## Morgan Stanley

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# MORGAN STANLEY BLUE PAPER

## **Social Gambling**

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Social gambling is a surprisingly large and high-growth industry. Convergence between online (real money) and social (virtual currency) gambling is the hottest topic in the gambling industry. We see social gambling growing from \$1.7bn today to \$2.5bn by 2015, and see it as a rich source of customers that could boost growth rates for real money gambling. This reports looks at the drivers of growth, the key uncertainties, and what this could mean for the leading operators.

**How fast will it grow?** The 170 million social gambling player base is over triple that of online gambling, and is opening up gambling to a new pool of customers. Conversion to online gambling would drive growth, but the different motivations of social and real money gamblers mean this is not guaranteed. Our optimistic scenario models market growth to \$7bn by 2015; our bearish scenario is a market of \$1.8bn, with our central case at \$2.5bn.

**How will it evolve?** Social gambling is unregulated and so thrives where online gambling is restricted. Regulation of real online gambling in currently unregulated jurisdictions could drive higher conversion rates and boost industry growth, allowing social and real money gambling to converge. We examine how this might develop and the impact on operators.

Which companies will benefit? Online gambling companies and social gambling companies enjoy complementary advantages, so consolidation looks likely. Winners will be defined by scale, strong balance sheets, technology, marketing and regulatory skills. Zynga, bwin.party, 888 and IGT all have exposure to growth in social gambling, and are well positioned for ongoing convergence, we think. Other potential winners include Betfair, Paddy Power and WMS.

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## **Social Gambling in Charts**

### Exhibit 1

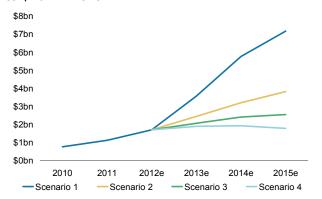
## Social gambling is a \$1.7bn industry within the \$391bn global gambling industry



Source: H2 Gambling Capital, SuperData Research, Morgan Stanley Research, 2012

### Exhibit 2

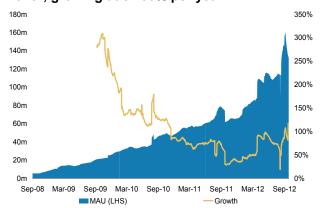
## We estimate that social gambling could grow to up to \$7bn in 2015



e = Morgan Stanley Research estimates for our 4 scenarios Source: SuperData Research, Morgan Stanley Research estimates

### Exhibit 3

## There are 130m social gambling customers every month, growing at c.100% per year



Source: Dystillr, Morgan Stanley Research

Zynga: Global leader in social gaming industry, with c.70% penetration of Facebook gaming system and c.33% share of all social gaming players. Leader in social gambling industry with market share of 45% of players (Dystillr). Has announced its intention to launch real money gambling in 2013 and has signed an agreement with bwin.party to launch real money poker in the UK.

IGT: Number 3 operator in social gambling through its Double Down Interactive division. Extending its reach in the industry through B2B contracts.

Caesars: Number 2 operator in market share terms in the social gambling industry through its Playtika acquisition.

**Bwin.party:** Leading online gambling operator by revenues. Vertically integrated software developer and operator. In the process of launching social gaming sites. Signed agreements with Zynga to convert social poker player to real money players in the UK.

**888:** Number 4 global online poker site by player volume, and top 3 online casino operator. Revenue run rate of c.\$10m in social gaming through its Bingolsland product (c.0.5% market share by players).

Paddy Power: Paddy Power has launched www.betdash.com, a social sports betting game. Given its strong long-term track record of market share gains, marketing flair and operational excellence in online gambling, we would not rule out Paddy Power becoming a significant operator here.

Betfair: Betfair owns a stake in Kabam!, a social gaming operator with c.1.3m monthly users. It does not currently have any social gambling games, but with Betfair's expertise in social networking (it operates the world's largest betting forum) we think there could be interesting potential here.

GREE: Leading social gaming platform in Japan, but no current exposure to social gambling.

**DeNA:** Leading social gaming platform in Japan, but no current exposure to social gambling.

## **Executive Summary**

In this blue paper, we look at the surprisingly large and rapidly developing market for social gambling. There is a growing convergence between traditional gambling (real money casinos), online gambling (real money online casinos) and social gaming (virtual games played predominantly through Facebook). Social gaming companies such as Zynga are increasingly expanding into social gambling games, with poker and slot machines consistently ranking among the most popular. Similarly, online gambling operators such as bwin.party are expanding into social gambling. This report discusses how the sectors are converging, the key components of the value chain, regulatory issues, and who the likely long-term winners will be.

## There are three clear takeaways from our analysis:

## 1. The social gambling market dwarfs real money online gambling operators

Around 12% of the world's population (800m people<sup>1</sup>) plays one or more form of online social gaming every month. Of these players, just over 20% play some form of casino-style game. This suggests that 173m people (2.6% of the population) are involved in 'soft' social gambling of some sort. This dwarfs the c. 50m people taking part in real money online gambling<sup>2</sup>.

Conversion from social gambling to real money gambling could drive growth. The high and growing popularity of social gambling indicates a growing group of people who enjoy playing interactive gambling games, whether it is poker, casino, bingo or other betting games. The majority does not gamble regularly for real money, and is likely to include some whose first experience of gambling is playing a free social game. Some of these customers pay real money to buy chips, bonuses or upgrades with no prospect of a real reward. We think that many social gamblers could begin to play real money games, with the prospect of real rewards.

Online gambling companies enjoy specific skill sets and regulatory advantages over social gaming operators, in our view, and these enable them to benefit from this growth just as much if not more than social gambling operators.

Converting 10% of the existing social casino paying players into online gambling players could drive 30% growth in the online gambling industry.

### Online vs social gambling: What's the difference?

Online gambling revenues are derived from real money gameplay. Users can play all games for virtual money, learning the mechanics of the games before spending any real money. This is similar to social gambling, but does not include many of the social elements. Paying users spend money to play virtual slots and casino games, and place sports bets directly against the operator. The operator pays out winnings to lucky/skillful customers, and its revenue is the difference between total stakes and total payouts.

Most social gambling games follow a freemium model, where users can play for free. Chips are typically reloaded every night, and users can wait until the following day and then play another session. If the user wants to continue playing immediately, they are asked to buy additional chips. Users can also pay for upgrades, gifts and bonuses. SuperData Research estimates that only 2% of all social gambling users spend any money on a monthly basis (the remaining users simply play their free rolls and wait for their account to reload).

But people do not equal revenue. Comparing active player numbers only tells half the story, and is not comparing like with like, we think. Real money gamblers are exactly that: customers who have made a deposit, and are risking their own money to gamble. Social gambling players are not the same; around 98% of them do not spend any money at all. So although there are over three times more social gamblers than real money online gamblers, social gambling revenue of \$1.7bn is a fraction of real money online gambling of \$35bn.

Social gambling companies are well placed. Just as real money gambling operators enjoy certain advantages over social gambling operators, the reverse is also the case (in particular the social aspect of their sites). We believe that both industries will grow, but that the success of each will have an impact on the other. Ultimately, this could drive an acceleration in consolidation between social gambling operators and online gambling operators.

## 2. Regulation would change the face of the industry.

The social gambling industry is currently unregulated. This means that operators can target any customer in any jurisdiction. We think this helps it in jurisdictions where online gambling is currently illegal or a grey area, as social gambling operators do not face the same level of competition, and customers who enjoy the entertainment of gambling can play legally for virtual currency. We think this helps explain why social gambling is much stronger relative to online gambling in unregulated markets such as the USA and Asia. Social

SuperData Research

<sup>&</sup>lt;sup>2</sup> H2 Gambling Capital

gambling operators argue that paying to access new features in a slot machine is no different to paying an extra quarter to keep playing PacMan in an arcade. We are somewhat more cautious, and think the potential to 'teach young people to gamble', the potential to spend significant sums on social gambling, and to turn virtual chips into real money (even if indirectly) means that the industry is likely to see regulation over time. We would expect this to squeeze social gambling margins (a reduced customer base, higher compliance burden and likely duties). It should also aid existing online gambling operators with a proven track record of regulation, who would then find it easier to market to and access this player base.

### 3. Consolidation looks set to continue

Online gambling and social gambling business models are essentially identical. The value of each player is the difference between the cost to acquire that player and the lifetime value. The most profitable operators will be those that maximize the gap between the customer acquisition cost (CAC) and the lifetime value (LTV). This is down to a combination of efficient marketing, strong product, technical operating skills, CRM and retention and monetization. However, both sides have something the other wants. Online gambling companies have regulatory expertise, strong CRM skills, years of data of player behaviour with real money and direct marketing skills. Social gambling operators have a more accessible product that attracts a wider customer base (and broader demographic), greater skills at harnessing social media to improve customer acquisition and retention, and a more modern look and feel.

We are starting to see convergence in the models, and more consolidation. The largest deal to date across the sectors has been IGT's (global leader in slot machine content and supply) \$500m acquisition of Double Down Interactive (the number 3 social casino site by players). Global social gaming leader Zynga has announced its intention to launch real money gambling in 2013, and has signed an agreement with online gambling leader bwin.party to launch real money poker in the UK. Meanwhile bwin.party itself is launching its own social gaming platform in 2012.

How might the industry look in 3 years' time? We think there are two main forces that will shape the combined industry:

i) Regulation. This has been the key driver of the pace of growth in the online gambling industry, and we expect social gambling to be no different. In its current unregulated form, growth is only constrained by the imagination of the developers, and the speed with which they can develop and market high-quality products. In future, we expect regulation to act as more of a constraint, restricting the type and location of customers that can play, which should constrain the player base, and probably introducing some duties, which would constrain margins and leave less funds available for product development and marketing. The faster that countries regulate the industry, then other things equal, the slower the growth rate will be, we think.

**ii)** The customer 'half-life'. So far, social gambling games seem to be somewhat unique in the social gaming industry in that the customer base builds steadily over a long period, and customer retention appears to be fairly high. This is in contrast to the hit-driven nature of most social games, with a sharp ramp-up in activity before the novelty wears off and players move onto the next game. A more loyal customer base gives operators more visibility, allowing them to invest more into marketing to grow the customer base and into product to retain and monetize the customer base.

We show four scenarios of strong/weak regulation and customer half-life. Our central case is that regulation increases gradually, with social gambling ultimately becoming a regulated gambling product. This would somewhat limit profit margins for operators, but would also boost barriers to entry, with regulatory and compliance expertise becoming a key factor for success. We see the customer half-life for gambling products remaining somewhat extended, and for social gambling to grow to a \$2.5bn industry in 2015.

We estimate that the market cap for total social gambling industry should rise to around \$6bn in the medium term, and up to \$26bn in our most optimistic scenario. We estimate that medium-term EBITDA margins will converge to around 25%, similar to the online gambling peer group. This suggests that every 10% market share of the social gambling industry would equate to medium-term EBITDA of around \$60m, or a market value of c.\$600m based on the long-term average online gambling multiple of 10x.

We estimate that every 10% market share could be worth c.\$600m in our central case (scenario 3)

1	2	3	4
7,173	3,824	2,549	1,784
36%	24%	25%	18%
2,582	899	637	312
10	10	10	10
25,822	8,986	6,373	3,123
2,582	899	637	312
	7,173 36% 2,582 10 25,822	7,173 3,824 36% 24% 2,582 899 10 10 25,822 8,986	7,173     3,824     2,549       36%     24%     25%       2,582     899     637       10     10     10       25,822     8,986     6,373

Source: Morgan Stanley Research

Who do we think will benefit? We think industry growth is not yet fully reflected by the market. We consider this to be an early stage industry, seeing strong growth, and a rapidly evolving business model and industry structure.

Zynga is the clear market leader with a 300m monthly player base, being around one-third of all players. Within social gambling, its 60m monthly player base gives it market share of around 45%. The network effects from such a dominant position are powerful, we think, and leave the company well positioned to extend its dominance of the social gambling sphere. Its partnership with bwin.party to extend into real money gambling in the UK leaves it well placed to capitalize on any conversion from social to real money gambling, we believe, and should this prove to be successful, the potential should the US online poker market become regulated would be significant.

**bwin.party** is a late entrant into the social gambling industry, but the market leader in the online gambling industry. We think its partnerships, strong technology and marketing skills mean it is well positioned to benefit from growth in the social gambling industry. It plans to launch several apps over the next year, under its umbrella brand win.com. Its partnership with Zynga should allow it to benefit from any conversion between real money and social gambling, we think.

888 Holdings. 888's track record in social gaming is somewhat mixed, having paid \$24m to acquire Bingo Island operator Mytopia in June 2010, and subsequently writing off the entire acquisition. However, the social gaming division is making a strong comeback, and in Q3 the company said that social revenue growth was around 45% (around \$10m annual run rate) and is on track to make a profit contribution in 2013. It is being integrated within the 888 business, and we expect shared skills (game development, customer retention) to benefit both real money gambling and social gambling.

**IGT.** The largest deal to date in the sector is IGT's \$500m purchase of Double Down Interactive, an operator with 4% market share of the social gambling industry by players, and c.8% by revenues. There is still a degree of scepticism among investors around IGT's social gambling business. Yet, we see it as strategically sound, and believe there is growth potential for this division. DoubleDown has a solid market position, which should enable IGT to monetize its game content online, and help drive growth from its B2B operations as it extends its social gambling products to its land-based casino customers. We believe its unique slot content could prove to be a significant competitive advantage.

### What will characterize the winners?

Scale: As with online gambling, we believe that "big is beautiful". The marginal cost of processing an additional transaction is minimal, such that larger operators enjoy material economies of scale. This appears to be even more important in social gambling at this point, where viral marketing (customers beginning to play due to a friend's recommendation) means that large operators enjoy rising network effects. The absence of scale makes (per person) customer acquisition costs much higher, depressing margins and limiting the ability to invest in new content.

**Strong balance sheets:** This is a high-growth and rapidly changing industry. We think operators with strong balance sheets, and the ability to react to changing customer preferences and regulations will be well placed.

Strong technology: While the 'half-life' of gambling games appears to be somewhat longer, we still expect new content development to be a key factor for success. 'Vertically integrated' online operators such as bwin.party and 888 seem well placed here, as well as Zynga, which has a significant advantage as the incumbent with network effects. With rapid developments in distribution (mobile, Facebook, proprietary platforms), content (new slots in particular), and regulation, we think winning operators will need to have the quality and depth of technological capability to react almost instantly to these changing dynamics. Robust technology/infrastructure is essential to scale applications up to support the millions of concurrent users necessary to succeed in this high-volume industry.

**Marketing skills:** Cross-promotions (adverts for a new game within the existing game) and viral marketing channels (friend recommendations) are disproportionately important for social gambling. Leading operators will be able to harness new methods of customer acquisition, adopting proven real-money strategies to work in a more social environment.

**Regulatory skill:** Proven regulatory expertise (blocking underage customers, detecting fraud, geo-location and blocking, high ethical standards) will become essential if we are right that regulation will creep into the industry.

## Milestones to watch:

**Transactions:** We expect ongoing consolidation, and the size and multiples should indicate the changing industry dynamics.

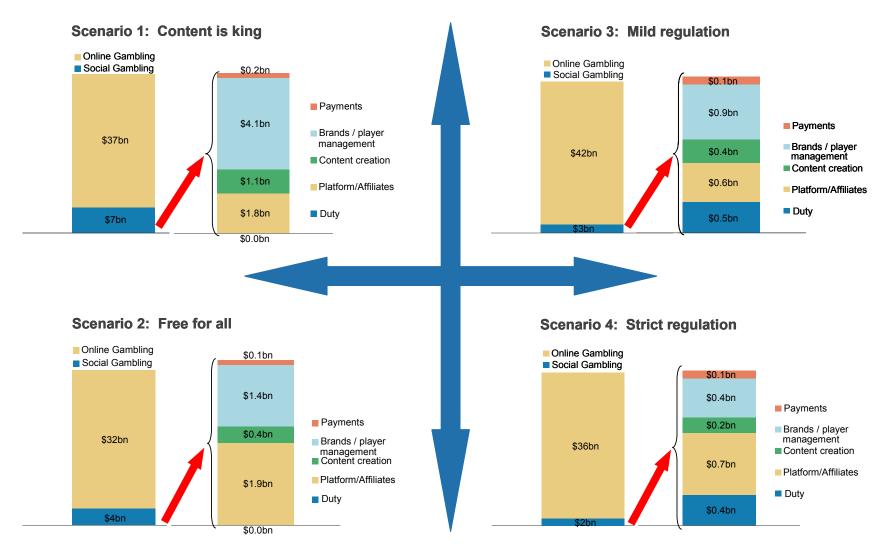
**Regulation:** Several countries are already investigating the regulation of social gambling.

