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GROWTH, INEQUALITY, AND POVERTY IN SPAIN, 1850-2000: EVIDENCE AND SPECULATION[*]

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Abstract

Was the Civil War (1936-39) originated by staggering inequality and extreme poverty? How did Franco's dictatorship (1939-75) affect inequality and poverty? As a first step to provide an answer, growth and inequality over the long-run are assessed and their impact on absolute poverty calibrated. The paper concludes that during the last one and a half centuries economic growth, but also the decline in inequality during the Interwar years and since the late 1950s, led to a substantial reduction in absolute poverty. Raising inequality and poverty do not seem to have triggered the Civil War.

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Seventy five years have elapsed since the II Republic was proclaimed. Attempts to introduce institutional and social reforms were accompanied by increasing social turmoil and political unrest and ended with General Franco's uprising and the Civil War (1936-39). Were there economic causes of the War of Spain? If this was the case, should astounding inequality and extreme poverty be included among them? Was economic progress during the 1920s, under General Primo de Rivera's dictatorship (1923-29), associated to raising inequality that eventually contributed to trigger the civil war?

The Civil War was followed by Franco's long dictatorship (1939-75) that encompassed two distinctive phases: autarchy and sluggish growth, in the first one; cautious liberalization and fast economic progress, in the second. Was there an association between autarchy and inequality and poverty? Was there a trade off between growth and inequality in Spain's delayed Golden Age (1960-74)? How was poverty affected by this economic success? Did restoring democracy help to reduce inequality and absolute poverty during the II Republic (1931-36) and, again, during the last three decades?

Furthermore, had the institutional modernization that accompanied early modern economic growth in the late nineteenth century and early twentieth century a significant impact on income distribution and the standard of living?.

There is, hence, an ambitious research agenda in which this paper is just a first step. My goal here is simply assessing growth and inequality trends and proposing plausible conjectures of their impact on poverty reduction in the long-run.

The paper is divided into three sections. Against the pessimistic qualitative assessments of Spain's economic history pioneers (Nadal 1975, Sánchez-Albornoz 1968, Tortella 1973) that percolated through international textbooks with lasting effects (see, for example, O'Rourke and Williamson 1999), Section I shows that modern economic growth has been far from a failed experience in Spain over the last one and a half centuries. But, did economic growth have an impact on poverty in the long run? The extent to which sustained per capita GDP growth impinges on the lower deciles of income distribution depends on the initial level of development, the degree of income inequality, and how sensitive poverty is to variations in income and inequality (Bourguignon 2002). Assessing inequality over time is, hence, a prerequisite to investigate absolute poverty reduction. In

the absence of direct estimates of income distribution based on microeconomic evidence prior to 1973, an indirect and macroeconomic approach to appraising inequality is explored in section II. It turns out that the evolution of income inequality resembles two wide Kuznets (1955) inverted U with peaks in 1918 and 1953, respectively. Lastly, in section III an attempt is made at establishing trends in absolute poverty levels by calibrating the impact of growth and inequality on poverty reduction on the basis of López and Servén's (2006) recent empirical research. It turns out that economic growth, together with a decline in inequality during the Interwar years and since the late 1950s, led to a substantial reduction in absolute poverty during the last one and a half centuries. Section IV wraps up and suggests a research agenda. It appears that the Civil War occurred after one and a half decades of inequality decline and poverty alleviation. Early Franco's dictatorship offers a clear link between isolation, sluggish growth, and inequality, while poverty levels remained high and, conversely, an association between openness, growth acceleration, and falling inequality that led to a reduction in absolute poverty is observed in the late Francoism. However, the connection between democracy and inequality and poverty decline is not unambiguous as their contraction also took place under Primo de Rivera's and late Franco's (1960-75) dictatorships.

Long-run Growth

Since mid nineteenth century modern economic growth has irreversibly proceeded in Spain[1]. The steady increase in the aggregate economic activity, at almost 2.5 percent per year, represents, over a period of a century and a half, a multiplication coefficient of 40, while population increased more than two and half times. As a result, product per head by 2000 was 15 times greater than in 1850. Meanwhile, private consumption per head, an indicator which, the provision of public services and income distribution aside, reflects welfare level, increased 12 times[2]. Private domestic consumption only fell substantially behind GDP growth in the early twentieth century and up to World War I, and during the

[1] The next paragraphs draw on Prados de la Escosura (2006a).

