While developers of Intellectual Property goods typically face challenging piracy issues in the Chinese market, one class of products--online gaming--has done remarkably well. These products succeed where others have failed because built into them is the need to be engaged with others through a central network that is controlled by firm. This story of success has many lessons, both good and cautionary, for those who wish to enter this booming market. The following white paper on the industry was written by two of our MBA students here at the Anderson School.
Introduction

China is one of the United States’ most important export partners. According to the CIA World Factbook, U.S. exports to China amounted to nearly $50.5 billion in 2005. As the Chinese economy has grown, so has their appetite for American goods; the 2005 export levels are more than triple the amount of U.S. exports in 2001.\(^1\) These figures are overshadowed by an important figure, however. According to the US Trade Representative, in 1999, “some U.S. companies estimate losses from counterfeiting account for 15 to 20 percent of total sales in China.”\(^2\) This is equivalent to $10 billion in counterfeit U.S. goods being produced and sold in China every year. But these percentages may be too low, since the figures are 7 years old. In fact, as of 2004, the US government believes that piracy in China costs American companies as much as $24 billion a year.\(^3\)

Today, more than ever, products exported to China are software or other forms of easily copied Intellectual Property like movies (on DVD), music (on CD), and video games (either DVD or CD). In fact, the Motion Picture Association claims that “95% of all movie DVDs sold in China are pirated.”\(^4\) Overall, for every form of IPR, infringement rates in China are at 90% or above, according to a Congressional Hearing in 2005, and the copyright industry alone loses upwards of $3.8 Billion annually in China.\(^5\) It isn’t hard to see why. While most official DVDs such as Fox’s “Star Wars: Revenge of the Sith” can cost as much as $15 to $20 USD in China, the pirated DVDs (which, anecdotally, we know can be as good quality as real DVDs) cost just under $1 USD.

So what can the owners of Intellectual Property do to ensure their goods are relatively secure from the grasp of pirates, and collect the majority of the revenues for the Intellectual Property Rights they own? In this paper, we will briefly discuss the situation

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\(^3\) Iyengar, Jayanthi “Intellectual property piracy rocks China boat.” 9/16/2004. Asia Times Online
of Intellectual Property Rights in China, illustrate how one industry in particular (video games) has dealt with the challenges of protecting Intellectual Property, and propose a strategy for U.S. firms planning on entering the Chinese market.

**Intellectual Property Rights in China**

With the average GDP in China of only about $6,200 in 2005,⁶ there is no surprise that people are looking for the lowest prices every day. Piracy is so rampant in China, everything from fake versions of the newest Harry Potter book to knockoff prescription drugs to fake car repair parts can bought on the street. According to one estimate, as mentioned above, piracy runs as high as 90% in China, versus about a 21% piracy rate in the United States. In fact, even though China is one of the biggest personal computer markets, it does not “even make it into the top 20 of software markets because so much software is illegally copied.”⁷ Recently, the piracy has gotten so out of hand that U.S., along with Japan and Switzerland are seeking case-by-case accounting of arrests, penalties, and solutions to Intellectual Property Rights infringements in China. The U.S. is considering WTO litigation to “force China to protect US software, movies and music.”⁸

Even though China was removed from the U.S. Trade Representative Priority Watch List in 1997, President Bush, in 2003, “demanded more action from China against the Piracy of U.S. software and IPR violations.”⁹ When China was admitted to the WTO in 2001, it was expected to make many adjustments to its legal system to deal with the rampant Intellectual Property Piracy issues. In late 2004, the Chinese government promised to get tougher on piracy, and the high courts strictly redefined the terms for arrests of pirates, the worst of whom can now receive up to seven years in prison. According to Cao Jianming, the vice-president of the Supreme People’s Court, "Protecting IP Rights is necessary not only for China's honoring of its international promises, creating a favorable

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trade and investment environment and... improving the quality of the economy.”
Yet even with the increased scrutiny by the U.S., pressure from the WTO, and the higher
courts of China stepping in to deal with piracy, little may change in the near future.