**Regulation of online gambling:** Where a market moves from unregulated to regulated for real money online gambling, we see scope for online gambling to take market share away from social gambling.

## Social Gambling Axes of Uncertainty: Regulation and Half-Life

Long half-life: Loyal customer base, with products generating a rising user base over time. Significant returns to strong brands, driving rising investment in differentiated product Scenario 3: Social gambling is gradually Scenario 1: Free for all, content is king regulated as if it is gambling Low regulatory scrutiny, but high player High regulatory scrutiny increases barriers to entry. expectations and rapid evolution of content means higher barriers to entry. Trust in the operator brand is as important as the content. Offsetting this, governments take a rising slice of the pie in the form of duties. Brand and operating issues are important, increasing customer loyalty Size: \$7.2bn social + \$37bn online gambling and driving investment in differentiation. Leadership: Operating brands (Zynga, Double Size: \$2.5bn social + \$42bn online gambling Down (IGT), bwin.party), distribution (Facebook) Leadership: Major trusted brands with scale to **Challenged:** Suppliers offset duties and develop content (bwin, 888). Industry structure: Social gambling takes share Challenged: Distribution (Facebook), Unregulated from online gambling, particularly in regions with gambling (Zynga, Double Down) legal or operating restrictions for real money Industry structure: Ongoing consolidation driven gambling. by online gambling sector. Social remains Social becomes Unregulated Regulated Scenario 4: Social gambling is regulated, player Scenario 2: Free for all, low brand and player disloyalty increases loyalty Social gambling begins to be regulated as Low regulatory scrutiny means small startups gambling, with duties squeezing margins. Commoditised products and low customer loyalty continue to perform well. Commoditised products and limited opex means no barriers to entry. This increase marketing costs, further squeezing erodes returns for brands/operators, boosting the margins for operators. relative value of content. Size: \$1.8n social + \$36bn online gambling Size: \$3.8bn social + \$32bn online gambling Leadership: Affiliates and platforms that deliver Leadership: Distribution platforms (Facebook), some content developers, major affiliates customers. Online advertising. Facebook. Challenged: Online gambling operators. Social Challenged: Online gambling sector. gambling operators. Industry structure: Low barriers to entry and low Industry structure: Rising barriers to entry and opex. Small startups perform well. Social gambling margin pressure drives some consolidation. Limited industry fragmented, reflecting a more rapid churn player loyalty means new entrants enjoy some profile, like other social gaming products. success, so the market remains somewhat Short half-life: 'Hit driven' model, fragmented. with new entrants performing well for a limited duration. Low barriers to entry drive down operator margins, reducing investment in differentiated

Source: Morgan Stanley Research estimates



Source: Morgan Stanley Research estimates

## Axes of uncertainty ...

- 1. Regulation. Social gambling games are currently unregulated, throughout the world. This means that any player, regardless of age (some operators have age limits), can deposit funds and play online casino style games with chips. While customers cannot win money directly, they can win chips, which can often be exchanged for money in secondary markets. We think the pace and extent of any regulation in the industry will have a significant impact on industry growth rates for two main reasons:
  - i) Any restrictions on players. If the industry becomes subject to any regulation, it is likely to limit the customers that can be attracted. Certain countries or jurisdictions that do not allow casinos may attempt to ban citizens from playing social casino games (or ban them from paying to do so). For example, around 40% of the world's countries ban casinos (most of the Middle East, parts of Asia), and online casinos are only expressly regulated/permitted in 5 countries. We think most countries will eventually implement some form of age restriction on casino style games. Social gambling currently bypasses any regulation, as customers cannot win real money back from the operator; they can only win virtual credits.
  - **ii) Reduced margins.** We think any shift towards regulation would see social gambling treated as a gambling product, therefore becoming subject to gambling duties/tax. This would increase the cost base of the operators and, other things equal, leave less funds available to innovate content and acquire customers, therefore slowing growth in the industry.
- 2. Half-life and player loyalty. The profitability of any online business (gaming or otherwise) tends to be directly proportional to the half-life of the product. A shorter half-life means that customers tire quickly, and move on to the next product. A long half-life means that customer interest is maintained for a significant period, giving the operator greater opportunity to monetize the customer. One clear factor that can be seen so far is that gambling type games seem to have a significantly longer half-life than non-gambling social games. This suggests that longer-term profit potential could be higher here. A long half-life gives operators a more predictable revenue stream, and means that marketing spend tends to be lower, leaving more funds to innovate content and develop the business. A lower half-life means that marketing tends to be higher (as the operator constantly needs new customers to replace the ones that get bored and churn off).

## ... and the valuation pie

We estimate there are five key components in the value chain for social gambling. We break these out below, and in our scenario analysis, we estimate a split of how the economics of the industry could develop between each part of the value chain, depending on the axes of uncertainty.

- 1. Duty. The duty rate will be a function of the extent to which the industry is regulated. For online gambling, the duty rate for regulated countries varies between 11% of revenues in Belgium up to 25% in Spain (and even higher equivalent duty rates in France and Germany). For simplicity, we assume an average duty rate of 20% for our regulated scenarios, broadly in line with the average rate for the online gambling industry.
- 2. Marketing / platform. Marketing is one of the key drivers of the industry (see Section 2). We believe that the player 'half-life' will be one of the key drivers of the marketing cost ratio over time. If customers are loyal to a game/site for a long period, this means that the bulk of new players contribute to an increase in the operator's revenue. If customers are disloyal, and churn off quickly, then new players are needed just to maintain the current level of revenue. Other things equal, a longer half-life will translate into a lower marketing ratio.
- **3. Content creation.** The strength of content is the key driver of monetization of the player. Unique and high-quality content should drive a higher monetization rate and also higher overall ARPU. The more fragmented the supply chain (i.e. the less loyal customers are to a particular brand/platform) the greater the value that content takes on.
- **4. Brands / player management / CRM.** The lifetime value of the player is a function of the ARPU and also the life cycle of the player. The critical factors in the life cycle of the player include CRM (player support, conflict resolution, bonuses), loyalty and reward schemes, the usability/durability of the site and other factors.
- **5. Payment processing.** Payment processing for gambling products is more complicated than for other products, as it can involve relatively frequent deposits and withdrawals.

## **Key Industry Players**

	Zynga	bwin.party	888	IGT	Paddy Power
Customer acquisition / marketing	<b>/ / /</b>	✓✓	✓✓	✓	<b>///</b>
Network effects	<b>///</b>	✓	✓	-	✓
Proprietary content	<b>/ / /</b>	<b>√</b> √	<b>√</b> √	<b>/ / /</b>	✓
Real money monetisation	-	<b>~ ~ ~</b>	<b>/</b> /	<b>√</b> √	<b>///</b>
Virtual currency monetisation	<b>/ / /</b>	-	<b>√</b> √	<b>/ / /</b>	-
Regulatory expertise	-	<b>/ / /</b>	<b>/ / /</b>	<b>/ / /</b>	<b>/ / /</b>
CRM and retention	<b>√</b> √	<b>√</b> √	<b>√</b> √	✓	<b>√</b> √
Payment processing	-	<b>/ / /</b>	<b>/ / /</b>	-	<b>√</b> √
Balance sheet	<b>/ / /</b>	✓	✓	-	✓✓
Total ticks	17	17	18	13	17

Note: The ticks represent the existing level of expertise in the category, with – being no expertise (or net debt in the case of the balance sheet) and 🗸 🗸 being the strongest expertise (or largest net cash position in the case of the balance sheet). Source: Morgan Stanley Research

## Exhibit 5

Potential impact from social gambling for companies\*

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\$m	Zynga	bwin.party	888	IGT	Paddy Power
Current market cap	1662	1622	616	3593	3564
Current EV	197	1355	541	4514	3422
EBITDA (2013e)	161	218	67	794	252
Current social gambling market share	54%	0.0%	0.7%	4.6%	0.0%
EBITDA uplift per 10% market share	40%	29%	95%	8%	25%
Value per 10% market share	637	637	637	637	637
Potential uplift per 10% market share	38%	39%	103%	18%	18%

<sup>\*</sup>We estimate the profitability of a 10% market share, use a multiple of 10x EBITDA (in line with long-run averages for online gambling) and compare this to current metrics. e = Morgan Stanley Research estimates; Source: Company Data, Morgan Stanley Research estimates

## Section 1: How big is the social gambling industry?

SuperData Research estimates that the social gambling industry is worth \$1.7bn. This is around 20% of the total social gaming industry, but only around 5% of the total online gambling market. The principal market is North America (\$700m) which accounts for c.40% of the social gambling market today.

Sizeable player base suggests long-term potential is high.

There are currently an estimated 800m active social gaming players globally in 2012, or 12% of the total world population<sup>3</sup>. Over 20% of these customers (173m) play one form of casino-style game via a social gaming platform or mobile phone every month. This dwarfs the number of users who use real money gambling sites, which H2 Gambling Capital estimates to be 49m in 2012. With over three times the number of players using social gambling products (demonstrating a clear interest in the products), the long-term potential for the industry looks extremely strong.

## Converting players to paying players is the key

**uncertainty.** Comparing active player numbers only tells half the story, and is not comparing like with like, we think. Real money gamblers are exactly that; customers who have made a deposit, and are risking their own money to gamble. Social casino players are not the same; around 98% of them do not spend any money at all. We are not convinced that the large pool of players who currently only play games for free will ever convert to paying players.

The pool of players willing to spend \$500-700 per year on gambling entertainment could be limited... We think a more accurate comparison of player numbers and yields is to focus only on paying players. There are around 3m social casino customers that pay in 2012, which contribute an ARPU of c.\$500. This compares to an estimated 49m real money gamblers, with an ARPU of c.\$700 (Exhibit 6). There is clearly a significant pool of players who are willing to pay for the entertainment of playing casino games (whether with the prospect of winning or not), but this player pool is only a small fraction of the number of customers who enjoy playing for free.

...suggesting social casino gaming will create a new generation of players where real money gambling is restricted. Our core thesis is that social casino gambling revenues (as opposed to players) will flourish primarily where real money online gambling is restricted. We think there is growing evidence for this trend when analyzing the different

dynamics between the regions. In the longer term, we expect most countries to regulate real money online gambling, and think that social gambling will create a new generation of customers who enjoy gambling, providing years of growth potential for the online gambling industry.

Exhibit 6

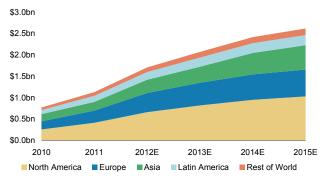
A comparison of social gambling and online gambling

2012e	Social gaming	Social gambling	Paying social gambling	Online gambling
Player base (m)	799	173	3.2	49
Market size (US\$m)	7,952	1,704	1,704	35,058
ARPU (US\$)	10.0	9.9	538	716

Source: SuperData Research, H2 Gambling Capital, Morgan Stanley Research

Exhibit 7

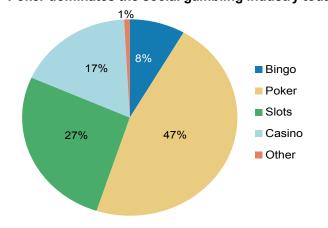
## Online Social Gambling is a \$1.7bn industry, rising to \$2.6bn by 2015 according to SuperData Research



E= SuperData Research estimates Source: SuperData Research, Morgan Stanley Research

Exhibit 8

## Poker dominates the social gambling industry today



Source: SuperData Research, Morgan Stanley Research

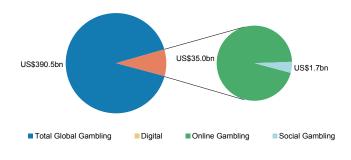
<sup>&</sup>lt;sup>3</sup> SuperData Research

## 1. Social gambling relative to online gambling

Social gambling accounts for around 0.5% of the total global gambling industry by revenue. Remote gambling (including mobile) accounts for just over 9% of the \$390bn global gambling industry (Exhibit 9). Within the remote portion, social gambling is currently around 5% of the total. This proportion varies sharply by region. North America has the highest penetration rate, with 11% of all remote gambling being social gambling (Exhibit 10). We think the high penetration here reflects tighter regulations for online gambling, which makes social gambling relatively more attractive for customers. It could also reflect the dominance of poker within social gambling, suggesting that any regulation of online poker in the biggest market, the USA, could be a drag for the social gambling industry.

Social gambling has the scope to become a much greater proportion of the industry, we think. While monetary gain and risk-taking are important factors driving the gambling industry, we think entertainment value is equally important. While social gambling cannot compete on the former, we think its games are arguably more entertaining and are certainly more sociable. This can be seen by comparing the size of the social gambling market relative to the online gambling market between the different regions. The social gambling market is relatively much larger in North America and the Rest of World, where legal and practical restrictions on real money wagering increase the relative attraction of social gambling for the customers.

Exhibit 9
Social gambling is a \$1.7bn industry within the \$391bn global gambling industry



Source: H2 Gambling Capital, SuperData research, Morgan Stanley Research, 2012

The 'Freemium' Model: What makes people pay for a product that is free? The social gaming industry disproves the fundamentals of Economics 101. The products are totally free to play, and yet users are willing to pay in many circumstances to play the games. A well-designed social game will encourage players to spend for as many reasons as possible, which include:

**Continued gameplay:** People are impatient and want to advance more quickly through game-play. Players finding a slot machine enjoyable may decide to pay to continue playing, rather than waiting for chips to reload overnight for free.

**Competition:** People are competitive and want to accumulate more chips or awards than friends or other players. Leader boards and rankings (becoming a poker "big dog") are important.

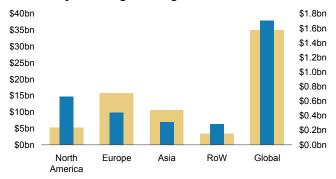
**Self-expression:** People want to express themselves (e.g. buying virtual goods to decorate virtual houses/avatars).

**Gifting:** Gifting allows people to maintain old relationships and forge new ones. People may feel obliged to reciprocate if others send them gifts.

**Scarcity:** People may value virtual goods because they are branded by real world companies, or because they are rare.

Exhibit 10

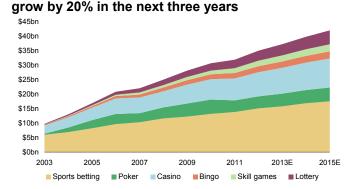
Globally, the social gambling industry is around 5% of the size of real money online gambling, but this rises to over 10% in North America where access to real money online gambling is restricted



■ Online Gambling ■ Social Gambling (RHS)

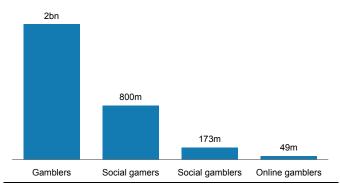
Source: H2 Gambling Capital, SuperData Research, Morgan Stanley Research, 2012

Online gambling is a c.\$35bn market, expected to



E = H2 Gambling Capital estimates Source: H2 Gambling Capital, Morgan Stanley Research

Player engagement is much higher for social gambling than online gambling: 2012



Source: H2 Gambling Capital, Super Data Research, Morgan Stanley Research

## 2. Social gambling relative to social gaming

Social gambling is now around 20% of the total social gaming industry by revenues. This proportion has been rising steadily since 2010, and we expect this trend to continue, due to the unique dynamics that we explain below:

i) Gambling games have higher player retention. Exhibit 13 shows a comparison between Zynga poker and several other major Zynga games. The typical life cycle of a game is a quick ramp-up with growing interest in the game, before a sharp fall as users lose interest in the latest App and move onto a new product. We consider this hit-driven model (where users play the latest hit for a short period of time before stopping) to be challenging economically, as it shortens the life of the customer, making the balance between customer acquisition cost and lifetime value lower, we think. The profile for gambling

products appears to be completely different, with a steady ramp-up and gradual growth in the player base.

