



## The Forex Establishment

While collecting data about the Forex market, it is important to know who the major players are. Who originally designed Forex, who are the major participants, who makes decisions that have a significant impact on the Forex market? This and more will be explored in "The Forex Establishment." First, let's examine what is an establishment.

### What is an establishment?

Established interests, powers, businesses, individuals, and organizations, develop a territory in their own field. This is done by creating a paradigm; their own set of rules, objectives, and culture; associated with their field. 'The Establishment' originally was coined by British Journalist Henry Fairlie, in 1955:

*"By the 'Establishment', I do not only mean the centres of official power—though they are certainly part of it—but rather the whole matrix of official and social relations within which power is exercised. The exercise of power in Britain (more specifically, in England) cannot be understood unless it is recognised that it is exercised socially."*<sup>[1]</sup>

The Forex Establishment is the Forex equivalent of those who control the Forex market by design, necessity, or other function. While modern Forex originated by the floating of the Dollar and the breakdown of the Breton Woods agreement, it has grown into something new. Those who were initially impacted by the floating of the US Dollar reacted to it in various ways. Some reacted by implementing advanced trading techniques such as hedging to combat a volatile currency environment. Others simply changed the way they did business.

What types of players move the Forex market?

- Banks
- Central Banks
- Governments
- Corporations
- Organizations (such as the IMF)
- Hedge Funds
- Forex Brokers



Who are the significant players, in each category?

### Brokers

Brokers don't have a natural place in Forex, as they do on the exchanges. Exchanges require customers to use a broker who has a seat on the exchange or an affiliate of one<sup>ii</sup>. This gives the



exchange objectivity, and allows for brokers to compete with each other offering efficient pricing models for execution.

But since banks were unwilling to offer Forex trading for smaller, retail investors, brokers seized an opportunity offering account sizes as low as \$1. Oanda has no new account minimum and it is possible to trade 1 unit (as opposed to a bank imposed 100,000 minimum).<sup>iii</sup>

Some statistics say that retail Forex now represents 5% of overall FX volume. Forex Blog "Forex Magnates" claims this number is closer to 2%, citing \$118 Billion in July 2009<sup>iv</sup>. While this is not a large figure, it grew from zero in a period of 10 years. Orders are getting larger and brokers need solutions for liquidity, they are now some of the banks best customers for FX. Saxo Bank can auto-execute an order on major pairs up to 100 Million per click, and regularly processes orders for customers who trade 1 billion per order.

Brokers are also leading the technology development behind Forex. Banks mostly take the view of offering what is necessary to trade for their existing customers, whereas the brokers offer an edge to obtain new business. Banks have been slow to adapt to new technology, for many reasons but plainly; they have something that is outdated but works, so why create potential liability and expense without any guaranteed return? Banks like guarantees, and this type of thinking is what cost them missing a great business opportunity. Or maybe it saved them a lot of trouble, but the fact is that if the banks had invested in FX technology and offered Forex to retail customers, modern forex brokers such as Saxo Bank, Oanda, and others, would likely not exist at all.

Suddenly, in 2007 many banks started offering retail platforms, and in 2008 Citibank finally offered retail Forex trading using the Saxo Bank platform. This was a pyrrhic victory for retail Forex, for Saxo Bank, and a final defeat for the big banks to take the lead. Citibank being one of the world's largest banks surely could find resources sufficient to build their own proprietary platform, but they chose to use an existing retail platform built by 2 traders publicly accused of defrauding and misleading investors in a 'bucket shop'. The final irony sealing the argument is Citi is one of Saxo's liquidity partners, so a customer of Citibank retail FX may deposit funds with an omnibus account at Citibank (custody customer funds account for Citi clients at Saxo) and while placing a large order on the Saxo Bank platform, Saxo may pass the trade through to Citi, if they are on the offer! So what then does Citibank need Saxo Bank's platform for, a simple GUI?

Saxo Bank represents the "New Forex Establishment," a growing number of companies who have been founded since 1990 that are setting standards in Forex.

