



OANDA Rate[®] Data Accuracy Statement

Constructing Accurate Currency Data

In the ever-shifting FX market, procuring accurate data isn't always a straightforward process. Why? The FX market is an over-the-counter market (or OTC). This means different currency rates from different sources might all be valid at the same time, as long as the buyer and seller agree on the price. As a result, providing accurate rates is an art and a science.

At OANDA, we provide what is widely considered the gold standard in exchange rates because we:

1. Access the main players in the FX market in real time
2. Rely on a broad range of redundant and reputable data sources
3. Aggregate all the data points from one trading day
4. Calculate a time-weighted average price (or TWAP)
5. Deliver FX data automatically via API, as well as through our cloud-based Historical Currency Converter

A True Reflection of the FX Market

Knowing where your data is sourced is extremely important for businesses utilizing daily averages and real-time rates.

Since OANDA provides rates that originate from real FX transactions, our data is a true reflection of the market at any point in time. This means that businesses leveraging OANDA Rates® are working with the gold standard, as opposed to indicative rates, scraped and aggregated from a few unknown sources.

This protects your business from market inconsistencies and auditors looking to flag untrustworthy data sources.

The FX market is opaque, fast moving, and decentralized. That's why you need a partner who can help you navigate. As an example, below we have a 90 second view of the EUR/USD currency pair price movement, which includes over 22,000 quotes from all the different market participants. How can you know the accurate price for that time frame, or the next hour or day? The answer lies in the difference between a data provider who is a market maker versus a simple rates aggregator.

22,000 QUOTES IN 90 SECONDS



Market Maker vs. Rates Aggregator

As a market maker, OANDA has access to real-time FX data from all major participants in the interbank market. Though rates from counterparties can be mismatched at any given moment, our technology compiles this data and applies a series of proprietary algorithms to achieve the highest degree of accuracy.

It takes two steps:

1. We examine and interpret prices from each source in isolation. An algorithm then assigns a trust level to each tick or price and performs a first-order elimination of outliers.
2. A separate algorithm synthesizes trusted ticks from the rate providers through a second-order elimination of outliers (stale ticks, off market banks, etc.). All trusted ticks are gathered together to create OANDA's market (i.e., tradable) price. This means that the published price is seldom generated from a single-source price.

How OANDA Creates Rates

Rates aggregators do not construct their own transactable price, but an indicative one, which may not accurately reflect the real FX market. This lends itself to price spikes that wreak havoc when passed on to the end user. Market makers, like OANDA, actually create transactable prices based on real exchanges to ensure the most accurate data possible.

OANDA: The Market Maker Journey from Data to Insights

40+ sources of market rates including interbank participants and Central banks

Rates are algorithmically determined using various market sources which ensures accuracy and reliability.

API delivery of proprietary OANDA Rates® + Central Bank exchange rates



Beyond Accuracy: How Valuable Is Reliability?

OANDA's Exchange Rates API was built to offer peace of mind. It offers:

- Infrastructure co-located with the main participants in the interbank market
- The REST API, which easily integrates with any ERP, Treasury Management System, accounting/financial software, website, or mobile application.
- Resources, such as ERP integration documentation, our developer portal, and integration support.
- Formatting in JSON, XML, and CSV, offering the flexibility to fit any product, application, or website.

Backing up our technology is unprecedented access to the FX market in real time. Economic events can shake the FX market (e.g., Brexit, the U.S. presidential election, etc.), and businesses must be able to navigate these waters without delay. Where other providers are late, OANDA's products are always on the market's pulse.

Economic events can shake the FX market (e.g., Brexit, flash crashes, the U.S. presidential election, etc.), and businesses must be able to navigate these waters without delay. Where other providers are late, OANDA's products are always on the market's pulse.



March 9th, 2020

Coronavirus panic was hitting markets as Wall Street grappled with the Dow's worst day since the financial crisis, oil prices declined the most since the Gulf War, and as forex volatility surged as currency traders managed their flight-to-safety trades and braced for massive action from the Federal Reserve. Safe-haven currencies rallied across the board, while commodity-linked currencies posted their worst declines in years.



January 2-3, 2019

A flash crash in Japanese yen pairs occurred after US traders headed home and well before Asia got up and running. It all started after Tim Cook delivered a profit warning to investors that delivered the worst plunge for Apple stock in 6 years, but when you add illiquid conditions with Japan away for a holiday, the FX market had another flash crash. The yen surged 3% against the dollar while many emerging FX currencies got pummeled in the high-single digits.