This increased player retention may mask some different dynamics. While it can be seen in Exhibit 13 that the average number of monthly players using Farmville has dropped by around 80% since its peak, this does not necessarily reflect the profile of revenues. Within the overall declining player base, there is a core of players who are retained, and who become more likely to spend. So a declining player base can translate into a growing revenue base, and with retained players being more loyal and more likely to spend, this could be a high-quality and high-visibility revenue stream.

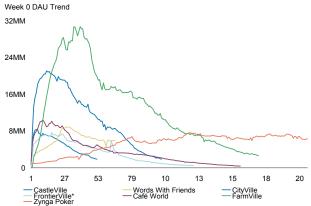
**ii) Higher ARPUs for gambling games.** The average ARPU for all forms of social games is estimated to be \$5 per user (SuperData Research). For social gambling games this rises to \$9. While the conversion rates to paying customers are similar (c.2%), those customers that do pay seem to be willing to spend significantly more for gambling products (c.\$500 annually) compared to other social games (c.\$300).

### iii) We believe that the conversion rate could improve.

The conversion rate from active players to paying players is currently similar for social gambling (1.7%) and the broader social gaming industry (1.8%). However, in the more developed market of North America, the conversion ratio for gambling games is higher than the broader market, and we think this may be a leading indicator for other regions. We think that the scope of regulation will be one of the key drivers of this conversion ratio: where customers have ready access to real money online casinos, they are less likely to pay for social casino products, we think.

Exhibit 13

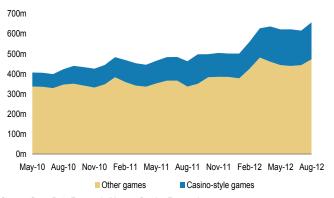
## Social gambling games (e.g. poker) seem to have a more steady ramp-up, and are less hit-driven than other games



Source: AppData, Morgan Stanley Research

Exhibit 14

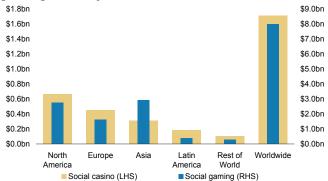
## Social gambling users have grown by 160% since May 2010, while social gaming users have increased by 40%



Source: SuperData Research, Morgan Stanley Research

Exhibit 15

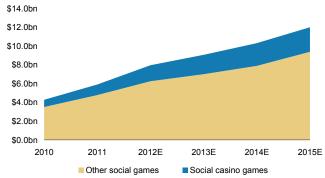
## Social gambling relative to the broader social gaming industry



Source: SuperData Research, Morgan Stanley Research, 2012

Exhibit 16

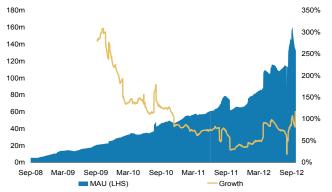
## SuperData expects the global social gaming industry to grow to \$12bn in 2015, with casino style games being 22% of this



E = SuperData Research estimates Source: SuperData Research, Morgan Stanley Research

Exhibit 17

## Monthly Active Users for social gambling has reached 130m users, and is rising at >100% per year

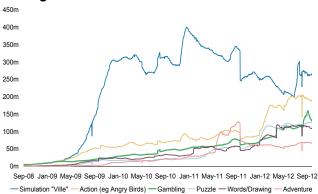


Source: Dystillr, Morgan Stanley Research

Source: Dystillr, Morgan Stanley Research

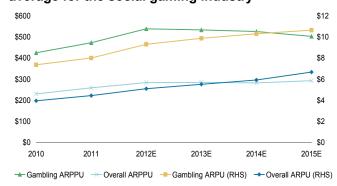
Exhibit 18

## Gambling is the highest growth of all the genres of social games



Evhibit 10

## ARPU and ARPPU levels are almost double the average for the social gaming industry



ARPU = Average Revenue per User; ARPPU = Average Revenue Per Paying User E = SuperData Research estimates Source: SuperData Research, Morgan Stanley Research

## 3. Bottom-up player analysis

Social gambling is accessible to anyone with access to the internet. There are currently no legal or regulatory restrictions in any country, such that anyone with a smartphone or PC can access online social gambling games.

## Scaling the industry in this manner takes us back to first principals:

## Revenue = Player numbers \* ARPU (Conversion Rate \* ARPU)

**Player numbers:** The number of social gaming players has been growing at 12-15% per year for the last 2 years (Exhibit 20). With around 800m monthly players, around 12% of the global population currently plays one or more form of social gaming (via web or mobile) every month. Of these players, just over 20% play some form of casino-style game. This has increased from a little over 15% in 2010, as we show in Exhibit 21.

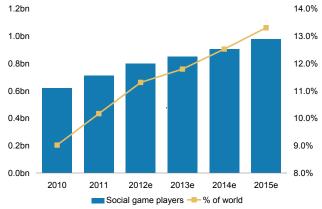
### ARPU is a function of the conversion rate at the ARPPU.

**Conversion Rate:** The conversion rate measures how many active customers spend any money. In 2012 we estimate this to be 1.7% for social gambling games. This is broadly in line with the social gaming industry overall at 1.8%.

ARPPU: This is the average revenue per paying user. This is the most comparable metric with other forms of online gambling, which only disclose paying users as active users. ARPPU for social gambling games is nearly double the level of non-gambling games. The overall level of \$537 in 2012 (Exhibit 6) is similar to the average of the online gambling industry of \$716. This suggests that customers that gamble regularly online are attributing a value to social gambling that is similar to that of real money gambling. This implies that the most important factor driving spend per head could be entertainment value, rather than the potential to win real money. This has significant long-term implications for the potential convergence of these two industries, we think.

### Exhibit 20

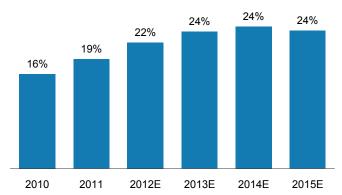
## The global social gaming player base has been rising strongly...



e = SuperData Research estimates Source: SuperData Research, Morgan Stanley Research

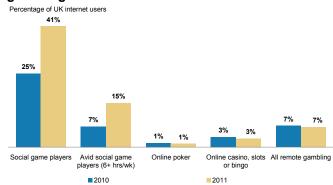
### Eyhihit 21

## ...and the proportion of those players that play casino style games has been rising



### Exhibit 22

## Around 41% of UK internet users play social games, compared to 7% who use any form of remote gambling



Source: UK Gambling Commission 2012, PopCap Games 2011

## How big will the market be in 2015?

## We present 4 possible scenarios, based on the axes of uncertainty outlined on page 8.

## Scenario 1: \$7.2bn / 63% CAGR and online gambling \$37.4bn / 2% CAGR.

This scenario assumes that there are no changes to the regulation of social gambling. It also assumes that customers have a fairly long half-life. These two factors combine to give leading operators high profit margins and the ability to invest significant funds into product development and marketing to accelerate the growth of the industry. With social gambling games being unregulated, the industry begins to take market share from online gambling, with players enjoying the social aspects and interactive content, and willing to spend on these features and forgo the potential to win real money.

## Scenario 2: \$3.8bn / 33% CAGR and online gambling \$31.6bn / -3% CAGR

This scenario assumes that the industry remains unregulated, but that players are not loyal. The shorter half-life of the player base means operators need to spend significant funds marketing in order to maintain their player base. This transfers part of the value chain from the operators/content providers to the advertising and affiliate channels.

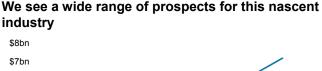
## Scenario 3: \$2.5bn / 16% CAGR and online gambling \$42.1bn / 6% CAGR

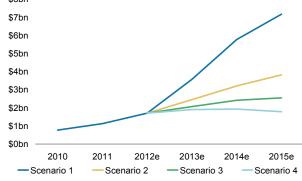
This is our central scenario, and reflects our view that most countries are likely to implement some form of regulation for social gambling in the coming years. This is likely to involve paying gambling duties in most instances, and squeezes the funds available to develop content and advertise to grow the customer base. This central scenario is similar to the \$2.6bn forecast of SuperData Research.

## Scenario 4: \$1.8bn / 3% CAGR and online gambling \$35.8bn / 1% CAGR

This scenario assumes that most countries implement regulations for social gambling. In addition, we assume that player loyalty is limited, such that marketing ratios increase.

Exhibit 23





Source: SuperData Research, Morgan Stanley Research estimates (e)

Our central case (Scenario 3) sees the social gambling industry growing by c.16% CAGR ... This reflects our central case assumption that most countries gradually move towards some form of regulation of social gambling. At its most benign, this could simply be restrictions on the age of players, while at the other extreme it could be treated as gambling with the associated gambling duties. Other things equal, the higher the cost base (whether gambling duties, higher distribution fees to the platform, higher marketing expenses) the lower the funds available for investment, innovation and customer recruitment, and therefore the lower the growth profile of the industry.

## ...and the online gambling industry growing by 6% CAGR.

We assume that social gambling continues to grow in countries where online gambling is illegal, but as social gambling gradually becomes regulated, this dynamic begins to slow. Our base case forecasts assume that the USA does not regulate online gambling in any form. Should this country regulate real money online gambling, we would expect this to result in a faster growth profile for online gambling, and a lower growth profile for social gambling, as new customers are attracted towards real money gambling, and some existing social gambling customers migrate up to real money gambling.

## Section 2: Examining the Business Models and Value Chain

We believe that online gambling and social gambling are essentially identical business models. Total value creation is a function of the gap between the customer acquisition cost and the lifetime value. The techniques to acquire, entertain and monetize customers are slightly different between the two industries (reflecting some differences in motivation between the customers) but the fundamental drivers of each industry are identical we think.

## We see three key stages to the business model:

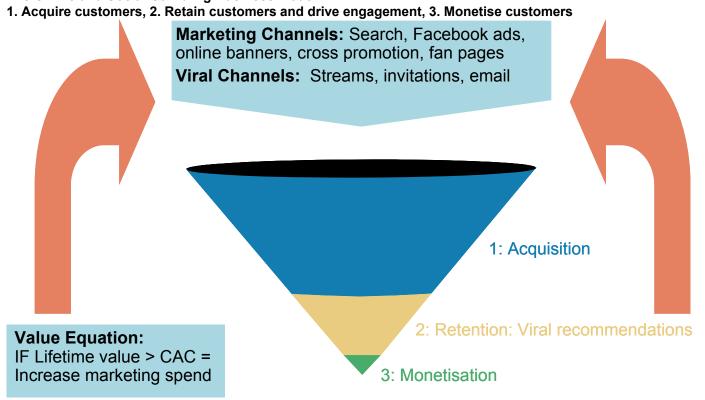
- **1. Acquire customers.** Customers are acquired through a variety of channels. This can be direct customer acquisitions from adverts, search, promotions or affiliates. Or it can be indirect acquisitions from viral channels, primarily recommendations from friends.
- **2. Customer retention.** Once a customer has engaged with the site / platform / app, the operator must then retain that customer for as long as possible. We believe the most

important factor driving retention is the quality of the content. Other factors driving retention include the robustness of the technology/infrastructure, the virality of the game, customer support and any retention bonuses. Retained customers become a key function of customer growth, feeding back into the top of the funnel through friend recommendations.

**3. Monetisation.** The methods of monetization differ between online gambling and social gambling, reflecting the different motivations of the customers, amongst other factors. For online gambling this includes the size of the prizes, the payout ratio, and the range of products on offer. For social gambling, the primary factor driving monetization is the conversion to paying players, which sits at around 2% for all social gambling. With such a low proportion of customers spending any money at all, a small change in this monetization rate could have significant implications for the industry. Once a player has paid to play, the main factors driving the ARPPU are the interaction with other players, the ability to unlock special and bonus rounds, and climbing up leader boards.

Exhibit 24

## The Online and Social Gambling Business Model:



Source: Morgan Stanley Research

## **Social Gambling**

### Revenue Model:

Most social gambling games follow a 'freemium' model, where users can play for free. Chips are typically reloaded every night, and users can wait until the following day and then play another session. If the user wants to continue playing immediately, they are asked to buy additional chips. Users can also pay for upgrades, gifts and bonuses. SuperData Research estimates that only 2% of all social gambling users spend any money on a monthly basis (the remaining users simply play their free rolls and wait for their account to reload).

Advertising is a secondary, but small revenue stream. Advertising revenue tends to be only a small part of total revenues (in Q4 2011, 5% of Zynga's revenue and 11% of GREE's).

### Revenue = Active players \* Conversion Rate \* ARPPU

**Active players:** This is a function of the quality of the game, the success of the marketing campaigns, the viral factor (how many players recommend it to their friends) and how sustainable the game is (the half life).

**Conversion rate:** This measures the proportion of active players who spend any money at all on the game. With such a low conversion rate across the industry, small changes here can make a significant difference to the economics of the business model.

**ARPPU:** We think the ARPU is largely an irrelevant metric, as it is a blend of the conversion rate and the ARPPU. The revenue per user who actually pays reflects the success of monetising the games, once a user has made the decision to spend. ARPPU for social gambling games seems to be similar to the level of real money gambling games.

Exhibit 25

## Bwin.party estimates that 2.5m ad impressions are needed to generate 1 'whale' customer in social

	Number of People	Conversion Rate
Banner adds	2,500,000	
Click ad	2500	0.10%
Install App	1250	50%
Active user	875	70%
Paying User	35	4%
Whale	1	3%
0 0 11 11 01 1 0		

Source: Company data, Morgan Stanley Research

## **Online Gambling**

### **Revenue Model:**

Online gambling revenues are derived from real money gameplay. Users can play all games for virtual money, learning the mechanics of the games before spending any real money. This is similar to social gambling, but does not include many of the social elements. Paying users spend money to play virtual slots and casino games, and place sports bets directly against the operator. The operator pays out winnings to lucky/skillful customers, and its revenue is the difference between total stakes and total payouts. For poker and other peer-to-peer models, online gambling operators typically charge a small rake (c.2.5%) from each pot, and this is the operator revenue. There are some other secondary revenue streams such as charges for text message alerts.

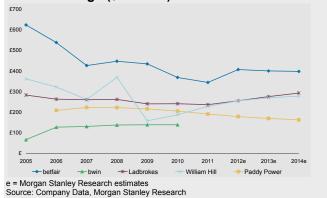
### Revenue = Active players \* ARPU

Active players: These are customers that place a real bet in the period. While the operators allow users to place free bets, and take free spins, this is primarily a marketing tool to allow customers to familiarize themselves with the gameplay. Online gambling operators do not tend to disclose the conversion rate of signups into real active players. It is significantly higher than for social gambling, and we estimate that 50-70% of signups convert to real paying customers.

**ARPU:** The definition of active customers for online gambling includes only paying players. The ARPU level is a function of the quality of the games, the breadth of content, the value and entertainment levels. Typically the more product an operator offers, the greater the ARPU will be.

Exhibit 26

## Online gambling ARPU (annually) is typically in the £200-400 range (\$320-640)

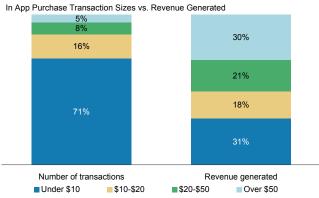


### Reliance on key customers

Users can be divided into generic groups: non-spenders, minnows (typical spending: \$1 or less per month), dolphins (middling spending c \$5 per month) and whales (ARPPU \$20 per month). Bwin.party estimates that the top tier of social gambling customers (whales) are worth around 10x as much as an average paying user. Only 2-4% of the 350,000 players on PopCap's Lucky Gem Casino pay for virtual credits, but those who do spend, spend on a comparable level to real-money gamblers.