[2] Government consumption grew slightly faster than GDP due to expansion in the last quarter of the twentieth century as a consequence of setting up the welfare state, regional devolution (the emergence of 17 autonomous regions) and industrial restructuring of obsolete and non-competitive manufacturing grown under strong protectionism and heavy Government intervention (Comín 1992, 1994, González-Páramo 1992).

Civil War and World War II (1935-1944). Thus, present consumption was not sacrificed to investment in order to raise future consumption and, consequently, no parallel with the experiences of Asian NICs can be drawn (Young 1995, Crafts 2000). (Graph 1).

Three main phases which exhibit marked differences in per capita GDP growth can be identified in Spain's long-run performance: 1850-1950 (0.7 %), 1951-1974 (5.4 %) and 1975-2000 (2.6 %) (Table 1)[3]. Continuity in economic growth between 1850 and 1950 is at odds with a widely held interpretation that emphasizes the nineteenth century as a period of failure and the twentieth century as one of economic success (Tortella 1994), while confirms previous claims of steady trend growth over 1850-1935 (Cubel and Palafox 1998, Carreras 1987, 1992).

Long-term continuity is, however, compatible with phases or long swings in which growth rates differs from the trend growth. Economic policies, access to international markets and technological change would play a part in the four phases that can be established during the hundred-year era of steady and moderate growth prior to 1950 (Table 1, Panel B)[4]. The first two cover the years between 1850 and 1920 with 1883 as a turning point**,** while the third phase covers the twenties and the fourth, the period 1930-1952. During the first and the third periods, 1850-1883 and 1920-29, output per person grew above the trend rate for 1850-1950. Openness to ideas and to commodity and factor flows lie beneath the faster pace of growth. Inflows of capital from abroad made it possible to break the close connection between investment and savings and contributed to economic growth (Prados de la Escosura 2006b). In the 1920s Government intervention and investment in infrastructures, it has been argued, were decisive factors behind this growth (Velarde 1968) but a significant inflow of foreign capital which allowed the purchase of capital goods and raw materials making possible economic expnasion cannot be neglected (Prados de la Escosura 2006b, Tena 1999).

Conversely, from the mid 1880s to 1920 and, again, during 1930-52 (a period which, in addition to the Great Depression, includes Civil War and autarchy) sluggish growth is associated to increasing international isolation (Fraile Balbín 1991). This growing isolationism offers the most plausible explanation for the fact that despite the institutional

[3] Econometric testing suggests that absolute and per capita GDP series are trend stationary with structural breaks in level (1936) and in trend (1951 and 1975) (Prados de la Escosura 2006a).

stability achieved during the Restoration, the rate of growth faded sharply. Increasing tariff protection and not being part of the gold standard seem to have represented a major obstacle to Spain's integration in the international economy[5]. Moreover, Spain's neutrality during the World Wars did not provide the economy with the stimulating aggregate effects usually assumed[6]. Paradoxically, institutional stability during the *Restauración* (1874-1923) that could have favored investment and, hence, growth was not accompanied by a vigorous economic performance, while the opposite happened during the central decades of the nineteenth century suggesting that stability does not always go hand in hand with well defined and enforced property rights (Bueno de Mesquita and Root 2000).

The change in trend which began in 1951 brought a century of moderate progress to an end and ushered in an exceptional phase of rapid growth which lasted until 1974. The autarchic system, gradually eased over the '50s, underlies the lateness of economic spurt. The move towards a pro-market attitude with deregulation and the gradual opening up of the economy which began with the 1959 reforms made it possible to achieve a delayed Golden Age (Prados de la Escosura and Sanz 1996).

After 1975, despite a deceleration in the pace of growth, Spain did not return to the old trend established in the 100-year period prior to 1950. The expansion which accompanied entry into the European Union, after overcoming a decade of crisis and change, did not represent, in turn, a structural break in Spain's long term growth (Prados de la Escosura 2003).

