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2:31 pm ET Jun 21, 2010

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By M I C H A E L CONNECT C A S E Y

In the first quarter of this year, while Chinese demand for copper, aluminum and nickel helped the London Metals Exchange's index of prices rise to a 4% gain, the minerals price index for EVE went in the opposite direction, dropping by 1.8% over the same period.

The deflationary trend in EVE was led by sharp declines in high-end metals Zydrine and Megacyte, mostly explained by a positive supply shock. A hitherto inaccessible asteroid belt was opened up in null security space, which created an important new source for the two metals and counteracted the upward effect of stronger demand from spaceship builders.



—CCP Gaming A screenshot from EVE.

These observations and more are laid out in the latest quarterly report on economic activity in EVE by Eyjolfur Gudmundsson, chief economist for Reykjavik, Iceland-based CCP Gaming, the company that designed, created and now manages EVE.

Unlike the real, physical world upon which things like the LME metal price index are based, EVE is an imaginary place set 20,000 years into the future in a galaxy known as New Eden. There, imaginary citizens of five different imaginary empires fight imaginary wars in a bid for imaginary domination over each other. And yet it is a world controlled and influenced by the interactions of real people: the 350,000 real world subscribers to EVE Online — its "capsuleers," as the spaceship-piloting gamers are known in their virtual existence.

These people's actions, economists say, offer a treasure trove of information to study and analyze, primarily because each one of their decisions leaves a trail, creating a vast database that economists can only dream of in the real world. In effect, it creates a giant laboratory within which to study human behavior, dramatically scaling up the kind of classroom-based experimental economics that were pioneered by 2002 Nobel Prize winner Vernon Smith.

Mr. Gudmundsson earned his PhD studying the economics of fisheries, producing a dissertation that required the laborious compilation of meteorological data from printed historical records. But after developing an interest in experimental economics following a visit to Iceland by Mr. Smith, he came to see rich academic potential in online games and so jumped at a chance to join CCP when the job came up two years ago.

"I had been struggling, spending too many hours, just trying to figure out how to get data," he said. "And I had seen that in experimental economics they were running experiments with 20 or 30 people and getting results that were really in line with theory. So, I thought, with tens of thousands in the same boat, this could be awesome."



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Mr. Gudmundsson isn't the only one awe-struck by the possibilities. In addition to EVE, various virtual world games such as Linden Lab's popular Second Life have attracted attention from researchers. CCP shares its database with the Helsinki Institute for Information Technology's (HIIT) Social Media research group, for example, and collaborates with Magnus Thor Torfason from Columbia University's Business School. Meanwhile, researchers at the University of Southern California, led by communications professor Dmitri Williams, have done extensive work into human behavior based on various other online games.

"What people are trying to understand is whether behavior in online worlds can be replicated for the real world," said Mr. Gudmundsson.

Like all good academic economists, the HIIT team spent much of its early work with CCP establishing the theoretical framework for their research. This was important to prove to other economists that the things they were measuring in EVE — virtual metals inflation. for example — could translate into the same concepts in the real world.



-CCP Gaming The creation of a character in EVE

But with that work now completed, the fun stuff is beginning. Describing the EVE database as a "goldmine," Marko Turpeinen, head of HIIT's Social Media research group says his team has so far "just scratched the surface" of its potential.

One of his team's first big findings is somewhat sensitive. Confirming decades of gender research by economists, sociologists and anthropologists, Mr. Turpeinen's group found that the same

biases that have historically favored men in the real world exist in a virtual economy. Their research demonstrates that both women subscribers and female avatar characters operated by male subscribers in EVE are biased toward a slightly lower chance of success in competition with their male counterparts.

Critics of this kind of analysis would argue that data taken from an online game bears little connection to real world results because the imaginary nature of life in those virtual worlds makes people behave differently from how they would in the real world.

But CCP Chief Executive Officer Hilmar Petursson, who could be thought of as EVE's head of government, turns such arguments on their head.

"People say the real world in a casual way, where it sounds like something fundamental," he said. "But people tend to forget that the world we live in is just a game designed by our governments. Our economic systems are just a game."