### Exhibit 27

## Transactions by 'whales' contribute over half of revenue in iOS and Android games



Source: Flurry Analytics 2011, Top iOS and Android Freemium Games, 3.5M User Sample

## The importance of liquidity

The more players that play a social game, the more social interactions there are. Virtual goods are purchased by players who are socializing with, competing against or collaborating with other players, most of whom do not buy virtual goods; so the more players to collaborate with or to compete against, the greater the value of the game. Therefore, although the paying users generate revenue directly, the number of non-paying users is also important as they indirectly generate revenue by encouraging paying users to spend.

## This dynamic presents a formidable barrier to entry. It also boosts significantly the competitive advantage of the incumbent leader, Zynga, we think. Exhibit 29 shows Dystillr data for Zynga's last 6 major web launches, which each exceeded 5 million daily players within 3 days of being cross-promoted to Zynga's existing audience. To put this growth into perspective, only a handful of developers have built a single game that reached 5m daily active players according to Dystillr, and only King.com has done it twice.

## Reliance on key customers

Most operators are unwilling to disclose the reliance on key customers for competitive purposes, but generally state that it is a 90:10 type industry, with 10% of customers generating 90% of revenue. Sportingbet said that its top 8% of customers contributed 90% of its revenues in 2009, while PartyGaming said that its top 10% of customers contributed over 80% of revenues in the same year. Figures from the French regulator Arjel show that the top 1% of customers in France contribute around 40% of revenues, while the top 10% are around 80%.

**VIP** management. One of the key differentiators in the online gambling industry is the success of VIP management schemes. This is a combination of direct player contact, entertainment and events, customer support, and also large jackpots that tend to entice high roller customers.

Exhibit 28

## The top 10% of French users generate around 80% of all bets\*: We think this is typical of the online gambling industry



Source: Arjel, Morgan Stanley Research \* Official French statistics for Q1 2012

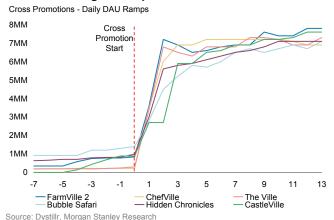
## The importance of liquidity

Network effects are less important for sports betting and online casino, we think. For these games, the player bets against the house, and as they are largely solo activities, interaction with other customers is more limited.

**Liquidity is vital for peer-to-peer games.** Just like social gambling, for poker and betting exchanges, liquidity is a critical factor for success. These products improve the more players are playing, and we see similar dynamics between online poker and social poker.

Exhibit 29

## Cross-promotion is a key driver of success, demonstrating the importance of network effects

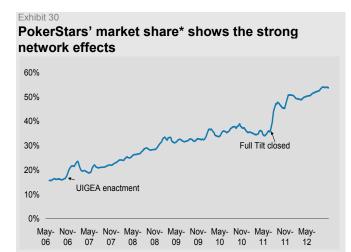


### **Cost Base**

**Duties:** Duties/tax are a function of regulation. The industry is unregulated today, and so pays no duties. We expect regulations to creep into the social gambling industry in the coming years, and for the direct costs of duty to increase as a result of this.

**Marketing:** Marketing is the primary driver of the business. Exhibit 24 shows an example of the 'funnel'. The industry economics are fairly simple, in that gross profit is the gap between lifetime value and the customer acquisition cost. The more efficient the marketing, in general, the more profitable the operator will be. The vast majority of social games are played through Facebook, making this the most important marketing channel. Zynga says that 80% of its bookings are derived from Facebook, which charges a 30% revenue share.

Product and R&D: Console games tend to be hit-driven (i.e. one-hit wonders), with limited opportunity to extend the monetization window. Typical social games have a longer half-life, but still tend to see a sharp ramp-up before the novelty wears off and players move onto new games fairly quickly. Within this, we tend to see a quality core of interested players, such that conversion rates to paying players may increase, driving an increase in revenue over time, even where the overall player base is shrinking. The profile with gambling games appears to be somewhat different (see Exhibit 13), but we think that continued R&D and product development will still be a key driver of the industry. So far, most major operators develop their own technology in-house. We expect this to broaden out to include third-party software development such as Playtech.



Source: H2 Gambling Capital, Morgan Stanley Research \* Market share by players of all poker globally including ring-fenced markets

### **Cost Base**

**Duties:** The online gambling industry is undergoing a major transition from being largely unregulated, to be predominantly regulated. This means that gambling revenues are becoming subject to duties. This is typically 15-25% of operator revenues, although it can vary significantly.

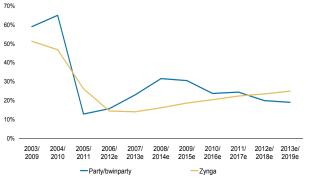
Marketing: This is one of the core skills of the online gambling operator, and accounts for around 30% of revenues typically. Marketing can involve offline campaigns such as sponsorship and billboards, TV, print adverts, and online campaigns directly and through affiliates, search engine optimization and player referrals. Around 30% of players for most operators come from affiliates (essentially outsourced marketing). These typically charge a revenue share of around 30%, making them a similar cost to Facebook for social gambling.

Product and R&D: The online gambling industry is broadly split in half. The 'asset light' operators rely on third-party technology and pay a revenue share to software developers such as Playtech. The 'vertically integrated' operators such as bwin.party (and increasingly Paddy Power) develop their own product and content, and have full control of the technology suite. The two models vary in that the former has limited economies of scale, as the software fee is typically a percentage of revenue (10-25%), while the latter should benefit from economies of scale, but has a much higher fixed cost base and there is a higher risk and embedded cost of getting the systems or content wrong. Proprietary content is a key advantage in online gambling, allowing the operator to sell unique product and jackpots to the customer.

**CRM:** Once a player has been acquired, CRM is essential to keep the customer for as long as possible. Given the reliance on key customers, VIP schemes and player management are key to maximizing the lifetime value of the players.

Payment Processing: The costs of payment processing are a function of the regulations. With social gambling being essentially unregulated today, payment processing is simple, and fairly low cost. Should we be right that regulation will creep into the industry, we would expect payment processing to become more challenging. However, so long as social gambling does not allow customers to cash out (exchange virtual chips for real money), the risks (money laundering, fraud, chargebacks) will always be lower, such that payment processing costs should remain low.

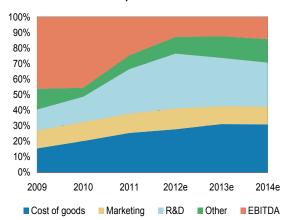
Zynga's EBITDA margin is following a similar profile to the early days of the online gambling industry



e = Morgan Stanley Research estimates Source: Company Data, Morgan Stanley Research

Exhibit 32

Zynga's EBITDA margin has been squeezed by rising R&D costs (increasing complexity of games and shorter half-life) and its shift to mobile

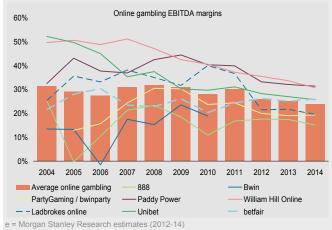


e = Morgan Stanley Research estimates Source: Company Data, Morgan Stanley Research

**CRM:** CRM is a crucial function to extend the life of the player and maximize the lifetime value. The dependence on high rollers means that VIP programmes and player support are particularly important. The critical aim of CRM is to give the customer no reason to move to another site once they have started playing.

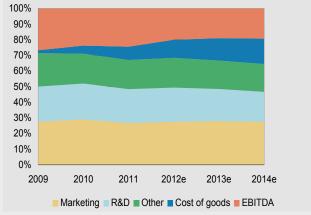
Payment processing: Payment processing for online gambling operators is complicated and expensive. The ability to deposit and withdraw, the necessity to settle balances in real time (players do no expect to wait for their money to clear), and the prevention of fraud and chargebacks are highly complicated. This means that operators often use third-party specialist payment processors such as Skrill.

Online gambling company EBITDA margins are around 25%...



e = Morgan Stanley Research estimates (2012-14) Source: Company Data, Morgan Stanley Research

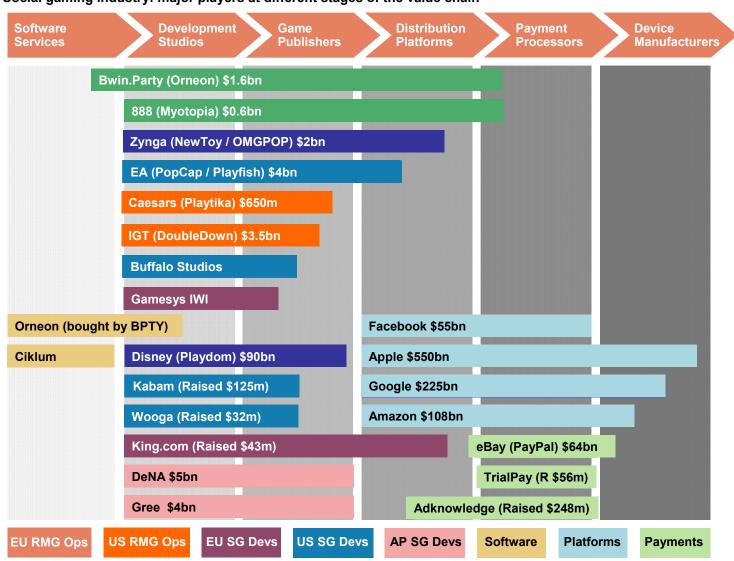
## ...with typical margins\* being squeezed by duties



e = Morgan Stanley Research estimates Source: Company Data, Morgan Stanley Research \* This shows the margin profile for bwin.party as a typical example of the online gambling industry business model

Exhibit 35

Social gaming industry: major players at different stages of the value chain



Source: Bwin.Party Social Gaming Entry Strategy May 2012, Morgan Stanley Research

## How do the models of industry leaders compare?

**Social gaming:** We show the business model of Zynga as an indication of the typical model of the industry. Zynga is the clear leader in social gaming, and we think its economics are typical of the industry, with the exception that it has greater scale economies.

Asian social gaming: We show Gree here, which is typical of the Japanese social gaming models. While it does not plan to launch social gambling products, it does incorporate some gambling elements within its games (Gacha), and we think the fundamentals of the business model (lifetime value versus customer acquisition cost) merit some comparison.

**Online gambling.** We compare bwin.party and 888, as these are typical vertically integrated operators that control and develop their own technology.

Our analysis suggests that social gaming could be following a similar development path to online gambling. In the early years of online gambling, margins were extremely high (PartyGaming 2004 EBITDA margin was 65%). This was due to the combination of an unregulated market, a nascent market with low customer expectations, a predominantly dollar-based product, and limited CRM requirements. We think the same dynamics were at play in the early years of social gaming in 2010.

We think the operating cost bases are likely to converge somewhat. As online gambling developed, the operating cost base increased sharply, driven by rising customer expectations of the product, increasing competition driving marketing and CRM costs higher, and latterly by regulation introducing duties.

Exhibit 36

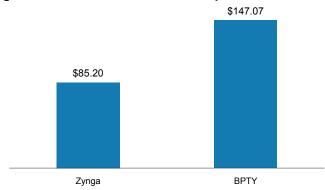
## Bwin.party's revenue per daily user is around 285x the level of Zynga ...



Source: Company Data, Morgan Stanley Research, Q3 2012 actuals

### Exhibit 37

## ...but quarterly revenue per unique paying customer gives a much fairer basis for comparison



Source: Company Data, Morgan Stanley Research, Q3 2012 actuals

Exhibit 38

## Business model summaries for social gaming and online gambling: 2012e\*

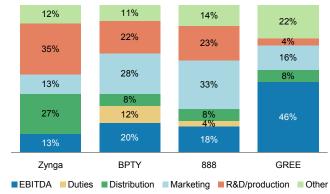
US\$m	Zynga	bwin.party	888	GREE
Revenue	1,250	1,025	375	2,288
Duties		(119)	(15)	
As % revenue	0%	12%	4%	0%
Distribution	(340)	(84)	(31)	(248)
As % revenue	27%	8%	8%	8%
Marketing	(165)	(282)	(123)	(374)
As % revenue	13%	28%	33%	16%
R&D and production	(431)	(224)	(88)	(100)
As % revenue	35%	22%	23%	4%
Other costs	(156)	(111)	(53)	(504)
As % revenue	12%	11%	14%	22%
Total costs	(1,092)	(820)	(309)	(1,226)
As % revenue	87%	80%	82%	54%
EBITDA	158	205	66	1,061
As % revenue	13%	20%	18%	46%

Source: Morgan Stanley Research estimates

\* GREE figures are for FY13e, and the cost breakdown reflects MS estimates to ease comparison with the other business models

Exhibit 39

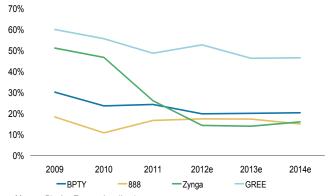
## Cost breakdown as a proportion of revenue: 2012e



Source: Morgan Stanley Research estimates

### E.J.: 10

## We expect EBITDA margins of Zynga and 888/BPTY to converge, but see GREE maintaining its premium due to its local scale



e = Morgan Stanley Research estimates Source: Company Data, Morgan Stanley Research

## Section 3: How will social and real money gambling converge?

So far, there is little evidence of significant convergence between the player bases of social and real money gambling. 888 has been the first major operator to attempt to cross-sell customers from social gambling to online gambling, and it has not enjoyed any success.

Long term we see significant potential... The high and growing popularity of social gambling games indicates a growing group of people who enjoy playing interactive gambling games, whether it is poker, casino, bingo or other betting games. The majority does not gamble regularly for real money, and is likely to include some whose first experience of gambling is playing a free social game. These customers pay real money to buy chips, bonuses or upgrades with *no prospect* of a real reward. Where regulations permit, we think these customers could be converted to play real money games, with the *prospect of real rewards*. In other words, social gamblers could conceivably become online gamblers.

... but the customers could just be completely different, with different expectations. Social gambling customers seem to be motivated by social aspects, entertainment and prestige. This is different to the typical drivers of gambling,

which include the potential size of the return (lottery sales spike with a large jackpot), or the frequency of a return with a high payout (as evidenced by the popularity of high payout slot machines globally). We believe that there is a core social gambling customer base that would *never* gamble for real money. We think there will be a customer base that views social gambling as "harmless fun" and the equivalent to playing PacMan, whereas real money online gambling has something of an image problem, we think.

Where convergence does take place, we expect it to be driven by changing regulations. We expect social gambling to remain most popular in countries where access to online gambling is restricted. This increases the relative attraction of social gambling, and for customers that just want to spend some money in exchange for a few hours entertainment playing poker or slots, this is a viable alternative. However, as and when those countries regulate real money online gambling, we expect those customers could be tempted across to real money online gambling fairly easily by the prospect of winning real money, particularly when or if advertising online gambling becomes permitted.

