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An economic history of the Tour de France, 1903–2015

Jean-François Mignot

The Tour de France is a three-week bicycle race held in July on the roads of France and neighboring countries. It is the most popular and prestigious bicycle race in the world and it is also the most profitable race for organizers, sponsors and riders. How did the Tour become so popular? Why is it still commercially successful and considered as a “high-quality product” (Andreff 2015)? And which economic trends does this success reflect?

To answer these questions, it is necessary to go back to the origins of the Tour de France and trace the main steps of its history. The Tour de France was created in 1903, and since then it has been held every year except during world wars (1915–1918 and 1940–1946). As many spectators know, the Tour has a diversified geography (Bačík and Klobučník 2013), a long sporting history (Chany and Cazeneuve 2003; McGann and McGann 2006, 2008) and a rich cultural history (Dauncey and Hare 2003; Thompson 2006; Reed 2015). However, despite some studies on the economic aspects of the Tour de France (Calvet 1981; Reed 2003), the economic motivations behind the race are less well known. This chapter presents the economic history of the Tour de France since the early 20th century (Mignot 2014), focusing on the changes that affected the three most important economic agents of the race: (1) the organizers, (2) the riders and (3) the spectators.

4.1 Who organizes the Tour? The Tour de France as a private company

When modern bicycles were invented, in the 1880s, they immediately started selling, first among the upper classes but progressively more and more among the bulk of the population (Gaboriau 1995). As early as the mid-1900s in France there were around five

bicycles per 100 inhabitants (INSEE 1952). It is in this context that the Tour de France was organized for the first time. Who created the Tour, and why? Who owns it? How do the organizers make a profit?

The Tour de France was created in 1903 by the French sports newspaper *L'Auto*. Indeed, from the late 19th century, Western European sports journals started organizing bicycle races to report on them and increase their circulation. The journal paid for the race's logistics and prize money in order to sell more papers and to be able to charge more for advertisements. However, in the 1900s, the Tour de France was not just a race among many others: it was one of the first if not the first stage race, i.e. a road race run over several one-day stages, and it was by far the longest and the most heroic of all races. The first edition of the Tour included six stages over three weeks, totaling an impressive 2,428 kilometers. The first Tour was so successful that *L'Auto's* main competitor, *Le Vélo*, died out in 1904.

Since 1903, the owner of the Tour has always been a profit-seeking media group (McKay 2011a). From 1903 to 1940, the Tour was owned by the founding newspaper *L'Auto*. After the Second World War, from 1947 to 1965, the race was owned by the newspapers *L'Équipe* and *Le Parisien libéré* (through La Société du Parc des Princes). And since 1965, the Tour has been owned by firms from the group which became the Amaury Sport Organisation (ASO), a French sports event organizer and the most powerful actor in present-day professional road cycling. As researchers noted, “neither the teams nor the riders, obviously essential ingredients of a cycling race, nor the national and international cycling federations, as regulatory bodies, are able to challenge this dominant position of ASO at this moment” (Van Reeth and Lagae 2015, p. 316).

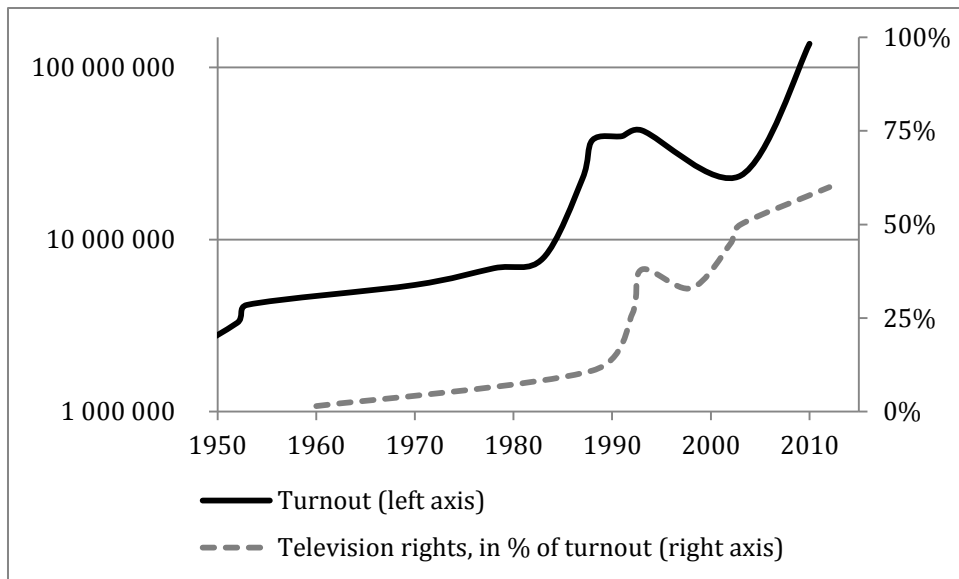
To make a profit without charging spectators for being on the sides of the road, the organizers initially relied mostly on increases in the circulation of their journal and