A closer look can be obtained by breaking down Gross Domestic Product per person (GDP/N) into its components: output per employee (GDP/ L), the employment rate (L/EAP), the activity rate (EAP/PAP) -that is, the ratio of the economically active population (EAP) to the population ages 15-64, or potentially active population, (PAP)- and finally, a demographic variable: the ratio between the potential workforce and the total population (PAP /N). Thus,

$$GDP/N = (GDP/ L)*(L/EAP)* (EAP/PAP) * (PAP/N) \quad (I)$$

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[4] These four phases are established as deviations from the trend over 1850-1950 (Prados de la Escosura 2003).
[5] Cf. Tena (1999), Palafox (1999) and Pardos (1998) on tariff protection and its effects. See Martín Aceña (1994, 1999) and Bordo and Rockoff (1996) on the gold standard.
[6] Cf. Roldán and García Delgado (1973) for the conventional view that emphasizes the impact of the Great War.

and in rates of change expressed in lower case letters,

$$gdp/n = (gdp/l) + (l/eap) + (eap/pap) + (pap/n) \qquad (II)$$

Table 1 shows the evolution of product per head and each of its components, expressed in rates of growth, for all the long swings identified over the last century and a half. Labor productivity turns out to be the main determinant of per capita GDP growth and shadows it closely. Capital deepening and, especially, total factor productivity gains played a vital part in raising labor efficiency (Prados de la Escosura and Rosés 2006b). While productivity gains overcame per capita GDP growth during 1959-85, from 1986 onwards productivity change lagged way behind per capita income growth and exhibited an inverse relationship with employment.

The figures in Table 1 indicate that a demographic gift (a larger share of population in working age) made a contribution to per capita GDP growth since 1975. It also played a part in moderating the economic slowdown in the critical moments of World War I and the 1930s and 1940s. On the contrary, a demographic burden had a negative effect on income per person during the 'Golden Age' (1951-1974).

The fall in the activity aggravated the negative consequences on per capita GDP growth of unemployment that went from 4 to 17.4 percent between 1975 and 1985. Restrictive industrial rules introduced under Franco, which aimed to offset the prohibition of independent trade unions by prohibiting lay-offs, constituted a major shortcoming for employment creation during the 1970s oil shocks. Employment creation played a distinctive role during the 'Golden Age' (1952-74) and, again, after Spain's admission in the European Union.

Inequality: An Indirect Look

How much of the sustained growth in GDP per head percolated through to reach the lower quintiles of income distribution? In the absence of direct estimates of income distribution for most of the period considered (household budget surveys -*Encuesta de presupuestos familiares*- are available since 1964 and have been fully exploited from 1974

onwards), an indirect approach is necessary and I will rely on available macroeconomic evidence to trace the long-run trends in inequality[7].

Inequality between town and countryside represents a persistent phenomenon in developing countries. The shift of labor away from agriculture that has usually accompanied urbanization and productivity growth in agriculture constitutes a means to reduce it. Productivity increases in agriculture provide, through higher wages, the means to poverty reduction in the countryside.

In a context of imperfect mobility of factors and persistent differences in marginal labor productivity between sectors, such as was the historical case of Spain, the transfer of labor from low productivity agriculture to other sectors with higher levels of productivity, played a part in increasing the economy's aggregate productivity. The contribution of agriculture to total employment and output fell gradually except for the 1940s when it edged ahead of industry employment. A gradual fall in the agricultural share in the labor force began in the 1880s, gathered pace in the 1920s and, after the 1940s reversal, the downturn accelerated through the late twentieth century (Graph 2). Labor productivity in agriculture experienced a moderate increase between 1850 and 1913 (at 0.5 percent per annum), its rate went up to 2.3 percent during the years 1913-1929, then, decreased in absolute terms until 1950 (at –0.4 percent over 1930-52) and recovered at a mild pace during the fifties (at less than 1 percent per year). From 1959 to the end of the twentieth century the dramatic increase in output per hour worked (above 6 percent per year) is linked to the shift of labor away from agriculture, as it was also the case during the Interwar years (Prados de la Escosura 2006a).

Relative to the economy as a whole, labor productivity in agriculture (Graph 3), after decreasing up to the early 1890s, remained stable for almost 70 years (except for its increase during the autarchic 1940s and early 1950s) before dropping sharply from the 1960s to the mid 1980s, to initiate, then, a phase of steady recovery. The stability of relative agricultural productivity, hardly affected by the sector's steady reduction in its employment share, underlines the gradual structural transformation experienced by Spain prior to 1960. Capital deepening and the introduction of a new vintage technology explain the dramatic

[7] For a discussion of available microdata and its treatment for the case of Spain, cf. Alcaide (1999) and Goerlich and Mas (2001, 2004).

fall in relative agricultural productivity during the years leading up to 1975. The destruction of employment in agriculture over the last quarter of the twentieth century, which fell from around a quarter to around 5 percent of Spain's workforce at the beginning of the 21st century, lies behind the lively recovery of relative agricultural productivity.