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### Main similarities and differences between the industries

	Similarities:	Differences	
Games	Mechanics		
Poker (12% online, 46% social)	Value = Lifetime value - customer acquisition cost	Playing for cash prizes  Regulation	Sports (46% online, 0% social)
Slots (14% online, 27% social)		Demographics	
Casino games (10% online, 17% social)	Customer a (Channels a	•	
Bingo (6% online, 8% social)	Lifetime (Monetisation ARPU I	methods and	

Source: Morgan Stanley Research

## We see five main forms of convergence:

- 1. Introduce real money gambling elements to social gambling: Where online gambling is fully regulated, it may be possible to introduce real money gambling elements to existing social games. This could be having a side bet on who will win the next game of Words with Friends for example, all the way through to social poker games introducing real money tournament prizes. Given that the customer base is already comfortable using these products, and to a lesser extent paying for it, we think this is likely to be the easiest form of convergence. However, this is entirely reliant on regulations permitting it, and the added complexity (real money settlement, compliance, fraud prevention and detection) means that it is likely to involve partnerships or other structures that access the expertise of the existing online gambling operators.
- 2. Cross-sell social gambling customers to online gambling sites or real casinos. The customer base for social gambling is multiple times larger than for online gambling, so upselling a small proportion of the social gambling players could contribute to significant growth in online gambling. We think many operators see this as the primary attraction of social gambling, as a contributor to the player funnel for online gambling. We think this somewhat undersells the social gambling industry, which is already generating significant revenues in its own right. We also think some casinos are, or intend to use, social gambling primarily as a customer marketing tool, with prizes including trips to the casino.
- **3. Introducing social features to online gambling:** The growth of social gambling, and the huge customer base shows how powerful a social gambling offer can be. We think this is likely to increase player expectations for real money gambling sites, resulting in many of the features from social gambling sites being copied by online gambling operators.
- 4. Consolidation amongst operators. We see significant potential synergies from M&A between social and online gambling. While the methods of monetization are different between the industries, the infrastructure (payment, account management), and technology (mechanics of the game, bonus levels and so on) are identical. Taking 888 as an example, it now has the capability to develop new slots that can be deployed fairly quickly on both its social gaming sites and its real online gambling sites. The mechanisms to monetize the game differ, but the core game engine and design are shared. We think these economies of scale make operator consolidation likely in the medium term. Indeed, this is already happening in several instances (see section 4.1).

**5. Gamblification of non-gambling games.** This was a common factor in Japan, where 'Gacha' (see page 43) allows customers to spend real money to gamble within a virtual world, or within another game. The customer generally cannot win real money, but can win special power-ups, or other items. We expect this trend to broaden out to products such as fantasy football leagues, where customers could be offered the option to place a real money wager on their chosen players or teams

## Can social gaming companies expand into real money gambling?

In theory, it is as simple as flicking a switch, and moving from virtual currency to real currency. However, we think this will be extremely challenging due to:

- **Regulations:** The regulatory complexity in real money gambling is significant. Operators require substantial expertise and experience.
- Fraud prevention: The prevention and detection of fraud is a core skill for an online gambling operator. For social gambling it is largely irrelevant, as customers cannot cash out.
- Monetisation: The methods of monetization are completely different between the two industries. Learning how to maximize ARPU and retention in one industry will not help the operator in the other, we think.
- CRM: Player expectations are significantly higher when real money is at stake. Online operators need rapid (instant) response times by fully informed CRM personnel. A customer who thinks he has lost \$500 unfairly on the river card wants and needs to speak to someone urgently who understands what he is talking about, and can address these real money issues.
- Technology scalability and robustness: Real online gambling requires instantaneous processing and real money settlement of millions of concurrent players and games.
- Player verification: This is not really an issue in social gaming (Facebook said that 8.7% of its registrations (Q2 2012) are fakes or duplicates) whereas it is vital in real money gambling to prevent money laundering and fraud.

## Can online gambling companies migrate into social gambling?

In theory online gambling operators have the content, player acquisition and CRM capabilities, so it should be as simple as launching a site. However, we think this will be extremely challenging due to:

- Monetisation: Online gambling is fairly simple, customers are motivated by large prizes and/or frequent wins and a high payout. The monetization of social gambling is more complicated, we think, and driven by more esoteric factors. Online gambling operators generally have little knowledge and understanding of the social and viral hooks that are key to monetization. See page 13.
- Social elements: Integrating successful social elements is key to building
  a large customer base to make the product successful. We have seen
  limited success at this in the online gambling world.
- Engineering talent / design: The front-end designs for social gambling sites tend to be more user-friendly and less transactional than real money online gambling sites. This adds complexity in terms of artistic and design talent that may not currently exist in the online gambling industry.
- Scale: With viral marketing being so important for social gaming as a whole, scale is a significant barrier to entry.

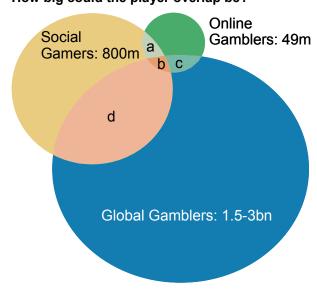
## We think the different dynamics between the industries mean partnerships, and ultimately consolidation, are highly likely.

## We estimate that the total population of gamblers is

**1.5-3bn**. The global population is approximately 7bn, of which approximately 5bn are adults. We estimate that 30-50% of the global adult population gambles in one shape or form. In the UK, the British Gambling Prevalence Survey (2010) found that 73% of all adults gambled in 2010. In the USA, the National Gambling Impact Study found that approximately 60% of adults gambled in one or more form (1999), and the American Gaming Association found that 27% of adults visited a casino and 44% of adults played the lottery in 2012. Data is more limited in developing nations, but we would expect given regulatory, cultural and religious differences, this penetration rate could be somewhat lower in other nations.

The total social gaming population is around 800m. This figure is fairly accurate, we think, as player activity can be tracked directly. Within this approximately 170m players play one or more gambling game.

How big could the player overlap be?



Source: H2 Gaming Capital, Morgan Stanley Research

The total online gambling population is around 49m. This is based on estimates by H2 Gambling Capital. Given the availability of data for active accounts from publicly listed companies, the ability to track player activity on poker websites, and participation surveys such as by the Gambling Commission in the UK, we consider this figure to be fairly accurate.

### There are four significant unknowns within this:

- a. The overlap between social gamers and online gamblers. So far there is little evidence that customers will migrate from free social gambling to paid real money gambling. The growing number of operators who operate both models suggests that information on this potential crossover will increase.
- b. The loyalty sweetspot? William Hill has stated that multi-channel users are more loyal, and spend more, than customers that use only one channel. We would expect that a customer that uses social gambling, real money online gambling, and real offline gambling would share these characteristics.
- **c. Online and offline gamblers.** A TGI study for William Hill in 2010 found that there were a total of 1.9m customers who placed online sports bets in 2010. Of these, 1m customers (55%) also used retail channels, suggesting that there is significant overlap between the customer bases.

**d. Social gamers who also use offline gambling.** Given the demographics and size of the social gaming population, we think it is likely that there will be a significant overlap between customers who use both. This dynamic suggests that social gaming could be an interesting and valuable marketing tool for offline gambling operators, in addition to online operators.

## What does this mean for the future of the gambling industry?

We think the implications of the growth in social gambling for the real gambling industry are huge. There are around 170m people globally that enjoy playing one or more form of gambling games socially every month, and this player base is growing rapidly. We think social gambling is less threatening and does not suffer some of the image problems associated with real money gambling, and this is opening the entertainment aspects of gambling games to many more customers.

We estimate that converting 10% of social gamblers to real gambling would drive 20-30% growth in the online gambling industry ... We take the current social gambling player base of around 170m, and assume that 10% of these become real money gamblers. We would expect the ARPU level to be somewhat lower than the existing gambling industry, as these are more likely to be casual customers who play less frequently. Over time, we think customers who learn to gamble on social casinos, and then graduate up to real online casinos (attracted by the potential to win large real money prizes and strong VIP management programmes) would see ARPU levels move up towards the existing level of the online gambling industry.

... and positive implications for traditional gambling operators. We expect that in future, most people's first experience of gambling will be a social gambling product. While we expect traditional gambling operators to be concerned about potential cannibalisation, we do not think there is any evidence to support this. We expect online and social gambling to be complementary, with social channels creating new customers who develop an interest and ability in social channels, and gradually migrate to real money online and traditional gambling.

Eyhihit 43

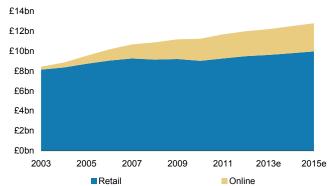
We estimate that converting 10% of social gambling players to online gambling could drive 20-30% growth in the online gambling industry

growth in the offine gambing made by						
		Conversion of social gambling online			ling players to lline gambling	
		5%	10%	15%	20%	25%
ARPU	200	5%	10%	15%	20%	25%
level	300	7%	15%	22%	30%	37%
for players	400	10%	20%	30%	40%	49%
that	500	12%	25%	37%	49%	62%
convert	600	15%	30%	45%	59%	74%
	700	17%	35%	52%	69%	87%

Source: Morgan Stanley Research

Exhibit 44

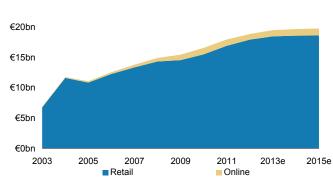
## 21% of all gambling takes place online in the UK, but this has not cannibalised retail



e = H2 Gambling Capital estimates Source: H2 Gambling Capital, Morgan Stanley Research

Exhibit 45

## In Italy, despite growing to a €1bn market, online gambling has not affected retail gambling at all €25bn



e = H2 Gambling Capital estimates Source: H2 Gambling Capital, Morgan Stanley Research

## Case Study: Zynga & bwin.party

Zynga has entered into an exclusive partnership with bwin.party in the UK. The partnership will see Zynga launch real money poker for its UK customers, using the bwin.party poker platform. Players will join the main (.com) player liquidity pool, and the operation will essentially be a white label solution, branded as Zynga poker, but with players essentially playing with party poker.

We do not see the real money partnership as a significant revenue generator in the UK initially. The UK is a fairly small jurisdiction for Zynga. We estimate that around 5% of all Zynga players are in the UK, but for poker, we think that this would be closer to 7%, as its player base is skewed towards more Western markets. This implies that there are around 2.5m MAU in the UK for Zynga Poker. This sounds like a large number, next to bwin.party's quarterly poker player base of 0.6m (in all jurisdictions).

ARPU levels for paying players are already high. However, we think MUU gives a more accurate picture, as this compares unique users who pay to play for both operators. On this basis, we estimate that there are around 31k paying players in the UK, but that the ARPU level for these players of an estimated \$134 is already higher than the overall ARPU level of \$80 for bwin.party's poker business. This means that converting paying players from Zynga poker to real money poker is unlikely to result in a significant ARPU uplift, we think.

Converting non-paying players could be a c.\$18m revenue opportunity. We estimate that Zynga poker has around 2.5m UK customers. Most of these do not pay any money to play. One reason for this may be that it is not possible to win any money, and those customers that wish to risk money for a potential real return are either using another online gambling site, or simply are not playing real money online poker at all. Converting 5% of the total player base to real money poker would increase party poker liquidity by c.20%, and would drive operator revenues of c.\$40m, we estimate.

Longer term, we see more potential from cross-selling... Bwin.party's overall quarterly ARPU of \$147 is around 70% higher than Zynga's ARPPU of \$85 per quarter. We think a significant reason for this is bwin.party's skill at up-selling customers into casino and other products. It says that around 70% of its casino player base joined the system as a poker customer. With higher ARPU levels in the casino, bwin.party incentivises customers to try casino games, and for those that convert, it then tends to enjoy a higher lifetime value. Part of the agreement between Zynga and bwin.party includes bwin.party

developing proprietary slot games using Zynga characters from Farmville. We think the potential to cross-sell such content to Zynga poker customers in the UK could drive an increase in ARPU over time.

...and expansion of the agreement into other jurisdictions. We think the biggest upside potential from this deal (for both parties) would be from expanding the deal into further territories as and when real money online gambling is legally permitted.

Exhibit 46

## Converting 5% of Zynga UK customers could be a \$18m revenue opportunity.

	Paying Players	Total Players
Estimated Zynga UK customers	28,155	2,494,663
conversion to real money	50%	5%
New BPTY players	14,078	124,733
Change in liquidity	2.4%	21.1%
ARPU (\$)	80.0	80.0
Quarterly Revenue (\$m)	1.1	10.0
Annual Revenue (\$m)	4.5	39.9

Source: Morgan Stanley Research

### Exhibit 47

## ARPU levels for paying poker players are already higher for social poker, suggesting limited upside from converting paying players to real money poker

	BPTY (total)	Zynga (total)	BPTY (poker only)			
Unique players	1,529,300	3,000,000	591,800			
Revenue / Bookings (\$m)	224.9	255.6	47.4			
ARPU	147.1	85.2	80.0			
Source: Company Data, Morgan Stanley Research						

Exhibit 48

## We estimate that Zynga poker UK contributes c \$4m

Per quarter to bookings

Zynga poker UK

Calculation

We estimate that 7% of Zynga poker are in the UK

Total MUU

3,000,000 446,908 31,284 We believe conversion to paying players is slightly higher for poker We estimate that 10% of We believe that 7% of Zynga poker customers are in the UK

We believe conversion to paying players is slightly higher for poker We estimate that 10% of

Total MUU	3,000,000	446,908	31,284	to paying players is slightly higher for poker
Remove estimated underage customers			(3,128)	We estimate that 10% of Zynga poker customers are underage for real money gambling
True add	dressable base	446,908	28,155	
Estimated ARPU	85.2	134.2	134.2	The ARPU level for Zynga Poker is higher than the group average
Estimate revenue	ed quarterly	60.0	3.8	This suggests that Zynga Poker UK generates around \$4m per quarter revenue

Source: Company Data, Morgan Stanley Research

## **Context: Scope and Characteristics of the Industries**

Social gambling games have historically been part of the broader social gaming industry, with limited overlap with the online gambling industry. We expect the boundaries to continue to blur, with social gambling operators becoming more focused on player monetization, and online gambling operators seeing social gambling as an attractive player recruitment channel, and an attractive revenue stream in its own right.

Exhibit 49

## We see scope for significant overlap between Social Gambling and Online Gambling

	"Hardcore" Games	Non- Gambling Casual Games	Social Gambling Games	Online Gambling
	MMORPGs	Word / trivia games	Poker	Poker
	Console Games	"Ville" games	Casino	<b>Casino</b>
	Trading Card Games	Strategy games	Bingo	O Casino ER L AP P 2
	Shooters	Card / board games		Betting
			Fantasy League / Manager	
Monetisation :	Pay Per Download / Pay per play	Freemium / Virtual	Freemium / Virtual	Real gambling / Betting
Typical Conversion:	??	2%	2%	??
Typical ARP PU:	??	\$280	\$530	\$700

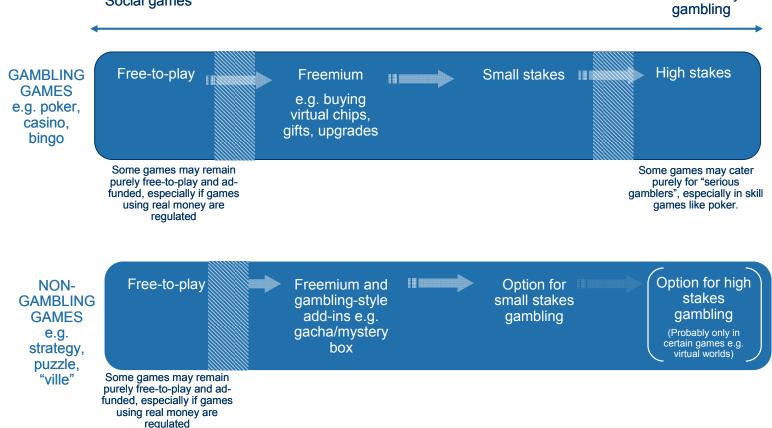
Source: Morgan Stanley Research, typical ARPU levels are Morgan Stanley Research estimates based on a variety of different sources

## The industry future?

In general, one gambling game could offer players the whole spectrum from free-to-play to high stakes gambling. Players could position themselves at one point on the spectrum or could dip in and out of each part. Non-gambling games could also see the increasing integration of gambling-type features to raise revenue and increase player excitement and retention. Extensive social features could be integrated into almost all games & gambling.