Another significant broker that represents the "New Forex Establishment" is Oanda:

*OANDA is an outgrowth of the [Swiss Olsen Group](#) and was created to serve as an internet trading platform to automate techniques based on the group's 20 years' worth of research in foreign exchange trading.<sup>[4]</sup> Much of OANDA's technology is based on algorithms published in the book [High Frequency Finance](#)<sup>[5]</sup>, which was co-authored*

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by Dr. Richard Olsen, a principal of OANDA and co-inventor of these algorithms. OANDA Corporation was incorporated in 1996 in the state of Delaware, and initially provided online access to live currency information that was previously inaccessible to the public at large. At its inception, OANDA.com offered free currency conversion tools, tables of historical data, news, and analysis through a multilingual interface <sup>[6]</sup>, and other information likely to be of use to international travelers. In 2001, OANDA launched FXTrade, an online Forex trading system designed with the aim to lower the costs and risks associated with Forex trading. Some of its more innovative features included flexible trade sizes, 24/7 trading, instant settlement on all transactions, continuous interest payments calculated second-by-second throughout the day, and no lot size restrictions (that is, traders could buy and sell any number of units, all at the same rate). In 2005, OANDA published The Forex Trader's Bill of Rights to outline its philosophy of what Forex markets can and should offer to Forex traders. In 2007, OANDA offered spot trading in an expanded list of currencies, including the Chinese Yuan. <sup>[2]</sup>In 2008 OANDA launched FXGlobalTransfer, an automated online foreign currency transfer service designed to offer corporate clients a low-cost, convenient, and secure method of sending funds globally at any time from any computer connected to the Internet. The same year, OANDA launched FXPedia, an online wiki of Forex information and commentary, and FXConsulting, a consulting service for corporate hedging.<sup>v</sup>



## Banks

The top 20 Forex trading banks in terms of liquidity, according to a Euromoney poll:

- Deutsche Bank
- UBS
- Barclays Capital
- RBS
- Citi
- JP Morgan
- HSBC
- Goldman Sachs
- Credit Suisse
- BNP Paribas
- Morgan Stanley
- Bank of America
- Societe Generale
- Dresdner Kleinwort
- State Street
- Standard Chartered

**Top 10 currency traders <sup>[5]</sup>**

% of overall volume, May 2009

Rank	Name	Market Share
1	 Deutsche Bank	20.96%
2	 UBS AG	14.58%
3	 Barclays Capital	10.45%
4	 Royal Bank of Scotland	8.19%
5	 Citi	7.32%
6	 JPMorgan	5.43%
7	 HSBC	4.09%
8	 Goldman Sachs	3.35%
9	 Credit Suisse	3.05%
10	 BNP Paribas	2.26%



- RBC Capital Markets
- Calyon
- ABN Amro
- Merrill Lynch

The article also states that:

*Embattled banks boosted by performance in booming FX markets – Deutsche Bank retains top position; Highest-ever turnover and client activity recorded in the survey.<sup>vi</sup>*

Not only do these banks represent “The Forex Establishment,” their FX divisions are highly successful:

*Buying and selling bonds, currencies and commodities probably boosted trading revenue, excluding writedowns, above the 5.07 billion-euro (\$6.7 billion) record in the first three months of 2007, people familiar with the matter said. The rebound will propel earnings at the Frankfurt-based bank, which posted a 4.8 billion-euro loss in the final quarter of 2008, analysts said.<sup>vii</sup>*

Many of these firms’ Forex trading activities are not public; the above information is derived from public financials which are of a general ledger nature. Those financials do not explain how profits were obtained by trading currencies, using what types of strategies, and in what amounts.

What we do know, there have been many releases in the press from firms such as Goldman Sachs and Deutsche Bank about the success of their trading operations. In fact, some of the articles indicate these were the only profitable units in their business, and in some cases were at least partially responsible from preventing firms from bankruptcy or takeover.

*Revenue from fixed-income, currencies and commodities, the company’s biggest unit, was a record \$6.8 billion in the second quarter, which compared with \$6.56 billion in the first quarter and \$2.38 billion in last year’s second quarter. <sup>viii</sup>*

This is quite a statement, but how much of that \$6.56 billion was derived from Currency trading vs. other trading operations?

## **Central Banks**

Central Banks are the real driver of the Forex market as they are the manufacturer of money. Only a central bank has the real power to create money. While banks create money by issuing debt, as does the treasury in the US, Central Banks have the authority, charter, and ability to create money that didn’t before exist. This money can be used domestically to purchase various assets, or it can be used to purchase other money – which is where Forex becomes interesting. This is an efficient measure of how much the US Dollar is worth not in terms of purchasing



power, but compared with another currency, for example the Euro. This game is more subtle on the major liquid currencies and much more obvious on less liquid exotics.

