

**FOR REVIEW ONLY: FOR REVIEW ONLY:FOR REVIEW ONLY:FOR REVIEW ONLY: FOR REVIEW ONLY: Market liquidity is not always available the way traders believe it is. This can be especially evident in the futures markets, creating massive financial risk and potentially triggering systemic risk. FOR REVIEW ONLY. FOR REVIEW ONLY: FOR REVIEW ONLY: FOR REVIEW ONLY: FOR REVIEW ONLY.**

## The liquidity mirage

BY ALEX BENJAMIN

**T**he advent of easy online access to trading, whether in stocks, bonds, commodities or forex, has created a concept of price transparency and fairness.

Every organization, from government regulatory bodies to the exchanges and brokers, promotes electronic markets as more liquid, transparent and tighter in terms of spreads. Opportunity and product diversity is supposed to allow ordinary people, or the retail sector, to access as much market information as institutional participants and at nearly the same speed with just the click of a mouse, creating and promoting the concept of a level playing field.

Indeed, some of their points are valid; however, they fail to grasp that within the 23.5-hour day of electronic trading, liquidity is not always ensured. There are no guarantees that the available price at any time of the day or night will be deemed fair by the individual trader — whether retail or institutional.

This has become more relevant through the last two years when the overnight moves in all electronic markets, whether in gold, corn or even

forex futures, have at times been an astounding 5% or more. The driver behind these moves invariably is not news but the lack of sufficient liquidity to take the opposite side of the trade.

The U.S. exchanges in most instances have installed certain measures to deal with the liquidity mirage. These include limit price moves that automatically halt trading for a short period or the cancellation of certain transactions on the basis of a disorderly market.

### LOW-TECH COMPARISON

To help understand how liquidity can appear to be there when it isn't, let's consider the North African or Middle East Souk. These are the market places of ordinary people and ordinary goods where bargaining between the supplier or vendor, and the buyer or customer, is considered quite normal.

The roles are simple and familiar. Generally, the customer approaches the vendor and asks, "How much?" A response is given, such as 1,000 dirhams, at which point the customer feigns shock and horror at the exorbitant price. After this little formality, the pro-

cess of what we call price discovery begins. The customer suggests 200, at which point we now have a buyer and a seller. The only problem is how to agree the eventual price that will be deemed to be fair by both parties.

Should the customer at a later stage wish to resell the commodity he has just purchased, he will find that the original vendor will be pleased to take it off his hands for say, 200 dirhams. Being the only buyer, the customer concedes feeling perhaps a little aggrieved.

Herein lies the concept of value. What appeared at one stage on purchase to be a good deal turned out later to be an inflated price, but in reality the buyer was simply the victim of the liquidity mirage.

The open outcry exchange floors with their colorful-jacketed locals or independent traders and clerks have been the historic providers of liquidity. The locals have risked their own capital for the opportunity to vie for the opposite side of the business for short-term gain vs. the banks, brokers and commercials. These institutional participants have a longer-term horizon in