Exhibit 50

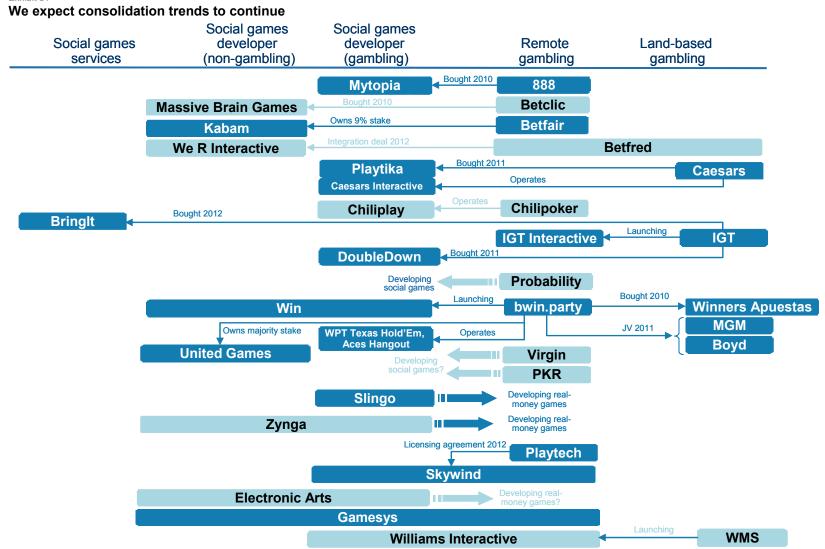
## A potential vision: games with social features, freemium models and the option to gamble for real-money within the game Social games Real-money gambling



Source: Morgan Stanley Research

## **Industry Consolidation So Far**

Exhibit 51



## **Section 4: Key Industry Themes**

## 4.1 Consolidation

## Gambling operators expanding into social gambling

### 888 Holdings

888 was one of the first gambling operators to enter the social gaming industry, with its \$24m acquisition of Mytopia in June 2010. Mytopia's core game is Bingo Island, which has around 0.7m MAUs. In addition to its own operations, its real money software powers other sites such as bwin.party's bingo operations, and we see scope for it to expand its B2B offer to include social games.

## **Bwin.Party**

Bwin.party currently operates a limited number of social products such as Aces Hangout, and its WPT branded Texas Hold Em Poker. It also owns United Games, a games developer and publisher.

In May 2012 it announced its intention to invest \$50m to develop a social gambling platform. Bwin.party is working towards the launch of a social brand, win.com, and said that Win is "set up and ready to execute immediate market entry strategy" and intends to launch its first applications in 2012. Bwin.party will invest up to \$50m over the next 24 months to develop the business, including \$23m for acquisitions of existing businesses Velasco and Orneon, according to the company.

In addition, it has announced plans to partner with Nordeus, the operator of the web's most popular online sports game Top Eleven. The game has around 6m MAUs, which should be a rich source of players for a social sports betting game, or up-selling to real money online gambling.

Bwin.party also backs NewGame Capital, a venture capital fund launched in 2011 to fund early-stage monetized social gaming and online gambling companies, including Avatingo with 0.4m MAU.

In August 2012 bwin.party announced an agreement to develop real money poker with Zynga in the UK, extending the reach of the Zynga poker platform into real money gambling for the first time.

### **IGT**

IGT bought Double Down Interactive for up to \$501m (value

contingent on meeting financial performance targets) in January 2012 and BringIt for \$8m in February 2012.

Double Down Interactive is the number 3 online social casino. The company has started to disclose top-line metrics for the division. Despite early stagnation in users and monetization rates, the layering on of IGT content seems to be driving incremental growth (revenue growth of 20% sequentially to \$36m). Management has stated that "at some point [Double Down]...will be the best investment we ever made" (*Las Vegas Review Journal*, September 28, 2012).

### Caesars

Caesars Interactive (a majority owned subsidiary of Caesars Entertainment) bought Playtika in 2011, buying 51% in May for over \$100m and the remaining 49% in December. There was limited disclosure in the annual report, but Caesars states that "Our consolidated financial statements as of and for the year ended December 31, 2011, include approximately \$121 million of assets and approximately \$55 million of revenue associated with Playtika". Playtika's most important product is Slotomania, which has around 7m MAUs. Caesars sold an undisclosed percentage of its interactive division to Rock Gaming for \$61m in April 2012.

In addition to its pure B2C social gaming businesses, Caesars actively uses social and free gambling as a customer acquisition tool for its casinos. Online and social currently accounts for c.3% of Caesar's total net revenues.

## **Betfair**

Betfair bills itself as "The World's Biggest Betting Community" but it does not currently offer any social gambling games. It has a busy forum where customers interact, and this includes many social networking features. While customers 'exchange' bets with other customers, this is currently on an anonymous basis, which removes some of the social attraction of social gambling operators.

Betfair owns 9% of Kabam!. Kabam is a social gaming operator whose most popular game is Kingdoms of Camelot, with around 0.4m MAU.

## **Betclic Everest**

Betclic Everest bought Massive Brain Games, a social skill-games developer, in November 2010. This was incorporated into a new division, SkillStar, which was set up as

part of the group in 2011. Skillstar is a French language operator of MMORPG games.

### **Betfred**

Betfred signed a deal with social games publisher We R Interactive in July 2012, to integrate a virtual Betfred betting shop into We R Interactive's Facebook football-themed game I AM PLAYR, which lets Facebook users simulate the life of a professional footballer. Players will be able to bet on (real) matches and win virtual currency. The game currently has 1.3m MAUs.

### Chili

Chili launched a freeplay site via Facebook and mobile devices, Chiliplay, in October 2011 using in-house software developed jointly by Chili and Winamax.

### Gamesys

Gamesys has been one of the most successful online gambling operators at bridging the gap between social gambling and online gambling. It launched social gambling in 2009, and has over 1m MAU on its main Facebook brand jackpotjoy slots. In addition to its B2C brands, it offers a B2B solution to a variety of operators, including Facebook's first real money gambling launch Bingo Friendzy.

### MGN

MGM partnered with Playstudios to launch myVegas, a social casino game, in June 2012. myVegas gameplay is broken into casino games (including slots, table games, bingo, poker and sports betting), minigames and a simple city-management sim. It currently has 20,000 MAUs on Facebook. It is also available to play on Playstudios' website.

## **Paddy Power**

Paddy Power launched a social sports betting game, BetDash, in 2011. The website launched in Q3 2012, and Paddy Power has not disclosed figures on its success yet.

## **Probability**

Since 2011 Probability mobile games can be accessed via Facebook Connect one-click access. Probability has plans to broaden its range of social games.

### **PKR**

PKR has some social gaming offers, including Facebook Fantasy Poker League. According to CEO Malcolm Graham: "We have all missed the opportunity to build tournament-style gambling games on Facebook. But in the next 12 months to 18 months, our gambling industry will move onto Facebook" (Venturebeat, 24 April, 2012).

## **Playtech**

Playtech is a leading B2B software and service provider for the online gambling industry. It is in the process of developing its social gambling offer, having signed a licensing agreement with Skywind in June 2012 to licence social gaming and online gambling software. The three-year deal will give Playtech access to a suite of social gaming products including poker, casino, bingo and rummy software, access to a social gaming platform including backend capabilities, and access to a development team with expertise in social gaming. Skywind is a real-money and free social gaming software developer, which produces B2C games on social networks and iOS, with a monthly active user base of 1.5m. The licensing agreement will have Playtech paying Skywind €6m per year plus 20% of the revenues generated by the social gaming offerings.

### **Pokerstars**

BOOM!player, launched in May 2012, allows users to comment on and share video replays of their hands on Facebook, Twitter, VKontakte and other social networking sites.

### **WMS Industries**

Slot machine maker WMS announced the formation in July 2012 of Williams Interactive, a wholly owned subsidiary to develop online gambling as well as social, casual and mobile gaming. It will integrate several businesses into one, including JackpotParty.com and the social casino on Facebook, Lucky Cruise. It also plans to pursue US online poker initiatives, with both virtual currency and real money. For its real money online poker offering, it has signed an exclusive agreement with 888 to use 888's poker platform to supply its own casino customers.

## Social gaming companies moving to gambling

## Zynga

Zynga has announced plans to launch real money gambling games from 2013. Mark Pincus, CEO, said that he would hope for more "mass market consumer-oriented...less...hardcore style gambling" (Morgan Stanley TMT conference, February 2012). He also said "I think...real money gaming is the perfect fit with virtual goods and social games...We're interested [in online gambling], but you should expect to see us do a lot more than offshore casinos". Zynga's market-leading presence in the social gaming industry makes this potentially the most formidable competitor to the existing online gambling industry.

Zynga's poker franchise is now arguably its strongest after FarmVille began to shed paying users in 2012, and its bingo and slots titles have immediate real money gambling potential as well. Zynga's simulation (i.e. "Ville") games also create gambling opportunities through mini games and rare item

lotteries, and skill games (like Scramble With Friends) could potentially incorporate wagers.

### **Facebook**

In August 2012, Facebook launched its first real money gambling app through a partnership with Gamesys. It is not a joint venture, and the game has been developed entirely by Gamesys. Facebook had 251m users playing games in September 2012 (+11% Y/Y), making it one of the largest platforms for social gaming in the world. Facebook's 1B+ total monthly active users represent an even bigger opportunity for real money gambling, as this could unlock value from players that do not currently engage in social gaming. In 2011, Facebook generated ~\$550m in payments revenue from its 30% fee on virtual goods transactions, and we expect this to grow to nearly \$800m in 2012 (which would imply ~\$2.6B in total virtual goods sales).

### AbZorba Games

AbZorba provides proprietary and white label free casino games, including LiveBlakjack21 which has received 800,000 installations on mobiles so far. In June 2012, it launched AGON, a hosted mobile gaming platform which comes with a suite of white-label social gambling games. "We firmly believe the collision between virtual and real money gambling worlds is happening and AbZorba is perfectly positioned to monetize the link between the two... AGON offers an immediate launch pad for a branded seamless gambling experience".

### **BitRhymes**

The social gambling games developer for Facebook and mobile – biggest game Bingo Bash with 400,000 DAUs and 1.8m MAUs – has expressed interest in moving into real-money online gambling if it is legalised in the US.

## **Electronic Arts**

EA in March 2012 purchased a two-year deal for rights to the World Series of Poker brand for online and mobile games, and in July 2012 partnered with Caesars Interactive to launch a WSOP social game mobile app. and introduced a technology that it says can be used to handle wagering.

## Slingo

Slingo plans to launch real money gambling before the end of 2012, and it already licences its games to land-based casinos around the world. Slingo also licensed its game property to Zynga in February 2012, and Zynga Slingo at one point reached over 50m monthly active users. Zynga has not announced whether it will launch a real money version of the collaboration, which currently has 20m MAUs.

### **Betable**

Betable, originally a betting exchange operator, has reinvented itself as a platform for social game developers to add real gambling mechanics to their games. It will only offer its service in jurisdictions where gambling is legal. It already has a gambling licence from the UK Gambling Commission, and has identity verification software.

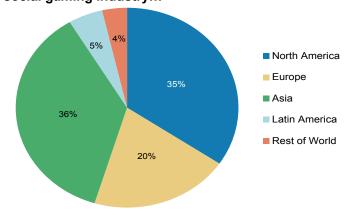
### GREE, DeNA

GREE and DeNA are typical Japanese mobile game suppliers/platforms. Social gambling games are not currently provided, and it is our understanding that neither company has plans to launch casino-style games. GREE has 31.2 million registered members in Japan (as of end-June 2012) and DeNA 45.03 million (as of end-September), which is around 30% of the entire population. Both companies are international, reliant on expansion to drive further earnings growth, and driven by their high levels of domestic penetration, which we think is approaching maturity. They plan to provide a broad range of titles (licensed and non-licensed), without specializing in particular genres, and the first half of this term marks a period of forward investment.

## 4.2 Demographics and geography of the social gambling industry

Exhibit 52

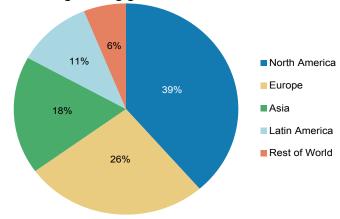
## North America and Asia dominate the \$8bn global social gaming industry...



Source: SuperData Research, Morgan Stanley Research

#### Exhibit 53

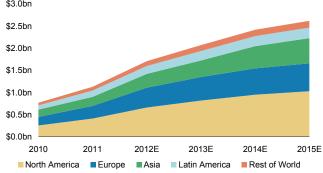
## ...but Asia is currently a lower proportion of the mix for social gambling games



Source: SuperData Research, Morgan Stanley Research

#### Exhibit 54

# Social gambling industry by region \$3.0bn

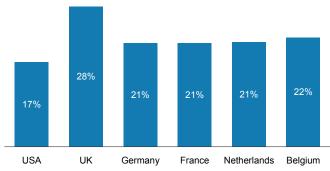


E = SuperData Research estimates Source: Company Data, Morgan Stanley Research

#### Exhibit 55

### UK leads and US lags in social gaming penetration

Social gamers as % of population

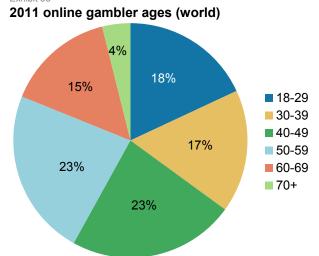


Source: Tripwire Magazine 2011

**Demographics:** Social gaming covers everyone. The demographic is typically younger and more female than average. This compares to online gambling, which is slightly older, and highly skewed to males. Virtual goods purchasers in social games are 58% female but of the highest spenders, 70% are female and 30% are male (Inside Virtual Goods 2012).

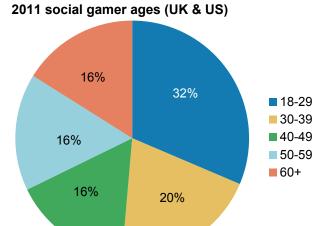
Younger demographic for social gamers: Social gamers tend to be younger than remote gamblers. Even excluding minors (under 18), under-30s make up 32% of UK and US social gamers, compared to only 18% of world online gamblers. Only 23% of social gamers in 2010 were under 30.

Exhibit 56



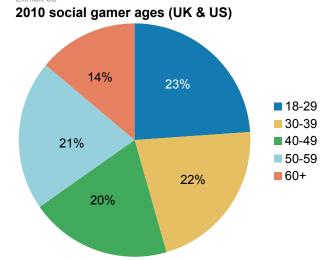
Source: Wood and Williams 2011, A Comparative Profile of the Internet Gambler, Sage Publications

Exhibit 57



Source: PopCap Games 2012

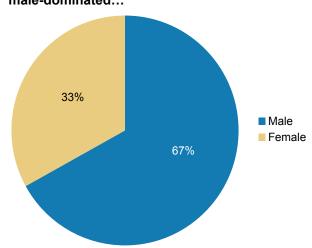
Exhibit 58



Source: PopCap Games 2011

Exhibit 59

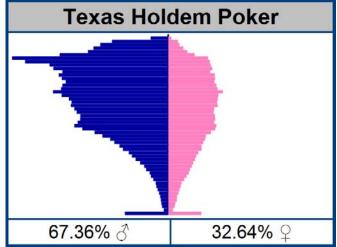
## Real-money online poker is heavily male-dominated...



Source: Poker Players Research 2010

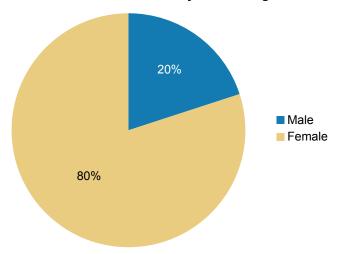
Exhibit 60

...as is free-to-play social poker on Facebook



Source: Datagenetics, December 2010 Each bar represents one year of age from 13 to 64, and the final bar is 65+

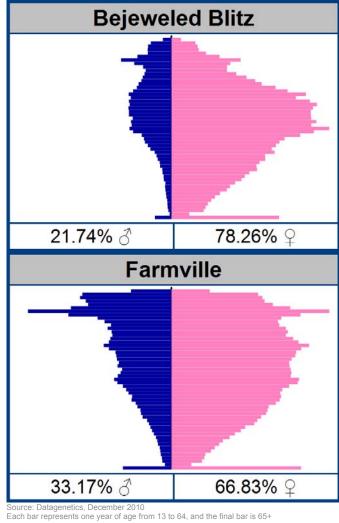
### Women dominate real-money online bingo...



