

# **Chapter 8 -- Two Worlds**

**Thomas Piketty, *Capital in the 21st Century* (Harvard University Press 2014)**

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# The Central Questions

- . How and why has the structure of inequality changed over the course of the 20th Century?
- . What role has been played by wealth shocks? What role has been played by the rise in top salaries?
- . The timing and nature of the rise in inequality since 1970 has varied between countries, pointing to institutional and political factors.
- . This chapter compares changes within the top income decile and centile in the United States and France.

## Data Sources

- . Income tax statements make it possible to analyze the diversity at the top of the income distribution and its evolution over time.
- . The income tax is a 'young' tax — the United States introduced it in 1913, France in 1914, too late to analyze the impact of WWI.
- . The data is from tax returns and underestimates actual capital income because of tax evasion and tax exemptions.
- . Income tax returns do not have information about the origin of the capital whose income is being reported — we do not know whether that capital was inherited or accumulated by the taxpayer.
- . Detailed data on estate taxes exists going back to 1791 for France. It can be used to analyze the shocks of 1914–1945.

## A Typical History: France

- . The case of France in the 20th century is representative of changes observed in Germany, Japan, and other rich countries.
- . The experience of the United States is analyzed later.
- . Figure 8.1 shows share of national income and wages (before taxes and transfers) of the top 10% hierarchy.
  - 1. Fall in income inequality.
  - 2. Fall due entirely to top capital incomes.
  - 3. Collapse in the income share of top centile.

# Fall in Inequality

- . 1. Fall in income inequality.
- . The share of the top decile fell from 45–50% in 1914 to 30–35% in 2010.
- . This fall of 15 percentage points of national income represents a fall of  $\frac{1}{3}$  in the share going to the top decile (and a rise of  $\frac{1}{3}$  in the share going to the other 90 percent).
- . This is a remarkable compression in inequality.

# Top Capital Incomes

- . 2. Fall due entirely to top capital incomes.
- . The labor income share in national income has remained stable over the 20th century. The labor income share of the top decile has remained at about 25% throughout. The labor income share of the bottom half has also been stable at 25–30%.
- . While the composition and skills of the workforce have changed over time, the labor income hierarchy has remained the same.
- . If top capital incomes had not fallen, nor would have income inequality.

# Top Labor Incomes

- . 3. Collapse in the income share of top centile.
- . The share of the top centile fell from 20% in 1900–1910 to 8-10% in 2000–2010 — a fall of more than 1/2.
- . Fall due entirely to the fall of very high capital incomes.
- . In 1900, the top centile's total income share was 3 times its labor income share. In 2000, the top centile's total income share is similar to its labor income share — but the top thousandth's total income share is much greater than its labor income share.

# Inequality Falls Between the Wars

- . Figures 8.1 and 8.2 show that the history of inequality has been chaotic and political.
- . The compression of income inequality is limited to 1914–1945.
- . The fall of inequality is explained by the collapse of top capital incomes.
- . There has been no reduction in labor income inequality — in contradiction with 'Kuznets curve optimism'.
- . All developed countries have experienced this general pattern.



# The shocks of 1914-1945

- . Rapid fall in the capital/income ratio.
- . Large fall in the capital income share.
  - Physical destruction caused by two world wars.
  - Bankruptcies caused by the Great Depression.
  - Financial destruction of wealth caused by inflation.
  - Reorganization caused by the 'war economy', decline in private incentives and increase in state monopsony.
  - Public policies to control rent, nationalize private enterprises.
- . Capital is more concentrated than labor and receives a larger share of the top decile/centile of the income hierarchy. Thus, shocks to capital compress the distribution of total incomes.

## From Rentier to Manager

- . Figure 8.3 breaks down the components of incomes for different fractiles.
- . In 1932, income from capital represented the main source of income for the top 0.5 percent of the distribution, despite the Depression.
- . At higher income fractiles, capital income takes up a greater share than labor income. This is true everywhere.
- . In 2005, capital income exceeds labor income only in the top 0.1%.
- . Nothing suggests a fall in income inequality would have occurred without the wars, the depression, and high inflation episodes.

# The Fall of the Rentier

- . The top centile once dominated by rentiers (people who own enough capital to live off the interest) is now dominated by managers (people who earn very high salaries and bonuses).
- . This transformation is due entirely to the fall in top capital incomes, with the labor income hierarchy stable throughout the interwar period.
- . In other words, the top rentiers have fallen behind managers.
- . The collapse of the rentier between 1914 and 1945 is easy to explain. But why haven't the rentiers come back?
  - 1. highly progressive taxes on income and inheritance.
  - 2. other factors too.

# The Top Decile

- . The top income decile is made of very diverse social groups.
- . Capital income used to make up a larger share than labor income in the top 1%, but today this is true only in the top 0.1%.
- . In the first 5% of the top decile, labor income accounts for 80–90% of total income.
- . In the next 4%, labor income still accounts for 70–80%.
- . Taken together, the 9% (upper decile minus top centile) rely primarily on labor income.
- . The capital/labor split in the 9% group is 20/80.

# The Top Decile

- . Typical professions include managers, engineers, senior officials, doctors, lawyers, merchants, self-employed entrepreneurs, whose pay is usually 2 to 3 times the country's average wage. If the average monthly wage is €2,000, the 9% earns €4,000–€6,000.
- . In the interwar years, high school teachers and late-career grade school teachers belonged to the 9%; today, only college professors.
- . The importance of the self-employed (mixed incomes) grows as one approaches the top 1% threshold, where they account for 20–30%, but decreases beyond, where pure capital income predominates.

# The Top Decile

- . To approach the top 1%, incomes must be about 5 times above the average — if the average monthly income is €2,000, incomes must exceed about €10,000.
- . To be inside the top 1%, a lot of capital is needed.
- . The capital income share is 20% for the 9% — 60% for the top 0.01%.
- . The rise is explained entirely by financial assets (mostly dividends).

## Data Imperfections

- . Comparing self-declared income on tax returns with other sources, such as the national accounts, suggests 3-5 percentage points must be added to the French capital income share. The share of the top decile (Figure 8.1) was probably above 50% in 1914 and above 35% now.
- . Accounting for tax avoidance and evasion would probably raise inequality by similar proportions in different periods.
- . Different capital tax laws may bias international comparisons. While rents, interest, and dividends are treated similarly in different countries, there are significant variations in the treatment of capital gains. Capital gains are not consistently reported in French tax data (and not included in the figures), while they are fairly well accounted for in US tax data.
- . If Figures 8.3 and 8.4 included capital gains, the capital income share of the top 0.01% would be 70% or 80% instead of 60%.