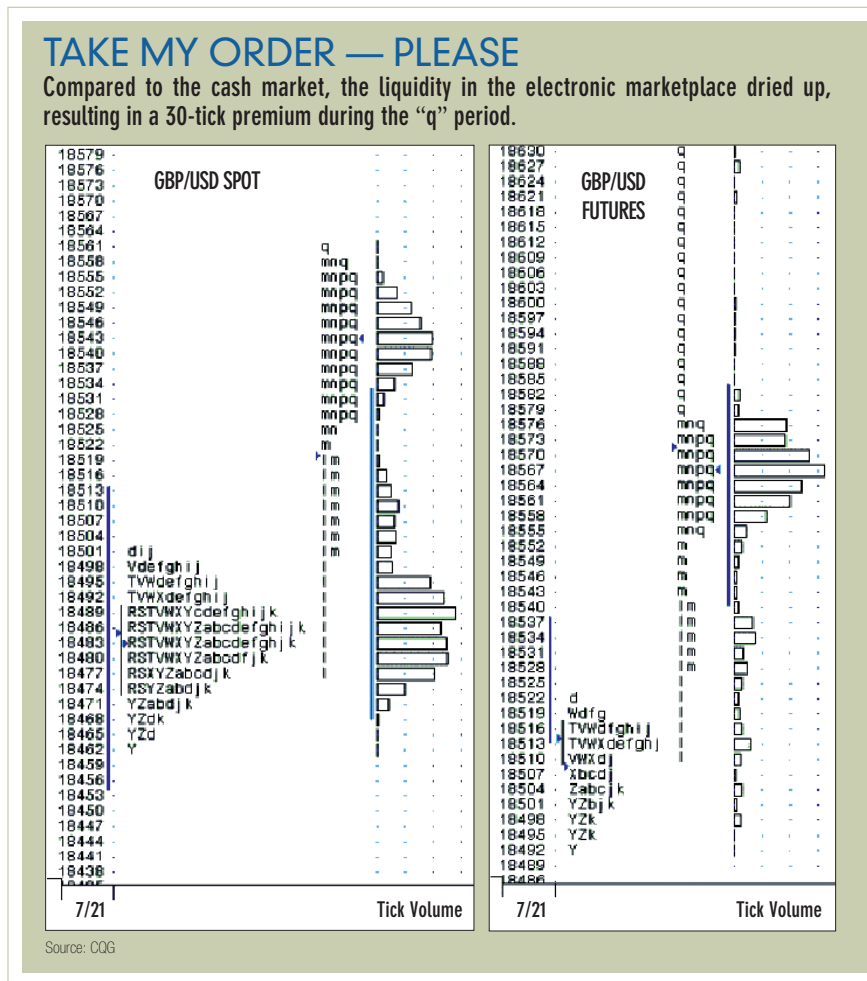
the nature of their transactions and the local operating as a market maker facilitates and profits short term from the order flow. This helps to gauge the strength or weakness of the marketplace via multiple transactions, which moves the market in an orderly fashion. The market will move to where the greatest number of buyers and sellers are satisfied for the given moment, thereby creating a sense of value.

### LIQUIDITY LIMITS

The electronic market does not have a market maker facility per se. Every short-term trader on the electronic side is, broadly speaking, reacting to price rather than creating the market. These “flippers for a penny” do not have any concept of the infrastructure that is necessary to allow them to continue flipping at ever faster rates of speed, creating unprecedented intraday volatility. The market-maker infrastructure — historically composed of the locals — is aimed at maintaining an orderly market with a bid and ask price at minimum quantity on a continual basis to all comers under whatever time of day or circumstances. In other words, they are the guarantors of liquidity.

The advent of 23.5-hour electronic markets means that at times the bid/ask spread is wide on minimal volume, creating a lack of liquidity or even a lack of transparency. Therefore, a single order can have an exaggerated effect on price.

“Take my order — please,” right, is an example of a liquidity mirage. On July 21, the GBP/USD cash market was moving up in the London session and breaking above the Asian session in bracket “l” and “m” in the Market Profile chart. The high in the “q” period was 1.8561. Compare this to the electronic futures contract for the September British pound futures; note, the spike in the “q” period, where stops



were filled at about 30 ticks premium to the underlying cash market, after taking into account the swap differential for the spot vs. the futures.

“Trouble in Tokyo” (page 44) demonstrates a similar problem in the JPY/USD market. Note the green bar circled in yellow for July 5. Now see the smash-down equivalent in the Japanese yen futures market in the accompanying 30-minute chart. This was the equivalent of 250 ticks above the cash in the USD/JPY.

“Unsupported surge” (page 44) shows the same September Japanese yen contract (the futures is charted in reciprocal mode for a direct compari-

son of the futures and spot market), along with the cash market. The next 10 days of trading shows how the market retested the extent of the liquidity mirage unfair trade on both the cash and futures sides.

