CHAPTER 1

Foreign Exchange Reports

Foreign exchange (FX) reports are market-intelligence documents that comprise many facets. Bank reports for example address direct and sometimes short-term market variables such as a short- or long-term trade, a possible central bank interest rate change, or economic variable that directly relates to the market.

Institutional reports address bigger-picture issues that comprise market intelligence in terms of overall trading volume, types of instruments traded, and a fundamental or technical aspect that must be addressed in order for the market to function. Yet these reports address overall market fundamentals and functions so traders and market professionals can understand the big picture as it relates to their overall trade plan. Institutional reports are always forward looking and written by market professionals with the ability to understand and analyze big-picture issues. Much information can be derived from professional reports in terms of strategies, risks, and highlighting of possible scenarios with future implications to profit. The key is to understand the various reports and their implications because some reports are nation specific while others address the overall market as it relates from nation to nation.

This section addresses a variety of market-intelligence reports that relate both to a specific nation and overall market picture. This section incorporates not only reports from a market-intelligence perspective but institutional histories, frequencies of reports, and types of information released and addressed.

Bank of International Settlements

Before we discuss the much-publicized implications of the Bank of International Settlements' Triennial Survey and the not-so-publicized quarterly report, here's a quick and basic overview of the role, functions, and historical

aspects of the Bank of International Settlements (BIS) due to its profound importance to not only world banking and economic stability, but the markets in particular, both yesterday and today.

Established in 1930 as the world's banker, the BIS today is much more than the facilitator of gold and FX transactions for the 54 central banks that contributed to its 2007 report. It was originally established to repatriate German monies to the Allies after the war at the behest of the Bank of England, which called for its establishment. How to implement further Treaty of Versailles' arrangements between nations after World War I further heightened its need as intermediator to facilitate multilateral payments and currency conversions. Its location in Basel, Switzerland, attests to not only its neutrality but its commitment to carry out its mandate (BIS 2010).

The real existential challenge to the BIS came during the 1930s at the height of the currency wars, when the Bank of England suspended its gold standard in 1931 and the United States did the same in 1933. Gold-backed nations sought stability due to currency price fluctuations by the United States and the United Kingdom as trade imbalances seriously deviated from the norm of gold-backed nations and threatened their economic existence (BIS 2010).

The resolution was the Tripartite Agreement signed by the United States, France, and England in 1936 to ensure price stability and to abstain from competitive economic devaluations of currency prices as long as currency prices didn't destabilize the economic balance of trade. While the world prevented a crisis, the BIS maintained its existence until the bank was rescued by President Truman in 1948 when the United Nations voted for its dissolution in 1944. Ironically, Franklin Roosevelt died shortly after in April 1945, so Truman assumed the presidency and, with the help of the United Kingdom, ensured the bank would remain today as one of the oldest world institutions (BIS 2010).

Moreover, the BIS provides short-term collateral loans to nations through their respective central banks and settles trades every trading day at 5:00 p.m. eastern standard time through its Committee on Payment and Settlements (BIS 2010). Closing spot currency, outright forwards, currency options, and swap prices are established at the 5:00 p.m. settlement to end a full-cycle trading day. Trading institutions must then reflect these changes to all accounts the world over through their respective central banks.

The Committee on Payment and Settlements ensures that world markets not only function properly but further ensures this functionality replicates itself every trading day. Rollover debits and credits are marked to market at the 5:00 p.m. close. Market bid/ask spreads tend to change dramatically at

times as traders begin the new trading day during the Asian session. This however depends on the liquidity provided to markets based on trading activity. Robust trading means decreased spreads as liquidity is provided to the markets.

Triennial Survey

Since 1989 and every three years thereafter, the BIS publishes its quite detailed Triennial Survey through its Markets Committee and the Committee on the Global Financial System—established in 1971—that focuses on daily turnover in U.S. dollar amounts and outstanding contracts in FX for the last three years.

Information is reported to the BIS by central banks—54 at the 2007 count up from 52 in 2004, 48 in 2001, 43 in 1998, and 26 in 1995 (BIS 2007 Triennial Survey). Surveys covered data on amounts outstanding of over-the-counter (OTC) FX interest rate, equity and commodity, and credit derivatives. FX, spot, outright forwards, foreign exchange swaps, and currency and interest-rate derivatives are surveyed. Interestingly, the 2007 report included for the first time credit default swaps (CDS).

These surveys feature quite detailed reports that serve as important guides for market professionals and traders because they determine where money flowed to seek its best yield and the types of instruments utilized to facilitate those returns. All have important implications for the spot trade.