## Chaos Between the Wars

- . Between 1914 and 1945, the share of the top 1% in France fell gradually from 20% in 1914 to 7% in 1945 (Figure 8.2).
- . The share of the top 10% fell from 45-50% in 1914 to below 30% in 1945, but more erratically. The top 10% share fell during WWI, rose in the 1920s, rose further between 1929 and 1935, then fell sharply in 1936–1938 and during WWII.
- . Over the period 1914–1945, the top 1% accounts for 3/4 of the fall in inequality, while the other 9% accounts for 1/4.
- . Two reasons for the fall at the very top: **1.** extreme concentration of capital at the very top; **2.** the top 1% held riskier assets.



## The 10% Between the Wars

- . Why did the share of the upper decile rise sharply after the stock market crash of 1929?
- . Why did the share of the top centile fall between 1929 and 1932?
- . Within the top 10%, the top 1% and the other 9% received different income streams.
- . The top 1% received most of its income in the form of capital income, especially interest and dividends, which collapsed during the Great Depression.

## The 9% Between the Wars

- . The 9% (top decile minus top centile) consisted mostly of managers, who were shielded from unemployment. Within the 9%, mid-level civil servants and teachers did well. While their purchasing power had fallen during WWI and the early 1920s, wages had risen during 1927–1931.
- . Public sector wages remained constant in nominal terms until 1933, while private sector wages fell by more than 50% during 1929-1935. As prices fell by 25% during 1929-1935, the purchasing power of civil servants increased.
- . The capital income of the 9% included mostly rents, which were extremely rigid in nominal terms and increased in real terms during the deflation of 1929-1935. Meanwhile the dividends paid to the top 1% evaporated.

# Inflation Between the Wars

- . Each country's politics had an impact on the history of inequality.
- . From May 1936 to June 1937, a Socialist coalition government (the 'Popular Front') came to power in France. Workers' wages were raised, capital took flight, the franc was devalued, causing inflation and a fall of the income shares of the top decile — both the top 1% and the next 9%.
- . In the United States, President Roosevelt came to power in 1933 and deflation stopped immediately (A presidential executive order of 5 April 1933 made the private ownership of gold certificates, coins and bullion illegal, triggering a sudden change in expectations and a rise in inflation)
- . The compression of wages that occurred in 1936 in France occurred in 1933 in the US.

## Post-War Inequality

- . A typical pattern: In wartime, economic activity falls, inflation rises, real wages tend to fall, except at the bottom of the wage scale where they are better protected from inflation. The compression of wage inequality is reversed after the war.
- . Income inequality rose sharply during 1945-1967, fell sharply during 1968-1983, then rose steadily after 1983.
- . The top 10% income rose from 30% to 37%, then fell back to 30%, had risen to 33% by 2010.

# Inequality Fluctuations

- . Changes in the division of income between capital and labor tend to reinforce labor income inequality in the short and medium term, but not in the long run.
- . Each of the world wars led to a fall in the capital income share and a compression of wage inequality.
- . In general, inequality tends to be pro-cyclical: in booms, the income share of profits and the top salaries (including bonuses) tend to rise faster; and to fall faster in recessions.
- . During post-war reconstruction, the rise in inequality was seen as a 'return to normality' after the compression of the pre-war and war period.

# Politics of Inequality

- . In May 1968, after student unrest and general strikes, the French government raised the minimum wage by 20%. After 1970, the minimum wage was indexed to the average wage.
- . During 1950-1968, the purchasing power of the minimum wage rose by 25%; that of the average wage rose by more than 100%.
- . During 1968-1983, the purchasing power of the minimum wage rose by more than 130%; that of the average wage by 50%.
- . In 1982–1983, the French government turned to austerity: public wages and the minimum wage were frozen. The share of profits in national income quickly rose and wage inequalities rose again.
- . 1936, 1968, 1982: 3 dates in the politics of inequality.

# The Rise of Top Salaries

- . In the 1990s, top salaries — especially pay packages awarded to top executives of financial firms — reached new heights.
- . The share of wages going to the top centile rose from 6% in 1980 to 8% by 2010.
- . Purchasing power rose more than 50% for the top 0.1% or 0.01% while it stagnated for the vast majority of workers.

## United States and France: Comparison

- . Figures 8.5 and 8.6 show the same data for the United States as Figures 8.1 and 8.2 show for France.
- . The United States first instituted a federal income tax in 1913. Separate information on labor income is only available after 1927, so comparison before 1927 is less reliable.
- . The most striking fact is that the US has become noticeably more inegalitarian than France from 1900 until now.
- . US inequality in 2010 is as extreme as in old Europe in 1900, but the structure of inequality is different.



## United States and France: Differences

- . In 1900, income inequality was significantly greater in Europe than in the US. The top income decile received 40% in the US, compared with 45–50% in France and probably more in the UK.
- . Two differences. **1.** the capital/income ratio was greater in Europe, and so was the income capital share. **2.** the distribution of capital was less concentrated in the US.
- . Still the US was already more unequal than Europe today.
- . Income inequality rose sharply in the US during the 1920s. The share of the top decile peaked at 50% of national income in 1929.

## United States and France: Similarities

- . Inequality fell during 1950-1980, as with France, but the scale is different. At its lowest, the top income decile received 30% of national income, about the same level as in France in 2010.
- . After 1980, income inequality exploded. The top income decile share rose from 30% to 50% in 2010. The French data does not include capital gains, making comparison difficult.
- . The gap between total capital income included in US national accounts and declared in income tax returns has widened, reflecting in particular tax evasion (the rewards to tax evasion rise with income), suggesting that Figure 8.5 underestimates the increase of income to the top decile.

# Capital Gains

- . Capital gains in the US peaked during the Internet bubble in 2000 and again in 2007. In both cases, capital gains alone accounted for about 5 points of national income to the top decile.
- . The short-term fluctuations of the stock market add considerable volatility to the evolution of the top income decile, but do not contribute much to the structural rise in inequality.
- . Ignoring capital gains, the top income decile share rose from 32% in the 1970s to 46% in 2010, a rise of 14 points of national income.
- . The financial crisis is merely a temporary interruption of the structural rise in inequality.

# Top Income Decile

- . Figure 8.6 breaks the top income decile into 3 groups: the top 1%, the next 4%, and the remaining 5%.
- . The top 1% accounts for most of the rise in inequality. The top centile income share rose from 9% in the 1970s to 20% in 2010 — +11 points.
- . The income share of the next 4% rose from 13% to 16% — +3 points.
- . The income share of the remaining 5% rose from 11% to 12% — +1 point.
- . Since 1980, the top decile have experienced income growth substantially greater than the average economic growth.
- . Of the 15 additional points of national income going to the top decile, 11 points (3/4 of the total) went to the top 1% — 1/2 of that went to the top 0.1% (those making more than \$1.5 million a year).

