option based strategies
- An increase in market volatility often attracts more companies to structured option hedges because of their relative attractiveness to simple forward contracts and futures
- In the Emerging Markets space, companies with formal FX policies typically hedge more of their exposures but also shy away from the more volatile local currency in favour of proxy currencies such as the USD, EUR and AUD
- Those without a formal policy are typically more risk accepting. This is demonstrated by the reduced use of hedging products (9% vs. 35% for those with a policy) and the likeliness of trading in the local currency (22% vs. 13%)

PERSPECTIVE
Canadian Dollar Parity, Boon or Hindrance?

Benjamin Tal
Deputy Chief Economist, CIBC

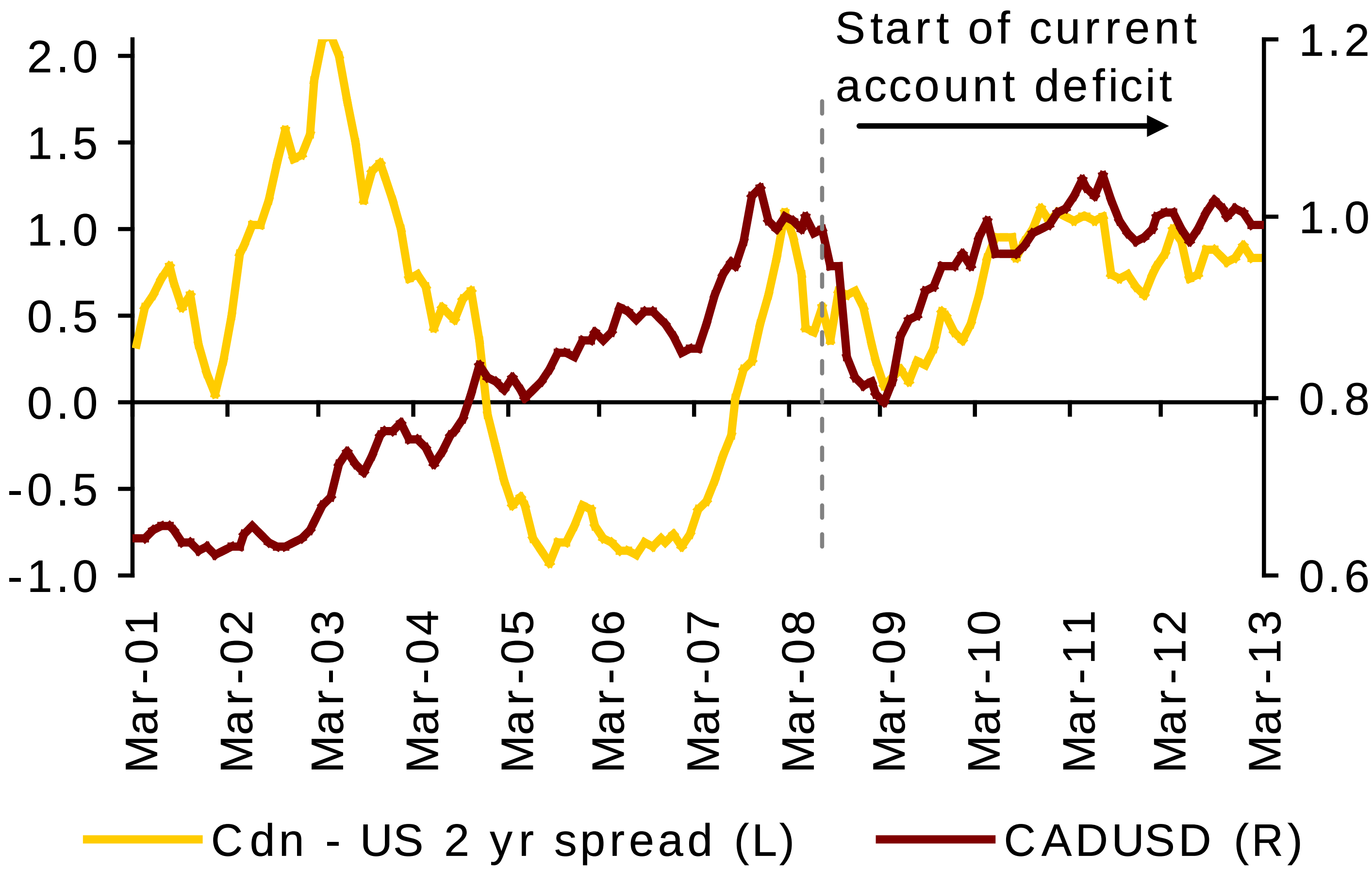
Central Banks Diversify into Broader FX Reserves