the concomitant advertising revenue. And indeed, from the 1900s to the 1930s, the Tour usually made *L'Auto's* sales double in July, compared to the other months of the year. However, organizers soon found additional ways to make the race profitable. First, from the interwar years on, they auctioned off the race's route to the highest bidding host cities (and local newspapers), predominantly in France but also in other countries (for more on the economic relationship between the Tour and host cities, see Viollet 2007 and Reed 2015). Second, they sold advertising space on the race. Local firms or cycling clubs have always been willing to offer race prizes in order to advertise for their activity. It is only since 1930, however, that the Tour includes a "publicity caravan," i.e. vehicles which precede riders by a few minutes and distribute goodies to spectators. Today, "companies pay between €200,000 and €500,000 a year to be part of the caravan, and during the 21 days of racing, they give away about 14 million product samples" (Lagae 2015, p. 96). In addition, the Tour has had various sponsors since the interwar years, and today it has four main sponsors and several official partners, which further increase its advertising revenues. Third, since the 1960s, Tour organizers also sell television broadcast rights. These are the Tour de France's three main turnover sources.

Although the Tour probably was often in deficit from the late 1930s until the mid-1970s (Reed 2003; Viollet 2007), it has always been profitable since at least the 1990s (Andreff 2015). In the 2000s, while ASO's yearly revenues hovered around €130 million, its profits were around €30 million (McKay 2011a). However, as long-term data on the profits of the Tour are not publicly available, I focus on the Tour's turnover since the 1950s (Figure 4.1).

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<caption>Figure 4.1 Tour de France revenues, 1950–2013 (in 2013 dollars)</caption>



<source>Source: Mignot 2014.</source>

From the early 1950s to the late 1970s, the turnover of the Tour doubled. During this period, cycling was one of the most popular sports in Europe, which made cities and sponsors willing to pay to have their image associated with the Tour de France. The Tour's turnover was composed of host cities' contributions (around 30–40% of the total turnover) and, above all, revenues from advertising and sponsoring (60–70% of the total turnover). This period may also be seen as the period of some of the greatest champions of all time: Italian *campionissimo* Fausto Coppi, French champion Jacques Anquetil and Belgian legend Eddy Merckx.

It is only since the early 1980s that the turnover of the Tour skyrocketed: between the early 1980s and the late 2000s it multiplied by 20 (Figure 4.1, left axis). This major transformation is partly due to the direct increase in television rights: while in the early 1980s they represented less than 10% of the total turnover, they now represent more than two-thirds of it (Figure 4.1, right axis). Television broadcasting also enriched the Tour de France indirectly, by making cities and sponsors willing to pay more and more to gain access to a wider, globalized audience. Nowadays, the Tour's turnover is mainly composed of television broadcasting rights (70% of the total

turnover), while advertising and sponsoring (25%) and cities' contributions (5%) are far less important contributors to the Tour's revenues.

Why has there been such a huge increase in television rights since the 1980s, while half of French households had a television set as early as 1965? Technological advances enabled television channels to broadcast longer, better-quality and live images of bicycle races. This increased the audience, which increased channels' willingness to pay to broadcast the Tour. More importantly still, as European television markets were liberalized in the 1980s, several channels started to compete with each other to broadcast the Tour. Until then, the Tour de France had to compete against other sports events to be broadcast on the (unique) French national television channel. From the 1980s, the Tour de France gained market power against the (now multiple) television channels and it was able to extract more and more money from them (Bolotny and Bourg 2009).