Source: Bingo Reviewer 2011

Exhibit 62

...as with many other Facebook games



### 4.3 The regulation of social gambling

We anticipate a growing debate over the regulation of **social gambling.** We consider this to be one of the primary drivers that will shape the structure of the industry over the next five years. Gambling regulators are increasing scrutiny of the sector. Social games that have freemium features (where virtual goods or currencies can be bought with real money) are increasingly under scrutiny from regulators, both in countries where online gambling is legal and where it is illegal. We highlight several instances of this below. We expect this to broaden out. We would anticipate controls are fairly light to begin with (blocking underage customers from playing casino or poker games seems like a fairly basic requirement), but to then broaden into full-scale regulation like online gambling. The bottom line is that the ability to exchange virtual currency for cash in the secondary market means that social gambling has all of the same risks as online gambling.

The case for regulation: Gambling is gambling. Players can use social gambling sites to play all forms of gambling games. They can use real money to play. While it is not possible to cash out directly, it is possible to exchange virtual chips for cash in the secondary market, therefore there is a real reward for winning.

**The case against regulation:** Gambling requires three elements. 1. Consideration, 2. Chance. 3. Prize. Social gambling offers games of chance, but there is no consideration, as players can play for free, and there is no prize. Therefore it is no different to playing PacMan, and paying to play another level.

## Exhibit 63 Social games regulation around the world



Source: Morgan Stanley Research

#### Regulatory Issues

- 1. Gambling: Social gambling games and games that include gambling features may be considered gambling by regulators. In the cases of poker, slots and bingo for example, players can spend money to purchase virtual chips or coins with which they play the game. These chips have real value: they can be bought and sold on secondary markets (although this is usually against the game's terms and conditions), and they are bought for real money through the social games so have value to the players. What's more, some social gambling games include the possibility to win real items, such as Bingo by Ryzing, the 5th most popular bingo game on Facebook, which offers free-to-play bingo games played for cash prizes or in-kind rewards like holidays and gadgets.
- **2. Protection of minors and age verification:** There are typically no age limits for social gambling games.
- Protection of problem gamblers: Unlike most online gambling sites, social gambling sites have no limits on how much a customer can spend.
- 4. Anti-fraud and money laundering: In some virtual worlds and games, the virtual currency used is relatively liquid and can be exchanged easily on secondary markets for real money. This is likely to raise concerns about the possibility of money laundering via social games. Money laundering regulation on social games may include requirements to verify the occupation, source of funds, business interests, and credit history of customers if the management has reasonable suspicion that the customer is high risk for money laundering or terrorist financing.
- **5. Location verification:** As different jurisdictions begin to introduce different regulations around social gaming, social gaming companies will need to have effective identity verification and blocking software to comply with regulations; for example, to exclude gamers from a particular jurisdiction accessing online games that are illegal in that jurisdiction.

#### Country-by-country

United Kingdom: The UK Gambling Commission is monitoring the growth of social gaming to investigate "whether or not a gambling-style product on a social gaming website is gambling as defined under the Gambling Act 2005". It has so far issued an opinion that social gaming is "on the perimeter of gambling" and therefore will be unlikely to be regulated in the near term.

Gambling is defined as playing a "game of chance for a prize... of money or money's worth" in the UK Gambling Act. The central debate is whether the virtual currency won in a social game has "money's worth" if it can be resold, when doing so is a breach of the terms and conditions required by the social game. It appears that the UK Gambling Commission has concluded for now that the virtual currency does not have "money's worth".

Zynga poker chips however – as well as virtual currencies for other social gambling games – can be sold online at zpchips.com and other sites. UK courts confirmed that virtual currency has value and deserves legal protection when a hacker who stole virtual Zynga poker chips and sold them for £50,000 was sentenced to two years in prison in February 2011 (*Daily Mail*, February 1, 2011). It is possible that the UK Gambling Commission may alter its stance unless the re-sale of virtual currencies online can be prohibited effectively.

In May 2012, Harry Lang of WMS & JackpotParty.com suggested that social gambling companies should consider starting a trade association code of standards. Probability's CEO spoke in June 2012 on the danger of social gambling games abusing minors. William Hill's CEO called for regulation of social gambling games in July 2012, as did the Daily Mail.

Japan: In May 2012, the Japanese Consumer Affairs Agency reported that the "complete gacha" mechanisms used in social games was illegal. They are said to have violated sales standards that ban "unjustifiable premiums and misleading representation"; this came after a wave of public criticism of the mechanisms as encouraging gambling. However, ordinary gacha mechanisms were allowed to continue as long as the odds of winning were clearly disclosed. With a few exceptions including betting on horses, real-money online gambling is illegal in Japan. GREE and DeNA are members of the Social Games Platform Council (unofficial name) and have undertaken voluntary initiatives to improve the usage environment. For example, they have worked to: 1) improve transparency by ensuring proper labelling of lottery game terms and content; 2) clarified guidelines and rules for the game in the 'complete gacha' category; 3) established guidelines for real money transactions; and 4) safeguarded young users by setting spending limits for players aged under 19 (10,000 yen per month for 16-19 year olds and 5,000 for under 16).

China: Real names and valid IDs are required for all users to play online games. Online platforms are prohibited from selling virtual currency to minors (under 18). Online games developed by foreign companies are subject to special regulation. Chinese courts have convicted a man who stole virtual currency of theft; and China in 2009 banned the use of virtual currency to purchase any real world good or service and the use of virtual currency for gambling.

South Korea: Korea banned under 16s from playing online games between midnight and 6AM in December 2011. The Game Rating Board is also investigating 'jackpot items' –

in-game purchases for random virtual goods – and whether they classify as gambling. Potential new guidelines for gambling in online games could include a maximum amount of money players can bet with, responsibilities on identity verification and limits on payment methods. Korea also announced plans in June 2012 to ban trading of virtual goods.

The Netherlands: The Dutch Supreme Court in February 2012 confirmed the conviction of two teenagers of theft after they forced a boy to give up his password to his Runescape account and transferred virtual items from his account to theirs (*Huffington Post*, February 2, 2012). The court determined that virtual goods have value, so could be a precedent for social gaming legislation.

Australia: New South Wales police reported in 2011 that virtual worlds including FarmVille and World of Warcraft were being used to launder money, and that they would investigate this (Sydney Morning Herald, March 29, 2011). The National Times (November 2, 2012) reports that the Victoria State and Australian Federal government is launching an investigation into links between social media and gambling.

France: ARJEL has set up a committee to investigate the regulation of online skill games that are played for a fee and have the prospect of gain. Online gambling is stringently regulated (only legalised in 2010) and only poker, sports betting and horse betting are permitted by licensed private operators.

USA: Google's CEO announced in March 2012 that Google had considered launching a virtual currency but had been deterred by regulatory requirements as a result of anti-fraud legislation. Bitcoin has been under scrutiny from the FBI as a result of anti-money laundering legislation (Wired, 24 April 2012 – unconfirmed).

Nevada's legal definition of a wager was changed in 1997 to include bets made with money or "representatives of value"; a 2000 Attorney General opinion stated that online casino games would need to be regulated if the game allowed players to accumulate credits redeemable against other rewards.

A group of Californian parents are bringing a class action suit against Apple, alleging violations of Unfair Competition Law and breach of fair dealing, because their children were able to purchase virtual goods using real money on apps that had been advertised as free. A motion to dismiss, brought by Apple in April 2012, was rejected by the court (jdsupra, 24 April 2012).

### 4.4 What is going on in Poker?

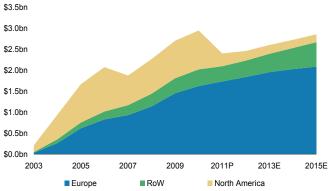
Making sense of the dynamics of the remote poker industry is far from simple. On the one hand, it appears to be in rude health, with around 45m MAUs across all different poker games on Facebook alone (Dystillr). On the other hand, real money online poker revenues look set to decline in 2012, and appear to be under structural pressure. We think the dynamics of this sub-industry give some indication about how the other verticals may develop over the coming years.

Regulation the key: The profile of the online poker industry over the years shows the importance of changing regulations. In 2006, the industry had a mini-peak. It then dropped 10% in 2007, due to the 33% drop in North America caused by the enactment of UIGEA and the withdrawal of the leading operators from the US market. The market then steadily recovered in the USA, before dropping by a further 75% from 2010-2012 due to the closure of the market leading sites following the indictment of the principals in 2011.

The tight regulations for online poker in the USA increase the relative attraction of social poker. While it is not possible to win real money (although it is possible to win chips that can in some cases be exchanged for cash), social poker shares many of the attributes that attracted US online poker players. The gameplay is similar (virtually identical), the ability to connect and play with friends is similar, the chat functions and social element are arguably superior, and the ability to climb up leader boards and win awards replicates some of the 'bragging rights' of real money poker.

Exhibit 64

## The Online Poker Industry has been heavily impacted by changing regulations



E = H2 Gambling Capital estimates Source: H2 Gambling Capital, Morgan Stanley Research

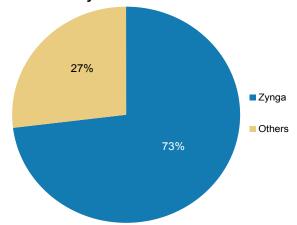
**Social poker has been enjoying a boom.** We show in Exhibit 13 that Zynga Poker MAU have continued to rise

steadily to their current level of c.40m monthly players. It typically enjoys 6-7m players *every* day. To put this into context, H2 Gambling Capital estimates that the entire real money online poker community is around 8.5m players. In other words, there are nearly as many customers that play Zynga Poker *every day* than play every single real money online poker website in an entire year.

In aggregate, there are around 45m MAU on all poker apps on Facebook alone. This is around 35% of all gambling MAUs. Of this, around 33m are playing on Zynga's primary app, Texas Hold Em Poker. The true figure may be somewhat higher, as these figures only measure Facebook players, and only track pure poker apps (people also play poker through Double Down casino for example – see Exhibit 65).

Exhibit 65

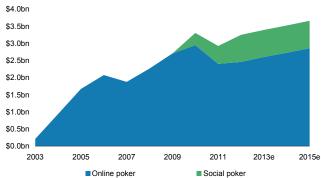
## Zynga has market share of around 75% of the social poker market by MAU



Source: Dystillr, Morgan Stanley Research

Exhibit 66

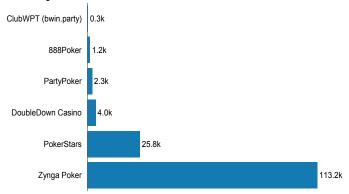
## Social poker accounts for around 25% of the total online poker industry



Source: H2 Gambling Capital, SuperData Research (e), Morgan Stanley Research

Exhibit 67

## Zynga has around 50x the free money player base of PartyPoker

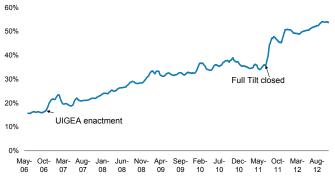


Source: PokerScout, 7-day average free money players, October 16 2012, Morgan Stanley Research

\* Note that this differs from other definitions of player numbers. For example, Zynga Poker has around 6m total daily players. This figure (113k) shows the average peak number of concurrent players.

#### Exhibit 68

## PokerStars' market share\* shows the strong network effects



Source: H2 Gambling Capital, Morgan Stanley Research \* Market share by players of all poker globally including ring-fenced markets

### 4.5 Gambling as a sub-game

A significant trend within Japan in particular has been the addition of gambling-type games within another type of game. Customers playing games such as role playing games are able to play slot machines, and slot type games as levels within the broader game. In the box below we illustrate an example of this for gacha, one of the most popular forms of gambling as a sub-game.

We think this type of gambling game has potential for significant growth... Overall GREE and DeNA generate ARPU levels between 4x-12x higher than Zynga. This is a combination of higher conversion rates, and higher ARPPU levels. We think that gambling mechanisms such as gacha

used in GREE and some third-party publishers' card games have had a significant role in the higher levels of monetisation.

....bwin.party's partnership with Nordeus could build on this trend... Nordeus operates the leading social football game, Top Eleven, with more than 6m MAU. We think it should be fairly easy to extend the customer base into lighter sports betting. For example, it could offer odds on any player in your current team scoring a goal this week.

...but it is arguably a riskier and lower quality earnings stream. The regulatory changes around complete gacha in Japan (see regulation section) demonstrate the risks associated with a business model that relies on this method of monetisation. Serkan Toto, a Japanese web consultant, estimated in May 2012 that complete gacha mechanisms alone generated 10-20% of revenue for the big two Japanese games makers, GREE and DeNA, and that some smaller developers saw half their revenues come from gacha mechanisms.

Market concerns that discontinuing complete gacha would hit earnings appear broadly unfounded. DeNA showed its limited exposure to complete gachas in its April-July 2012 quarter, where it increased profits thanks to other games such as time team battle games. DeNA's Mobage platform aims to provide a balance of games, rather than being reliant on one particular category. The company has implemented a wide range of monetization techniques. GREE is also in the process of developing a wide range of genres to achieve greater monetization.

#### What is Gacha and Complete Gacha?

Gacha has been one of the most popular game designs used in Japanese social card battle games. Gacha functions like an online slot machine. Players pay real money to receive a virtual item at random. The majority of the virtual items are worth very little in the game, but there is a chance of receiving a rare valuable item, often only obtainable at all through gacha. Complete gacha (kompu gacha) goes a step further: highly valuable items may be earned by collecting a set of rare items through gacha. The probability of a gamer receiving the entire set of items is usually very small. Complete gacha was phased out by Japanese games developers in May 2012 as Japan's Consumer Affairs Agency made it illegal not to display the odds of winning in virtual games of chance.

Source: Morgan Stanley Research

Complete set

## 4.6 Social features are changing the nature of game-play

The social gambling player base is over three times the size of the real money online gambling player base. We think this sharp differential reflects a number of attractions in both the construction of the games (less threatening, more interactive) and the player recruitment channels (peer recommendations rather than adverts). Social features are the main difference in game-play when comparing social gambling and online gambling.

Social gambling games encourage interaction both with strangers and with real-life friends (usually Facebook friends). This can be synchronous socialising (in real-time, playing against friends), or asynchronous socialising (playing at different times, but interacting by seeing updates on friends' performance, sending messages and gifts, and inviting/challenging friends to play).

Online gambling is typically a solo activity. Although many real-money online gambling operators do offer some social features such as in-game chat, they are rarely offered to the same extent as the social gambling games. It is also more rare to have the opportunity to engage with real-life friends. For those who like gambling against strangers and achieving a quasi-anonymous status, online gambling works well. However, this is not a differentiating factor from social gambling, which can offer as much, if not more, to these customers.

**Progress and interaction, not winning money:** "Social games users expect quick, continuous feedback, clear

progress, and challenges that are interesting but not insurmountable. And all of this must occur in a friendly, competitive environment in which users can share their achievements with other players, secure placement on a public leaderboard, and if they choose with their social graph on Facebook – all to gain social status. The emotional thrill of winning a prize exists in virtual-currency payout social casino and betting games, but the fun of playing is more complex than simply winning a prize. Achievement and status are key drivers of social games monetization." This passage from Crowdpark, The State of the Social Games Industry 2012, sums up the drivers of the industry, we think.