Dr. Andrew Mertha, author of “The Politics of Piracy: Intellectual Property in
Contemporary China,” and an assistant professor of political science and international
studies at Washington University in St. Louis suggests that:

“Leaders of local government bureaucracies are often intimately involved
with companies that profit from pirated goods, so that when a community
depends heavily on piracy for jobs and income, local powerbrokers have
little incentive to crack down on violators. Local governments and
agencies have limited resources and seldom make anti-piracy efforts a
real priority. Violators also have developed increasingly sophisticated
methods to manufacture and sell pirated and counterfeited goods, in some
cases even copying the factories that produce them.”

Even Chinese crackdowns that made national headlines in the last few years may have
been more for publicity than to end the business of piracy. According to a recent
Women’s Wear Daily article, “The Beijing government gained huge publicity from
bulldozing the stalls at that city’s counterfeit market, but the move actually was to clear
the space for redevelopment. The counterfeiters simply moved to a more modern
building down the road.”

With evidence mounting that the Chinese government is dragging its heels on cracking
down on Intellectual Property Piracy, some U.S. firms are changing their tactics in order
to hit the pirates where it hurts: their wallets. Warner Brothers is currently trying a two
pronged approach to fight piracy. First, Warner Brothers is releasing official DVDs at a
price close to that of the pirated versions (about $2.66 US for a top quality DVD).

Magazine.
Second, they are setting up a joint-venture with a state-owned company. So far, Warner Brothers has not released any news of the success or failure of its current tactics, but other software producers may follow suit. Another stance that some software makers take in the Chinese market is to sell software in areas with “high piracy rates at low volumes and significant markups, reflecting small markets with inelastic demand, such as corporate, banking, and government users. For example, Microsoft Office currently sells for approximately $1,000 in Beijing.” These software makers, instead of combating the piracy head on, are using economic indicators to push the government into action – “as markets develop under copyright enforcement … firms will supply more legitimate copies at considerably lower prices.”

One segment of the software industry, video game publishers, have been fairly successful in recent years combating piracy. Rather than provide discs of games to customers for a fee, players must pay usage (monthly, daily, or even hourly) fees to access the publishers’ servers hosting vast online gaming communities. In the next portion of this paper we will provide an in-depth analysis of the video game market in China, as well as how game companies have worked to protect their Intellectual Property Rights.

**Business Case: Online PC Video Games in China**

The video game market is comprised of numerous segments including home consoles, pc single player games, online pc multiplayer games, and wireless (cellphone) games. For the purposes of this analysis, we are going to focus on the multiplayer games for personal computers. Currently, home consoles are fairly expensive, and the games are easily (and quickly) duplicated. Even when Nintendo tried to make exotic types of media for their games, the media was still duplicated quickly. Single player games for PCs are also quickly pirated, and the real versions cost many times more than the copies. The wireless game market, like in the US, is dominated mainly by the cell phone carriers, and

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therefore most of the revenue from game sales on cell phones goes directly to the carriers.

Online gaming has been hugely successful in China. With nearly 23 million online Massively Multiplayer Online Role Playing Games (MMORPG) game players in China in 2004, the online video game industry hit the $500 million mark in revenue. Online video games are now so successful, that the Chinese government has invested $1.8 billion to fund online video game development centers in major cities. As broadband penetration continues to rise, so to will the number of internet users, to 175 million in 2008. There is enormous potential in the online gaming industry, and Bear Sterns forecasts that by 2008, online gaming revenue will reach nearly $1.5 billion a year.

According to the CNNIC, the average gamer in China in 2005 plays online games for 10.9 hours per week, an increase of nearly 10% over 2004. As mentioned previously, most of the online gamers in China are playing MMORPGs. MMORPG games have been popular in China since the late 1990’s, when college computer users started playing MUDs (multi user dungeons). By late 2001, the market was primed for an explosion, and Chinese game company Shanda teamed up with Korean developers Actoz Soft and Wemade Entertainment to release The Legend of Mir II. By 2004, Mir II had “over 11.2 million active paying customers.” Since the initial success of Mir II, many other Korean game companies have partnered up with Chinese companies, sometimes forming joint ventures, and sometimes just sharing publishing rights to certain titles and franchises. Korean-designed games in particular have been successful in penetrating the Chinese market, but World of Warcraft, a game created by Irvine-based Blizzard Entertainment, has stormed the Chinese market in recent months.