Triennial Survey 2007 versus 2004

From the 2007 report provided in Exhibit 1.1, Global Foreign Exchange Market Turnover, we learned that daily turnover of all spot, outright forwards and swap transactions increased to $3.2 trillion, up from $1.9 trillion in 2004, a 69 percent increase. Based on types of instruments from Exhibit 1.1, swaps rose 80 percent in 2007, an increase of 45 percent from 2004. But notice the number of up-to-seven-day swap transactions in Exhibit 1.1 that increased since its full reporting period began in 1995.

From 1995 to 2001, the number of up-to-seven-day swap transactions doubled to the over–seven-day counterpart, while those same transactions doubled from 2004 to 2007 with the number of swap transactions on a continual rise. Why? A swap is primarily an agreement to exchange cash flows. One can look at swaps as a bank simultaneously buying or selling a currency for one maturity and selling or buying the equivalent amount at a later date. They trade

EXHIBIT 1.1 Global Foreign Exchange Market Turnover[1]: Daily Averages in April, in Billions of U.S. dollars

	1992	1995	1998	2001	2004[2]	2007
Spot transactions	394	494	566	387	631	1,005
Outright forwards	58	97	128	131	209	362
—Up to 7 days	—	50	65	51	92	154
—Over 7 days	—	46	62	80	116	208
Foreign exchange swaps	324	546	734	656	954	1,714
—Up to 7 days	—	382	528	451	700	1,329
—Over 7 days	—	162	202	204	252	382
Estimated gaps in reporting	44	53	60	26	106	129
Total traditional turnover	820	1,190	1,490	1,200	1,900	3,210
Memo: Turnover at April 2007 exchange rates[3]	*880*	*1,150*	*1,650*	*1,420*	*1,970*	*3,210*

[1]Adjusted for local and cross-border double-counting. Due to incomplete maturity breakdown, components do not always sum to totals.
[2]Data for 2004 have been revised.
[3]Non-U.S. dollar legs of foreign currency transactions were converted from current U.S. dollar amounts into original currency amounts at average exchange rates for April of each survey year and then reconverted into U.S. dollar amounts at average April 2007 exchange rates.

Source: Bank of International Settlements.

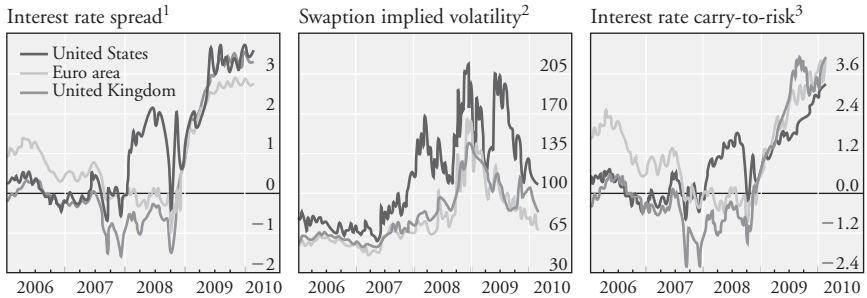
OTC and were once employed primarily when normal markets couldn't offer financing, but their popularity has increased year over year as a regular form of finance. A swap can be an interest rate swap, a commodity swap, an equity swap, or a currency swap.

Yet swaps can be employed as a hedge against an interest rate swap, a currency swap, a commodity swap, or an equity swap. As noted in Exhibit 1.2, a trend developed from 2006 to 2010. As interest rate spreads tightened, implied volatilities decreased and carry to risk rose.

As noted in Exhibit 1.3, clearly the U.S. dollar and other currencies are the most widely traded swaps from 2001 to 2007, followed by the euro, Japanese yen, pound sterling, Swiss franc, Canadian dollar, and Australian dollar.

The number of outright forwards from its up-to-seven-day to its over–seven-day trade has held steady since the full reporting began in 1995. Yet

EXHIBIT 1.2 Interest Rate Spreads, Implied Volatilities, and Carry to Risk



[1]Ten-year swap rates minus three-month money market rates, in percent. [2]Volatility Implied by three-month swaptions on 10-year swap contracts, in basis points. [3]Defined as the defferential between 10-year swap rates and three-month money market rate divided by the three-month/10-year swaption implied volatility.

Source: Bloomberg, BIS calculations.

swap transactions far outnumber outright forwards by four times in 2007 and five times in 2004. Overall outright forwards increased 73 percent in 2007 from 2004. An outright forward is a transaction where two parties agree to buy or sell a predetermined amount of currency at an agreed rate sometime in the agreed-upon future. Traders trade views based on future exchange rates.