In the case of Zimbabwe, the most extreme example in recent history of hyperinflation, the inflation rate reached 26,470.8% in 2008<sup>ix</sup>. Hyperinflation is caused simply by the oversupply of money, created by the central bank issuing more money than the market could reasonably absorb. This is the millionaire dilemma of capitalism – we all want to be billionaires, but if we all had a billion dollars how much would you bill your neighbor to cut his grass (assuming you would even consider it) – at least \$10 Million. Imagine you owned a bank, and you could add as many zeros to your account as you want. Soon you would realize the dilemma, that the more you gave yourself and spent it, your vendors would also become richer and demand more, in addition to spending your money on other vendors and so on, until your money became less and less valuable. According to hyperinflation experts, this can be the beginning of a 'vicious circle' in which you need to create more money in order to create the same amount of money in the last cycle, due to the declining value, adding even more downward pressure on the value of money.

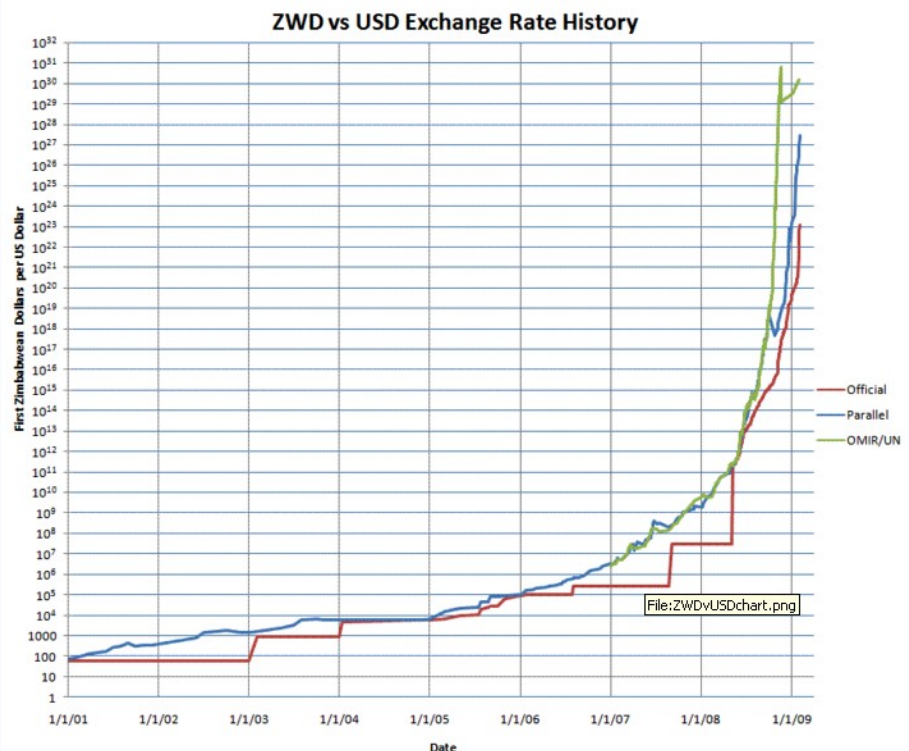
What prevents central banks from creating large amounts of capital is the potential for hyperinflation as in Zimbabwe.

Each central bank is very different in terms of ownership, operations, structure, function, design, and powers. Western countries have adopted an 'independent' model where the government supposedly doesn't influence bank policy, because the temptation is for governments to print as much money as they need to fund their social programs which will bring more voters – a natural political temptation.

In smaller, more tightly controlled central banks that are less independent, they are more proactive in protecting a country's wealth and currency.

Central Banking Resources:

<http://www.centralbanking.com/> <http://www.bis.org/cbanks.htm>

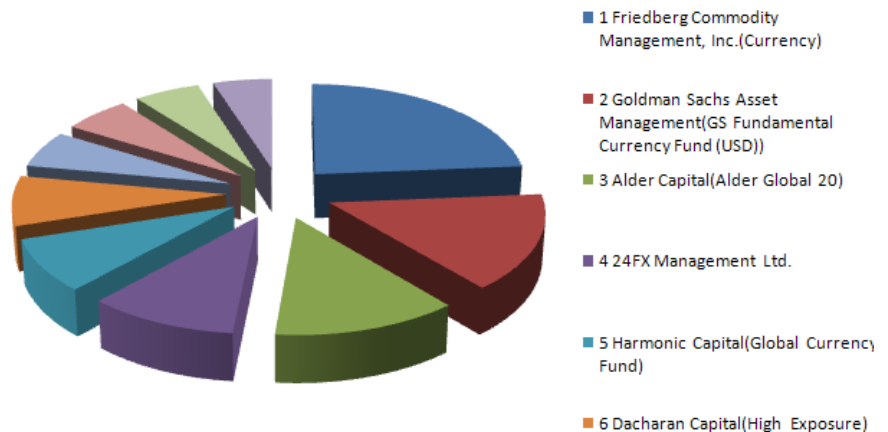






## Hedge Funds

Forex hedge funds are a small part of the hedge fund community. Barclay Hedge lists Currency Traders with Managed Futures programs the top 10 having only 1.7 Billion AUM (see on right)<sup>x</sup>.