<a>4.2 Who rides the Tour? The riders as professionals

Cycling never was an amateur sport: it became professional as early as the late nineteenth century, which makes it one of the very first sports practiced for commercial purposes. Indeed, bicycle and tire companies were willing to sponsor riders, i.e. to give them some food, accommodation, health care and equipment to help them win races and thereby advertise their products. By contrast, bicycle companies rarely organized races, because the public would have suspected them of manipulating the race in order to advertise their brand (Calvet 1981). It is in this context that a few sons of peasants or workers became riders. How did they make a living? How has their labor income evolved over time? When and why did riders group into teams?

From the late nineteenth century to the Second World War, most sponsors gave riders only a bicycle and tires, and riders' income stemmed entirely from race prize

money. This is why the prize money was so crucial in determining whether riders would participate in the Tour or not. In 1913, after French champion Octave Lapize quit the Tour, he explained:

<quotation>The Tour is not a good deal for me! In the team I am the only one fighting to make money and some of my teammates are demanding more money than they should. If I win the Tour, which is easier said than done, I will hardly earn 7,000 francs. Track contracts [i.e., money given by velodromes to have riders participate in track races] will earn me much more. (Chany and Cazeneuve 2003, p. 163)</quotation>

Riders earned an income that was both relatively low and totally dependent on their individual performance, which induced riders to find (often secret) ways to insure against the very high volatility of their earnings. For instance, in 1903, Hippolyte Aucouturier sacrificed his chances for Emile Georget in exchange for money and the stage win in Marseilles. In 1911, a rider who could not hope to win much anymore, Maurice Brocco, sold his services to the highest bidder – for which he was excluded. Riders' wages probably were at their lowest immediately after the First World War, when the few remaining bicycle companies cartelized the demand for riders and restricted their wages.

It is only since the 1950s that most sponsors have given riders a fixed annual wage. However, from the 1950s to the 1980s, the larger part of riders' labor income was not made up of their fixed wage or their variable share of the prize money: most of their income stemmed from "criteriums," i.e. short one-day road races which paid riders to participate and to meet their fans, and sometimes to let some predetermined rider win (McKay 2011b). This is why in the late 1940s *il campionissimo* Fausto Coppi conditioned his participation in the Tour on his being guaranteed post-Tour track contracts.

Although riders' wages and prize winnings suffered a decline from the mid-1950s to the

mid-1980s, their overall labor incomes did not decrease because criteriums' appearance fees increased substantially.

Until the 1980s, riders originated very much from peasant and working-class origins and from the countryside, which means cycling was, to some extent, a means of upward social mobility for a few riders. And the Tour organizers insisted on this aspect to encourage such dreams in its followers. For instance, as early as 1925, *L'Auto* published a series and participated in the making of a (silent, multi-episode) movie entitled *Le roi de la pédale*, featuring a working-class boy climbing the social ladder thanks to the Tour (Bauer and Froissart 2015). On retirement, some riders opened a bar, a restaurant or a bicycle shop, but only a very few of them could reasonably be considered as rich (Thompson 2006, pp. 141–179).

Since the 1980s, as most criteriums disappeared, the increase in television audiences improved sponsors' willingness to pay riders higher wages. This is why riders' fixed annual wages have increased. Actually, this is especially the case for those few cyclists with the highest marginal productivity in terms of media coverage – cycling's superstars (Rosen 1981) (for more on riders' salaries, see Van Reeth 2015a, pp. 66–71). In addition, the increase in television broadcast rights improved Tour organizers' willingness to increase the Tour's prize money in order to attract the world's best riders.

