

International Commentary — November 16, 2022

The Economics—and Winner—of the 2022 World Cup

Summary

The FIFA World Cup in Qatar is around the corner, and given the challenges of the past few years, it's time for an exciting distraction. Speaking of a distraction, FIFA expects 5 billion people to watch this year's tournament, which would not only be a record high for the World Cup, but would make the 2022 World Cup the most watched sporting event in history. This year's tournament has a degree of controversy surrounding it that prior World Cup's have not experienced. From the host bid selection process to Qatar's track record, there are challenges associated with FIFA and Qatar pulling off a successful event. With that said, Qatar will likely take on a bigger role as a supplier of natural gas due to the globally coordinated isolation of Russia, which along with hosting the World Cup, has the potential to enhance Qatar's status on the global stage and make the tiny wealthy nation more influential over economic affairs going forward.

However, the most important aspect of the World Cup is who the winner will be. We took a page from our economic and currency analysis playbook and developed a framework to predict not only the winner of the 2022 World Cup, but the entire tournament. The same way we analyze economic fundamentals, we analyzed football fundamentals, and provide a predicted round of 16, a champion, as well as a dark horse team with the potential to win.

Enjoy the World Cup!

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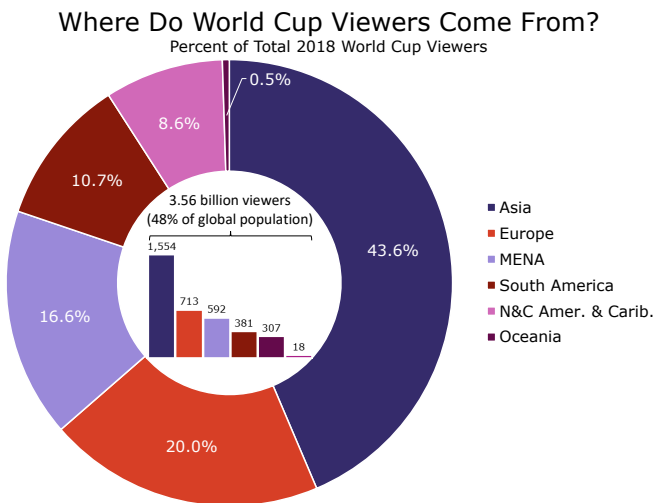
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FIFA World Cup 2022: The Beautiful Game Is Back

Not like the beautiful game ever left. But this year is special. It's World Cup season. And the world needs an entertaining distraction given the events and challenges we have faced over the last few years. The World Cup is an absolute spectacle. Thirty-two teams from around the world come together to play in what is widely considered the most prestigious football tournament in existence. Fans from around the globe also flock to the host country to take in the spirit of the tournament firsthand, while billions more watch on television or through digital platforms. Whether in person or watching at home, the World Cup tends to spark strong patriotic pride, but never lost in the events are comradery and sportsmanship. Fanatical patriotism toward a home team, but at the same time fans and players alike, demonstrate respect and admiration for their opponents and rivals. Like when our very own resident Kiwi Nick Bennenbroek wears his New Zealand football jersey to the office during qualifying matches, but still congratulates his Australian friends on the Aussie's late entry into the tournament. Or how a World Cup qualifying game ended civil war in Ivory Coast. And how the tournament was an inflection point toward peace in many international conflicts and led to several notable "World Cup Truce" agreements. This is the power of the World Cup. This is what makes the World Cup great.