Migration to towns and cities usually represent an improvement in standards of living both for those who leave and for those who stay in rural areas. A sharp decline in the (purchasing power parity adjusted) rural-urban wage gap occurred between mid-nineteenth century and World War I, intensified up to 1920 and tended to stabilized thereafter (Rosés and Sánchez-Alonso 2004, 2006)[8]. The skilled/unskilled wage gap followed a similar pattern to the rural-urban wage gap, and after falling from mid-nineteenth century to 1920, tended to stabilize (Rosés and Sánchez-Alonso 2004). This view is disputed by Betrán and Pons (2004) who find a steady increase in the skilled/unskilled wage ratio from the late nineteenth century up to 1930.

Spatial inequality has been affected by the joint forces of growth, structural change, and public policies in Spain. The moderate decline observed for the early twentieth century was reversed after the Civil War (1936-39) (Prados de la Escosura 1992, Domínguez 2002). From the mid 1950s to 1980 a sharp reduction in regional inequality took place to stabilize during the last two decades of the twentieth century (Cuadrado Roura 1999). Technological catch-up, the generalization of basic education and the spatial redistribution of employment account for most of the observed reduction of regional disparities (de la Fuente 2002).

How much of the observed increase in GDP per head did accrue to labor? is a most relevant issue to trace the evolution of inequality. The lack of quantitative historical evidence from which constructing income distribution measures led Jeffrey Williamson (2002) to propose an 'inequality index' defined as the ratio between GDP per worker and unskilled wage. The rationale for the index is that while the numerator captures returns to all factors of production per worked hour, the denominator only encapsulates returns for raw labor, whose property is far more widespread than that of any other factor (and the only one that most poor possess in developing countries, as was the case of Spain for most of the period under consideration). It can be objected, however, that when societies develop and

[8] Interestingly, Rosés and Sánchez-Alonso (2004) find a more modest role for migration in wage convergence that previously assumed in the literature (Simpson 1995, Silvestre 2005).

capital deepening increases the index tends to exaggerate inequality as the percentage of unskilled workers dwindles within the labor force and, hence, the quantile of income represented by unskilled workers today becomes a fraction of the same quantile in the past rendering inconsistent across time comparisons. An alternative possibility is to use, instead, the returns to labor as a whole, including both skilled and unskilled workers. Thus, the inequality index will be defined in this case as the ratio of nominal GDP per hour worked to nominal average wage, that is, the returns to all labor, per hour[9].

Since human capital became a distinctive factor only in late twentieth century Spain (Prados de la Escosura and Rosés 2006b), inequality indices computed with either unskilled or average wages should hardly differ prior to the 1950s as returns to unskilled workers, wage-earners and self-employed (including small farm owners) represented most of labor compensation in national income. From the late 1950s onwards as skilled labor increased its share in national income while capital deepening occurred, disparities between the alternative indices should be expected[10]. Graph 4 confronts the proposed inequality index with Williamson's index (that employs unskilled labor returns as denominator)[11]. As predicted, no major discrepancy between the two indices is observed up to the mid-1950s. Henceforth, as physical and human capital deepening took place, a gap between the two inequality indices steadily opened up during the last two decades of the twentieth century.

But how do these alternative inequality indices compare to conventional measures of income distribution such as available Gini coefficients? Available Gini estimates for any given benchmark year show, it is worth stressing, significant discrepancies (Deininger and Squire 1996, WIDER 2005) and procedures have been suggested to reconcile cross-section and time-series estimates (Atkinson and Brandolini 2001, Francois and Rojas-Romagosa 2005). Here I will only focus on directly computed Gini on the basis on microdata derived from household surveys by Goerlich and Mas (2001) from 1974 onwards, plus those

[9] Using nominal instead of real GDP and wage avoids the use of deflators that may follow different trends as their composition is rather different.

[10] An increase in income inequality between skilled and unskilled workers could be expected in the presence of capital-skill complementarity in production (Katz and Autor 1999). The proposed new measure aims at capturing, however, aggregate income inequality, that includes inequality between returns to property of capital and national resources and those to labour.