### Bruce Kovner

*Bruce Stanley Kovner (born 1945 in Brooklyn, New York) is an American businessman. He is the founder and Chairman of Caxton Associates, LLC, a hedge fund that trades a global macro strategy and is considered amongst the world's top and largest 10 hedge funds with an estimated \$14 billion under management. In 2006, Kovner had an estimated net worth of around \$2.5 billion. Described as secretive even by family and friends, the 63-year old divorcee is perhaps one of the least known New York City billionaires outside of professional circles. His Caxton Associates despite the large amount of assets under management is known to be amongst the top 25 most enigmatic and secretive hedge funds globally.*<sup>xi</sup>

### Axel Merk

Axel Merk is the Founder and President of Merk Investments. Merk is an expert on macro trends, hard money, international investing and on building sustainable wealth. An authority on currencies, he is a pioneer in the use of strategic currency investing to seek diversification. Axel Merk is a sought after speaker and author on topics ranging from the economy, gold and currencies to sustainable wealth and personal finance, as well as a regular guest and contributor to the business media around the world.<sup>xii</sup>

*Having pioneered the currency asset class as head of Merk Investments, LLC, Axel Merk suggests that these times with inflation looming, the U.S. dollar failing, equity markets remaining volatile and economic recovery stumbling might call for investors to further diversify their portfolios with baskets of foreign currencies. Axel, who strongly recommends The Gold Report as a "brilliant resource" in his about-to-be released book (Sustainable Wealth: Achieving Financial Security in a Volatile World of Debt and Consumption), looks at the wider picture too. For instance, he tells us that while a world reserve currency is impractical, ungovernable, unworkable and unlikely, diversification within each country's reserves would make sense in the global economy.*<sup>xiii</sup>

<http://www.merkfund.com/>

Merk has just launched a retail Forex product:

*Money manager Axel Merk has a proposition for average investors: play the currency markets like a hedge fund for a mere \$2,500. Normally the world's foreign exchange markets -- where dollars, euros and yen exchange hands at lightning speed and in enormous sums -- are off limits to people who are saving a few hundred dollars a week for retirement or college tuition.*<sup>xiv</sup>

### FX Concepts

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*FX Concepts is one of the world's oldest and most established independent currency managers. For more than 20 years, we have been helping investors generate sustainable returns while managing their currency risk. Our world-class research team provides currency forecasts and market insights to institutional money managers and investors on a subscription basis.<sup>xv</sup>*

## John Henry

*Founded in 1982, John W. Henry & Company, Inc. (JWH®) is an alternative asset manager that is one of the longest established managed futures advisors in the world. Utilizing global markets in foreign exchange, financial; futures and commodities, JWH historically has generated returns non-correlated to those of equity and fixed income investments. The firm manages assets for retail, institutional and private investors in the Americas, Europe and Asia. JWH's 6 investment programs, and funds for which JWH acts as manager or co-manager, offer investors a wide variety of investment solutions to suit various portfolios and investment strategies.<sup>xvi</sup>*

John Henry has been listed as one of the largest currency traders on Barclay Hedge in terms of AUM figures.

## Michael Marcus

*Michael Marcus is a commodities trader who, in less than 20 years, is reputed to have turned his initial \$30,000 into \$80 million. Marcus met his mentor Ed Seykota while working as an analyst and learned money management from him. ... who went on to become one of the world's biggest currency speculators. He made a fortune in gold and another fortune in cocoa before moving into trading tanker rates and other indices in the shipping industry. He parlayed a thirty-thousand-dollar stake into an eighty-million-dollar fortune. He owned ten houses in every beautiful place in the world, many of which he had never slept in. His wife left him, but Marcus was too busy to notice. Trading from a beachside mansion in California, he was waking up every two hours throughout the night to place three-hundred-million-dollar bets on currency markets in Australia, Hong Kong, Zurich, and London. His secret? Marcus is a chartist. He is a trend follower who keeps an eye on market penetration and resistance.<sup>xvii</sup>*

There are many other significant Forex funds, too many to name in an article. Importantly, there seems to be no common ground for these traders. They all come from various backgrounds, unlike other more established industries. The National Security Council<sup>xviii</sup>, purportedly the most powerful committee in the world, has accepted members who all are 1 or 2 degrees of Henry Kissinger (meaning they either worked or went to school with Kissinger or one of his close associates).<sup>xix</sup> One might think that due to the significance and size of the Forex market, a similar crowd rules, but it does not.