*covers roughly 60% of world official FX

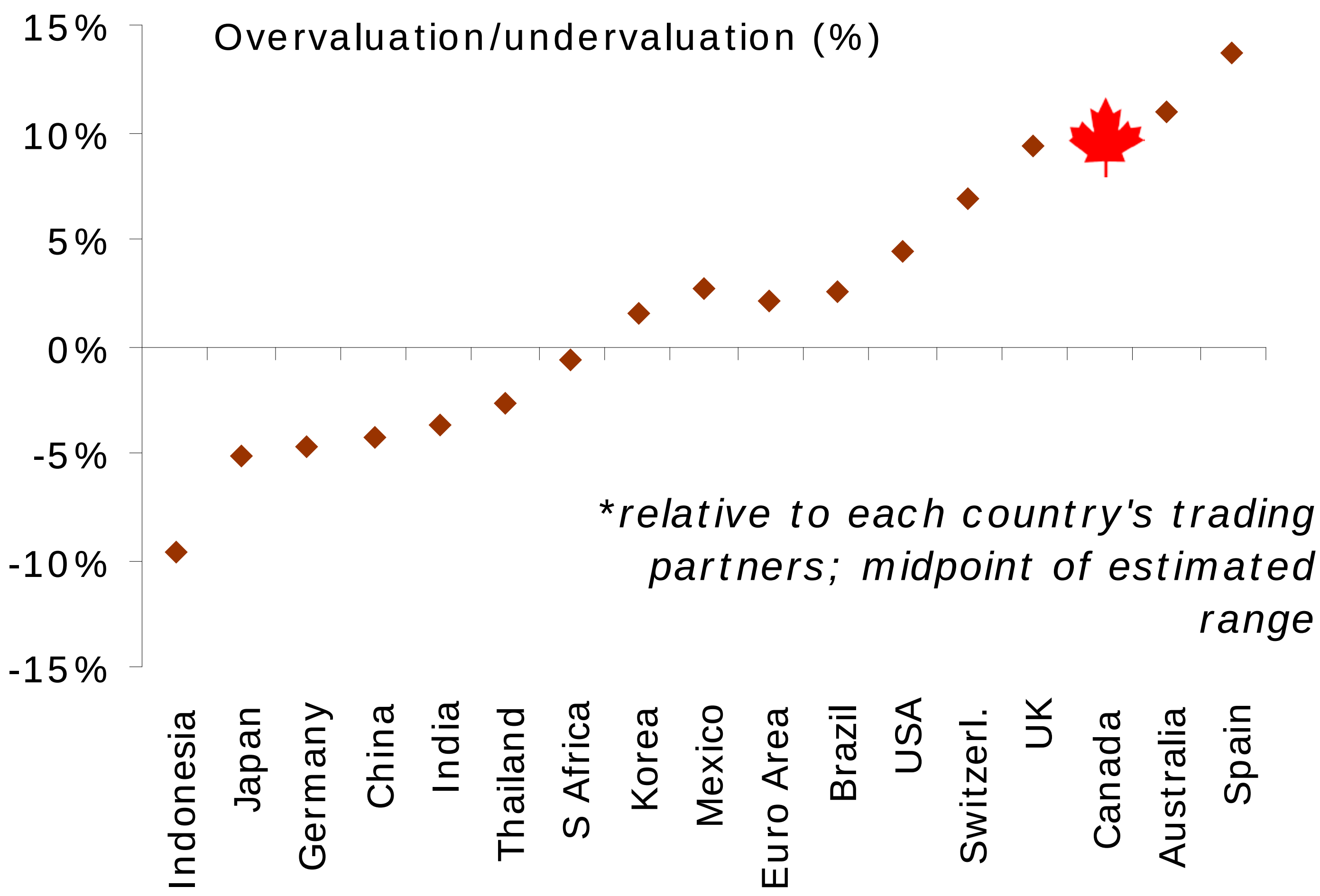
Source: IMF, CIBC

Rising C$ Correlation with Rates



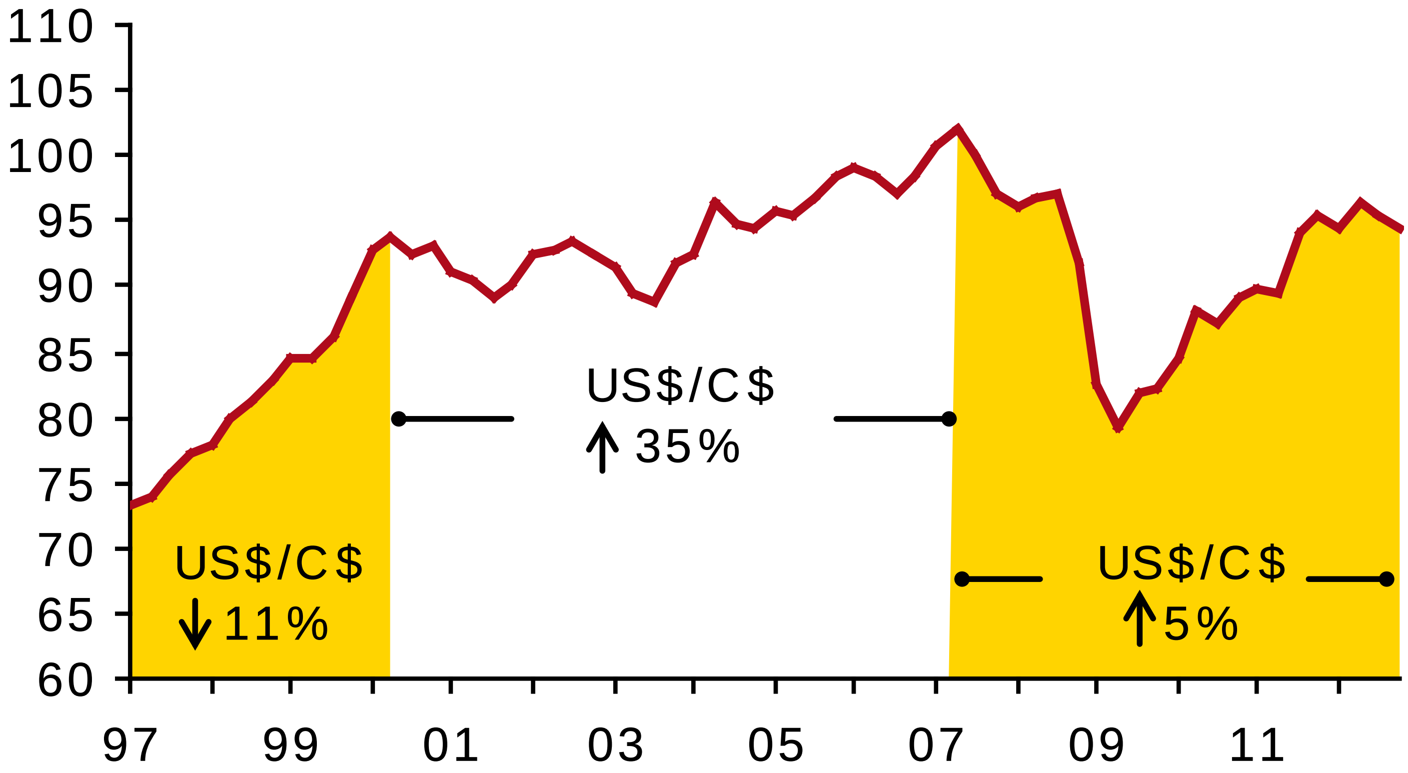
Source: Bloomberg, Statistics Canada, CIBC

Estimated Currency Over / Undervaluation*



Source: IMF, BIS, CIBC

Canadian Export Vol. Index (2007=100)