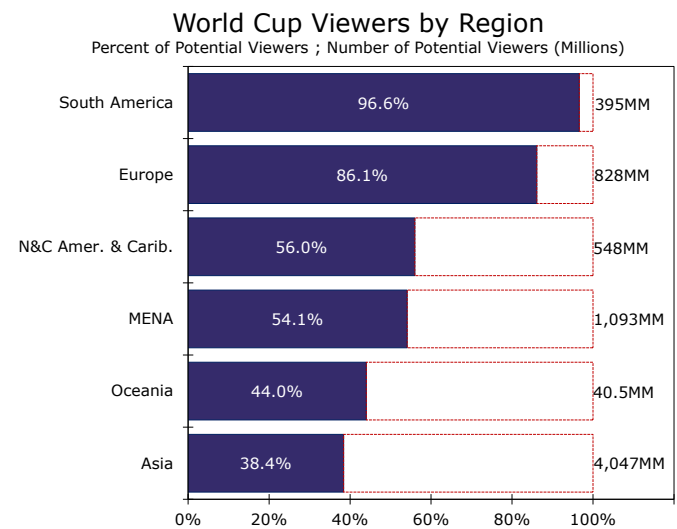
The World Cup is one of the most popular, if not the most popular, sporting events in the world. In 2018, over 3.5 billion people, 48% of the world's total population at the time, watched an official World Cup broadcast. Viewership in 2018 was also more diverse and global than ever before as match viewers from all corners of the map tuned in (Figure 1). Forty-four percent of total viewership came from Asia, while over 16% of the audience originated from the Middle East & Africa, record high participation for each region. The depth of the audience the tournament reaches is also impressive (Figure 2). In South America, over 96% of potential viewers watched the 2018 tournament, while over 86% of the potential audience in Europe watched. A majority of possible spectators tuned in across North America, Central America and the Caribbean, while over 54% watched in the Middle East & Africa region. This popularity and interest is expected to rise even further this year. In fact, FIFA projects 5 billion people will watch the matches this year, which would not only represent 1.5 billion more viewers than the 2018 tournament, but would set a new record for viewership and make the 2022 World Cup the most watched sporting event in history. Should 5 billion people indeed engage with the tournament, the 2022 World Cup would reach almost 65% of the global population.

Figure 1



Source: FIFA and Wells Fargo Economics

Figure 2



Source: FIFA and Wells Fargo Economics

The Economics of the World Cup

Before the tournament even starts, the 2022 World Cup is in the history books. For the first time in the World Cup's 92-year history, the tournament will be held in a Middle East Arab state, as Qatar is set to be this year's host nation. How Qatar was selected to host the 2022 World Cup is a lengthy and complex story, but one that makes this year's tournament particularly unique. Leading up to the bid selection in 2010, the Government and Emir of Qatar promoted the country as an ideal location for the tournament. Arab League members joined in support of Qatar's bid, and launched a campaign

to demonstrate how Qatar hosting the World Cup would be an opportunity for the Middle East and Western nations to improve diplomatic relations. However, from a football perspective, Qatar did not have as rich a sporting history as prior World Cup host countries. Qatar's national team had yet to qualify for a World Cup, and while Doha hosted a few tournaments as well as the 2006 Asian Games, the country had not organized anything similar in size or scale to the World Cup. So when Qatar was chosen to host this year's tournament, corruption and bribery allegations were immediately raised by the sports world as well as members of the media. While bribery allegations against Qatar were never proven, FIFA launched an internal corruption investigation that eventually resulted in a purge of senior officials from football's global governing body. The allegations against Qatar along with the FIFA corruption scandal have hovered over the 2022 World Cup for over a decade. Combined with Qatar's track record on human rights and poor labor conditions cited by organizations such as Amnesty International¹ and Human Rights Watch², there is a degree of negative sentiment hanging over this year's event that has not been present in previous World Cup tournaments.

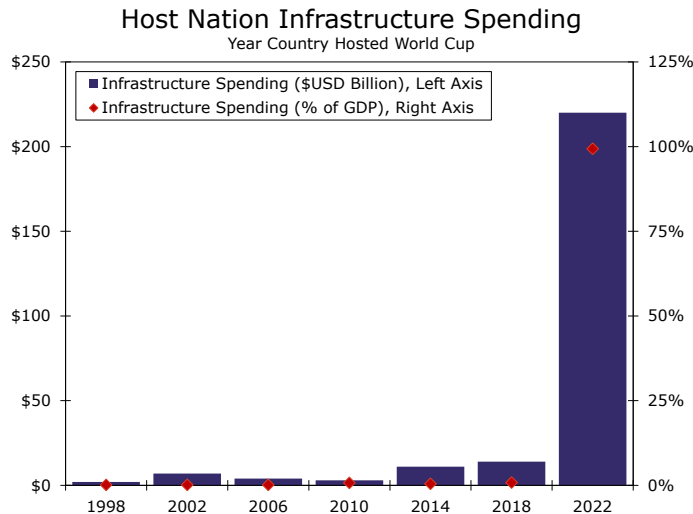
The story behind the 2022 World Cup is so interesting Netflix recently released a documentary that dives into the details of the FIFA scandal. With Netflix covering the more muddied side of international football, we'll take the lead on providing economic context as the economics of the World Cup can be just as fascinating. Countries compete just as aggressively to host the World Cup as they do to win the tournament. However, at least historically, hosting the World Cup has not been a profitable venture. While difficult to quantify to an exact dollar amount, reports indicate Russia lost billions of dollars hosting the 2018 World Cup. In 2014, Brazil was also unable to turn a profit on the World Cup. In fact, Brazil's losses were so large the federal government had to provide emergency funds to Rio de Janeiro just so the city could properly and safely host the Summer Olympics a few years later. A 2004 study suggests the United States may have lost as much as \$9 billion hosting the 1994 tournament, the most unprofitable World Cup from the perspective of the host country. That same study also concludes that there is a high likelihood hosting the World Cup, on average, results in negative financial consequences for the host nation and could be economically damaging over the long term. And while countries typically lose money outright hosting the tournament, those losses are compounded when factoring in opportunity cost. If World Cup resources were deployed elsewhere, a host nation could have realized financial and economic benefits.

