New kids on block

BHP is among the companies now using blockchain technology, writes Olga Kharif

VENDORS of mining giant BHP Billiton typically monitor rock and fluid samples and analyses with emails and spreadsheets.

A lost file can cause major and expensive headaches since the samples help the company decide where to drill new oil wells.

The solution? Early next year, BHP will start using the blockchain, a new, shared database technology that can't easily be changed or erased.

A technician taking a specimen can attach data such as collection time, a lab researcher can add reports and all will be immediately visible to anyone with access.

BHP is one of many big businesses putting the blockchain to use.

For several years after it emerged in 2008, the technology behind the digital currency bitcoin held court on the fringes.

Then in the past year or so, several large companies, including Nasdaq and Standard Chartered, began testing it.

Now comes the next phase: actual deployment of the blockchain in their operations, with the first major wave expected next year.

Financial institutions have been early adopters. Australian share market operator ASX expects to have a commercial blockchain platform within 18 months, deputy chief executive Peter Hiom told investors in August.

The Nasdaq's blockchain-based technology for voting in shareholder meetings, as well as a technology that enables private company stock issuance, will be deployed in 2017, said Fredrik Voss, a vice-president at the stock exchange operator.

"We don't want to be alone in this space, we like when we see others announcing rollouts of solutions," Mr Voss said.

Seen as revolutionary in the world of finance, the blockchain's software code can let banks, investors and others in the market transfer and record assets and exchange information without an intermediary.

One security feature is that entries to the blockchain can't be erased or changed, typically unless users agree.

While it has the potential to reshape the way industries operate by reducing third-party costs, increasing transparency and dramatically speeding up transactions, implementation can be slow amid regulatory challenges and as companies upgrade their back end systems.

"The promise of the technology is great, but it takes time for solutions to be developed based on the technology," said Gil Luria, an analyst at California-based financial services group Wedbush Securities.

"Blockchain may take even longer than other transformative technologies because it involves actual value which has to be safeguarded as well as significant regulation."

Still, even highly regulated industries are starting to climb aboard. A September survey by computer giant IBM of 200 banks in 16 countries found 15 per cent expect to use a blockchain-based technology next year and 51 per cent expect to in 2018 or 2019.

Mr Luria says he expects blockchain-based technology to drive much of the world's financial services delivery in the next five to 10 years.

BLOOMBERG

HARDHAT HANDOVER AT CIMIC

CONSTRUCTION

ADOLFO Valderas has taken over as the new chief executive of builder Cimic Group, which is on track to deliver a full-year net profit of at least $520 million.

The construction contractor's deputy chief takes over the position from Marcelino Fernandez Verdes, who will continue in his other role as executive chairman.

"Cimic Group's solid financial position, our robust pipeline and the expertise of our people in delivering complex construction, mining, mineral and concessions projects provides us with a strong future of which I am proud to be a part," Mr Valderas said in a statement yesterday.

The company, formerly known as Leighton Holdings, also announced its third quarter profit had jumped 11.4 per cent to $148.5 million in the three months to September. Cimic's revenue had risen 17.2 per cent to $2.7 billion, compared to the same time last year.

The group also announced a number of projects in the quarter that were expected to generate $1.14 billion in future revenue, including a tunnel in Hong Kong, an underground mine decline in Mongolia and coal handling and preparation plant works in Queensland.

Subsidiary Thiess had also established a joint venture to provide mining services to an oil sands project that could generate revenue of up to $430 million, it said.

Mr Verdes reconfirmed Cimic's full-year profit guidance of between $520 million and $580 million, subject to market conditions.

Shares in Cimic advanced 2.6 per cent to $28.40.

Buckle up Dorothy, looks like the tornado is about to hit

THE SHORT CUT with ROGER MONTGOMERY

ACCORDING to Carmen Reinhart and Kenneth Rogoff, authors of the bestseller *This Time Is Different*, eight centuries of financial crises reveals that a repeating set of leading indicators exist for one to occur.

Australia looks to be lining up for something much worse than anyone is anticipating.

There are four signs.

The first is a rapid inflation of asset prices, particularly residential housing.

The second is excessive debt accumulation, either by the government, banks, businesses or consumers.

The third is outsized borrowing from abroad, reflected in a sequence of gaping current account and trade balance deficits.

The final factor is the occurrence of slowing economic output.

Reinhardt and Rogoff studied eight centuries of financial crises and these four factors are a strong signal of an impending financial and/or banking problem.

Nobody is talking about the possibility of a crisis in Australia right now but three of the four factors are in place.

And if you believe the oversupply of apartments will be followed by a decline in residential construction activity, the deteriorating levels of economic activity are almost certain. That would make it four from four.

We have warned investors about the housing bubble in Australia now for a year and it's getting worse. Even the Reserve Bank is telling apartment investors to be very, very cautious.

Of course the bulls believe house prices cannot fall (factually incorrect), that Chinese buying will support prices (flawed weight of money argument) and that we are running out of land (high-rise residential developments ensure millions of people can all live on a smaller piece of land and Singapore, the Middle East and the Gold Coast have demonstrated an ability to reclaim land from the sea).

The history of financial crises also reveals that borrowing binges occur.

In Australia today, the household debt-to-GDP ratio is rising inexorably.

In 2014, Australian household debt as a percentage of personal income was a record 206 per cent, and it has risen since. Household debt to GDP is approaching 130 per cent.

In the United States, this ratio had been stable at 80 per cent of personal income until 1993 before jumping to 120 per cent in 2003 and 130 per cent in 2006 — the year before their crises began.

It's worth noting that work conducted by Bordo and Jeanne (2002) and the Bank of International Settlements (2005) confirmed that when housing booms are accompanied by sharp rises in debt, the risk of a crisis is significantly elevated.

Across two decades, Australia's household debt has increased more rapidly than household income. In 1990, household debt to income was 56 per cent; by 2002 it had reached 125 per cent. By April of 2014, it was 177 per cent. And according to the Organisation for Economic Co-operation and Development, it now sits at 206 per cent.

The third criteria is a rising current account deficit.

Those who might suggest "this time is different" will point to globalisation as the reason behind the rising current account deficit, which allows much larger surpluses and deficits to be carried.

Investors should remember, a current account deficit simply means revenue from exports are insufficient to meet the cost of imports.

An examination of all 19 bank-centred crises since World War II reveals that the average current account deficit increases from 1 per cent of GDP four years before a crisis to 3 per cent of GDP in the year prior to the crisis. In 2015, Australia recorded a current account deficit of 4.6 per cent of the country's gross domestic product, compared to an annual average of 3.24 per cent since 1960.

A fortnight ago, in a report entitled Debt, Use it Wisely, the International Monetary Fund's Vitor Gaspar warned Australia over its soaring debt, alongside Canada and Singapore. He also warned Australia's policymakers against complacency.

"History has taught us that it is very easy to underestimate the risks associated with private debt during the upswing," he said.

When an oversupply of apartments in Australia causes the prices of those apartments to fall there will be a slowdown in production.

When production slows, fewer active construction sites means people lose jobs, spending tightens and the banks may find themselves holding mortgages built on hot air.

ROGER MONTGOMERY IS CHIEF INVESTMENT OFFICER AT MONTGOMERY INVESTMENT