SAN FRANCISCO (Reuters) - Like many central bankers, Eyjolfur Gudmundsson spends his days fretting about inflation, making sure monetary growth is reasonable and trying to collect data about the economy.

The difference is that the economy Gudmundsson oversees exists only in the virtual world of Eve Online, a science fiction computer game run out of Iceland.

Gudmundsson is the newly appointed chief economist for CCP Games, which hired him in June to quantify the wheelings and dealings of Eve Online's denizens, which number about 200,000 players.

CCP hopes that will grow 50 percent by the end of 2008 to be about the same size as Iceland's population.

"There's a lot of discussion in the game about inflation and that is my job, to find out if inflation is going on," said Gudmundsson, who has a doctorate in environment and resource economics from the University of Rhode Island.

Players want standardized data about Eve's economy to help them track prices and make investment decisions as they battle to control interstellar space on behalf of mega-corporations whose size and power would make any real multinational blush.

"This makes the consumers behave in a more natural way because they are competing against each other on multiple levels, not only on a tactical level in combat but for logistics and resources. That builds consumer behavior and patterns that you see in the real world," Gudmundsson said.

It's a darkly literal twist on the creative destruction beloved by classical economists -- players create things, like heavily armed starships and alliances, to destroy rivals.

Eve's economy is rooted in activities such as mining raw materials. Players deal in interstellar kredits, or ISKs, a play on the trading symbol for Iceland's currency.
interstellar kredits, or ISKs, a play on the trading symbol for Iceland's currency, the krona.

Just like for a Wall Street stock investor, a Singaporean commodities trader or a London foreign exchange dealer, information is key. In this regard, Guodmundsson is the envy of every policymaker who has wrestled with incomplete data -- all deals and prices are instantly captured by CCP's computers.

"As a real economist I had to spend months trying to find data to test an economic theory but if I was wrong, I wasn't sure if the theory was wrong or the data was wrong. At least here I know the data is right," Guodmundsson said.

As new players join, CCP adds new planets and asteroids that can be exploited, one of several "faucets" that serve to inject funds into the universe and keep the economy ticking.

"After we opened up an area where there was more zydrine (an in-game mineral), we saw that price dropped. We did not announce that there was more explicitly, but in a matter of days the price had adjusted," Guodmundsson said.

He is tasked with figuring out whether the game has enough "sinks" that can soak up excess money if it looks like an inflationary bubble is emerging.

CCP pricked such a bubble when it overhauled the system for producing player-created items. The 425mm railgun -- a powerful gun for the large ships that are a stalwart of any serious battle fleet -- dropped to a fifth of its previous price.

"We think Milton Friedman would definitely like this," CCP Chief Executive Hilmar Petursson said, referring to the American economist best known for his theory that money supply ultimately drives the boom and bust of the business cycle.

Guodmundsson is also looking into whether lessons learned in running a virtual economy can apply to real-world ones. It's a rich field that is drawing interest since experiments that would be impossible in real life can be arranged with a few software tweaks.

"We watch price bubbles happen in Eve Online. We are thus able to watch in rapid fashion, a mathematical simulation of those price bubbles. We then are in a position to extrapolate price bubbles in the real world and trade on that, in futures or whatnot," Petursson said.

When pressed on whether he thought his work would really eventually give CCP an edge in real-world financial markets, Guodmundsson declined to answer, but said: "I strongly believe that in future we will look to virtual worlds to see how things have evolved in that world and apply that to a real-world situation."

(Additional reporting by Michael Urquhart in Singapore)