# Inequality and the Financial Crisis

- . In the years leading up to the Great Recession, the United States has run deficits of 4 points of national income. These trade deficits have counterparts in trade surpluses from China, Japan, and Germany.
- . In a 2005 speech, Fed Chair Ben Bernanke blamed the Crisis on these 'global imbalances,' implicitly blaming others for a 'global saving glut' rather than blaming themselves for a 'local saving dearth.'.
- . Thomas Piketty suggests that 'internal imbalances' may have played a greater role. Joseph Stiglitz has expressed a similar view.
- . The internal transfer of income towards the top decile, on by 2008, reached 15 points of national income — nearly 4 times the trade deficits.

# Supersalaries in the United States

- . Figures 8.7 and 8.8 show the top income shares in the US.
- . The recent rise in US income inequality originates in extremely high salaries, particularly among top managers of large firms.
- . Labor income inequality rose in the 1920s, stabilized in the 1930s, fell in the 1940s. Between 1941 and 1945, the *National War Labor Board* typically approved raises only for the lowest paid workers. Managers' salaries remained constant in nominal terms.
- . In the 1950s, labor incomes inequality stabilized at a level lower than France. The top decile income share was 25% percent; the top centile 6%.
- . In the 1970s, labor incomes rose. The top decile share rose from 25% to 35% — a 10 points rise accounting for 2/3 of the total rise in the top decile.

# Top Incomes in the United States

- . Figures 8.9 and 8.10 show the composition of top US incomes.
- . 1. The rise in labor income inequality was not compensated by a rise in mobility — workers at McDonald's do not typically rise to become top managers of large US firms.
- . 2. The rise in capital income inequality after 1980 accounts for 1/3 of the total rise. Capital income is more important at higher fractiles of the income hierarchy.
- . Capital income overtakes labor income at higher fractiles today — in 1929, labor income dominated capital income for everyone except the top 1%; in 2007, capital income (including capital gains) dominates the top 0.1%.
- . 3. The rise in top incomes reflects the rise of the 'supermanager.'

# The Top Centile in the United States

- . In 2010, 60-70% of the top 0.1% of income earners consists of top managers (incomes include bonuses and stock options). Athletes, actors, and artists make up less than 5% of the top centile.
- . The financial professions (bank managers, traders) are twice as common in the top centile — they account for 20% of the income of the top 0.1%, but less than 10% of US national income.
- . The very high volatility of incentives, bonuses, and option prices explains why top incomes fluctuated so much during 2000–2010.
- . The market deregulation waves of the 1980s and 1990s and tax cuts of the 2000s raised the bargaining power of the top executives, leading to ever growing pay packages out of line with productivity.



# Income inequality in France

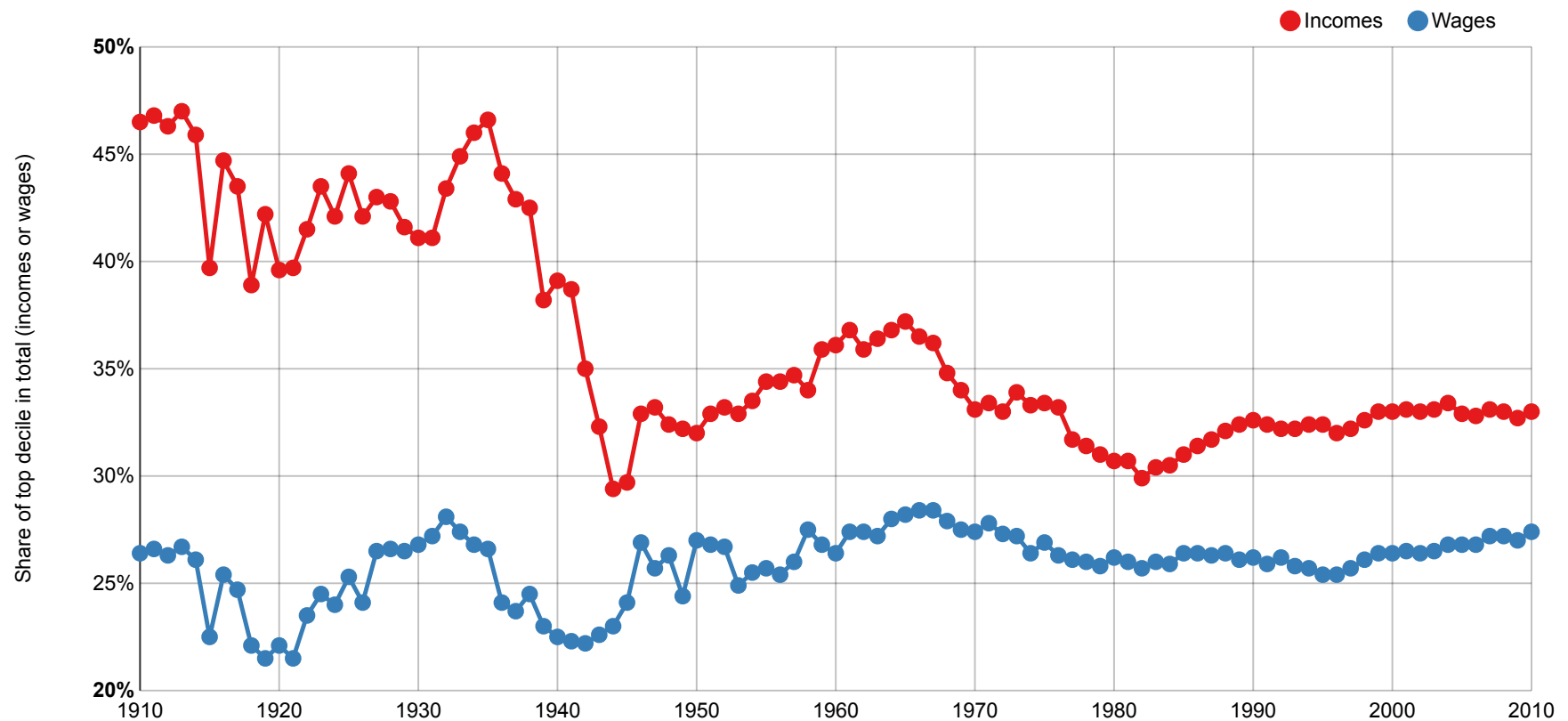


Figure 8.1. Share of top decile. Inequality of total income (labor and capital) has dropped in France during the twentieth century, while wage inequality has remained the same.