Currently, the Tour de France is a race between 22 teams of nine riders each, i.e. 198 riders. The rider who completes the stages of the race in the shortest time wins the general classification leader's "yellow jersey," which wins the highest cash prize and was created in 1919 after the color of *L'Auto's* pages. There also exist other prizes such as the King of the Mountains classification's "polka dot jersey" (for climbers, since 1933) and the points classification's "green jersey" (for sprinters, since 1953). To increase competition, the Tour also includes other prizes such as stage-win cash prizes, and a

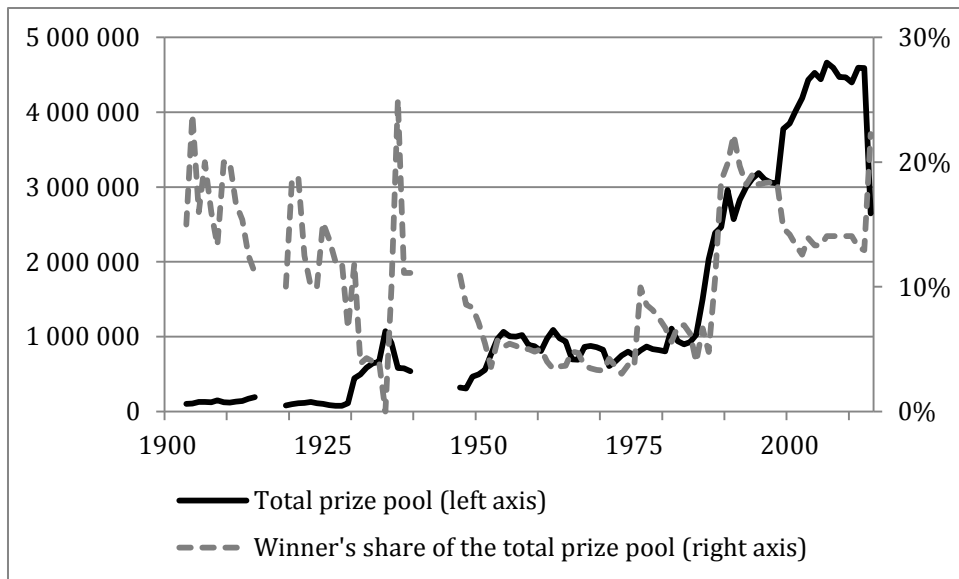
fighting-spirit prize for the rider who attacks the most, etc. All these cash prizes are shared among team members.

Historically, the total prize pool of the Tour de France increased mainly when the Tour budget increased (Figure 4.2, left axis). From 1930 onward, the creation of the publicity caravan increased the Tour's budget substantially, which led the organizers to increase the total prize money in order to attract the world's best riders. However, the total prize pool remained relatively low until the 1980s. In 1965, Jacques Anquetil deliberately chose not to participate in the Tour because the public was tired of his all-too-frequent and predictable victories. He said: "If I win the Tour de France a sixth time my criterium contracts will not get more rewarding. However if I do not win they will definitely become less rewarding. Don't count on me!" (Chany and Cazeneuve 2003, p. 501).

From the 1980s, increasing television broadcast rights made the Tour budget skyrocket, which once again led the organizers to increase the total prize money to keep on attracting the world's best riders. While the total prize money was less than US\$1,000,000 in the mid-1980s, in the mid-1990s it was more than US\$3,000,000.

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<caption>*Figure 4.2 Tour de France Prize Money, 1903–2013 (in 2013 dollars)*</caption>



<source>Source:ASO and Augendre 2015.</source>

Given the total size of the prize money, Tour de France organizers have always structured the prize pool to give riders an incentive to fight, rather than share the money without effort. As contest theory shows, amplifying the difference between each rank's cash prize and the next makes it in the riders' interest to compete more intensely for victory (Tullock 1980). This is why the distribution of the prize money shows clear “winner-takes-all” aspects: since the 2000s, around 25% of the prize money goes to a single rider, the winner (Figure 4.2, right axis). During the 1980s and 1990s, the share of the prize pool given to the winner went from less than 5% to around 20%. This may be because when riders' fixed wages increase, the additional prize money which is necessary to lead riders to fight for victory is greater.

From 1903 to 1929, the Tour organizer allowed the participation of individual riders and, progressively, riders grouped into teams which were sponsored by bicycle constructors or tire companies such as Peugeot, Alcyon and Automoto. However, from 1930 to 1961 (and in 1967–1968), the organizer replaced sponsored teams with national teams, because sponsors were accused of fixing the race or colluding to share the prize pool. For instance, the Alcyon team, which won the Tour in 1927, 1928 and

again in 1929, is suspected of having bribed competitors to ensure it would win. Since 1962, all participants are members of a sponsored team, and teams are sponsored not only by cycling-related companies (Gitane, Renault, BMC, etc.) but by companies from a diverse array of industries (Lagae 2015), as testified by some winning teams since the 1990s: Banesto, US Postal Service, Discovery Channel, Sky, Astana, etc. Since the 1960s, the Tour de France has developed a whole discourse on sport's "values" to attract sponsors whose products are not related to cycling any more.