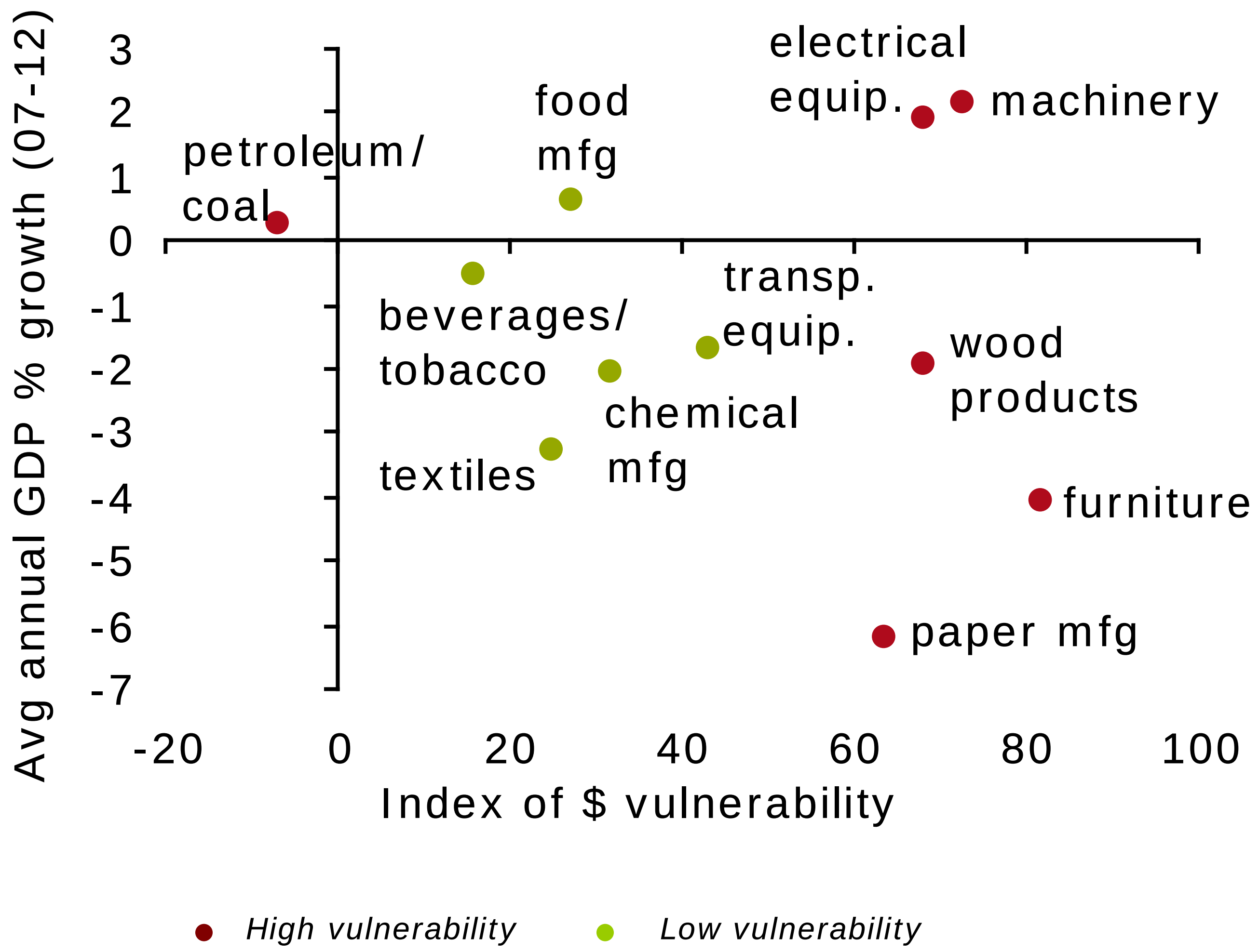


Source: Statistics Canada, CIBC

Exchange Rate Vulnerability Index

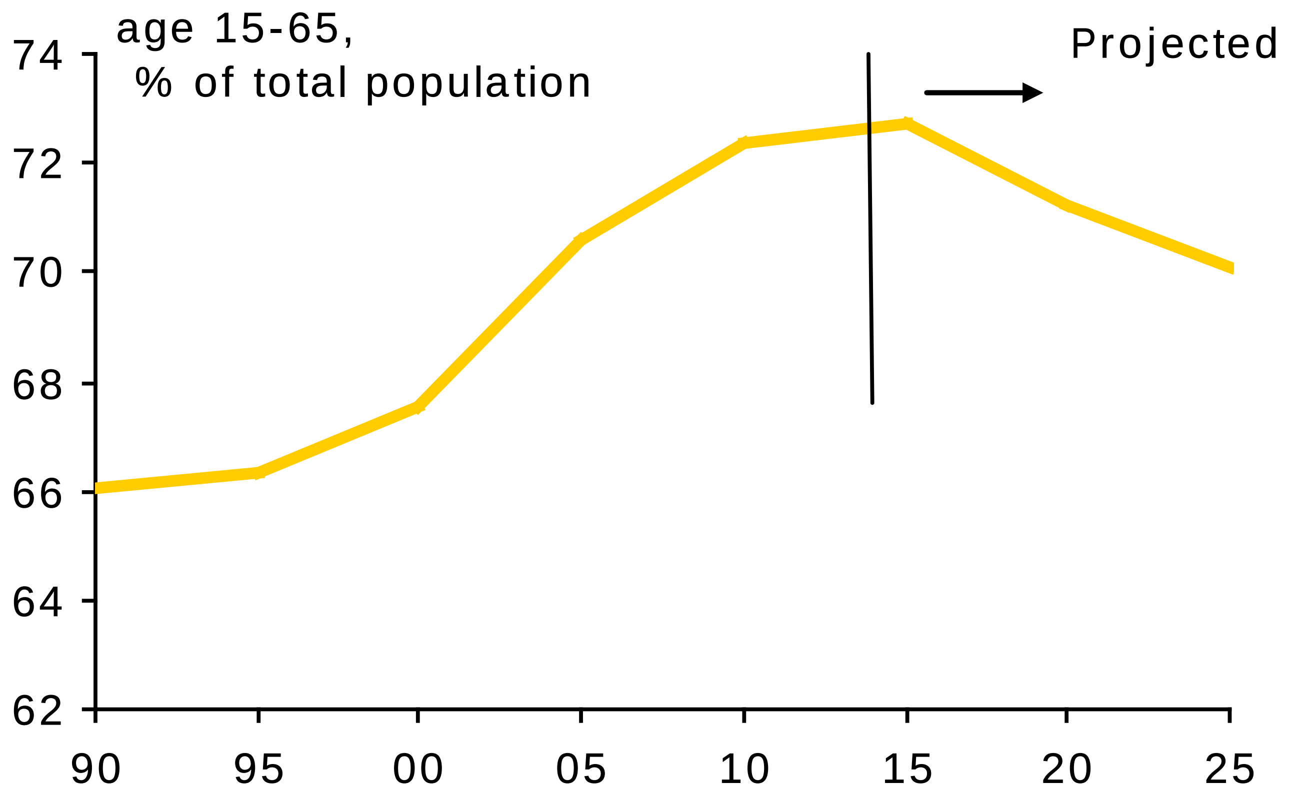
	INDUSTRY	Export Vulnerability (% of shpts. Exported less Imported inputs)	Import Vulnerability (% of shpts. to Can. Mkt) **x** (import penetration of Can. Mkts.)	**Combined Export-Import Vulnerability**	**Ranked By Total Vulnerability**
H	Furniture	46.2	35.8	**82.0**	**1**
I	Machinery	60.4	12.2	**72.6**	**2**
G	Wood Products	62.1	5.9	**68.0**	**3**
H	Electrical Equipment	32.3	35.7	**68.0**	**4**
	Paper Manufacturing	57.9	5.7	**63.6**	**5**
M	Computer & Electronics	45.5	11.1	**56.6**	**6**
E	Primary Metals	35.1	10.6	**45.7**	**7**
D	Transportation Equipment	36.6	6.5	**43.1**	**8**
I	Fabricated Metals	13.7	27.9	**41.6**	**9**
U	Printing & Allied	-0.9	34.1	**33.2**	**10**
M	Clothing	13.5	18.6	**32.1**	**11**
	Chemical Manufacturing	25.4	6.3	**31.7**	**12**
L	Food Manufacturing	11.8	15.3	**27.1**	**13**
O	Textiles	2.9	21.9	**24.8**	**14**
W	Beverages/Tobacco	4.0	11.9	**15.9**	**15**
	Petroleum Refining & Coal Prod	-12.1	5.3	**-6.8**	**16**