Digging into the flow of money, it's actually quite simple to see why host countries tend to lose money. At the end of the day, the World Cup is a FIFA tournament, not a host country event. Being a FIFA event, FIFA, through terms of legacy operating agreements, is entitled to all revenues directly generated from the World Cup. These revenues come from FIFA selling rights to the tournament (i.e., media, marketing, licensing & ticket sales), none of which are shared with the host country. On the other hand, FIFA contributes little to the overall cost structure of the tournament, and places the burden of the most costly expense—infrastructure—solely on the host nation. Infrastructure-related expenses are where host nations get financially hit the hardest. A significant amount can be spent on new stadiums, as FIFA has strict requirements that host nations must have multiple venues that can hold between 40,000-80,000 people. In many cases, host countries need to construct brand new stadiums to meet FIFA's standards. On top of venue costs, host nations, especially developing nations, also need to build new or improve existing infrastructure to make matches more accessible and accommodate an influx of tourists. All in, infrastructure expenses can cost billions of dollars, and without a share of directly-related World Cup revenues, tourism receipts are rarely large enough for host nations to offset these costs.

Historically, World Cup hosts have spent large sums of money on stadiums and other infrastructure. From 1994-2018, host nations have spent a combined \$41.5B on World Cup-related infrastructure, with the majority of those costs incurred by Russia in 2018 (\$14B) and Brazil in 2014 (\$11B). These combined costs dwarf in comparison to the amount Qatar has spent preparing for this year's tournament. In preparation for the 2022 World Cup, Qatar has spent \$220B, more than five times the combined host nation infrastructure expenses of the last 24 years. To put Qatar's preparation costs in perspective and economics terms, the IMF forecasts Qatar's nominal GDP to be \$221B this year. Which means Qatar will have essentially spent an entire year's worth of economic output preparing for the 2022 World Cup. Prior to 2022, no country had spent even 1% of annual GDP preparing for the World Cup, with Brazil's infrastructure expenses running the highest at 0.85% of 2014 annual output ([Figure 3](#)). Any way we slice it, the amount of money Qatar has spent preparing for the World Cup is incredible. In nominal dollars and in terms of GDP, no other host nation has even come close to Qatar's

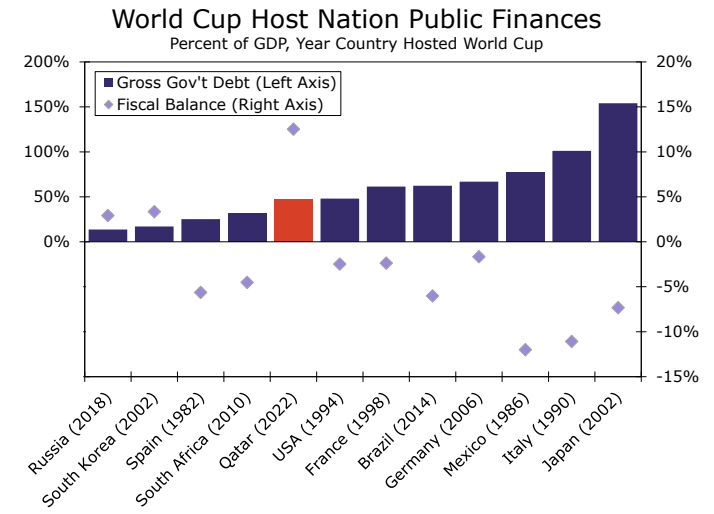
spending. While Qatar expects close to 1.5 million tourists, we feel rather comfortable saying that the 2022 World Cup will most likely be unprofitable for Qatar, at least from a financial perspective.