OANDA's Exchange Rate API Features

OANDA EXCHANGE RATES API	TECHNICAL CAPABILITIES
Supported Rates	Access over 200 currencies, commodities, and precious metals. Start a free trial.
Total Currency Pairs	Over 38,000
Historical Data Dating Back To	1990
Proprietary Data	OANDA Rate® data
Other Data Sources	40 Central Bank exchange rates Get access to one of the largest sets of Central Bank exchange rates including
Types of Exchange Rates Data	<p>Average rates Bid, ask, mid-point. Daily, weekly, quarterly and annual custom periods Market and Central Bank rates Customizable % spread</p> <p>Real-time rates Spot rates (bid, ask, mid-point) updated every 5 seconds Number of historical fixings per day: 96 Historical fixings data includes bid, ask, mid-point for open, close, high and low</p> <p>Forward rate Used for hedging purposes to lock in an exchange rate for the purchase or sale of a currency at a future date and for determining mark-to-market</p> <p>Forex order book Open orders and positions held on the OANDA fxTrade platform Read more about our rates here</p>
API FUNCTIONALITY	
HTTP Methods Supported	GET
Protocols Supported	REST
Security Modes	HTTPS
Formats	JSON, XML, CSV
UTC Timestamps	Yes
Fully Redundant Servers	Yes
Dedicated Internet Connection	Yes
SSAE16 STANDARDS (DATA CENTERS)	
Soc-1 Type II	Yes
Soc-2 Type II	Yes
ISO 27001	Yes
EASE OF USE	
ERP Integration	Yes – See Integrations
Online Documentation	Yes – Visit Developer Portal
Sample Code	Yes – See Sample Code
Can I try out the API?	Yes – Test Drive API
Free Trial	Yes – Sign up to start 30-day free trial

Data Delivery Methods and Types of Rates Available

Web Tools

OANDA provides access to FX and other financial data in a wide variety of formats.

- Our web tools feature our world-renowned [Currency Converter](#), the staple tool for calculating currency
- Our popular cloud-based web application, the [Historical Currency Converter](#), allows users to manually retrieve more than 20 years of historical exchange rate data via convenient CSV download.

Rest API

Our Exchange Rates API offers one of the largest data sets of its kind with exchange rates on 200+ currencies and precious metals, 38,000+ currency pairs, as well as daily average rates sourced directly from 40 Central Banks. We offer several types of data to meet any business need, including:

- **Daily Average Rates:** This is the average of a currency's intraday fluctuation, representing a single day's exchanges. Daily average rates are most commonly used by accounting, tax, and CPA professionals for financial reporting, various accounting and audit needs, including reconciling company's financial books at the end of a fiscal period. There are other average rates available, too, including weekly, monthly, quarterly, yearly averages and custom time frames.

We also offer daily averages for Central Bank exchange rates so businesses can access a total of 540 currency pairs from 40 different Central Banks around the globe, such as European Central Bank, Banco de Mexico and National Bank of Poland.

- **Real-time Rates:** Real-time rates (also known as "spot rates" or "live rates") have countless use cases, varying from supporting treasury and finance global operations to helping product managers and developers build web functionalities and powering digital products. Travel sites and e-marketplaces, for example, depend on real-time FX rates to power their global pricing engine and currency conversion needs; financial websites will use this data to showcase currency trends, provide access to instant currency conversions, or engage customers with interactive charting.

- **Real-time Rates (cont'd):** The OANDA spot rates are a true reflection of the forex market and are updated every 5 seconds. Our API provides historical real-time rates and 96 fixings per day (every 15 minutes over a 24-hour period). The fixing data includes the most comprehensive dataset for each “candle” (or interval): bid, ask, and midpoint for open, close, high, and low.

Additional FX Data

- **Tick-by-tick Data:** Businesses opt for this data when it's necessary to digest rates at sub-second speeds. OANDA can deliver large batches of data on millions of market movements throughout a single day, information usually used for high-frequency trading, algo-trading modeling, interactive charting, supporting financial tickers, identifying currency trends, managing FX risk, and more.
- **OANDA Forex Order Book:** Access OANDA's open orders and positions for any major currency pair using OANDA's Forex Order Book. See the past 24 hours of tick-level movement and how stats have changed or study the relationship of pending orders to positions — to deduce potential support and resistance levels within the market. The Forex Order Book is largely used to understand FX market movements and sentiment

As automation becomes standard in cash management and FX risk operations, access to accurate financial data is key. Delivering data through our API guarantees uninterrupted flow of real-time information, as well as the flexibility to plug the data stream directly into ERP and treasury systems.

About OANDA

For over 20 years, OANDA has been a global leader in the currency market; our exchange rates data is trusted by thousands of companies like Google, Tesla, KPMG, plus small and medium sized companies globally. OANDA Solutions for Business specializes in providing corporations with a broad range of **FX Data Services**, from currency data via **Exchange Rates API** to our **Historical Currency Converter** (team plans are also available for teams of 5 or more) as well as **Corporate FX Payments**.

OANDA Corporation has seven offices worldwide in Toronto, New York, London, Singapore, Tokyo, and Sydney. The company is fully regulated by the U.S. Commodity Futures Trading Commission (CFTC), the U.S. National Futures Association (NFA), the Monetary Authority of Singapore (MAS), the Investment Industry Regulatory Organization of Canada (IIROC), the UK Financial Conduct Authority (FCA), the Japanese Financial Services Agency (FSA), and the Australian Securities and Investments Commission (ASIC).

To learn more about OANDA Exchange rates API, visit:

<https://www.oanda.com/foreign-exchange-data-services/en/>

Or contact us via phone or email:

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