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In the U.S. and in other Western countries, the business model for online gaming consists of players paying (via credit card) for monthly or daily access to specific game titles from their own homes. However, due to the restrictive costs of PCs for the home in China, internet cafes are the main hub for online game playing. There are between 125,000 and 200,000 such internet cafes throughout China, and generally boast about 40 PCs each (but some can have hundreds of computers). Because each internet cafe collects money from the game players directly, the business model for online gaming in China is quite different from that in the U.S. Rather than the individual company collecting money from players, each internet café sells prepaid game cards that allow users to play games that cost from 3 cents to 25 cents an hour, or a prepaid month costs between $3 and $5 per person (values are from 2004). The game publishers then collect revenue directly from the internet cafes.

Several factors have led to the Chinese market for games evolving to its current model. However, China is clearly a country in transition, which suggests possible changes ahead to the underlying factors that have defined China as a market today. A 2005 analysis of the factors unique to the Chinese online gaming industry details six key factors that illustrate why the industry has been successful:

- Densely Populated Urban Environment
- Lack of Affordable Entertainment Alternatives
- Unique Household Structure
- Education and Parental Pressure
- China’s One Child Policy
- Lack of an Efficient Manner to Thwart Piracy of Physical Media
- Economic Factors not discussed in Lei’s discussion

In addition, there are two other key factors which will continue to make the Chinese market uniquely challenging:

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24 Ibid.
Increasing Legal Scrutiny

Increasing Competition with Chinese-produced games

Even though these factors illustrate why the Chinese market is different from other gaming markets, they also can be applied to the entertainment industry in China overall. In the next section, we will discuss what makes the Chinese online gaming market lucrative, and what makes it tough to enter. It is important to understand that while most of the learnings from this case can be applied to other IP holders, some factors are exclusive to the gaming industry.

Densely Populated Urban Environment

Currently, China’s population is over 1.3 billion, with approximately 500 million of those individuals in “urban” areas and 800 million of those in rural areas\(^\text{26}\). Compared to the U.S., whose population is only 300 million, and Japan, whose population is only 130 million, the market holds tremendous promise based strictly on its sheer size. As China continues to modernize, not only is the population expected to grow, but also the percentage of its population within its dense, urban areas. Those within its dense urban areas are in a much better position to enjoy access to modern conveniences, including the Internet access upon which online games are based upon. “We believe the Chinese online gaming sector is poised to grow at about a 25% compound annual rate in the next three years, driven by greater Internet and broadband penetration, advances in the home PC market, and economic growth and an increase in disposable income.

The market is still nascent. Assuming China’s $600 million market addresses an estimated 26 million users (roughly 58% paying), we believe the penetration of the addressable market is two to three years behind the more mature Korean and Japanese online gaming markets. Government statistics suggest that Internet and broadband access is poised to grow at 20% and 27% rates through 2008. Per-capita income is expected to increase 10% in that period, with a larger share of consumer spending allocated to lifestyle and entertainment. Finally, we expect online gaming to appeal to a larger share

\(^{26}\) Wang, Lei, “China’s Online Gaming Industry,” Thornburg Investment Management.
of the overall population, driven by the introduction of attractive new gaming genres and formats designed to appeal to now-untapped demographic segments.”

While it is hard to argue with the numbers on the surface, gaming companies would be well advised not to take the numbers completely at face value. According to China’s UN website, “The proportion of those aged over 65 will increase from 7% of the population in 2000 to about 20% in 2040. Furthermore, the very old, those aged over 80, will increase from about 8 million to about 50 million.” While it is reasonable to expect that the average age of gamers will increase much like it has here in the U.S., an understanding of how population demographics, and therefore the market, will change over the next few years is vital. Of course, with such a considerable population and a wide variety of factors where a small change can result in a significant impact in total population effects, this is challenging, but an exercise that is worth performing as a “reality check” on the unanimously positive forecasts made by market analysts.