Figure 3



Source: IMF, FIFA and Wells Fargo Economics

Figure 4



Source: IMF and Wells Fargo Economics

Qatar's Place on the Global Stage

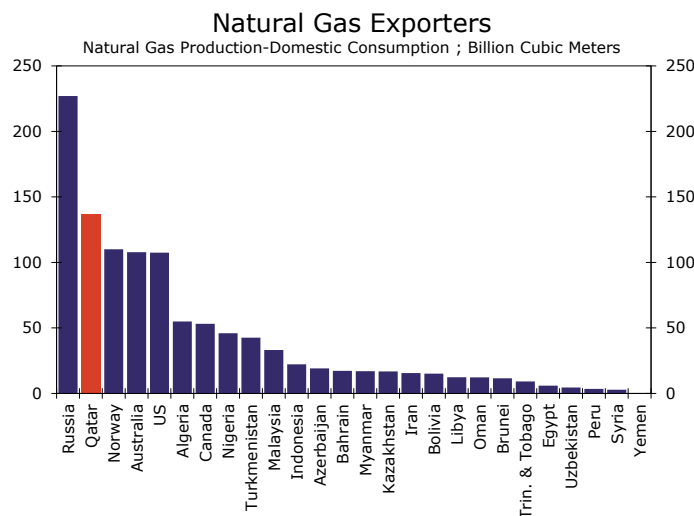
But here's the kicker (pun intended). Regardless of the amount Qatar has spent to host this year's tournament, Qatar's public finance position provides the government with an exorbitant amount of spending flexibility. Basically, Qatar can afford to host the World Cup regardless of cost. We can make that statement due to Qatar's healthy budget surplus as well as the government's low debt burden. In fact, an argument can be made that of any World Cup host nation since 1986, Qatar's public finances are in the best shape. Aside from Qatar, only two countries have maintained a fiscal surplus in the year they hosted the tournament, while only a handful of governments have carried less debt than Qatar. Of those countries, only two—Russia in 2018 and South Korea in 2002—have held both a surplus and a lower debt burden; however, neither Russia nor South Korea had as robust of a budget surplus as Qatar does this year (Figure 4). As far as Qatar's budget balance, the IMF forecasts Qatar's current fiscal surplus is worth 12.5% of GDP. Budget surpluses are not uncommon for Middle East nations; however, except for fiscal deficits in 2016 and 2017, Qatar has maintained a budget surplus every year since being named host in 2010. Not too many other Middle East countries can claim a similar degree of fiscal prudence over the same time period. On the debt side, according to the IMF, the government of Qatar carries debt worth 46% of total economic output. While Qatar's debt burden is higher than peer Middle East governments such as Saudi Arabia and the UAE, relative to the rest of the emerging markets, Qatar's sovereign debt is far from excessive. Point being, even though Qatar has spent an incredible amount of money preparing for the World Cup, authorities have excess capital to deploy and have still been able to exercise prudence toward public finances. If that message needed any reinforcing, Moody's just awarded the government of Qatar with a "positive outlook" designation, typically a precursor to a sovereign credit rating upgrade.

Qatar's economy has evolved dramatically over the last century, and this evolution has helped the tiny peninsula nation turn into one of the wealthiest countries in the world. In the early 1900s, Qatar's economy was driven by fishing as well as pearl hunting. For decades, Qatar was defined by widespread poverty and was considered to be one of the poorest countries in the world. These wealth dynamics changed when petroleum was discovered in the late 1930s and oil fields developed in the late 1940s. The transition from Qatar being a fishing-based economy to a petrostate sparked a surge in government revenues that eventually trickled down to the broader population and lifted many households out of poverty. Qatar's initial wealth creation has roots in oil; however, the discovery of natural gas and development of the North Field revolutionized Qatar's economy. Over time, authorities invested a significant amount of resources into natural gas production, and in 1997, Qatar became an exporter of natural gas for the first time. Production and export capacity steadily ramped up over the years, and as of the end of 2021, Qatar ranked as the second-largest net exporter of natural gas in the

world, trailing only Russia (Figure 5). Not only is Qatar a major supplier of natural gas, the country also has some of the largest proved natural gas reserves. To that point, as a share of the world's natural gas reserves, Qatar owns over 13% of proved natural gas reserves, good enough to be the third-largest share of global unrefined natural gas behind Russia and Iran (Figure 6). Qatar's natural gas reserves should cement the country's status as a key exporter for years to come. Given the Russia-Ukraine conflict and the globally coordinated isolation of Russia, Qatar has become a more important player on the global stage just over the course of this year.