[11] Data for constructing both inequality indices comes from Prados de la Escosura (2006a) and Prados de la Escosura and Rosés (2006b).

offered by Alcaide (1999) that although start in 1964 depart significantly from the rest of available estimates and are not explained in detail.

The implicit stories in Alcaide's (1999) and Goerlich and Mas (2001) figures are rather different. According to Alcaide, a major drop in inequality took place during the years of the transition to democracy: from a Gini coefficient of 44.6 for 1973/4 to one of 36.3 for 1980/1 (and of 34.7 in 1990/1). Goerlich and Mas offer, in turn, a much lower Gini (34.0) for 1974 that experienced a moderate decline up to 1991 (with Gini values of 33.3 and 32.0 for 1981 and 1991, respectively). Thus if a significant reduction in the degree of inequality ever occurred it had to have happened in the late Francoism.

Table 2 compares the evolution of these two sets of Gini estimates for Spain and the alternative inequality indices. It turns up that my proposed inequality index (the one that uses average wage per hour as the denominator) shadows well Goerlich and Mas's (2001) Gini estimates while does not match Alcaide's (1999). As for the pre-1974 period there is similar evolution between Alcaide's and my index but only back to 1967. In all the cases, large discrepancies appear between the trends exhibited by the Gini estimates and Williamson's inequality index (the one that uses unskilled wage per hour as denominator). Thus, the proposed new index seems to be preferable as a crude measure of long run trends in income inequality.

Graph 5 presents the inequality index and its Hodrick-Prescott trend. Two wide Kuznets (1955) inverted U with peaks in 1918 and 1953, respectively, preside its evolution. A long-term rise in the inequality index is observed during the early phase of globalization that peaked by World War I. It is worth noting that inequality rose between the mid 1860s and the mid 1880s, fell during the following decade and increased again since the late 1890s up to the end of the Great War. The interwar period presented a sustained reduction in inequality that was reversed during the Autarchy years and peaked in 1953. A sustained decline in inequality followed and tended to stabilise since the mid 1970s. Thus, my inequality index concurs with Goerlich and Mas (2001) in suggesting that a significant drop in inequality already happened before 1974 while conflicts with Alcaide's (1999) view of a dramatic inequality contraction during the early years of transition from dictatorship to democracy (1974-81).

It is should be pointed that the inequality trends described here are highly coincidental with those obtained for non-income indicators. Quiroga and Coll (2000) show a long term increase in heights inequality among socio-professional groups between the turn of the century and World War I, a decline up to the eve of the Civil War and a resumption of raising inequality during the autarchic 1940s.

How can these findings be interpreted? The inequality reduction in the mid 1880s and early 1890s and the rise from the late 1890s to World War I is what would be predicted within a Stolper-Samuelson (1941) theorem framework which posits that protectionism favors the scarce factors (land and capital, in this case) while penalizes the abundant one (labor). In Spain the Stolper-Samuelson effect was reinforced at the turn of the nineteenth century by the fact that tariff protection did not push out workers as in other protectionist European countries (i.e., Italy and Sweden). The depreciation of the peseta in the 1890s and early 1900s made more difficult the migration decision as the cost of passage increased dramatically (Sánchez-Alonso 2000).

Why does this model not explain the rise in inequality between the late 1860s and the early 1880s period? Perhaps Stolper-Samuelson forces were offset by the intense capital deepening associated to the railways construction and to the liberalization of mining resources,and by the dramatic increased in land rents that followed, connected to the agricultural exporting boom (and exacerbated by the philoxera plague in France that increased wine imports from Spain). The rise in the ratio of capital compensation per unit of capital stock to the average wage per worked hour and in the ratio of land compensation per hectare to average wage per hour worked tend to support this hypothesis (Graph 6)[12].

However, the contrast between the partial closing of the rural-urban and unskilled-skilled wage gaps (Rosés and Sánchez-Alonso 2004) and the long-term rise in the inequality index observed between mid nineteenth century and World War I is worth stressing[13]. Such a discrepancy suggests that differential returns between capital and land, the scarce factors, and labor, the abundant one, rather than wage differentials among different types of workers, were what really determined the evolution of income inequality in Spain as measured by my proposed index.

[12] Data for these computations comes from Prados de la Escosura and Rosés (2006b).