# The fall of rentiers in France

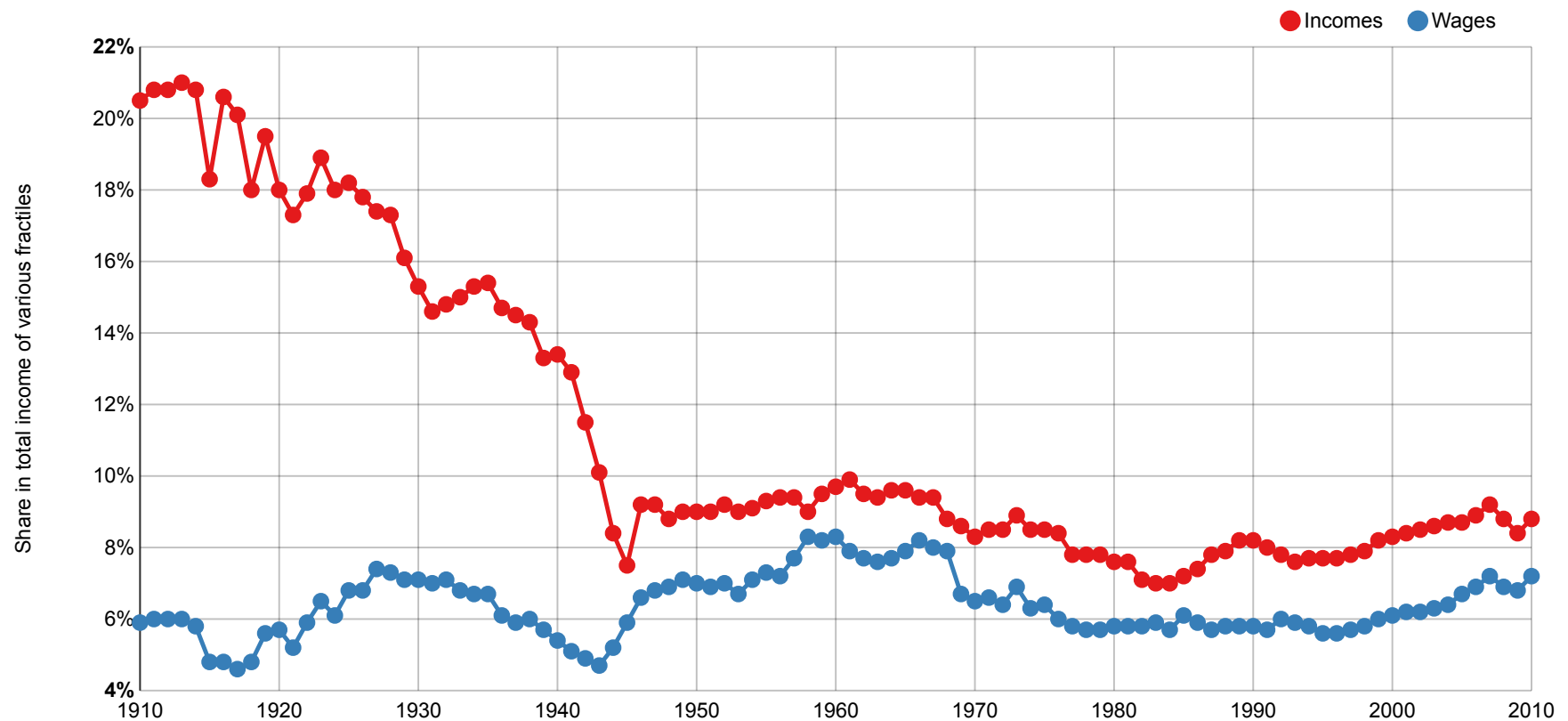


Figure 8.2. Share of top percentile. The fall in the top percentile share (the top 1 percent highest incomes) in France between 1914 and 1945 is due to the fall of top capital incomes.

# The composition of top incomes in France in 1932

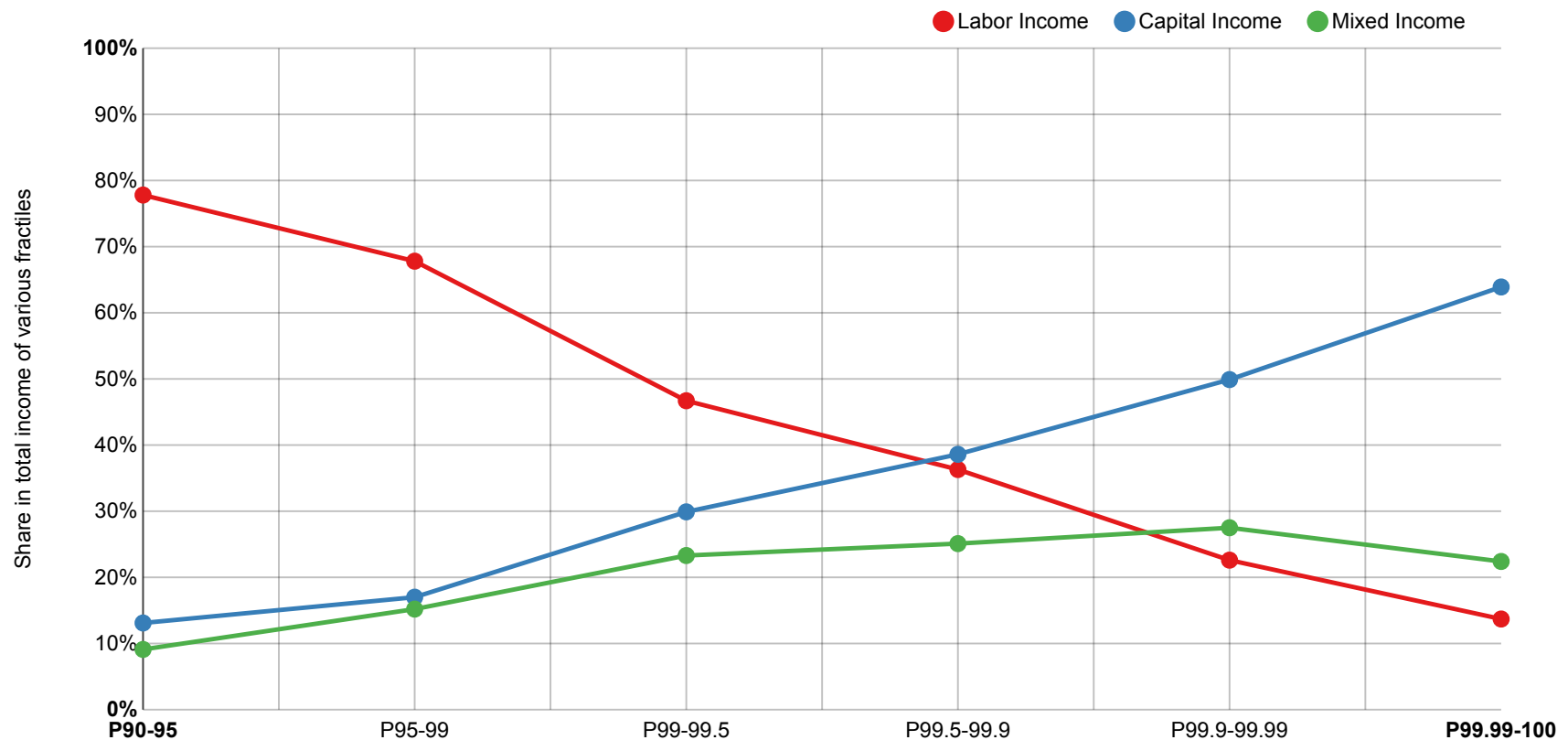


Figure 8.3. Labor income becomes less and less important as one goes up within the top decile of total income. Notes: (i) P90-95 includes individuals between percentiles 90 to 95, P95-99 includes the next 4 percent, P99-99.5 the next 0.5 percent, etc.; (ii) Labor income: wages, bonuses, pensions. Capital income: dividends, interest, rent. Mixed income: self-employment income.