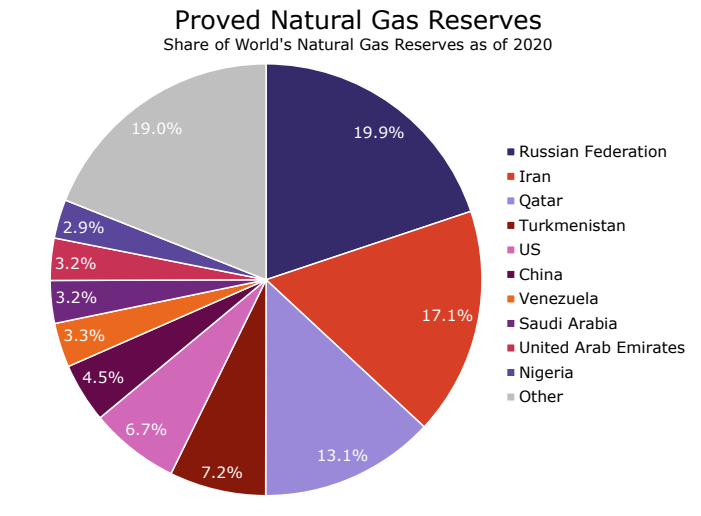
With countries around the world looking for alternatives to Russian natural gas, Qatar has attracted a significant amount of attention as a viable option that could step in and fill the void left by Russia. Europe and the EU in particular has seen the flow of Russian natural gas essentially halted, leaving the EU on the brink of economic recession and facing potential crisis conditions. EU nations import just 5% of their natural gas from Qatar, and as gas flow from Russia has dissipated, countries have approached Qatar's energy authorities in an effort to replenish supply and rebuild inventory. However, Qatar is locked into long-term delivery contracts across Asia and is unable to divert exports to European Union countries. The good news for Europe though, is Qatar has plans to expand its output capacity by developing the North Field East as well as the North Field South liquid natural gas projects, and may be able to replace Russia as the EU's primary source of natural gas over time. With Qatar expanding and enhancing its natural gas development capabilities, especially at a time of a worldwide supply shortages, the country could elevate itself on the global pedestal and become more influential as a global commodity supplier. Speaking of improving its position on the global stage, taking the spotlight as host country has potential to elevate Qatar as a major player not only within the Middle East, but across the globe. Successfully organizing the World Cup and demonstrating Qatar's wealth can attract new investment flows toward the country, and could support Qatar's ambitions to diversify its economy and become more than just a petrostate. Qatar has had aspirations to expand and broaden its economic base since the collapse of the commodity super-cycle. Those plans were temporarily derailed in 2017 with a Saudi-led blockade and isolation of Qatar. But with the regional diplomatic crisis officially over, Qatar's strategic plans of economic diversification are once again a priority and a goal that will likely require foreign investment to accomplish.

Figure 5



Source: BP Statistical Review of World Energy Report and Wells Fargo Economics

Figure 6



Source: BP Statistical Review of World Energy Report and Wells Fargo Economics

And the Winner of the 2022 World Cup Is...

...Brazil! And that's not just personal opinion. There's a methodology behind that Brazil pick. And that methodology is very similar to the scorecard type of frameworks we apply to identify countries as well as currencies and sovereign debt that could be vulnerable to certain global economic scenarios. We employed these types of frameworks to assess the vulnerability of emerging market currencies during the current Fed tightening cycle as well as the evolution of vulnerabilities since the 2013 Taper Tantrum. We also used a similar analysis to determine which developing economies and currencies

have a particular sensitivity to China's economic slowdown, and built a similar framework to assess central bank monetary policy space to support our policy rate forecasts. The same way we utilize fundamental economic and political analysis to analyze economies, currencies and central banks, we analyzed the fundamentals of each World Cup National team in an effort to identify the winner of the 2022 World Cup. We also back tested our analysis and ran the World Cup framework for the 2018 tournament. Our framework predicted 13 of the teams that advanced to the round of 16, and had moderate success picking winners deeper in the tournament.