Lack of Affordable Entertainment Alternatives

In part due to high population densities in urban areas, large public recreational facilities, such as soccer fields, are few in number relative to the population. Due to zoning regulations and increasing private and foreign investment within cities, land zoned for public buildings may be developed into commercial offices and hotels for higher profits, thus leaving inadequate amounts of land for other public buildings to meet community demands for sports, cultural and recreational facilities.

Besides the low availability of large recreational facilities within dense urban areas in China, those of moderate size that can be found in any urban environment around the globe, such as gyms and swimming pools, can also be found in the cities. By Lei Wang’s assessment of these environments, they are “too expensive for the average urban resident, not to mention kids in school with no income.” Wang continues on about other

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27 CIBC World Markets Equity Research, Shanda Entertainment, November 2, 2005
30 Wang, Lei, “China’s Online Gaming Industry,” Thornburg Investment Management.
traditional entertainment venues enjoyed by Western cultures, noting that Chinese films are often government censored, thus limiting their appeal while imported films cost about $0.90 USD for a 2-hour movie ticket. In contrast, online game cards for unlimited play can cost as little as $0.30 USD per month for the lower-end online games, making them a compelling deal for young Chinese that are not among the wealthiest in the population.

Unique Household Structure

As a culture still deeply rooted in familial traditions, young adults often live with their parents until marriage. With late marriage as an accepted norm in Chinese culture (in part encouraged by the government’s traditional emphasis on lowering the birth rate) and no signs that the trend will abate, young Chinese adults, like many young adults everywhere, often find themselves looking for escape from the everyday doldrums of the household, or privacy from parents.

Education and Parental Pressure

Perceived as the key to “financial security and higher social status in China,” academic success is highly treasured in many Chinese families. As a result, parents often put immense pressure on their children to succeed academically. Online gaming often provides a respite, or release from these pressures.

China’s One Child Policy

China’s One Child Policy has successfully helped curb population growth, but at the expense of providing China’s youth with siblings. One of the most popular aspects about online games, whether they are MMORPGs or casual games, is the opportunity to communicate and socialize with built-in chat interfaces and other similar functionality.

Though gaming enthusiasts in the U.S. are often stereotyped as being socially awkward outcasts, many MMORPGs are structured in such a manner that cooperation is often the only way to succeed in many tasks, especially those that provide the most lucrative

benefits. For example, in the immensely popular “World of Warcraft,” “Gameplay in World of Warcraft (WoW) hinges on cooperation and guilds; many missions require several players to complete. The game, then, focuses on intense social interaction, and has benefited tremendously from players who move large parts of their social lives to the game.”

An Efficient Manner to Thwart Piracy of Physical Media

While piracy is generally thought of as being a necessary, unmitigated evil of doing business with IP in China, the reality is more complicated than that. According to the May 17, 2004 Gartner Group report “China, Intellectual Property Protection and the Big Picture,” “Western media and government officials portray China as a major abuser of IP [intellectual property]. The perception of most outside of China is that China is the worst abuser or among the worst, and that the situation is worsening. For example, in a December 2003 meeting with Chinese Premier Wen Jiabao, President George W. Bush demanded more action from China against the piracy of U.S. software and IPR [intellectual property rights] violations, stating that he was very worried about ‘deterioration with the situation with respect to IPR inside China’ and that ‘the degree of copyright theft and counterfeiting is increasing in China.’

The reality is far different; China was removed from the U.S. Trade Representative Priority Watch List in 1997, and has remained off list ever since. Other major U.S. trading partners, such as Taiwan, India and the European Union, remain on the Priority Watch List. To join the WTO, China had to make significant changes to IPP policies and is progressively working on enforcing the new regulations, which at present are not enforced consistently or effectively. Although not on the Priority Watch List, China is still being watched closely by the United States.”

Despite increasing attention paid to the issues surrounding IPR, the reality is that significant IPR violations are still a very real part of the Chinese economy and everyday life. This, plus the simple fact that the economics of traditional console gaming business

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models are currently not viable due to high prices for hardware and software, make online gaming a natural business model for providers to gravitate towards. “Online games are developed and operated in a way that makes piracy much harder: the software download is free, but players have to pay in advance to log into the operator’s servers to play the game.” While it is more difficult to pirate online games, they are not completely free of their own challenges. “For instance, most Korean games are run from servers in one location. That works in a small country like Korea, but China's long distances and iffy networks would have rendered games run from a central server almost unplayable because of long delay times. Therefore, Shanda spread its servers out nationwide, which makes the games run faster -- but offers malicious hackers more inviting targets.”