# The composition of top incomes in France in 2005

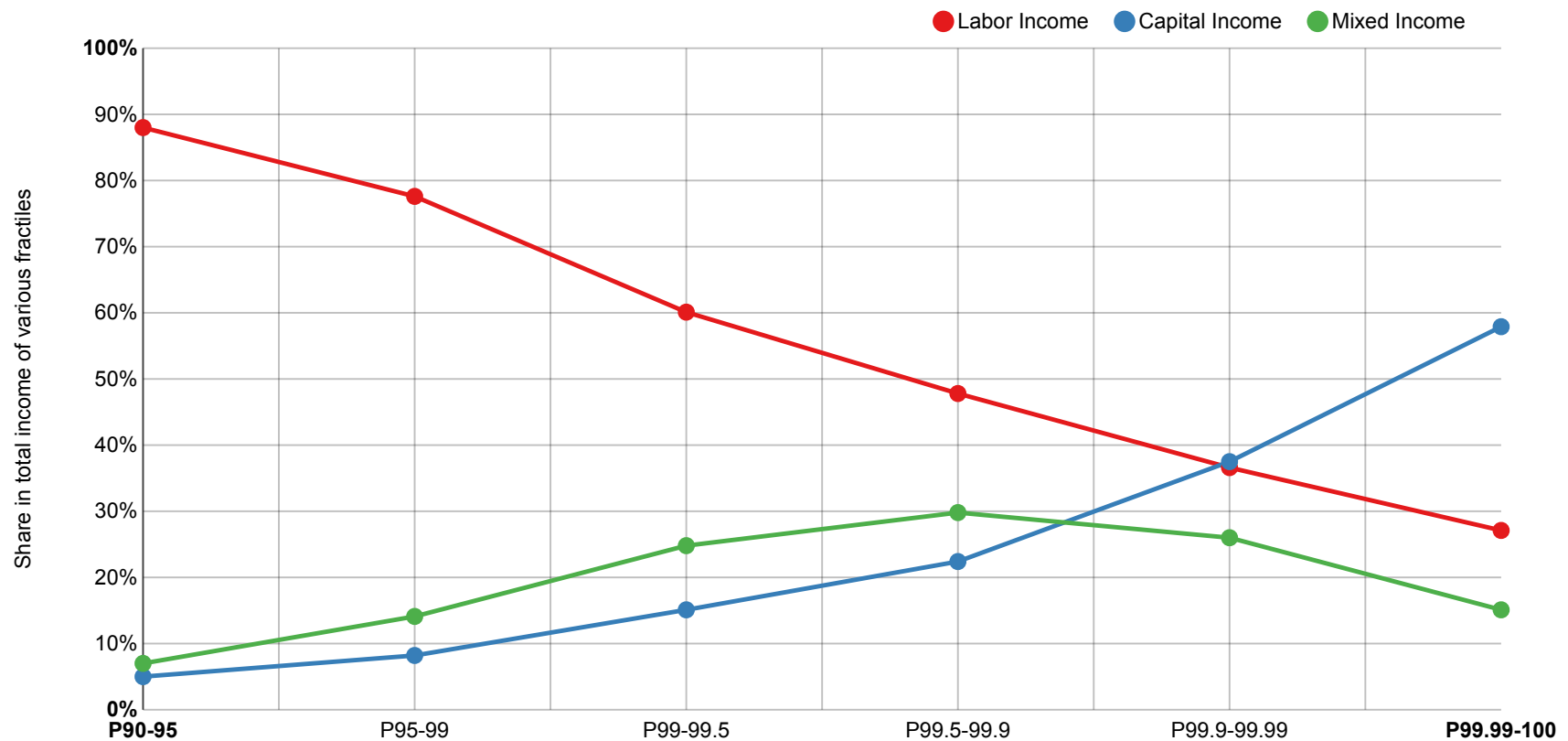


Figure 8.4. Capital income becomes dominant at the level of the top 0.1 percent in France in 2005, as opposed to the top 0.5 percent in 1932.