<a>4.3 Who watches the Tour? Spectators as demanders of a show

Since the late nineteenth century, the economic model of the Tour de France has remained the same: the public is willing to watch advertisements (on the road, in the newspaper or on television) in order to be able to follow the developments of the race, and this is why the Tour exists in the first place. However, the Tour de France also reflects long-term economic changes. It is the increase in incomes and the advent of leisure time, including reading newspapers and riding a bicycle, which created a demand for a bicycle race like the Tour de France. And since its creation the Tour also reflects the advent of the mass media and the globalization of sport. Nowadays, the Tour is one of the world's largest sports events, with 10–15 million spectators on the roads per year and over 20 million TV viewers worldwide per racing day (Andreff 2015).

The media that have been broadcasting the Tour since its creation have had a clear impact on the Tour's economic value for organizers, sponsors and riders, but also on the content of the race and its cultural impact. When the newspaper *L'Auto* founded the Tour de France to increase its circulation, it instituted rules which made the race an epic race which would attract readers. The public wanted to read about the "giants of the road" defying mountains (first covered in 1910), rain, mud and snow in endless stages. This is why, according to the rules, riders were not supposed to group into teams,

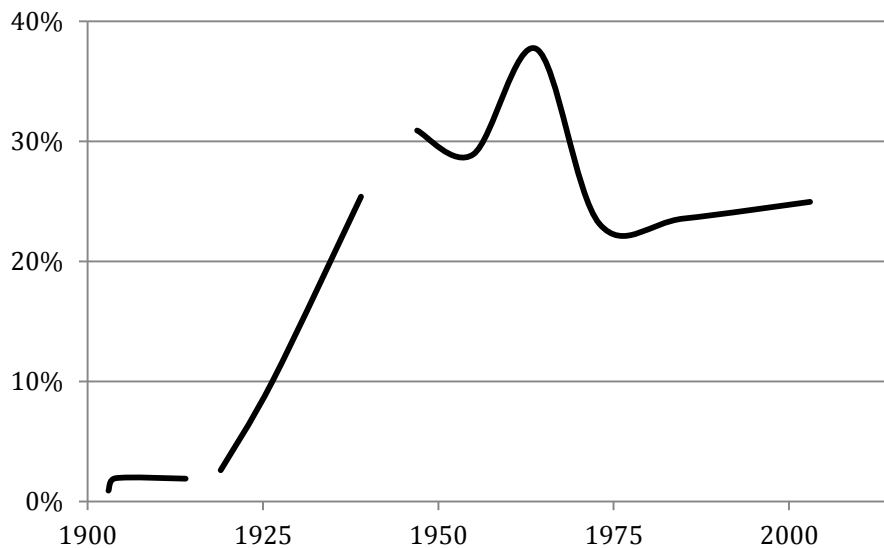
they had to repair their bicycle without any help and until 1937 they were not allowed to use derailleur gears.

Then, from the late 1920s, the Tour de France started to be broadcast on the radio (and in cinema newsreels). People interested in the Tour could now hear the voices of champions and, above all, follow the developments of the race almost instantaneously. The Tour adapted to this new context by shortening stages to make them more exciting and better suited to radio listeners who were especially interested in following stage finishes live. In addition, *L'Auto* allied with other economic actors to promote the Tour de France by creating Tour-related cultural objects (Thompson 2006; Bauer and Froissart 2015).

Since the 1950s, the Tour has been broadcast on television. The Tour was first filmed with fixed cameras and broadcast with a delay of one day; it is only since the 1970s that it has been broadcast live, with mobile cameras and on color television sets. Once again, the Tour adapted to this new context by shortening stages further and organizing them around peak television viewing times, i.e. around the end of the afternoon (Van Reeth 2015b). Thus, Tour organizers have modified the sport content of the race to better suit demand and their own economic interest.