## Institutional Funds

### Pimco

*The **Pacific Investment Management Company, LLC (PIMCO)**, is an investment company and runs the Total Return fund, the world's largest bond fund. Founded in 1971 in Newport Beach, California, with just US\$12 million in assets under management at the time, it is now owned by Allianz, a global insurance company based in Munich, Germany. Mohamed A. El-Erian is PIMCO's chief executive officer and co-chief investment officer along with co-founder William "Bill" Gross. Gross manages PIMCO's Total Return Fund, which has over \$150 billion under management. As of March 31, 2009, PIMCO in total had over US\$756 billion in assets under management and more*

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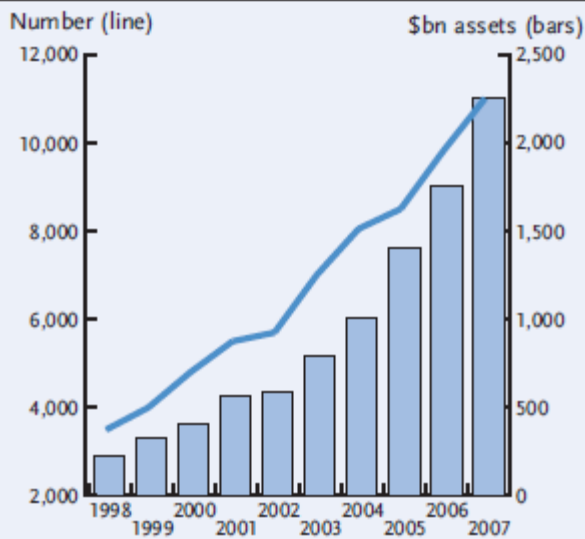
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than 1,200 employees.<sup>[1]</sup> On May 16, 2007, former *Federal Reserve* Chairman *Alan Greenspan* was hired as a special consultant by PIMCO and he will participate in PIMCO's quarterly economic forums and speak privately with the bond manager about Fed interest rate policy.<sup>[2]xx</sup>

With Pimco's nearly \$1 Trillion in Assets Under Management, Pimco's international bond plays can move the Forex market. While Pimco doesn't have a primary focus on speculating in Forex, they do implement hedging on foreign bond purchases.<sup>xxi</sup> Bill Gross is frequently making statements about Foreign Exchange, such as a recent article:

**Chart 16 Global hedge funds**



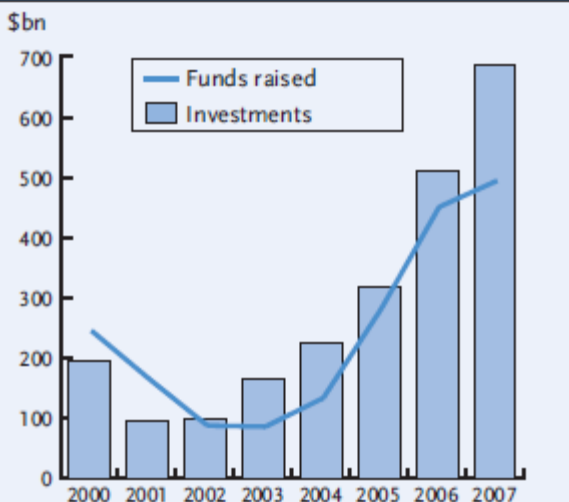
Source: IFSL estimates

*Bill Gross, who runs the \$169 billion Pimco Total Return Fund, is also warning the U.S. currency will fall. Holders of dollars should diversify before central banks and sovereign wealth funds do the same because of concern government budget deficits will deepen, Gross said in June. Gross' fund has returned 12 percent in the past year, outperforming 96 percent of its peers, according to data compiled by Bloomberg.*<sup>xxii</sup>

### Industry Statistics: Global Fund Management Industry

Forex as a daily turnover trades \$3.98 Trillion according to the infamous Triennial Central Bank Survey<sup>xxiii</sup>. Who is trading these vast sums, certainly not travelers? The Global Fund Management Industry is trading Currencies both for speculation in Forex, but mostly to settle international bond and equity portfolios.

