# International Matchups EDA

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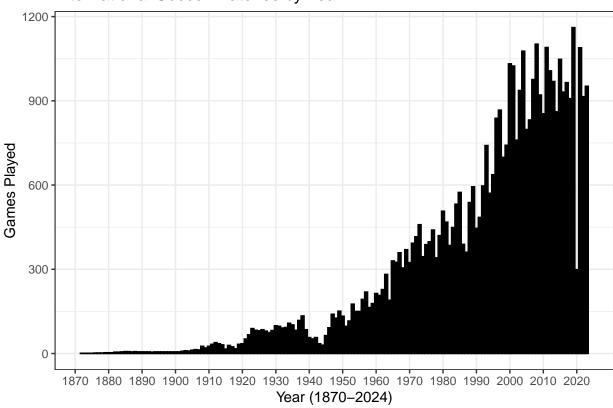
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### Matches by Year

Key takeaways:

- Massive growth of the game over time, especially following 1950 ("modern era")
- Periodic changes over time: most notably, spikes in the year before a World Cup and the year of the World Cup. This is likely due to qualifying matches and the Cup itself.
- Sporadic dips due to global events: most notable on the graph are World War I, World War III, and the COVID-19 pandemic.

## International Soccer Matches by Year



## Games by Tournament Type

#### Key takeaways:

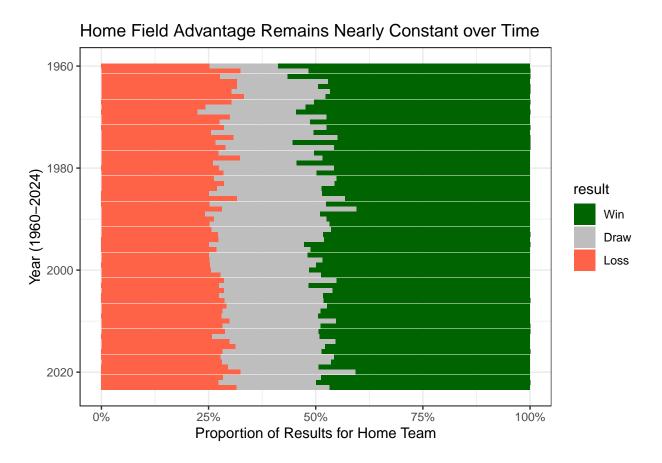
- Friendly matches account for 2x the quantity of all other matches. Should probably be considered differently in ratings system, since teams typically use them to give new players an opportunity and aren't at full strength.
- Most major tournaments featured in the data (World Cup, AFCON, Asian Cup) still exist. However, Caribbean Cup and CECAFA cup don't exist anymore due to confederation realignment.
- Maybe not a good idea to use tournament type as a key variable outside of friendly vs. non-friendly indicator?

##		tournament	${\tt matches}$	first_played	last_played
##	1	Friendly	17,773	1872	2023
##	2	FIFA World Cup qualification	8,016	1933	2023
##	3	UEFA Euro qualification	2,815	1958	2023
##	4	African Cup of Nations qualification	1,998	1961	2023
##	5	FIFA World Cup	964	1930	2022
##	6	Copa América	841	1916	2021
##	7	AFC Asian Cup qualification	764	1956	2022
##	8	African Cup of Nations	741	1957	2022
##	9	CECAFA Cup	620	1973	2017
##	10	CFU Caribbean Cup qualification	606	1978	2017

### Home Team Advantage over Time

#### Key takeaways:

- Home field advantage remains remarkably stable over time
- Not surprisingly, a noticeable dip in HFA occurred in 2020, the COVID-19 season. A few potential explanations: no fans in the stands? Match cancellations disproportionately affected imbalanced homeaway contests?
- Need to account for the fact that home teams are generally better than away teams in international matches, especially friendlies. Might want to use matches where teams have no choice in whether they play at home or away to ID true HCA factor, or pull in findings from club football.



#### Goals Over Time

#### Key takeaways:

- Consistent decrease in goals per game persisting into the late 1980s and beginning around 1950
- These correlate with efforts in FIFA governing body's rulemaking! In the late 1980's, FIFA tweaked the Laws of the Game to increase scoring (e.g. "tie goes to the attacker" on offside rulings took effect in 1990 and the banning of back-passes to the keeper in 1992)
- Since those rule changes, goals per game remain stable at approximately 2.8 goals per game.

# The Decline of Goalscoring Over Time