The television broadcast of the Tour has had another consequence: it has probably contributed to the decrease in the number of people watching the race on the roads (Figure 4.3). While in the 1900s only about 2% of the French population followed the Tour, in the 1960s approximately one-third did. However, since then, this proportion has decreased. Television offers such a great show that the need to see the riders “for real” is less than it was.

<caption>Figure 4.3 Proportion of the French population on the Tour de France roads, 1903–2003</caption>



<source>Source:Viollet 2007.</source>

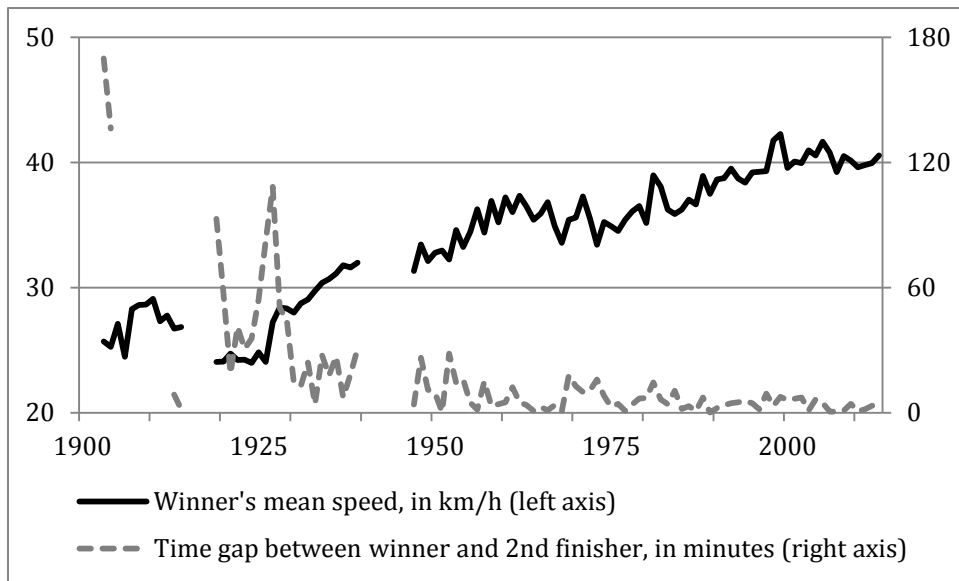
Although there were international exchanges among cycling's actors as early as the nineteenth century (Knuts and Delheye 2014), it is only since the Second World War that the Tour has deliberately tried to attract fans from foreign countries. Its aim is to increase its audience, and thus increase the television broadcast rights it can garner from abroad. This is why the Tour has been crossing into more and more countries in addition to France: Italy and Spain (1949), the Netherlands (1954), Belgium (1958), Germany (1965), Switzerland (1982), Luxembourg (1989), Ireland (1998), England (2007), etc. This is also why the Tour has been inviting more and more teams with foreign riders. The proportion of participants who are not French has exceeded 25% since the 1910s, has been more than 50% since the 1930s and has been more than 75% since the 1980s. And the nationalities of (elite and non-elite) riders, cycling teams and team riders have become even more diversified since the 1990s (Van Reeth 2015c), now including Colombian, American and Eastern European riders. The Tour is now broadcast in almost 200 countries worldwide, and is a partly international sporting event, even though Africa and to some extent Asia are still massively under-represented among both riders and television spectators of the Tour de France.

4.4 Reasons behind the success of the Tour

The enduring success of the Tour may be explained partly by the quality of the show. Indeed, in the long term, riders' performance has clearly improved, while at least in certain respects the element of uncertainty in terms of the outcome of the race has improved too.

As the winners' mean speed illustrates, riders' speeds have increased (Figure 4.4, left axis). This reflects major long-term improvements in riders' equipment, road quality, bicycle weight, brake quality, etc. Just as Joseph Schumpeter noted that "good brakes make cars go faster," better brakes enabled racers to increase their speed without taking too many risks. The long-term increase in riders' speed also reflects riders' better physical preparation, diet and training. The improvement of performance is also partly due to a more efficient organization (i.e., better incentives) inside teams, as recent research on the determinants of performance suggests (Torgler 2007; Prinz and Wicker 2012; Rogge et al. 2013). The increase in performance inequality amongst Tour riders since the 1970s has been shown to be due entirely to an increase in performance inequalities within – not between – teams (Candelon and Dupuy 2015), which means that domestiques increasingly sacrifice their own chances to help their team leader perform better and then share his prizes.