Major world companies doing business across borders trade forwards to take advantage of a particular exchange rate to repatriate money, to lock in rates for future business, to hedge, and speculate.

Spot transactions increased 56 percent in 2007 from 2004, according to latest reports, but this increase was lower than previous years. Yet from 1998 to 2007, spot transactions almost doubled from $568 billion to $1.5 trillion and almost tripled from $394 billion in 1992 to $1.05 trillion in 2007. Notice how swaps slightly outnumber spot transactions from 1995 to 2007. Further notice how swap transactions almost doubled over spot transactions in 2001. Spot traded $387 billion to $656 billion for swaps. Interest rate volatility may be one explanation because interest rate swaps are the most widely traded of all swap instruments. Yet 2001 was the year 9/11 occurred, so much volatility was experienced (Triennial Survey 2004, 2007).

In Exhibit 1.4, the U.S. dollar is by far the most widely traded element of a pair. The number one traded pair is the euro, yen, sterling, Australia, Swiss franc, and Canadian dollar. And all traded against or with the U.S. dollar. An interesting phenomenon is the Hong Kong dollar that traded a daily turnover of $79 billion in 1998 to $175 billion in 2007. The Singapore dollar falls within the same parameters of daily turnover exhibits. Both trade in government controlled trading bands.

EXHIBIT 1.3 Reported Foreign Exchange Turnover in OTC Derivatives Markets by Currency Pair[1]: Daily Averages in April, in Billions of U.S. dollars

	Total[2]			Of Which					
				Options			Currency Swaps		
	April 2001	April 2004[3]	April 2007	April 2001	April 2004[3]	April 2007	April 2001	April 2004	April 2007
U.S. dollar vs. other currencies	787	1,165	2,055	48	92	158	6	18	27
—Euro	256	345	627	16	31	43	1	7	8
—Japanese yen	169	223	298	17	27	38	2	3	3
—Pound sterling	101	196	282	3	9	19	1	3	4
—Swiss franc	41	60	101	2	3	6	0	1	1
—Canadian dollar	38	55	93	3	6	9	0	0	2
—Australian dollar	38	78	147	3	8	9	0	1	1
—Swedish krona[4]	—	—	51	—	—	0	—	—	1
—Other	143	208	457	3	10	32	1	2	8

Euro vs. other currencies[5]	47	104	185	10	20	37	1	3	3
—Japanese yen	18	38	42	6	10	16	0	0	0
—Pound sterling	14	29	40	2	3	4	0	2	1
—Swiss franc	5	13	29	1	4	8	0	0	0
—Canadian dollar	1	2	5	0	0	0	0	0	0
—Australian dollar	1	3	5	0	1	1	0	0	0
—Swedish krona[4]	—	—	15	—	—	2	—	—	0
—Other	8	20	49	1	3	7	0	—	1
Japanese yen vs. other currencies[6]	3	10	27	0	1	6	0	0	0
Other currency pairs	15	24	53	2	4	10	0	0	1
All currency pairs	853	1,303	2,319	60	117	212	7	21	32

[1]Adjusted for local and cross-border double-counting.
[2]Outright forwards, foreign exchange swaps, currency swaps, options, and other products.
[3]Data for 2004 have been revised.
[4]The currency pairs U.S. dollar/Swedish krona and euro/Swedish krona could not be separately identified before 2007, and are included in "other".
[5]Excluding the U.S. dollar.
[6]Excluding the U.S. dollar and the euro.

Source: Bank of International Settlements.

EXHIBIT 1.4 Reported Foreign Exchange Market Turnover by Currency Pair[1]: Daily Averages in April, in Billions of U.S. dollars and Percent

	2001		2004[2]		2007	
	Amount	Percent share	Amount	Percent share	Amount	Percent share
U.S. dollar/euro	354	30	503	28	840	27
U.S. dollar/yen	231	20	298	17	397	13
U.S. dollar/sterling	125	11	248	14	361	12
U.S. dollar/ Australian dollar	47	4	98	5	175	6
U.S. dollar/ Swiss franc	57	5	78	4	143	5
U.S. dollar/ Canadian dollar	50	4	71	4	115	4
U.S. dollar/ Swedish krona[3]	—	—	—	—	56	2
U.S. dollar/other	195	17	295	16	572	19
Euro/yen	30	3	51	3	70	2
Euro/sterling	24	2	43	2	64	2
Euro/Swiss franc	12	1	26	1	54	2
Euro/other	21	2	39	2	112	4
Other currency pairs	26	2	42	2	122	4
All currency pairs	1,173	100	1,794	100	3,081	100

[1]Adjusted for local and cross-border double-counting.
[2]Data for 2004 have been revised.
[3]The U.S. dollar/Swedish krona pair could not be separately identified before 2007 and is included in "other".