# Income inequality in the United States

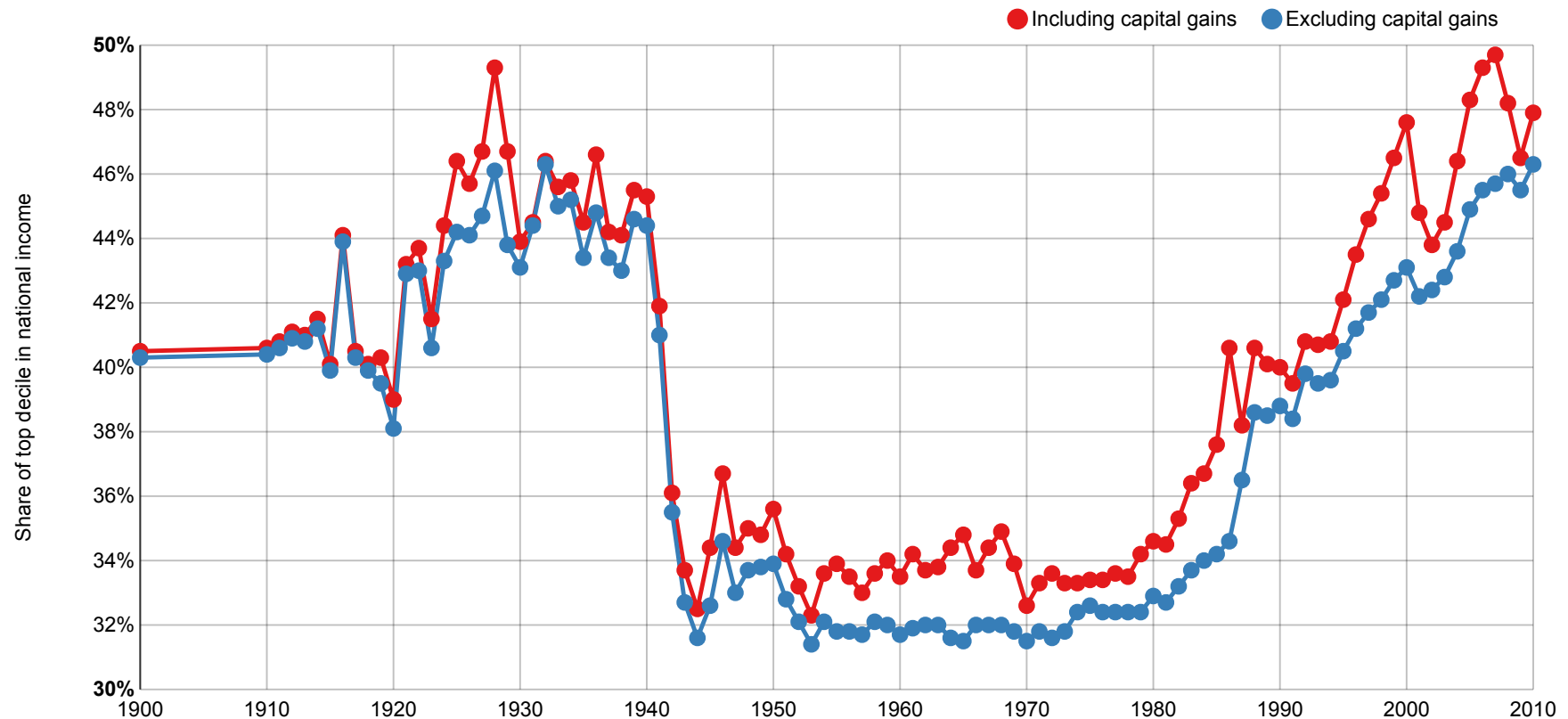


Figure 8.5. Share of top decile. The top decile share in U.S. national income dropped from 45-50% in the 1910s-1920s to less than 35% in the 1950s (this is the 1950-1960 fall documented by Kuznets); it then rose from less than 35% in the 1970s to 45-50% in the 2000s-2010s.

# Decomposition of the top decile in the United States

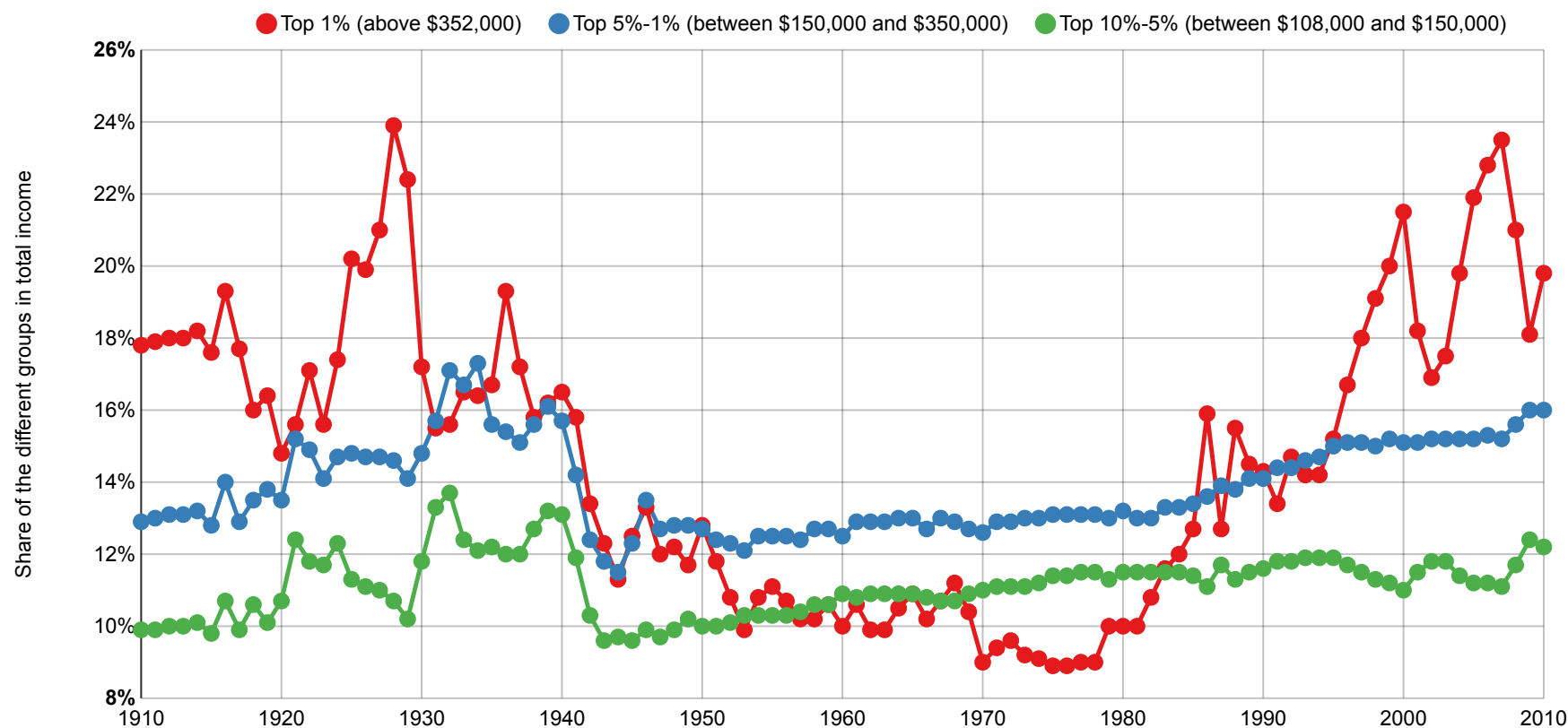


Figure 8.6. Share of top centiles. The rise of the top decile income share since the 1970s is mostly due to the top percentile.