No Clear Correlation Between Dollar Sensitivity and GDP Performance



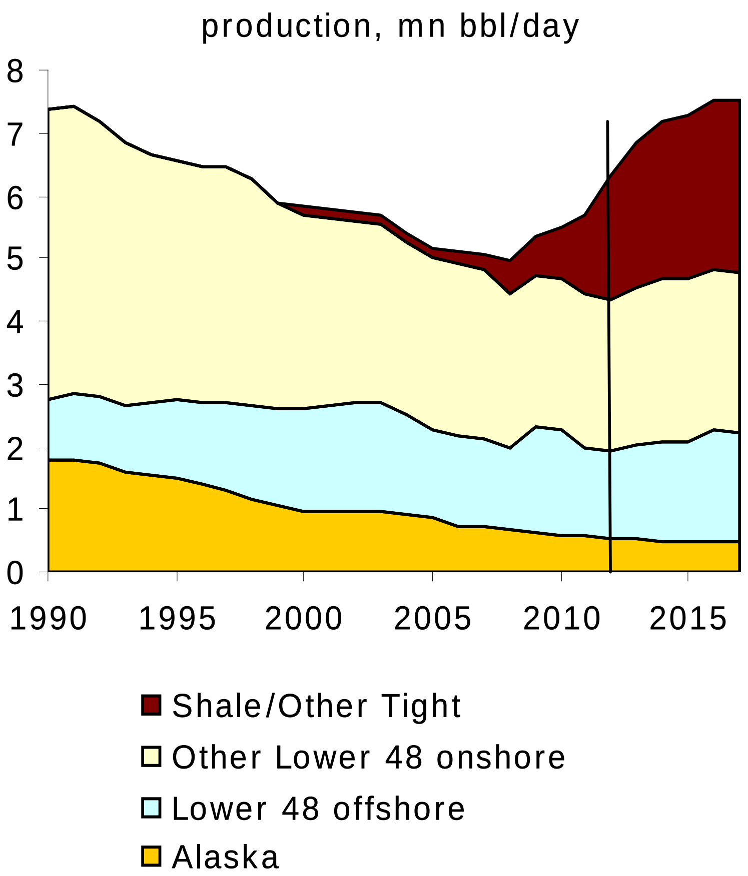
Source: Statistics Canada, CIBC

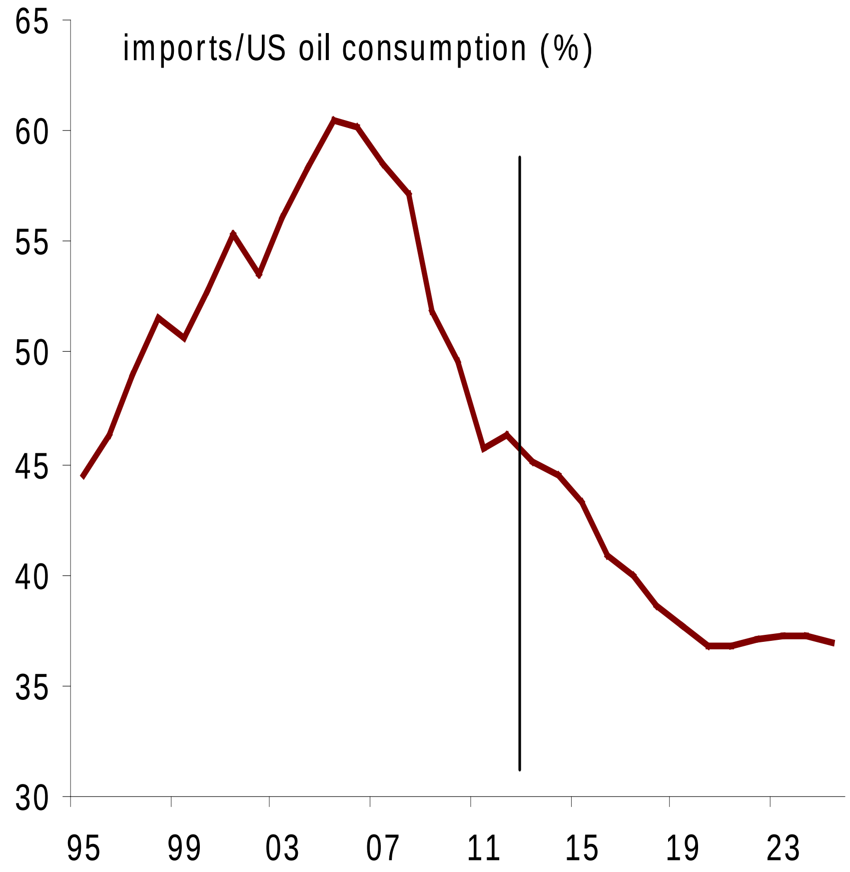
China: “Demographic Dividend” Poised to Fade



Source: NBS, UN Population Division

Shale Oil Revolution Shifts the US Supply Curve (L); Import Share of US Market % (R)





Source: US Department of Energy

Conclusion

Conclusion

In conclusion, the research study shows that Canadian companies are embracing the need to expand their businesses beyond our borders and deal with the currency risks that come with that strategy. Therefore, Foreign Exchange risk management needs to be part of a Canadian company's international growth strategy.

Because only half of the organizations surveyed have a policy or formal process in place to manage FX risk, it appears there's a need for Canadian businesses to take a more comprehensive, pro-active approach to managing these material risks.