PRECIOUS METAL FIASCO

# Big data dynamo fixes gold rogues

Gareth Costa

Peering at the blur of tens of millions of gold market trading data points two years ago, Andrew Caminschi discerned faint lines among daily activity that to a sceptical mind were out of place in a randomly driven market.

It had taken 18 months of digging up hundreds of gigabytes of raw historical data that had nearly been discarded by financial markets supplier Thompson Reuters for the UWA Business School Phd student to get to that point.

Luckily the data was saved by Sirca, a collaboration by 30 Australian and New Zealand universities to support the needs of academic researchers "in a world where data volumes were accelerating dramatically".

After much cleaning up and crunching 14 years of raw information through UWA's science department supercomputers, Caminschi was ready to drop a bombshell in the murky world of global gold and silver trading.

Regular criticism of bizarre precious metal market price action has long been dismissed as conspiracy theories by mainstream financial market participants and regulators but the data proved that the five "insider" banks controlling the twice-daily gold price fixings were manipulating prices.

The line on an X-ray-like plot Caminschi saw was a spike of up to 50 per cent in trading activity as the banks — Deutsche Bank, Barclays, Bank of Nova Scotia, Societe Generale and HSBC — used privileged market order and contract information to drive prices against customers minutes before the benchmark price "fix" was set.

"Information trickles down from the five banks, through to their clients and finally to the broader market," he explains. "In a world where trading advantage is measured in milliseconds, that has significant value."

Caminschi and his Phd supervisor Professor Richard Heaney published the findings in the Journal of Futures Markets, from where it spiralled to the point where the 117-year twice-daily silver fix, run by just three participants, has come to an end and the gold fix may soon follow.

"The manipulation of commodity benchmark prices affects a broad range of stakeholders — from the miners and metal refiners, to royalty owners such as indigenous landowners, private leaseholders and governments," Caminschi says.

But he never imagined that his academic thesis conducted in geographically isolated Perth would seriously harm the bottom line and reputation of banking giants.

Pressured by German authorities, Deutsche Bank failed to sell its once-prized silver-fixing seat, and then abandoned it altogether.

"It shows location isn't important anymore in a globalised world," Caminschi says.

Affected parties pounced on the data, launching 30 class action lawsuits, while Caminschi has been retained as an expert witness by lead US litigators.

But six or seven years ago his research would likely have fallen on deaf ears. Since the global financial crisis, major global banks have admitted to collusion in daily Libor — London interbank offered rate — interest rate and foreign exchange fixings, both used extensively as benchmarks for hundreds of trillions of dollars of derivative contracts.

Of concern to investors is his observation that along with the shift away from the physical boardroom fix to the relative anonymity of the "teleconference" fix, the advent of ETFs played a big part in facilitating the abuse.

"You've got all this passive money in these ETFs and the only role is to track the benchmark," he explains. "They don't care if the benchmark is good or bad, as long as they track it."

He makes the point that historical financial practises in a new, super-fast digital world need to be reviewed. Market manipulators should be nervous because he has access to similar historical data from 140 markets.

He has his sights set on analysing industrial metals markets and iron ore, which is becoming increasingly financialised.

## TAKING CONTROL

- The first London gold fix was on September 12, 1919 at 10am to kickstart gold markets, then an important benchmark for global currencies.
- The fix was held in the offices of NM Rothschild & Sons until 2004.
- The fix can take a few minutes, or up to an hour, as occurred on the stock market "Black Monday" crash on October 19, 1987.
- An opening gold price is proposed at the start and five "market-making" banks indicate how much gold they would buy or sell at the price. When the net of transactions at a price is zero, the fix is set.
- Most global central banks, refiners, miners, gold traders and manufacturers use the fix as a daily benchmark for physical supply and derivative contracts.

**Number crunchers: Richard Heaney and Andrew Caminschi in the supercomputer room at UWA.** Picture: Ben Crabtree

## Science, maths whiz followed golden path

Andrew Caminschi was born in Romania, spent his early years in then-West Germany and came to Perth in 1982.

He graduated from the University of WA with a computer science and maths degree, worked in military communications for five years and left in 1999 to work for Hewlett Packard in California.

While involved with some mining start-up ventures in Asia after the global financial crisis and trading markets for his own account, he became intrigued by the fragmentation of gold trading across more than 30 futures exchanges and close to 100 exchange-traded funds that packaged gold.

Caminschi admits he had no "masterplan" that led him to this point but with an open mind he used his experience to follow the data to its logical conclusion.

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