Figure 4.4 Performance and competitive balance in the Tour de France, 1903–2014



<source>Source:Mignot 2014.</source>

Racers' performances have also probably been impacted by performance-enhancing drugs (Brewer 2002; Woodland 2003; Brissonneau et al. 2008). Since the late 19th century, riders have been using – in chronological order – strychnine, nitroglycerine, amphetamines, anabolic steroids, corticosteroids, growth hormones, beta-2-agonists, blood doping and (several generations of) EPO, and blood doping again (Vandeweghe 2015). The 1960s' doping practices triggered tragedies such as Roger Rivière's serious accident (1960) and Tom Simpson's death on the climb of the Mont Ventoux (1967), which is why anti-doping tests started being used in the second half of the 1960s.

However, in 1966, the new anti-doping urine tests were immediately welcomed in with a riders' strike. Since the 1990s, the use of EPO generated several doping scandals, most notably the Festina Affair (1998) and Lance Armstrong's "most sophisticated, professionalized and successful doping program that sport has ever seen" (U.S. Anti-Doping Agency 2012). As game-theoretical analyses indicate, athletes who have to choose between doping and not doping find themselves in a prisoner's dilemma: although each athlete would prefer that no one (rather than everyone) dopes, each also prefers to dope whether others dope or not (Eber 2009).

Even more than purely performance, the competitive balance of the Tour is a major determinant of the quality of the show. As race organizers know, no one would want to watch a race the outcome of which is known in advance. For instance, when in 1934 Tour organizers introduced the King of the Mountains classification, they also introduced the first individual time trial so that both climbers and riders who are strong on the flat may win the overall competition. And when in 1952 the *campionissimo* Fausto Coppi dominated the race as early as the tenth stage, organizers doubled the second-place cash prize so that riders could fight for second if not first place.

To the extent that the time gap between the winner and second finisher is a good indicator of overall competitive balance, organizers have succeeded in increasing the uncertainty of the race (Figure 4.4, right axis). In this respect, the most competitive edition of the race was the legendary 1989 Tour, in which Greg LeMond beat Laurent Fignon by eight seconds. However, additional indicators of (static or dynamic) competitive balance, including indicators taking into account the relative strengths of teams, not just individual racers, should be computed to re-examine this observation. Indeed, although it is very difficult to predict the name of the winner from one year to the next, shortly after the Tour's start it is usually pretty easy to predict from which team(s) and among which riders the winner will come (Andreff 2015, p. 246).

Part of the success of the Tour de France is also due to the fact that it refers to symbols that generate strong emotions among the French public – it is one of France's "realms of memory" (Vigarello 1997). For instance, the 1989 Tour offered 17,890 francs at the 1,789th kilometer to celebrate the 200th anniversary of the French Revolution. The 1994 Tour also went through the places where the Normandy landings liberated France from Nazi rule 50 years before. From a more global perspective, the success of the Tour de France is also partly due to the fact that it shows beautiful pictures of the

French countryside and Paris. It is precisely to produce such telegenic pictures that the Tour introduced a prologue (1967) and the arrival at the Champs-Élysées (1975).

<a>4.5 Conclusion

The Tour de France became popular from its creation in 1903. Back then, it was a symbol of speed, mass consumption and modernity. However, why did the Tour de France stay popular, and how has it been able to survive the competition from other sporting events for more than a century? The major reason is probably that the Tour succeeded in adapting to new types of demand. As sports newspapers declined, the Tour was able to profit from the advent of the radio in the interwar years, and from the advent of television from the 1950s. When bicycle and tire companies stopped sponsoring the Tour and cycling teams in the 1950s, the Tour was able to attract more diversified companies. And as sport globalized in the 1980s, the Tour was able to garner interest from cycling fans beyond France and Europe. Thus, the history of the Tour de France is not just part of the history of professional road cycling (Mignot 2015). Much more generally, it is part of – and in many ways reflects – European economic history.

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