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1:36 pm February 12, 2011

#### Tjo wrote:

If you think cheating is confined to game worlds, you should really pick up a newspaper or a history text. Start with Ponzi, Enron, and Marcos. GMs gifting valuables to players is an example of how perfectly EvE mirrors reality, not some unique game world abaration. Defrauding customers, investors and citizens are critical aspects of economic discourse, and legitimate strategies to amass wealth and power. Wise up.

4:57 am September 9, 2010

#### JH wrote:

Trying to study anything from EVE Online is a waste of time. The reason is because the game company itself is corrupt and has been caught cheating the system and its own customers (do a google for past confirmed cheating). This kind of cheating is not even comparable to anything that can be done in the real world, as developers have privileges giving them access and the ability to create stuff out of nothing or information that is literally impossible for anyone else to know. These same developers are not just passive observers in the economy either but are actively playing alongside real players, giving them an unfair competitive advantage that is not possible to replicate in the real world.

4:26 pm July 9, 2010

#### alanT wrote:

How can anything be useful or legitimized to study when everything is fixed or cheated in the game?

Just goggle eve Cheats, Eve hack, Eve Exploits

- EVE Exploits Fake warp scramble trick
- EVE Exploits Gain Sec Quick(er)
- EVE Exploits Planet Bump Safe Spotting
- EVE Exploits Free Cap Recharge / Free Repairs
- EVE Cheats Overfitted ship exploit (CPU/Powegrid over max)
- EVE Cheats check Courier contract contents w/out accepting
- EVE Cheats Easy money / items: contracts w/ scamming
- EVE Exploits Planetary/Lunar/Solar Safe Spots
- EVE Exploits Corp Theft
- EVE Cheats Tanking Exploit

# Eve Online Exploits

Have you ever felt like you are so small in this gigantic universe of EVE? Are you tired of climbing up corporate ladders and spending month after month competing against other people? We can help you out with our EVE Online exploits. Don't waste your time jumping around and losing all your cargo to gate campers over and over. We can offer you better ways of making ISK with less hassle than your current method. Strategy Freaks employs full time staff to help supplying up to date EVE Online exploits.

You can rest assured while browsing through our archive knowing all of them are valid and up to date. You can now spend less time skilling up to pilot larger ships and fit better equipment. And you aren't paying us just for our game-breaking EVE Online exploits, access to Strategy Freaks forum allows you to discuss those issues with other players and game experts as well. Eve Online Bots

Still leaving your account offline when you are asleep? Wasting your play-time while you are away from the screen? Don't do that anymore. It is unproductive to subscribe for the game and get online only a few hours a day. Have an EVE Online bot help you gain ISK non-stop while you are away from your keyboard. Strategy Freaks employs full time staff to support our archive of bots and other play assistance programs. That means if you are not familiar with programming, you can post your request so that our staff and experts can look into them right away.

Stop being unproductive and start using EVE Online bots right now. You will notice remarkable improvements in your space faring experience instantly. Join us now to start mining and making ISK while you are asleep or at work, knowing that your ISK balance is growing all the time. Eve Online Macros

Mining in EVE Online is not really the most exciting feature in the game. After a few days repeating it over and over, you will find yourself wishing for an easier way to do this. We can offer



you a chance to make ISK while enjoying other activities. Our EVE Online macros will be mining for you. Do not waste your time while you are at work or school. Leave your character in the game and set up our EVE Online macros to play while you are gone. All you have to be concerned about is how much you are going to sell your resources for.

Do not be afraid if you are unfamiliar with macros. You can post all your questions about macro settings and our EVE Online experts will answer them in no time. You can also post your EVE Online macro scripts and discuss them with experts and other members to make them perfect. We also employ full time staff to look out for better macro programs along with tips and tricks on using them as well. Why hesitate? Eve Online Cheats

Are you tired of running and salvaging mission wrecks over and over? Join Strategy Freaks now and you will never look at that ever again. Here, we support an ever growing archive of EVE Online cheats and many other MMO games. By signing up, you can browse through a long listing of cheats from small game mechanic alterations to game-breaking and PVP killing cheats. You can gain reputation quickly, make more ISK and win almost every fleet encounter.