**Chart 17 Global private equity market**



Source: IFSL estimates based on PEREP\_Analytics, AVCJ, EVCA/Thomson Reuters/PwC, NVCA, Ernst & Young data

*Assets of the global fund management industry increased for the fourth year running in 2007 to reach a record \$74.3 trillion. This was up 14% on the previous year and double from five years earlier. Growth during the past three years has been due to an increase in capital inflows and strong performance of equity markets. Pension assets totaled \$28.2 trillion in 2007, with a further \$26.2 trillion invested in mutual funds and \$19.9 trillion in insurance funds. Together with alternative assets, such as those of sovereign wealth funds, hedge funds, private equity funds and funds of wealthy individuals, assets of the global fund management industry probably totaled around \$110 trillion at the end of 2007. The US was by far the largest source of funds under management in 2007 with nearly a half of the world total. It was followed by the UK with 9% and Japan with 6%. The Asia-Pacific region has shown the strongest growth in recent years. Countries such as China and India offer huge potential and many companies are showing an increased focus in this region*<sup>xxiv</sup>





Seeking Alpha, these fund managers invest in Foreign Bonds, Equities, and other Foreign Currency denominated assets, driving Forex.

### **The new technology establishment**

Meta Quotes Software Company<sup>xxv</sup> was in the right place at the right time offering the ideal platform. A free, easily obtainable, easy to download and install in Windows, offering anyone the ability to program their own automated trading system and run it through the tester. This is very thrilling and they are then compelled to open a live account with any broker offering the MT4 system. This is a great marketing tool, because customer demand can be a powerful governing force of a corporate budget. Now, MT4 is ubiquitous in Forex, both retail and institutional.

Open a free demo account for Meta Trader 4: <http://demo.eesfx.com/>

A more developed technical establishment is the Fix Protocol. FIX is used in non-FX markets so it has some support for r&d by large equity broker-dealers with big budgets. Regardless, FIX has become the standard messaging protocol for API FX Trading.

<http://www.fixprotocol.org/>

### **Who wants to support the US Dollar?**

Contrary to popular belief, it is very questionable who really wants a strong dollar.

It would seem that the US Government and large US Corporations would want a strong dollar, and the common belief that if the dollar is strong that is good for the US Economy in general. However, currency expert Marc Chandler doesn't agree, and he explains his argument in detail. In his most recent book by Bloomberg Press, "Making sense of the Dollar" Chandler explores many myths and common misconceptions, most notably; he claims that it doesn't matter if the dollar is strong or weak. He claims that when the dollar is down, US companies who own a great majority of their assets overseas, profit because of a strong non-USD asset base. He also points out, that during the recent administration Strong Dollar Policy, the US Dollar lost considerable value.

If Marc Chandler were a lone author living in a small cabin in the woods his arguments may strike some as lacking credibility. But Mr. Chandler could not be a more credentialed FX expert, working as the Chief Forex Strategist for prestigious bank Brown Brothers Harriman. He previously worked at HSBC and has been quoted in many financial media news articles such as the Financial Times, Barron's, and Currency Trader.

What this proves is not what the prevailing bias is for the USD in the US. It proves there is no consensus; there are differing views inside an economy whether their currency should be weak or strong. These forces may counterbalance each other internally in addition to competing with