Source: Bank of International Settlements.

The interbank market in 2007 accounted for 43 percent of all foreign exchange transactions, down from 53 percent in 2004. The retail currency broker may be one explanation, as well as the number of swap and forward transactions that occur on the OTC market.

While the Triennial report may have a three-year look-back period, it has profound effects for currency markets. We learned that spot and swap

transactions account for the majority of foreign-currency trades around the world, about $2.7 trillion in 2007. The U.S. dollar by far is the most widely traded instrument, followed by the euro, Japanese yen, British pound, Swiss franc, Canadian dollar, and Australian dollar. All other currencies of the world are thinly traded and can't compare to the amounts traded of these major currencies. One reason is the convertibility factor.

Of the vast majority of the world's currencies, 150 of 200 can't be directly converted, so conversion is facilitated through the major currencies because they are more liquid. Another reason is larger economies where trade and investment not only flow freely but gross domestic product (GDP) levels are high. Add a robust economy and stable political system to the equation, and traders have a recipe for success when the focus is trade in these major pairs.

With rising GDP levels in the major economies and an increasing supply of money earned, imagine what the supply of dollars will be in the future and future dollar amounts of trade. Trade the major currencies because currency prices are allowed to free float where the market sets the price.

BIS Annual Report

While the Triennial Survey may have a three-year look-back period, the BIS publishes a very detailed annual report. The 79th annual study was released in March 2009 (BIS Markets Committee 2009). These reports are consequential, an imperative for market professionals because of the detailed orientation with which the BIS approaches topics from a world perspective. Because the prior period focused on implications for world economies, examining markets and banking systems from a global perspective due to the collapse are just a few aspects of the report.

Since the collapse, there are many implications for spillover effects around the world. This was viewed in terms of interest rates and imbalances across the world. Spillover effects can be viewed in terms of contagion. Contagion asks the question, Does a crisis in one nation have ramifications for other neighboring nations, or worse, does a crisis have implications for all world economies? What that meant for investment bankers, banks, and insurance companies is profound in terms of investments, cash flows, and profits and is highlighted extensively in this report.

Such questions had to be answered to align proper funding and ensure profit margins. Questions such as: Where does money flow to seek its yield, and how can investors take advantage of those situations? Bank capital was

the greatest question, because as credit spreads widened an increase in the price of capital available to lend became an issue. Where do hedge funds and insurance companies fit into this equation? What are risk opportunities? Where should monies *not* be invested is the question. What about possible policy responses to the collapse? A detrimental policy response can cost a nation and their markets irreparable harm for years. Those decisions must be viewed with a discerning eye.

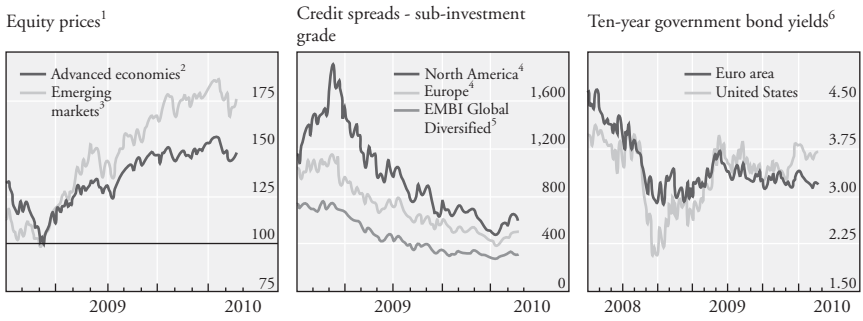
The annual report is 250 pages, complete with charts, graphs, and many statistical measures that outlined pre crisis to the crisis and beyond. It has a one-year look-back period, but its reports can be profound in terms of exchange rates and spot trades.

BIS Quarterly Review

As noted in Exhibit 1.5, more important on a shorter-term basis is the Quarterly Review published by the BIS, where a glimpse of the last three months of trading activity and highlights can be viewed.