According to online encyclopedia Wikipedia’s entry on the Legend of Mir 2, one of China’s most successful MMORPGs, “Like a lot of Asian MMORPGs, Mir 2 suffers from tailor-made cheat programs, and numerous bug exploits have been abused by players. Private servers are also a problem, as the server code has been leaked onto the internet on more than one occasion.”

Surprisingly, piracy can even result in unintended benefits. For example, in the case of Blizzard Entertainment’s “World of Warcraft,” “when Vivendi released the PC version of the game in the international markets, pirated versions of WoW were distributed in the Chinese market, which created a buzz in the local gaming community. In this case, the brand awareness that was created as a result of pirating resulted in a strong pickup in users once the game was officially launched in China.”

Economic Factors

Specific factors unique to Online Gaming help make it successful currently in China. Online Games require multiple parties to play at once. In fact, because the games are multiplayer, the higher the number of people playing one game, the more other people want to play as well. This is known as the Network Effect. This in it of itself allows

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game companies to publish games online rather on discs, because with more people online playing, people will be willing to pay to join in the fun.

Moreover, another interesting economic factor that contributes to success of Online Gaming is that players on pirated servers can’t enjoy major network effects to the extent that paying customers can. Additionally, because pirated servers aren’t recognized by official centralized servers, the players can be quickly rooted out and booted from online tournaments, thus preventing players from experiencing online games to the scale that they were designed for.

**Challenges to China’s Online Gaming Industry:**

*Increasing Legal Scrutiny*

In October 2005, a young Chinese girl playing “World of Warcraft” under the moniker “Snowly” died after playing the game for several days without rest during a week-long Chinese holiday. As one of several high-profile deaths after massive online game binges within the last few years, the Chinese government decided to take action.
Shortly after this incident, the Chinese government mandated a “Fatigue System” to be implemented in MMORPGs that discourage gamers from extended playing sessions in excess of several hours. This system essentially eliminates “incentives to stay online for hours on end and gain experience that can be used to win virtual currency.” Given the increasingly large role of online gaming in the lives of everyday Chinese and the increasing need to innovate in order to gain traction in the MMOG marketplace, one can expect gaming companies to potentially push for increasingly controversial content while the government commensurately increases scrutiny towards the industry.

Increasing Competition with more Chinese-produced Games

The traditional Chinese strategy of mandating that foreign companies doing business in China participate within joint ventures with Chinese partners in order to build up their domestic expertise in various industries is no different. Chinese entrepreneurs know the fundamentals of the online gaming industry are robust, and are aggressively seeking entry into the market.

The best margins tend to be not in operating the games, but in development of the games. For example, in the case of Blizzard’s “World of Warcraft,” the joint venture operating company between Blizzard and The9 (“C91”) must pay Blizzard various fees and commissions for their license of the game, including “$3 million upfront, 22% the face value of prepaid cards, a minimum guaranteed royalty payment of $51.3 million and a minimum marketing commitment of $13 million.” As a result, The9 is hoping to leverage the customer base it develops from WoW to sell new games in the future, once WoW’s appeal wears out. To this end, it is currently developing the games that will be played in China’s post-WoW internet cafes.

In the long term, The9 will not only be able to leverage the knowledge gained from

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36 CRI Online, http://gb.chinabroadcast.cn/8606/2005/11/01/1545@761619.htm
working with their foreign partners when developing their games, but also leverage the advantage they have in custom-developing games for the Chinese market, rather than developing primarily for the U.S. market and localizing the product for foreign audiences.

**Short Term Considerations for Online Game Developers:**

As China’s economy matures and their economy moves progressively away from the exclusive domain of low-cost manufacturing, one can expect that the intrinsic incentive to pay more heed to the vagaries of IPR will increase. Simultaneously, as personal incomes increase, the temptation to provide console-based gaming to a potentially massive market will eventually be too great for hardware and software manufacturers to resist, despite lingering concerns about piracy. While this transition may be years, if not decades in the making, it is one that will eventually be made.