Our framework includes 23 indicators designed to capture how strong each team is before the tournament starts. We subdivided these variables into multiple segments, with each segment built to measure different attributes of each squad. Our first segment evaluates the current ranking of each team and how those rankings have changed over a specific period of time. Next, we determined how much momentum each team has leading up to tournament play by analyzing the last 10 games played by each national team. We incorporate each team's win/loss/draw record, but more importantly, we focused on how many goals were scored in those games, how many goals were allowed, as well as the strength of the opposing team in each of those games. In aggregate, this segment of the analysis gives us a sense of how well or poorly a team is currently playing. Also included in our analysis is a team's track record of playing in large tournaments, in particular, past performance in the World Cup. Of course, historical performance does not indicate future results, but many of these countries have teams comprised of players that have played together over many years. To us, that type of cohesion matters, especially if that experience has led to previous success. And finally, we looked at the individual players that make up each team. At a high level, roster composition has not evolved materially and many players from prior World Cup rosters are present this year. However, players age, skills improve, skills diminish, and overall productivity can change. This is why we incorporated a measure of each team's current attack position players, midfielders and defensive players (including goalkeepers) in our analysis. We also added the current transfer market value of each player into our framework as an added indicator of potential player effectiveness. In theory, the higher a player's transfer value, the more productive they should be on the pitch.

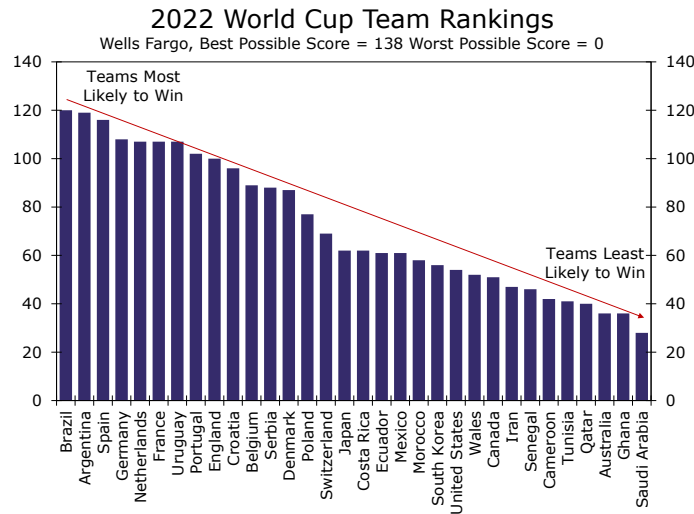
Our scorecard applies point values to each indicator. The higher the overall score the better the team, and vice versa. When we add up each team's total score, our analysis reveals Brazil will lift its sixth World Cup trophy in Doha. The combination of Brazil's current team strength, playing momentum, tournament track record, as well as the overall skill set of its roster is impressive enough to be crowned champion come the World Cup finals on December 18. Winning won't be easy for Brazil though. According to our framework, Brazil is the best team in the field; however, we also identify Argentina and Spain as the second and third best teams in the tournament, respectively ([Figure 7](#)). Our analysis suggests Brazil is better than Argentina by the smallest possible margin, and Spain is not far behind. We expect Brazil, Argentina and Spain to all fall on the same side of the bracket, which means Brazil will have to beat both Spain and Argentina to get to the finals. According to our framework, the Brazil vs. Spain matchup will occur in the quarterfinals, while Brazil will meet Argentina in the semifinals. And while Brazil has a slight advantage, the outcome of the match against Argentina is far from certain, as Argentina's team has many attributes that make an upset entirely possible. Once Brazil gets through Argentina, they will square off against Germany in the finals after the Germans take down the defending champions, France, in the semifinals. Our framework suggests the strength gap between Brazil and Germany is large enough to where the match will be exciting and entertaining, but Brazil should win rather easily. Our analysis also indicates Brazil may have a tougher time beating Spain and Argentina in earlier rounds of the tournament than it will against Germany in the finals.

Arguably the most exciting part of the World Cup is group stage matches. There is something to be said for watching powerhouse teams roll through their group opponents; however, the feel good underdog story is just as exciting. The beginning of group stage matches is the only time during the tournament when every team has the same probability of becoming champion. We can crunch all the numbers we want and figure out the favorites, but the group stage is the first opportunity teams have to demonstrate they are indeed the favorite or where the Cinderella stories become more apparent. Group stages are set in a complicated manner. First, FIFA, through a complex ranking system, determines who the top seven teams in the field are and assigns each one to separate group. To round out the eighth team, FIFA assigns the host nation to lead the remaining group. From there, FIFA officials sort teams geographically to ensure geographic diversity across each group. This year, FIFA determined England, Argentina, France, Spain, Belgium, Brazil and Portugal are the top seven teams, and will lead groups along with Qatar. In theory, the top teams should win their respective groups, and while our framework suggests most of the top teams will indeed win their group, our

analysis also identifies a few upsets. In particular, our framework believes Croatia will win group F, not Belgium, and that Uruguay will win group H instead of Portugal. Our analysis suggests each of the top teams will make it out of the group stage, although we find those upsets to still be rather interesting.