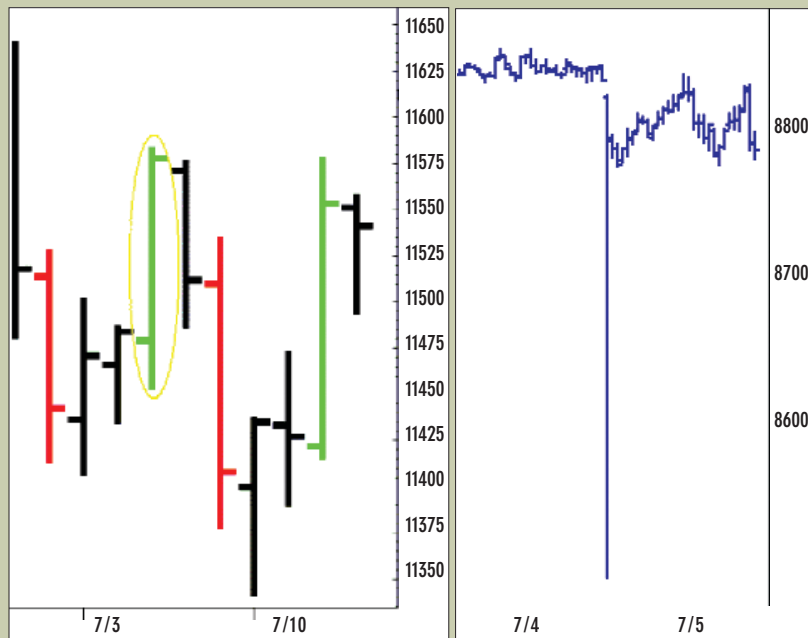
### SHOCK AND AWE

Another form of liquidity mirage occurs just as a government report is released or a major speech is made. Order flow bandwidth, simply meaning a market’s capacity to handle a sudden influx of large orders, is far too small for the growing level of transactions and the many varied products, some of which are just replications of each other.

**“Markets don’t wait for handcuffed, would-be participants. They never have, and don’t be fooled into thinking they ever will.”**

## TROUBLE IN TOKYO

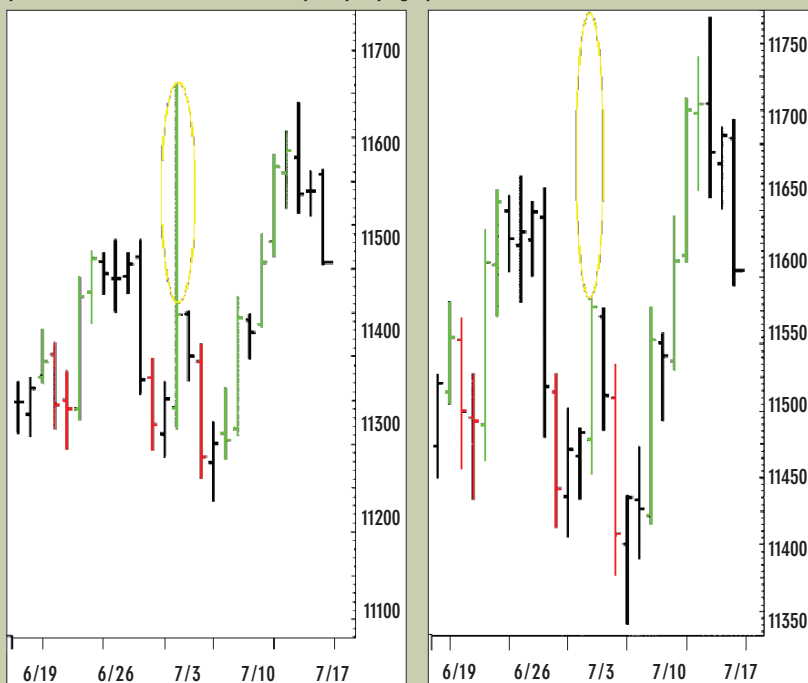
The chart on the left shows the cash market, which did not react to the huge, approximately 250-tick drop, in the overnight electronic yen futures.



Source: CQG & eSignal

## UNSUPPORTED SURGE

The futures (on left in a cash equivalent form) and cash (on right) both retest the spike in the yen futures that was the result of liquidity drying up.



Source: CQG

When bandwidth capacity is reached, which happens all too frequently, the result for the trader may initially be a frozen screen. It may be frozen or blank or prices may even appear to be backward — that is, the bid is above the ask. Indeed, the screen may show moving prices but they are so far behind the real action that when the trader tries to transact his order appears in limbo or sits unfilled or in wait status.