Equity prices recovered, credit spreads fell as the cost of borrowing decreased, and bond prices rose with equity markets. Two major market occurrences materialized during this period that sent the markets reeling: The Lehman Brothers collapse and the announcement of the Volcker Rule in January 2009. The Volcker Rule was the proposal by former Federal Reserve Chairman Paul Volcker and current economic assistant to President Obama,

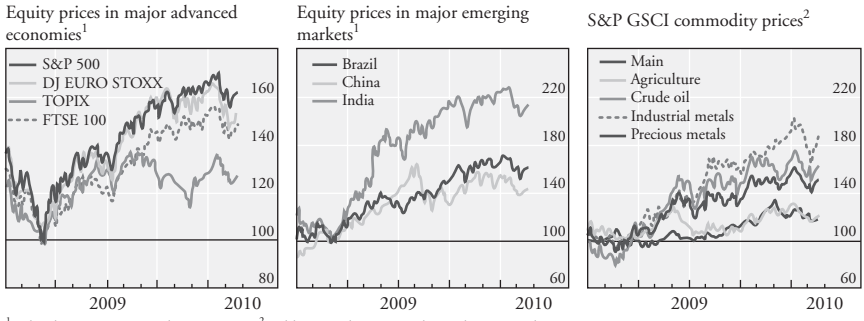
EXHIBIT 1.5 Major Market Developments



[1]3 March 2009 = 100. [2]Average of S&P 500, DJ EURO STOXX, TOPIX, and FTSE 100 indices. [3]Average of Asian, European and Latin American emerging market equity indices. [4]Five-year on-the-run credit default swap (CDS) mid-spreads on sub-investment grade (CDX High Yield; ITraxx Crossover) quality, in basis points. [5]Stripped spreads, in basis points. [6] In percent.

Source: Bank of International Settlements Quarterly Review, Jan–Mar 2009.

EXHIBIT 1.6 Equity and Commodity Markets, January to March 2009



[1]In local currency; 9 March 2009 = 100. [2]Goldman Sachs Commodity Index; 9 March 2009 = 100.

Source: Bank of International Settlements Quarterly Review, January to March 2009.

who proposed that banks limit proprietary and speculative trading if the trade wasn't implemented based on client desires.

As seen in Exhibit 1.6, January 10, 2009, saw equity prices, especially bank stocks, in Europe and in the U.S. dive, credit spreads widen, yields fall, and the safety of government bond prices soar upwards.

Finally, see Exhibit 1.6, and notice as equity prices rose in 2009, agricultural, crude oil, and metals prices fell. This equation is not only a common denominator of market developments since the crisis hit in August 2008, but a common occurrence of historical intermarket movements.

FX Committee in the United States

In addition to the BIS FX reports, each central bank of the major nations has its own FX committee that imitates for the most part the work of the BIS.

For example, the FX Committee was formed in 1978 under the sponsorship of the Federal Reserve. An annual report published every year since 1979 highlights past yearly market activity in foreign exchange. Earlier reports focused on advisory roles of the FX Committee and processes of market activity because free-floating exchange rates recently began, so questions of structure and process had to be defined by both the markets and the committee.

As spot-market structure began and settled into a system, new investment vehicles such as forward interest-rate agreements, interest-rate swaps, and currency options had to be addressed. For example, what happens to an options delta 25 hedge when the market expects volatility? According to the recently introduced 1973 Black-Scholes Model of option pricing, the hedge

could be at risk due to market volatility. Delta hedging was addressed in the 1984 annual FX Committee's Report as a study of risk assessment with the recent introduction of currency options.

Legal issues are addressed by the FX Committee such as the recent introduction in the United States, and trading arrangements of, the Chilean peso, the Columbian peso, the Peruvian sol, the Brazilian real, and the Chinese renminbi. Not only spot rates are introduced, but currency options, forwards, swaps, and other legally agreed terms are set. This is all handled by FX committees.

The Committee's first volume survey was published in 1980 as a trial, and was published every three years thereafter until 2005 when the committee proposed a semi-annual survey. The 1982 committee discussed adoption of volume surveys as a regular practice due to the increased volume of the market. For example, the Japanese yen traded $8 billion a month in 1976 and increased to $75 billion a month by 1981. Such issues had to be addressed.