Figure 8 shows how our framework predicts the group stage will unfold for both winner and runner-up.

Figure 7



Source: Wells Fargo Economics

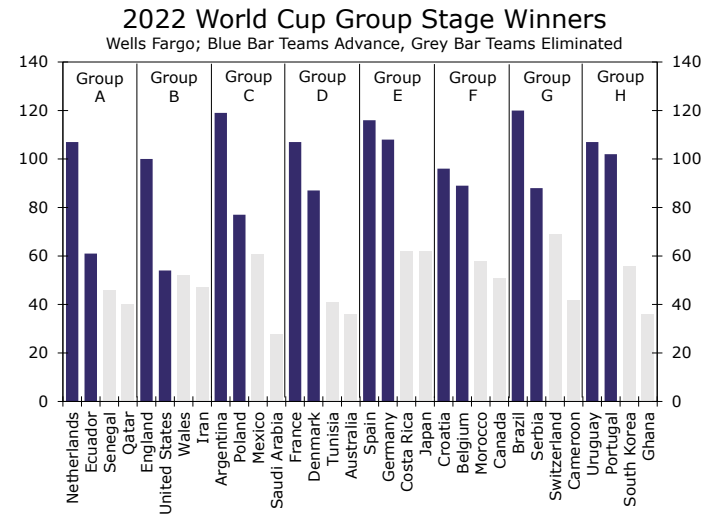
There are a few other interesting takeaways we found when going through our framework's output. Most importantly, our framework has the United States getting out of group B and joining the round of 16. In the most unbiased way possible, the United States getting out of the group stage is a huge deal. Coming off a disappointing World Cup cycle four years ago when the U.S. team did not qualify for the tournament, the Americans are back. The U.S. getting out of the group stage is also significant in the sense that our analysis also shows the Americans are in a very difficult group B. Our framework ranks the U.S., Wales and Iran very similarly, suggesting these teams are almost even strength heading into the tournament. However, the U.S. has a slight advantage, as the team has a bit more positive momentum behind it before the tournament starts. With that said, group B seems to be the most competitive group, and any of these three teams can easily join England in the round of 16. While our framework suggests the U.S. will not advance past the round of 16, our personal U.S. patriotism will be mostly satisfied should the Americans get out of the group stage. In group A, we expect Qatar will be unable to advance; however, we believe Ecuador will join the Netherlands in the round of 16. Betting markets indicate Senegal will be the runner-up in group A, so an Ecuador advance would be somewhat notable. Our framework also identifies Serbia as the likely runner-up from group G, which is at odds with betting markets' pick of Switzerland.

And finally, our dark horse pick to win the World Cup? Uruguay. We have Uruguay winning group H, which we highlight as a modest surprise. But, Uruguay can make a deep run in the tournament. According to our framework, Uruguay will meet Serbia in the round of 16, and win with ease. Uruguay will then meet Germany in the quarterfinals, where we expect Germany to prevail. However, our analysis shows Germany will only sneak past Uruguay, and there is a significant amount of parity between these two teams to the point where the probability of Germany winning is essentially a coin flip. Point being, Uruguay can beat Germany. Assuming all else equal, Uruguay would meet France in the semi-finals where the outcome is a coin flip. Our analysis ranks Uruguay and France as even strength. When there is this kind of parity between teams, anything can happen, but without question Uruguay could beat France and get to the finals against Brazil. More disparity exists between Brazil and Uruguay, and we are more confident in Brazil's ability to beat Uruguay. But, this is the World Cup. One game, for a World Cup title, anything is possible. So, Uruguay. Keep an eye on the South American nation as the tournament progresses—we might have a Cinderella story in the making.

On the following page, please find our final 2022 World Cup bracket.