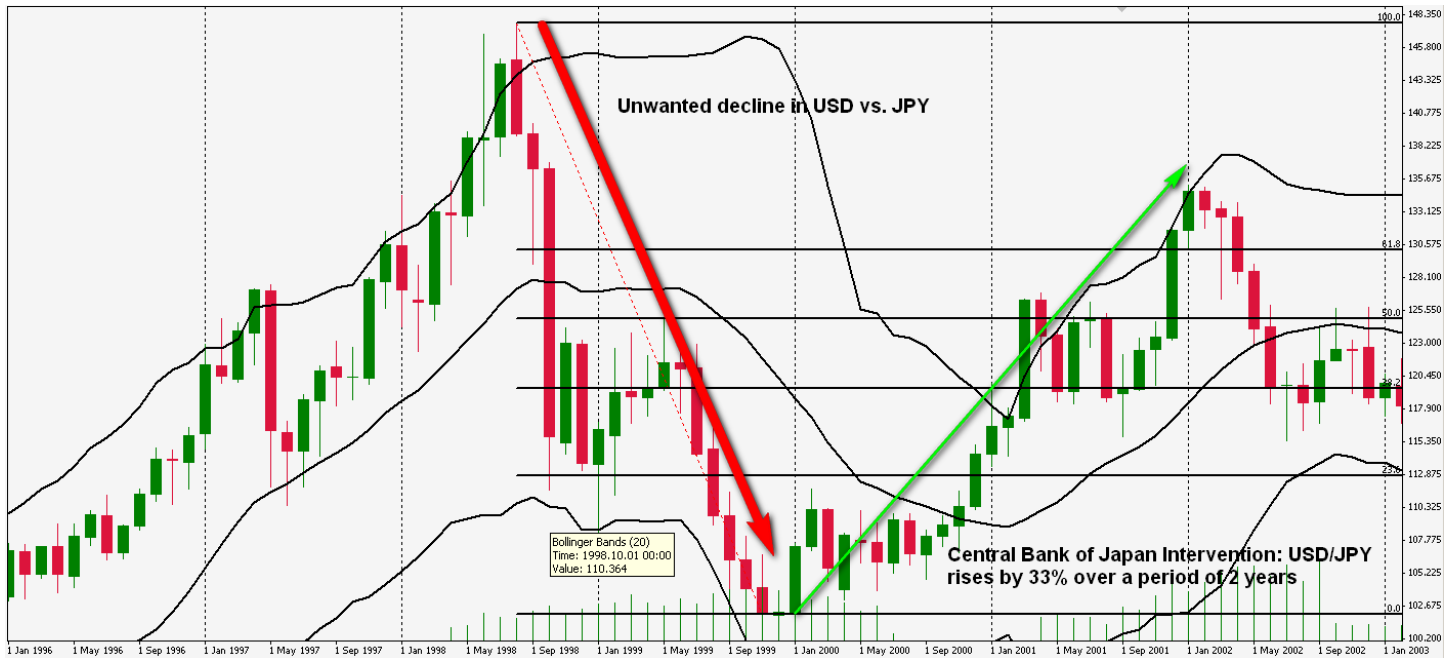
external forces. The conclusion is, whether Marc Chandler is right or wrong, there are significant forces inside the US (for example US based exporters) who want a weak dollar. Right or wrong, these forces influence Forex rates. This is a part of why Forex is such a complex and interesting market.

What corn seller wants the price of Corn to decline? What CEO wants his stock price to collapse? Most markets have a bullish bias, where many participants, usually on the sell side, will do nearly anything to promote the purchase of their commodity or security.

If there are domestic interests, in any country, worried that Forex traders can undermine their authority to support their currency they are gravely mistaken. If anything, they are a natural extra arm of any administration – no Forex trade can outlast a Central Bank intervention (no one has deeper pockets than a Central Bank!), they will quickly get on the bandwagon, follow the trend, and return profits to their clients or their own accounts. In other words, they can just as easily bid up the US Dollar as they could offer it down.

### **Alpha by money creation**

When a central bank creates money, usually it is created in the form of loans to banks and large institutions such as governments. But in a Forex intervention, money is created by purchasing other money. In the case of the Central Bank of Japan, they will sell JPY (of which they have an unlimited supply) in order to drive down the value of the JPY so exporters profits will be boosted as foreigners can purchase cheaper Japanese goods with their strong non-JPY currencies<sup>xxvi</sup>. When the Japanese central bank intervenes by purchasing foreign currencies, whoever is the holder of those currencies is the beneficiary. Multiplied with leverage, this can be a very profitable FX trade. It benefits all participants in the economy of the foreign currency, but to have a direct pecuniary impact it needs to be reflected in an FX account by holding a short JPY position during the intervention, for example being long EUR/JPY or USD/JPY.



This is a financial anomaly, and contradicts the economic adage there is no such thing as a free lunch. This is free money in all manners of understanding. Of course, you would be losing if you were long JPY during an intervention. This trade, with no leverage, generated 33% in 2 years.

Other markets such as the stock market need a loser for a winner. This is one reason why in FX there can be multiple winners, statistically speaking, there can be more winners than losers both in real terms and on a percentage basis. In this USD/JPY trade above, the Central Bank of Japan is the loser. But since they are the primary source of money, they aren't a loser in the traditional understanding of a trade, because their goal is financial stability of the Japanese economy. A weak JPY does boost imports so the net gain for Japan is positive. It is a subtle way of financing your customers. The Central Bank of Japan is giving you money to buy their products.

If we can for a moment set aside the individual trade technicalities, those profits, in aggregate, are absorbed by the global market. They are spread around between the USD, EUR, GBP, CAD, NZD, AUD, and others. It's important to understand that these profits are only tangible if you have a direct FX position in the JPY. Otherwise benefits will be felt in terms of purchasing power of the currency and cost of products, but this is less direct.