What could this mean for U.S. based developers and publishers? Chinese online gaming operators are increasingly developing their own content for online games in their own market, but are still welcoming the import of games from beyond its shores that they believe could be successful in the Chinese market. The best example for U.S. would-be developers would be the successful example of Blizzard Entertainment and their export of MMORPG “World of Warcraft” [WoW] in cooperation with local Chinese publisher The9. Joint-venture based models to operating in China are vital, if not legally mandated, and online games are no different. Prior to obtaining the exclusive license to localize and operate WoW in June 2005, The9 was a bit player in the online gaming market. By operating WoW, The9 has collected revenue on slim margins due to Blizzard’s licensing fees, but has cultivated a large customer base to which they can market their own internally developed games, which typically enjoy higher margins.

Due to the immense costs of developing online games, it would make sense for non-Chinese game developers to design games with at least some input on how design decisions would be received by the Chinese market, should it be considered for export. Adding the Chinese market as another revenue stream for online games is lucrative, as
developers may be able to procure relatively high marginal revenue compared to the marginal costs (with localization-related costs and local customer support probably being the lion’s share, which may be largely borne by local operators) associated with exporting games to Chinese shores.

Entry into China

In conclusion, there are many factors of the Chinese online gaming industry that can be applied to other international IP holders wishing to enter/succeed in the Chinese market.

- **Online Distribution:** Game companies have already proven that online distribution is accepted by the youth in the Chinese market. However, it is important to note that due to the unique economic factors surround online video games (large network effects), online distribution is more easily accepted for online video games. This method of distribution may translate well for software products such as virus protection that need to be constantly updated. Such software companies could use techniques employed by online game companies to fight piracy – hold the software on centralized servers and allow access only when updates or the products are paid for. Additionally, Entertainment companies like Warner Brothers could find major success fighting piracy by distributing movies and TV shows in an online streaming capacity, and have users pay just for what they watch, similar to MovieBeam or Video On Demand that is available through most cable boxes in the U.S.. However, not all IP rights holders may find online distribution an acceptable model of consumption by their consumers. It is important for a company to investigate what its clients would accept and pay for.

- **Joint Ventures:** In order to enter the Chinese market, most companies are required to set up a joint venture with a Chinese firm owning 51% of the venture. Working with an established partner can ease entry into the massive market, as well as provide valuable marketing and strategic insights.

Some other keys to success might be found outside the gaming industry.
• **Working with the government:** Working with the Chinese government may prove beneficial in the long run. For instance, an entertainment company with resources may propose funding portions of high speed internet building in order to increase the speed with which movies can be streamed to connected PCs. A company working with the government may have fewer problems with or better enforcement of piracy issues.

• **Raising Prices for Legitimate Users:** This was discussed briefly in the introduction section, about how Microsoft charges official users such as Banks and the Government in China $1,000 per copy of Office. This stance of IP holders is combative in that it is holding the price per legitimate copy of software over the head of the government, until the government increases copyright protections for the price of software to come down. Only very powerful software firms might consider this approach. If it does not work, however, at least the software company can enjoy high margins on each legitimate copy it sells.

• **Marketing:** While this has not worked extremely well in the U.S., entertainment companies may be able to work together to produce marketing campaigns showing how piracy is “uncool” to the younger generations. Cable companies and iTunes have successfully marketed to consumers in the U.S. that it is hip and cheap for people to buy and watch tv shows on an episodic basis. Software companies such as McAfee, Symantec, and other anti-virus providers (but also most “solution providers”) have convinced consumers of the need to constantly buy new versions and pay for updates or face software that no longer functions as well as it was originally intended to do. But, if consumers don’t pay for updates, they will still at least retain what they originally bought. Using marketing in China to convince consumers to “pay for only what they eat” may find success, as it has already worked in the U.S.

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For companies that hold IP and are planning on entering the Chinese market, these are a few recommendations for finding some success and protecting IP Rights. Any company planning on entering the Chinese market, like any other market, should do so with open eyes, perform due diligence, and plan for short and long term challenges and successes.