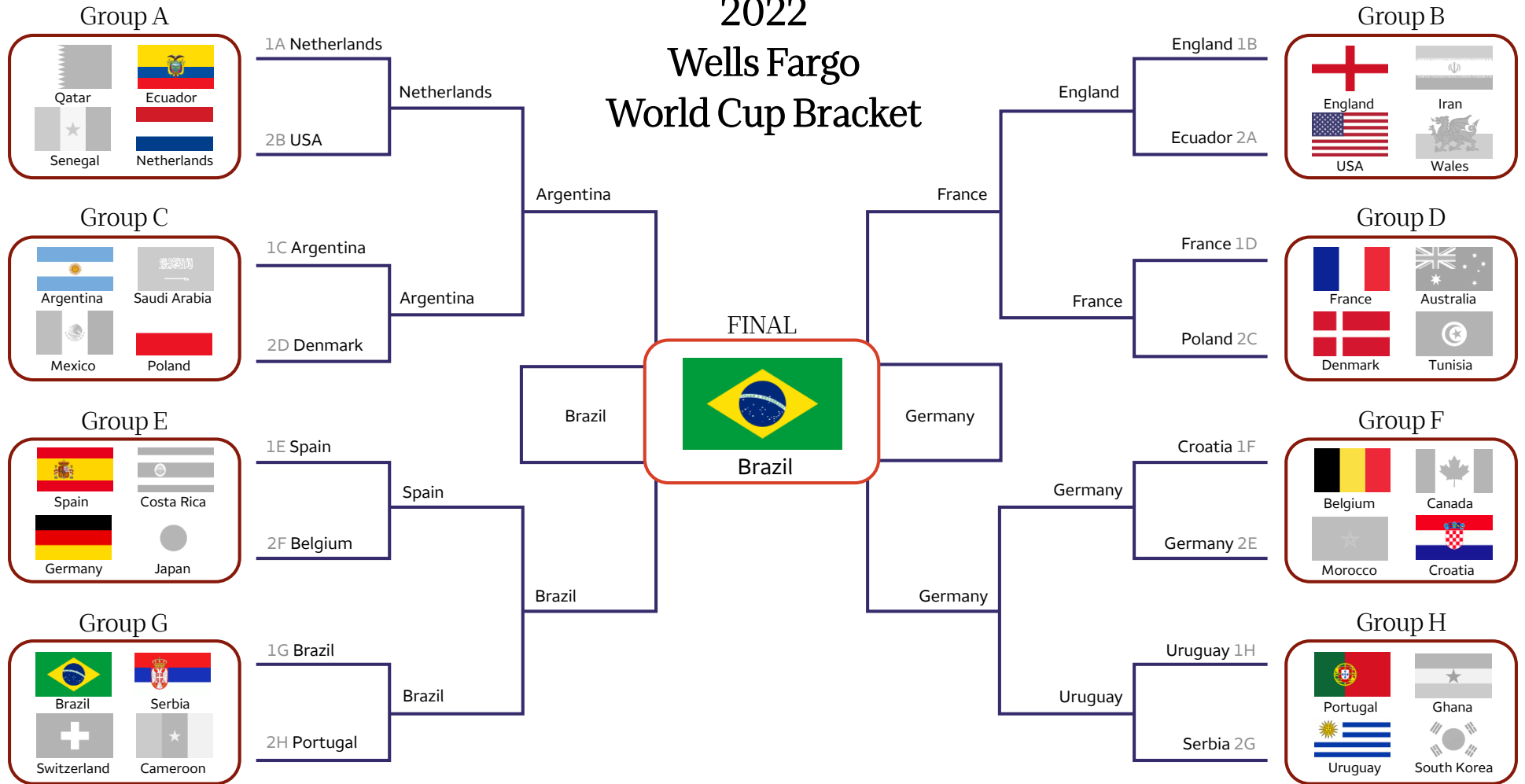
Have fun, and enjoy the tournament!

Figure 8



Source: Wells Fargo Economics

2022 Wells Fargo World Cup Bracket



Source: FIFA and Wells Fargo Economics

Endnotes

1. “Qatar 2021.” *Amnesty International*, <https://www.amnesty.org/en/location/middle-east-and-north-africa/qatar/report-qatar/>. [\(Return\)](#)
2. “Qatar: Rights Abuses Stain FIFA World Cup.” *Human Rights Watch*, <https://www.hrw.org/news/2022/11/14/qatar-rights-abuses-stain-fifa-world-cup#:~:text=In%20a%202021%20report%2C%20Human,key%20decisions%20about%20their%20lives.> [\(Return\)](#)

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