# High incomes and high wages in the United States

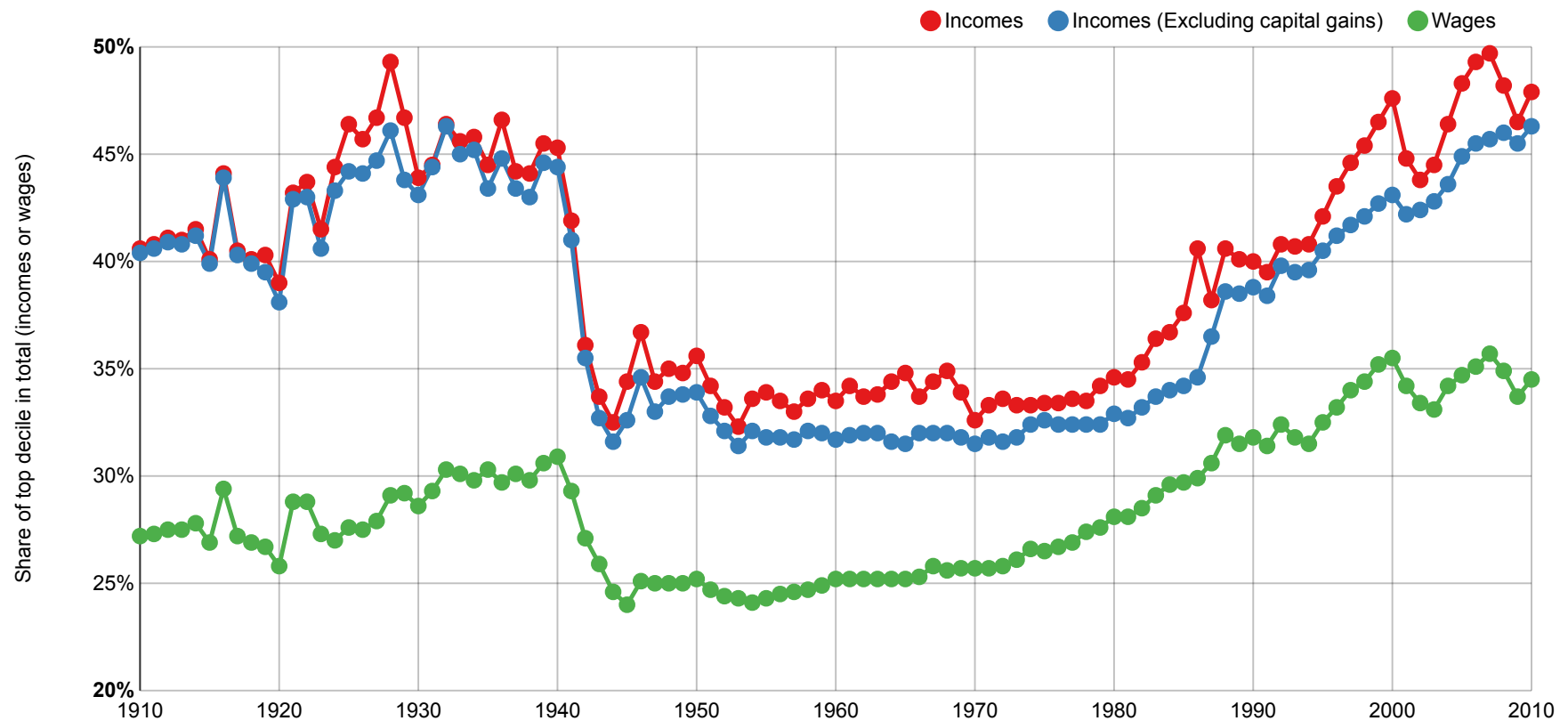


Figure 8.7. Share of top decile. The rise of income inequality since the 1970s is largely due to the rise of wage inequality.

# The transformation of the top 1 percent in the United States

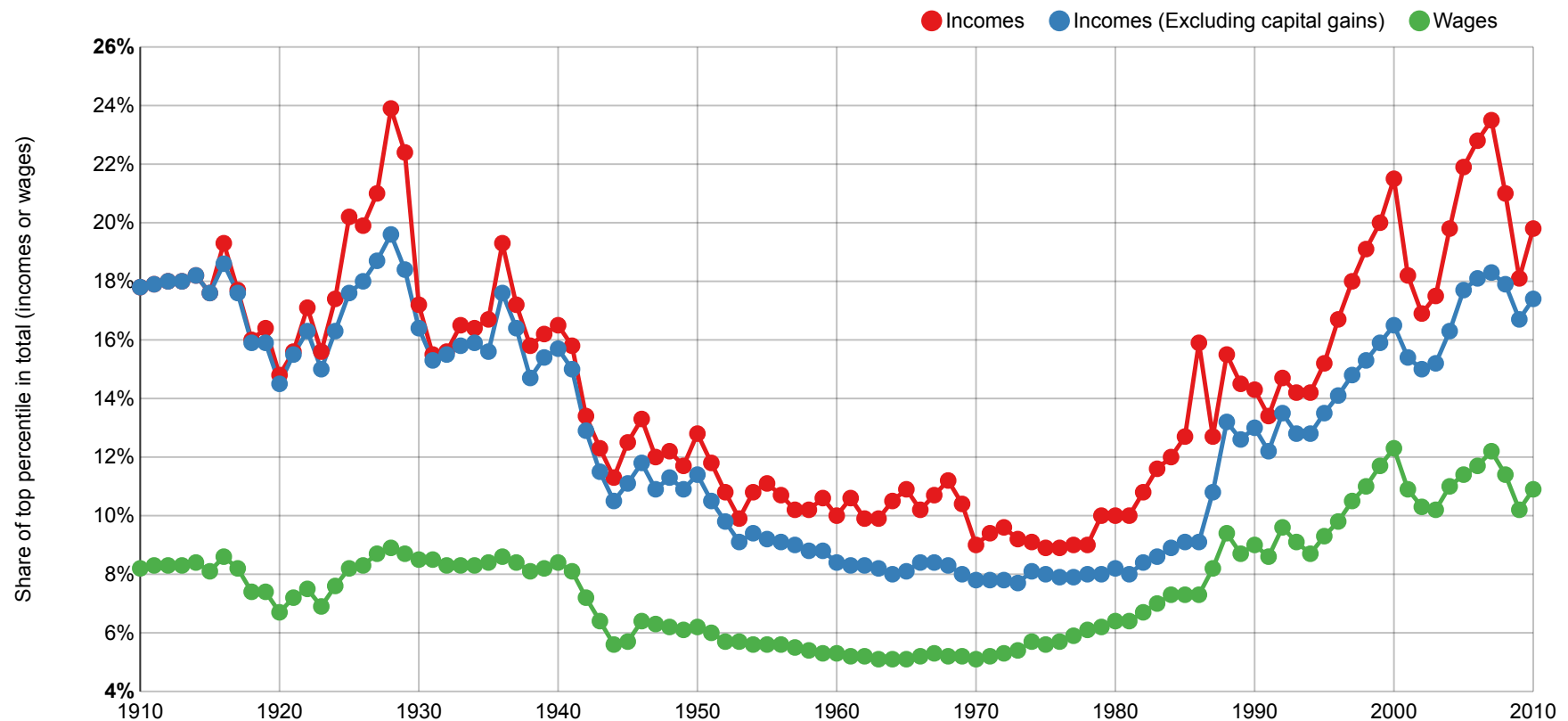


Figure 8.8. The rise in the top 1 percent highest incomes since the 1970s is largely due to the rise in the top 1 percent highest wages.