The natural reaction of any reasonable trader is clear: They phone their broker. This reveals the second level of the liquidity mirage. Most online brokers are not geared, in terms of technology or flesh-and-blood staff, to receive a huge number of potentially panicked but more likely frustrated traders all screaming to know whether they have a position. The broker is not able to tell them for several reasons.

First, they may not wish to make a committed statement in case it turns out to be incorrect, making themselves and their employer financially liable. It may also be that the broker is in exactly the same position as the customer, relying on the same data feed or software, and that they cannot tell due to the same bandwidth capacity problem affecting all their customers. When the broker tries to phone the exchange, the market control center can only handle one situation at a time due to the same constraints affecting the broker.

Whatever the cause of the delay, markets don't wait for handcuffed, would-be participants. They never have, and don't be fooled into thinking they ever will. By this time, prices have moved several percent and many customers are effectively locked out from either taking advantage or just mitigating exposure risk.

The opportunity loss is incalculable. Forget the poor, single market retail trader. Consider a normal large hedge fund where on the release of the government report, the manager wished to dump stocks in three European markets and two U.S. stock indexes at the same time, buying some bond

futures and trading several hundred million in currencies.

As the world moves toward fully electronic trading, those responsible, whether regulatory authorities or the exchanges, pay little heed to the financial risks that entails, leaving many in a situation where they must sell the good to pay for the bad just to remain within margin constraints. This is where systemic risk is at its greatest. The continued move toward automated trading aggravates order flow bandwidth and rather than improving the liquidity factor it diminishes it, leaving orders fired off that risk managers cannot see and have little control over.

### SCALP AND GET SCALPED

The third form of liquidity mirage, and possibly the most important for the majority of short-term traders, is the perception that there is always a bid and ask of one tick to allow for short-term scalping opportunities. Nothing could be further from the truth.

Many automated programs rely on the last price to activate a trade. This can result in a program executing a trade that trips through the book of bids or offers, frequently triggering comments from traders, both retail and commercial, of, "Wow, what happened there?"

What they witnessed were minor vacuums where normal balanced trade was overwhelmed by a single order, creating a gap in the intraday price levels traded.

Consider what happens in a slightly larger time frame. These pockets of air, or liquidity mirages, occur all too frequently, and they show up regularly when markets are trending. Examples in the past year include an incident when a U.S. investment bank fired off a huge order in the mini-Dow, creating a drop in a one-minute bar of 500 points, representing a move of \$2,500 per contract. A similar order in the mini Russell 2000 created a drop of 14 points, or \$1,400 per contract. Another example occurred in Europe, where the German five-year bond futures, known as the bobl,

rose in a one-minute bar by 50 ticks, or the equivalent of a drop of 13 basis points in yield, representing 500 euros per contract.

Such occurrences should refresh memories of previous moments in history, such as the 1987 stock market crash, the 1990 Gorbachev crisis, or the 1998 fallout from Long-Term Capital Management.

The markets during those periods experienced extreme volatility for the same reason: Too many traders wanted to liquidate positions at the same time, which created an unbalanced market. The only way to resolve it was for price to drive to an extreme level where the volume could be overwhelmed in the opposite direction. In some ways this is a variation on the bad fill of a stop-loss order.

These types of liquidity mirages occur generally to the downside in stock indexes and to the upside in bond market futures, and frankly, either way in the forex markets where gaps following a data release are more frequent than most traders realize. Either way, the moves are far in excess of so-called normal distributions and always occur in the direction of the path of least resistance and when the majority is positioned in the opposite direction of the big move.

The obvious conclusion of this discussion is how a trader can protect himself from the liquidity mirage. The first step is clear: recognize it's there. The best line of defense against an evaporating market is never to leave yourself exposed without protection. You never know when or from where the next liquidity mirage will manifest itself.

But the practical step, if none other is taken, is pretty basic: Do not over-leverage. Know your financial limits and realize that the more you put on the line, the more you can lose. **|FM**

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