Social interaction and competition with friends. When a user plays a social game, there is a constantly updating feed on the side of the page, which shows how many of the user's Facebook friends are online and playing the game. There is also a feed that details which Facebook friends have recently played the game, when they played and how well they did, for example "David played 4 hands yesterday and won \$10,000". The most recent friends' game-play history is constantly present, and the full history of all friends' past game-play can be seen by clicking to access a 'friend's' page. This shows all recent history of game-play by friends and how well they did, as well as a leaderboard, which shows all Facebook friends who have ever played the game and how much virtual currency they have accumulated. It is possible to challenge friends to 1-on-1 or group tournaments in multiplayer games like poker. In games where it is possible to compete directly against friends, players can access their entire track record of game-play against that friend.

Encouraging collaboration with friends. Interaction with friends can occur in various forms. When friends are online and playing the game, there is an instant messaging feature. If friends are offline you can send them an inbox message within the game. You are also encouraged to give friends gifts of virtual currency, request gifts from friends, and congratulate friends on their successes. (For example, if a friend wins a bonus round on a game, a pop-up may appear in your window saying for example "Mary just received a bonus upgrade, do you want to congratulate her?".) These gifts and congratulations appear publicly on the friend's Facebook wall (rather than in the game itself) unless you explicitly select otherwise. This means that all the person's other Facebook friends, including those who do not play the game, can see it. This essentially counts as free advertising, boosting the new customer sign-ups, and increasing loyalty.

**Inviting friends to play.** The virality of social gambling games is an important feature. Players can invite friends

directly on their social graph to play the game (usually via Facebook or a social network, but also by email or other means of online communication). This often happens in the form of gifting: the game will provide the player with gifts, like sums of virtual currency, to bestow on other players and will give the inviting players rewards for doing so.

Playing on status anxiety. Many social gambling games allocate a numerical rank and a title to a player according to how much they have won in the game. For example, Zynga poker allocates titles like 'Fish' (for the very beginners) and 'Big Dog'. Your ranking and title, along with your Facebook profile picture and your first name, are visible to anyone with whom you play a game. You are able to chat with the people with whom you are playing via instant message. Some poker rooms are reserved only for those with a particular ranking and/or a minimum buy-in. It is possible to spend real money to purchase virtual currency, which can push you up in the rankings. Given that a person's real first name and Facebook profile picture can be seen by everyone else playing in one game, the potential desire for status may be much greater than if you are playing under a pseudonym e.g. 'pokergirl888', as a result of the removal of the anonymity barrier.

**Sharing winning moments.** Many social gambling games enable a feature that allows users to share video replays or screenshots of winning plays with Facebook friends, again on their wall so that the other non-gaming Facebook friends can also see.

**Integration with other games.** Developers with multiple games on offer are likely to include all these social features not only within each game but across their multiple games, such that players can see how their friends are doing across several different games. Social feeds may include updates on how friends and players are doing across all of the developer's games.

Integration with everyday activity. Time on social networks accounts for 1 in every 5 online minutes (comScore 2011), and each Facebook user spends over 15 hours per month on the site on average. The mean number of times per day a Facebook user checks his/her account is 4, and 23% of Facebook users check their account 5 or more times per day (Socialnomics 2012). They may not log on in order to play a social game, but if they receive invites or gifts from friends, see gaming activity on the social feed or see friends' posts about gaming on each other's walls, they are much more likely to decide to play. If they had had to log on to a separate gaming website, they may not have played that day.

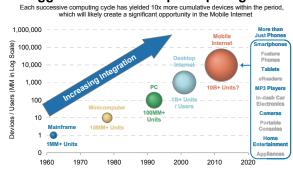
Integration with other types of games. Social gambling games are beginning to incorporate non-gambling offerings into their gameplay. myVegas, being launched by MGM and Playstudios, will combine social gambling games with minigames (such as hidden object games as bonus rounds to slots games) and with a city-building sim, where players win tokens on the gambling games, which enable them to build virtual casinos. Their friends can then visit these virtual casinos and play games in there. This kind of integration with other types of game may entice a new demographic to social – or even real-money – gambling.

#### 4.7 Mobile

The growth in mobile internet is one of the most powerful trends in the broader internet landscape. We estimate that the addressable market for mobile internet customers will be far larger than for desktop computing, reflecting the availability of smartphones.

Exhibit 70

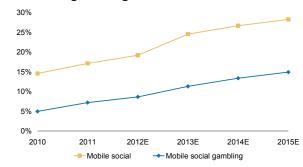
## The addressable market for mobile internet will be far bigger than for desktop computing



Source: Morgan Stanley Mobile Internet Report (12/09), 110

Exhibit 71

# Around 20% of all social gaming revenue is generated via mobiles today; this proportion is a bit lower for gambling



E = SuperData Research estimates Source: SuperData Research, Morgan Stanley Research

## As a games platform, mobile differs in four important ways from computers:

- **1. Apps.** Mobile games are played primarily on apps. This means that social features are less prominent, due partly to screen size restrictions making it difficult/impossible to display rolling feeds. This is changing, with Zynga developing more social elements to its 'With Friends' series on mobile.
- 2. Screen size restrictions. Mobiles usually have smaller, touchscreen screens so games need to be less complex (although tablets are changing this to a degree). As well as limiting the social interaction, as above, it means games generally need to be less complex, there is less space for advertising (itself a revenue generator), and bonus features may be less complex/interactive.
- **3. Dwell time lower.** Mobile games are often played in short bursts during 'down time' on transport, or waiting for a friend while computer-based games are usually played for longer periods.
- **4. Technological complexity.** There are three primary smartphone operating systems, and multiple differing devices and screen sizes, meaning that it is nigh-on impossible to optimize each product for each piece of hardware.

The result of these complexities is that mobile monetization lags desktop. Overall ARPU for mobile is similar within each game, but it is difficult to build audiences of significant scale on some of the highest ARPU games like Farmville on mobile.

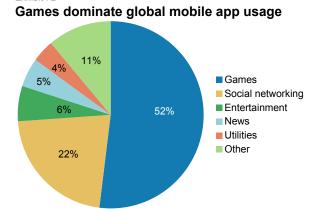
Offsetting these potential limitations, there are a number of unique attractions. The touch-screen and gyroscopic features allow for unique gameplay. Paddy Power's recently launched iPad casino brand Roller allows customers to spin the roulette wheel themselves by swiping, and bonus rounds on the slot machines involve tilting the iPad to play the bonus round.

Japanese social games companies show that there is a potential for very high mobile revenues: GREE (whose games are mostly mobile) increased average revenue per registered member from \$10 p.a. in Q1 2011 to over \$24 in Q1 2012. CyberAgent sees a higher mobile ARPU than on desktop. DeNA (owner of mobage, Japan's biggest mobile game network) sees between 10-15% of its Japanese audience monetize, whereas Ngmoco (the biggest mobile-only Western developer, and now a subsidiary of

DeNA) only sees 1.6-2% of its Western players monetize (2012 figures).

#### Mobile games

Exhibit 72

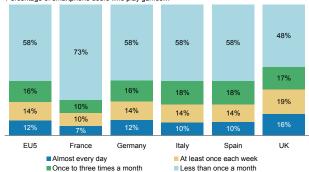


Source: Flurry Analytics 2012, data from 64 billion global app sessions

Exhibit 73

## More than 1 in 10 European smartphone users play games almost every day

Percentage of smartphone users who play games.

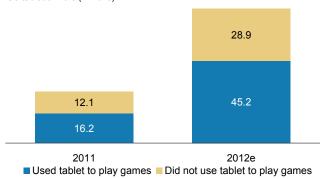


Source: comScore 2012

Exhibit 74

#### US tablet game-players triple 2011-2012

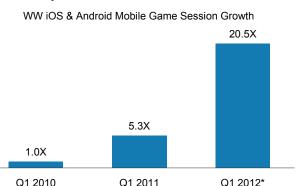
US tablet owners (millions)



e = Online Publishers Association estimates Source: Online Publishers Association 2012

Exhibit 75

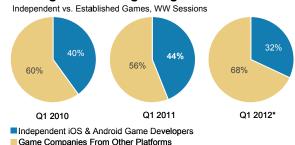
## Game session growth on smartphone and tablets has been rapid



Source: Flurry Analytics, February 2012

Exhibit 76

## Specialist Android and iOS game developers have the advantage in mobile gaming

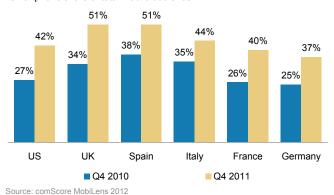


Source: Flurry Analytics, 2012

Exhibit 77

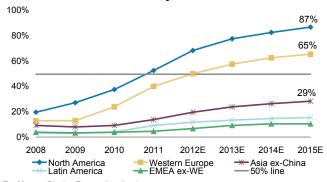
## Smartphone penetration has increased rapidly in the US and Europe

Smartphone share of total mobile audience



Evhibit 70

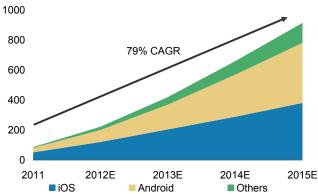
## Global smartphone penetration may exceed 25% of all wireless subscribers by 2013



E = Morgan Stanley Research estimates Source: Morgan Stanley Internet Sector Overview July 2012

#### Exhibit 79

## Tablet installed base may grow at an approximate 80% CAGR through to 2015

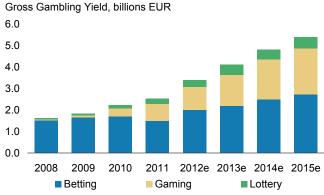


E = Morgan Stanley Research estimates Source: Morgan Stanley Internet Sector Overview July 2012

#### Mobile gambling

Exhibit 80

## Mobile gambling yield expected to rise 130% 2011-2015, with gaming growing 170%



e = H2 Gambling Capital estimates Source: H2 Gambling Capital, Morgan Stanley Research

Exhibit 81

Mobile gambling is rapidly taking share of the global gambling market



e = H2 Gambling Capital estimates Source: H2 Gambling Capital, Morgan Stanley Research

### 4.8 Social media and online gambling

Facebook is the dominant platform for social gaming. Around 80% of Zynga's bookings are derived through Facebook, and this is fairly typical of the industry.

Facebook has been gradually building closer ties to gambling... It has been edging away from its reluctance to be associated with real-money gambling. In July 2011, it began to allow UK gambling companies to launch non-gambling apps on the site and did not allow earnings to be either cashed out or converted to credit for real-money gambling. In August 2011, Facebook began to allow offline casino advertisement and online casino advertisement in jurisdictions where it is legal, provided that the advertisements are carefully targeted only at users of legal gambling age in each jurisdiction.

...and in August 2012 launched its first real money gambling app, with UK operator Gamesys. The first product launch is a social bingo product called Bingo Friendzy.

Exhibit 82

## Facebook is the leading social network in nearly every country

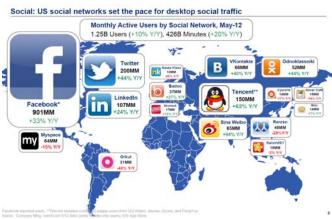
WORLD MAP OF SOCIAL NETWORKS



Source: Vincenzo Cosa 2012

Exhibit 83

## Facebook has more users worldwide than the next 16 most popular social networks combined

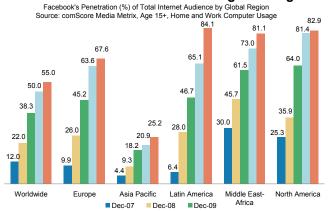


\*Facebook reported users, \*\*Tencent includes combined unique users from QQ Weibo, Alumni, Qzone, and PengYou

Source: Company filing, comScore 5/12 data (omits mobile-only users), iOS App Store

Exhibit 84

### Facebook's dominance is increasing in all regions



Source: comScore Data Mine

Exhibit 85

#### Facebook is expected to become less dominant in the worldwide social gaming market

Worldwide Social Gaming Market (USD billions) 2.0 1.7 3.6 1.1 3.0 2.4 2.2 2.8 2.4

- 2011E ■ Non-Facebook social gaming market (Asia)
- Non-Facebook Social gaming market (non-Asia)
- Facebook social gaming market

2010

E = SuperData Research estimates Source: SuperData Research, Beyond Facebook 2011

2013E

2014E

There is significant opportunity with non-Facebook social networks in certain markets, notably Germany (VZ), Spain (Tuenti), Netherlands (Hyves), Poland (nk), Russia (Odnoklassniki and VKontakte), Turkey (netlog) and Brazil (Orkut). For example, Plinga, a European social games developer, has over 18 million MAU, only 600,000 of which are on Facebook. Its games are published on social networks including hi5, netlog, VZ, tuenti, Friendster, and Odnoklassniki.

Asia is the world's largest social games market, and there Facebook has little share. Instead, the market is dominated both by local social networks offering their own proprietary games (e.g. Tencent) and by gaming-specific social networks

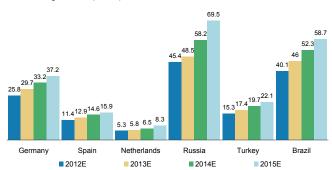
such as mobage (from DeNA). Tencent, China's largest social networking and social gaming company, has a market cap of \$52bn, and is an MMORPG hub as well as having investments in social games makers Riot Games and Epic Games.

If other social networks allowed real-money gambling, operators could certainly still take advantage of social features in particular regions. However, given Facebook's dominance, the social opportunity would be only a fraction of what it could be with Facebook.

#### Exhibit 86

### Markets with non-Facebook dominant social networks are expected to see significant social gamer growth ...

Social Gaming Audience (millions)



E = SuperData Research estimates Source: SuperData Research, Bevond Facebook 2011

#### Exhibit 87

### ...and also significant social gaming revenue growth

Social Gaming Revenue (USD millions) 250 238 215 206 180 110 53 16 <sup>20</sup> 13 14 Russia Netherlands Brazil ■ 2014E 2013E

E = SuperData Research estimates Source: SuperData Research, Beyond Facebook 2011

### **Glossary**

Gambling "Playing a game of chance for money": includes betting, poker, casino games, bingo, lottery, and other

gambling games for real money.

Online gambling Gambling over the internet.

Mobile gambling Gambling via mobile devices (phone, tablet etc).

**Remote gambling** Gambling over internet, mobile devices, telephone or TV.

Gaming Playing games via a remote medium (e.g. online, mobile) including gambling games like poker, casino

games and bingo, or other games like strategy, role-play, puzzle, arcade. This can be for real money or

for free.

**Social gaming** Playing free or freemium games with social features, via a remote medium (online or mobile).

**Social gambling games** Social games which are based on gambling-type activities, i.e. poker, casino, bingo or betting.

**Hardcore gaming** Console and other games, typically paid for up-front. Do not include gambling.

Freemium Business model where the product (game) is free to access but premium features such as upgrades,

bonuses, in-game currency or speeding up actions can be purchased with real money.

**DAU** Daily Active Users: the number of unique players in any given day.

MAU Monthly Active Users: the number of players during the month. Many players will play more than once per

month.

**MUU** Monthly Unique Users. This represents the true unduplicated usage. For developers with multiple titles,

an aggregate MAU could include duplicate players who have played on many titles.

**Bookings** Total sales of virtual goods. Some operators assume that virtual goods are 'spent' over a longer period,

meaning that some revenue is deferred to later periods.

MMOGs Massively Multi-player Online Games.

MMORPGs Massively Multi-player Online Role Play Games.

**ARPU** Average Revenue Per User – this can be ARPDAU, ARPMAU, or another user metric.

**ARPPU** Average Revenue Per Paying User.

**Conversion rate (%)** The proportion of active players who spend any money.

**CRM** Customer relation management

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_	% of			% of % of Rating	
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Ticker	Company Name	Close Price (as of 13/11/2012)
BETF.L	Betfair	GBp 743
BPTY.L	Bwin.party	GBp 113
FB.O	Facebook	USD 19.86
IGT.N	International Game Technology (IGT)	USD 12.99
PAP.I	Paddy Power	EUR 56.23
WMS.N	WMS Industries	USD 15.17
ZNGA.O	Zynga	USD 2.11
888.L	888	GBp 112
3632.T	GREE	JPY 1,425
2432.T	DeNA	JPY 2,576