# The composition of top incomes in the United States in 1929.

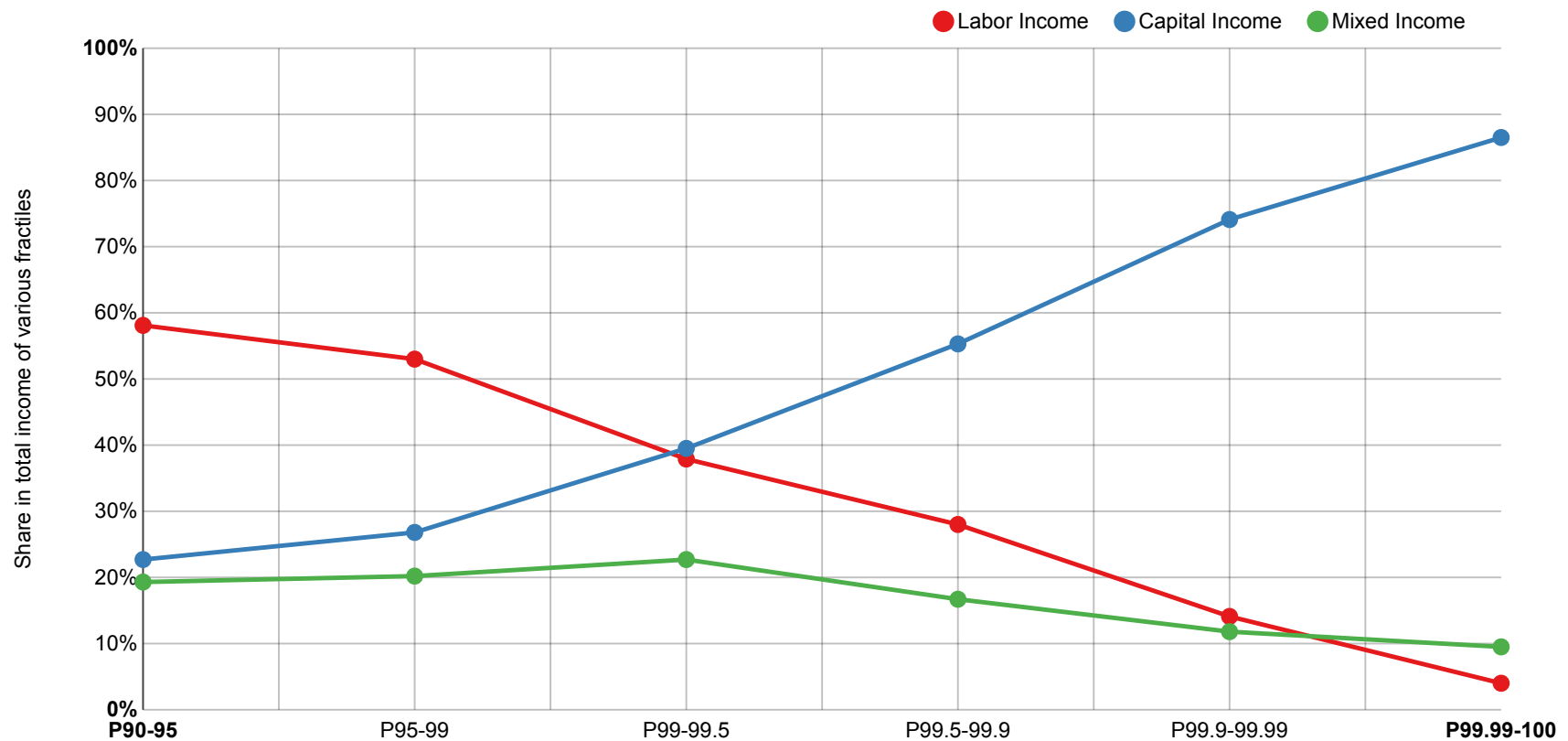


Figure 8.9. Labor income becomes less and less important as one moves up within the top income decile.

# The composition of top incomes in the United States in 2007.

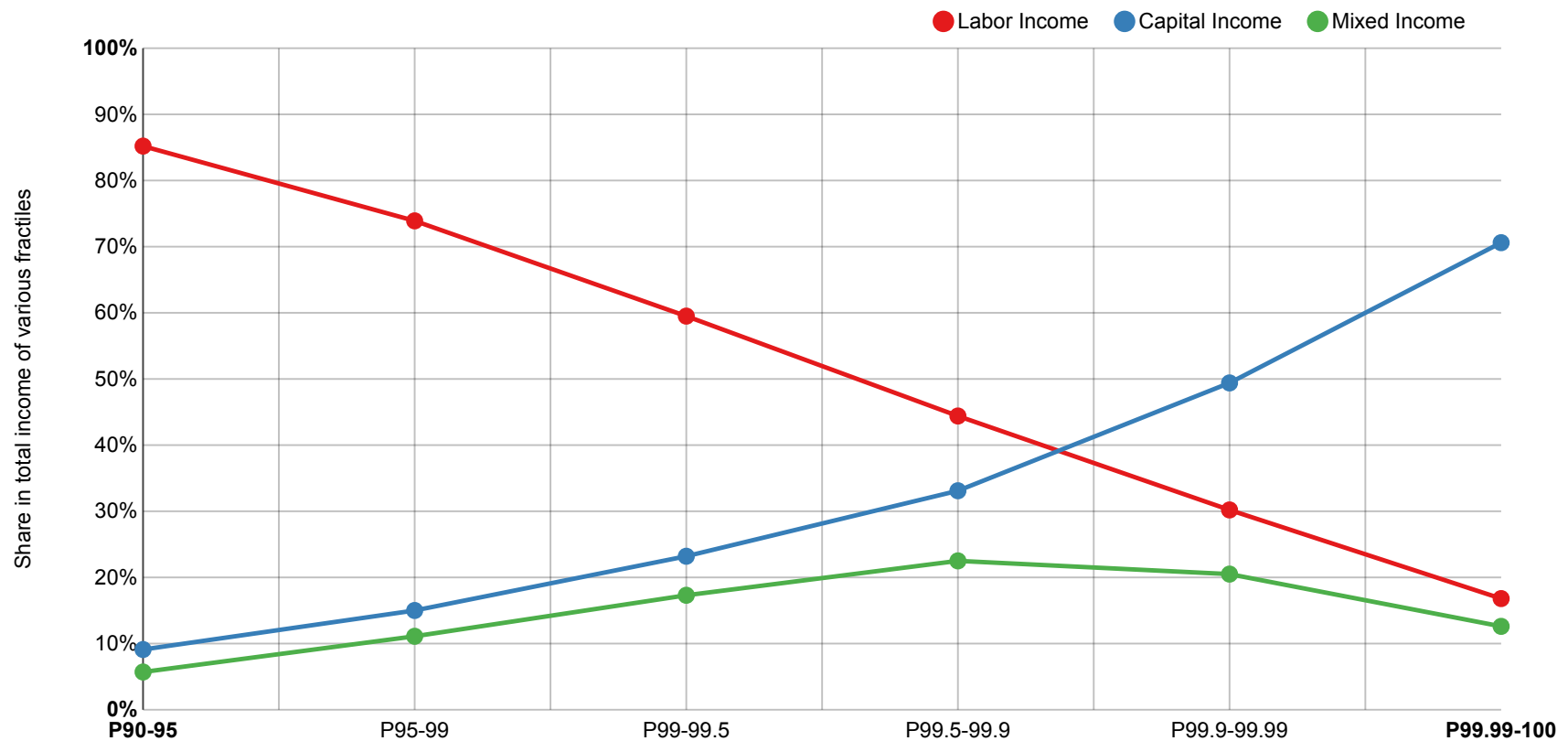


Figure 8.10. Capital income becomes dominant at the level of top 0.1 percent in 2007, as opposed to the top 1 percent in 1929.