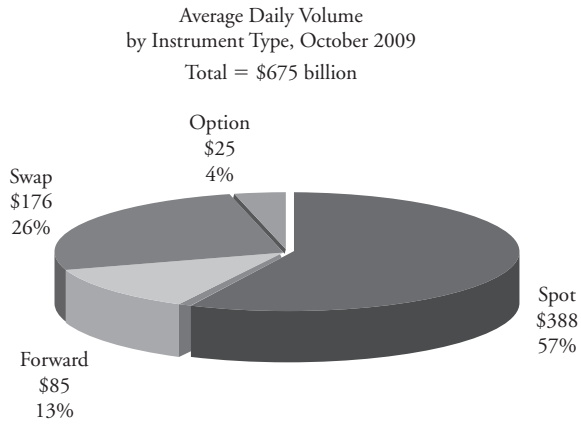
The 1980 survey highlighted a 64 percent market share for spot transactions and 51 percent in 1983. Swaps traded 30 percent of market share in 1980 and 48 percent in 1983. Forwards accounted for 6 percent of market share in 1980 and 0.5 percent in 1983. The low volume in 1983 was caused by a ruling by the Financial Accounting Standards Board (FASB) in Rule 52 that stated forwards should be treated as stockholder equity rather than current earnings (1980 report).

The German mark was the most widely traded currency in 1983 with 32 percent of all spot, forwards, and swap transactions, and 31 percent in 1980. The yen was second in 1983 with a 22 percent market share, up from fourth in 1980 with a 10.2 percent turnover. The pound sterling was second in 1980 with a 22.2 percent share and third in 1983 with a 16.6 percent share. The Swiss franc was fourth in 1983 with a 12.2 percent share and fifth in 1980 with a 10.1 percent market share. The Canadian dollar was fifth in 1983 with a 7.5 percent share, down from third place in 1980 with a 12.3 percent share. Cross currencies accounted for $1.5 billion in April 1983 (FX Committee 1995).

Since 2005, the FX Committee has published its semi-annual volume survey that highlights forwards, swaps, option, and spot transactions. Volume surveys focus on monthly volumes, dollar changes year over year, and volumes by currency pair, by counter-party, and by maturity.

Notice Exhibit 1.7 of the pie chart from the most recent survey. Spot transactions accounted for $388 billion, 57 percent of all FX transactions, while swaps garnered 26 percent of the market with a volume of $176 billion. Forwards accounted for 13 percent of the market with a volume of

EXHIBIT 1.7 FX Committee Pie Chart



Source: U.S. FX Committee, 2010.

$85 billion, and OTC options garnered 4 percent of market share with a volume of $25 billion.

Worldwide FX Committees

Major trading nations of the world established their own counterparts to the FX Committee through their respective central banks. The United Kingdom, through the Bank of England, established the U.K. Foreign Exchange Joint Standing Committee, Singapore adopted the Foreign Exchange Market Committee, Canada through the Bank of Canada established the Foreign Exchange Committee, Australia through its Royal Bank of Australia adopted the Foreign Exchange Committee, Europe through the European Central Bank established the Foreign Exchange Contact Group, Japan established its FX Market Committee through the Bank of Japan, Hong Kong established its FX Committee through its Hong Kong Monetary Authority called the Treasury Markets Association, and Switzerland established the Federal Supervisory Markets Committee from the Swiss National Bank.

The purpose of reports such as those issued by the BIS and the various FX committees is not to wholly focus on volume and types of trades, but that in itself is an important function. More important are the types of instruments traded, where money flows to seek yield, who the major players in the world are, and where the economic growth is in terms of a specific nation or region.

The major questions answered by these reports are where should resources be allocated, how should portfolios be adjusted, and what are the risks? Is a certain nation's currency overbought or oversold, is a certain region overbought or oversold, and will past strategies work in the future? For example, of the seven major widely traded currencies, three are considered commodity currencies, Australia, Canada, and New Zealand. If all three had long runs based on prior reports and their respective natural resources sold well, will those same strategies work in the future?

Conclusion

Traders and market professionals must understand the constant attention paid to overall industry changes in these reports by consummate market professionals who look at forward changes and market developments through reports, statistics, and market studies. Volumes are just one side of the overall equation. Yet we know from past volume histories that the spot transaction is the dominant instrument traded yesterday, and chances are good that spot will dominate foreign currency transactions long into the future.

Professional market reports provide an insight, an intelligence of a market that may undergo changes in design, structure, or some feature that may enhance or limit a market's overall ability. Yet reports can answer questions as to present strategies and possible tactical changes. Reports serve as market guides, a road map that can hint at direction of a currency pair, highlight an overbought region, gain insight into a new trading instrument, and even provide insight into a government position on tax and fiscal policies. Many reports exist nation to nation and all are released at various times throughout any given year. Because of the forward nature of various reports, much can be gained due to the depth and detail professionals devote to every issue.