Step up and start cheating in EVE Onine to ascend to the next level of game-play. Do not waste your time with common and unproductive methods anymore. Join us and gain access to EVE Online cheat programs to make more ISK than you can spend. No longer worry about saving up for your next ship or spending months training up new skills for it. Use EVE Online cheats and have everything you want, right now!

Eve Online Hacks

Are you tired of working so hard to gain just a small amount of ISK? No matter how much you make, you never have enough to fit your ideal ship? You have a chance now. With our EVE Online hacks, you can make more ISK than you can spend. Strategy Freaks employs full time staff to support a long list of hack programs. You can enjoy EVE Online at the next level of game-play. Just sign up and gain access to our EVE Online hacks. You will never have to rely on mining, ratting and mission running ever again. Stop wasting time on inefficient ISK making methods.

Strategy Freaks has a long listing of hack programs waiting for you. We also have game experts that can help you set up and use these programs safely and effectively. What are you waiting for? Your chance to ascend to the next dimension of EVE Online is here.

Eve Online Guides

Want to learn secrets behind corporations' success? Wonder what is the shortest financial and skill path towards that ship you want to pilot? Still looking for the best way to make ISK? There are many short cuts in EVE, and we hold the secrets to almost all of them. Sign up now and gain access to cutting-edge EVE Online guides exclusively available at Strategy Freaks. We employ full time staff and experts to maintain guide updates and write our exclusive guides to missions, ISK making and PVP prowess.

And beside EVE Online guides, Strategy Freaks is also a place where experts exchange their tips and tricks. You can take part in the conversation and learn how professionals accomplish what would takes hours of effort in just a few minutes. Don't miss this great opportunity to learn all critical aspects for survival and prosperity. Join us today and gain access to an endless listing of Strategy Freaks' EVE Online Guides.

In addition, all Strategy Freaks members receive a \$15 discount on all EVE Online guides offered at killerguides.com.

Join Strategy Freaks now!

9:51 pm June 23, 2010

#### Waste? wrote:

The only point I wanted to make was that there is nothing less "real" about a hobby/pursuit that takes place over computer networks. There seemed to be the suggestion implicit in Rob's comment that anything done elsewhere is automatically "worthwhile".

Also, I've found that it's easier to defend an online game as a legitimate, "worthwhile" activity if I point out that it's possible to make US Dollars there. But personally I fail to see how that makes an activity more worthwhile. None of us gets to keep any of what we've amassed when we exit this life. For someone who spends a lot of time in an online game (as opposed to an office or a golf club), Interstellar Kredits are much more useful than dollars.

Regarding the actual article, I think there's something fundamentally similar about people's economic behavior in all contexts (golf club/shopping mall/online game), so I can see how these games could be used to do large-scale experiments in economics.

7:15 pm June 23, 2010

### Goodwin wrote:

Having played even since it started as my cheap form of entertainment... I have found a few things to be true.

Some people are obsessed and play endless hours - bad in a pseudo world and the same as being a workaholic in the real world. (either way you suffer tangible loss in one way or another)

Some people play it for the meta game. They like the drama and behind the scenes interaction.

Some of us are casual gamers who like to see what we can try, risk, and gain. I fit into this category, and play a few hours a week, instead of watching TV, which I find a true waste of time.

In the end, over indulgence in any real or fake scenario leads to failure. There are interesting things to see in the sub-culture of online gaming. EVE is a lot more complex than other games.



I can say this because I got bored of WOW and EQ in less than a week and quit both. EVE does have a very large learning curve and thus I find it more strategically challenging.

Do I think it has the answer to world economics - no. Does it offer some curious insight to how people function in a free environment - absolutely. I see just as much stupid in the world of EVE as I do in the real one.

This article only covers the general concept - there is a lot more involved that this article does not cover. It would likely takes at least 100 pages to really get the details out.