### Necessary data

Currently, there are few sources to obtain quality valid Forex data. The CFTC publishes a quarterly report of all regulated US based FDMs, but the statistics offered will only tell us about



the capitalization of these firms. This is valuable, but it is only a small piece of a larger puzzle. What brokers and banks could publish that would be very interesting, could include:

- Total number of profitable accounts from open to close
- Average % win for losing accounts
- Average % loss for winning accounts (From open until today)
- Total profit made from all customers
- Total loss created by all customers
- Profit made by FDMs from dealing operations, from commissions, from other services (profit structure breakdown)

For Banks:

- % of Forex accounts used for Hedging vs. Speculation
- Average profit and losses for hedgers vs. speculators
- Amount of profit earned per trade by the bank
- Profit made by the bank in proprietary Forex trading

Some companies are willing to disclose information answering the above questions unofficially.

That statement cannot be substantiated because this information was gained in confidence.

Such is the world of Forex.

The Forex Establishment is being redefined rapidly. The defunct Lehman Brothers was a top 10 Forex liquidity provider. Technology standards have been established by non-financial software startups from obscure locations. The only certainty about The Forex Establishment is that it will adapt at an ever increasing rate.

- <sup>i</sup> [http://en.wikipedia.org/wiki/The\\_Establishment](http://en.wikipedia.org/wiki/The_Establishment)
- <sup>ii</sup> [http://en.wikipedia.org/wiki/Stock\\_exchanges](http://en.wikipedia.org/wiki/Stock_exchanges)
- <sup>iii</sup> <http://fxtrade.oanda.com/>
- <sup>iv</sup> <http://forexmagnates.com/monthly-retail-forex-volume-report-for-july-2009-118-billion-daily-traded-volume/>
- <sup>v</sup> [http://en.wikipedia.org/wiki/Oanda\\_Corporation](http://en.wikipedia.org/wiki/Oanda_Corporation)
- <sup>vi</sup> <http://www.euromoney.com/Article/2194110/FX-poll-2009-Embattled-banks-boosted-by-performance-in-booming-FX-markets.html>
- <sup>vii</sup> <http://compliancex.typepad.com/compliancex/2009/04/deutsche-bank-trading-rebound-seen-leading-return-to-profit.html>
- <sup>viii</sup> <http://www.bloomberg.com/apps/news?pid=20601082&sid=aezVfob8myV4>
- <sup>ix</sup> <http://web.archive.org/web/20080204182310/http://zwtimes.com/pages/inflation183.17686.html>
- <sup>x</sup> [http://www.barclayhedge.com/research/rankings/cta/currency\\_traders\\_GE10M.html](http://www.barclayhedge.com/research/rankings/cta/currency_traders_GE10M.html)
- <sup>xi</sup> [http://en.wikipedia.org/wiki/Bruce\\_Kovner](http://en.wikipedia.org/wiki/Bruce_Kovner)
- <sup>xii</sup> <http://www.merkfund.com/about-us/team/axel-merk.html>
- <sup>xiii</sup> <http://www.marketoracle.co.uk/Article13394.html>
- <sup>xiv</sup> <http://uk.reuters.com/article/idUKTRE5880NQ20090909>
- <sup>xv</sup> <http://www.fx-concepts.com/index.php>
- <sup>xvi</sup> <http://www.jwh.com/templ006.cfm?id=006AB&left=1&tid=006AB>
- <sup>xvii</sup> [http://en.wikipedia.org/wiki/Michael\\_Marcus\\_\(trader\)](http://en.wikipedia.org/wiki/Michael_Marcus_(trader))
- <sup>xviii</sup> <http://www.whitehouse.gov/administration/eop/nsc/>
- <sup>xix</sup> <http://books.google.com/books?id=IuQw49XVh7QC&lpg=PP1&dq=running%20the%20world&pg=PA20#v=onepage&q=nsc%20school&f=false> Running the world: the inside story of the National Security Council and the ... By David Jochanan Rothkopf
- <sup>xx</sup> [http://en.wikipedia.org/wiki/Pacific\\_Investment\\_Management](http://en.wikipedia.org/wiki/Pacific_Investment_Management)
- <sup>xxi</sup> [http://www.allianzinvestors.com/mutualFunds/profile/PMFB/performance\\_A.jsp](http://www.allianzinvestors.com/mutualFunds/profile/PMFB/performance_A.jsp)
- <sup>xxii</sup> <http://www.livetradingnews.com/3746.htm>
- <sup>xxiii</sup> <http://www.bis.org/publ/rpfxf07t.pdf>
- <sup>xxiv</sup> [http://www.ifsl.org.uk/upload/CBS\\_Fund\\_Management\\_2008.pdf](http://www.ifsl.org.uk/upload/CBS_Fund_Management_2008.pdf)
- <sup>xxv</sup> <http://www.metaquotes.net/>
- <sup>xxvi</sup> <http://www.boj.or.jp/en/type/exp/faqkainy.htm>