And what happened in the 1920s and early 1930s? An inequality reduction would not be consistent, within a Stolper-Samuelson framework, with the conventional view that depicts the 1920s as years of intense isolation. However, this is no longer the prevailing view as trade protectionism in the twenties was paralleled by substantial foreign capital inflows that broke the close link between investment and saving (Prados de la Escosura 2006b). Accelerated growth and structural change, urbanization, and capital deepening all helped reducing inequality in the 1920s.

The fall in inequality during the early 1930s, a time of globalization backlash in which increasing restrictions to commodity and factor mobility were introduced are certainly discrepant with the Stolper-Samuelson view. No doubt, forces pushing for re-distribution were in place. The drop in capital and land returns relative to labor suggested in Graph 6 may be the result of a perceived menace to the security of property rights during the social and political turmoil years prior to the Civil War (1936-39). Meanwhile, nominal (and real) wages rose in a context of unions' increasing bargaining power that reflected in labor unrest[14]. It is worth stressing that the Interwar inequality decline is at odds with the hypothesis of a war of attrition on income and wealth distribution (land, in particular, (Boix 2004)) at the roots of the Spanish Civil War.

Again, the evolution of inequality during the central Autarchy years (1939-53) and the phase of liberalization and opening up that followed the late fifties' reforms can be interpreted in a Stolper-Samuelson framework. Thus, inequality rose during the Autarchy as scarce factors, land and capital, were favored at the expense of the abundant and more evenly distributed factor, labor, while opening up to international commodity and factor market in the sixties and early seventies benefited labor, the abundant factor. However, not only international economy forces played a role in reducing inequality. Redistribution had a non negligible part in the late Francoist period (1960-75). Social expenditure had already started rising in the mid-sixties and its proportion of GDP (excluding education) went up

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[13] However, according to Betrán and Pons 2004) the skilled/unskilled wage gap rose between the 1880s and 1930 against the view sustained by Rosés and Sánchez-Alonso (2004).

[14] Wage data comes from Maluquer de Motes (2005). The increase in the number of days lost due to strikes rocketed during the II Republic reaching 0.64 percent of the days worked in 1933, slightly above that of the peak year (1979) during the 'transition to democracy', (0.56 percent). Estimates computed with Maluquer de Motes (2005) figures for days of strike and Prados de la Escosura and Rosés (2006b) for total days worked per year.

from 5.9 to 12.5 percent in the last decade of Francoism partially catching up to western Europe's share (Bandrés 1999).

After democracy was restored in 1977, increasing political participation and democratization led to a progressive fiscal reform and to substantial increases in public expenditure on social transfers (unemployment, pensions), education, and health that had a strong redistributive impact and triggered a further inequality reduction (Gimeno Ullastres 1999). The share of social expenditure in GDP reached 19.6 percent in 1981 and peaked in 1993 (26.7 percent) (Bandrés 1999). Public expenditure on welfare (including education) almost doubled its share in GDP during the first two decades of democracy. Political decentralization of spending decisions also had an impact on the inequality decline (Goerlich and Mas 2004).

Neither a clear association appears to exist, therefore, between falling inequality and democratization, nor between raising inequality and dictatorship (Graph 7)[15]. Inequality raised during the early Francoist era but declined later, as it was the case under Primo de Rivera's autocratic regime (1923-29). All in all, the decline in inequality between the late 1950s and 1974 was larger than the one occurred after democracy was reinstated. Moreover, no definite trade off between inequality and growth can be established. In the first hundred years of Spain's modern economic growth, 1850-1950, the most dynamic periods, 1850-83 and the 1920s, corresponded to phases of increasing and declining inequality, respectively; while in years of sluggish performance inequality either deepened (at the turn of the century, in the autarchic period 1939-53) or shrank (during the II Republic, 1931-36). The unprecedented growth of the 'Golden Age' (1951-74) witnessed a sharp reduction in inequality, while in the decade of 'transition to democracy' (1976-85) inequality fell gradually while per capita income practically stagnated.

Calibrating Long-run Trends in Absolute Poverty

How do the trends presented for inequality and economic growth impinge on poverty reduction over the last century and a half?

[15] The Polity2 index ranges from high autocracy (-10) to high democracy (+10) and it is part of Policy IV Project Cf. Marshall and Jaggers (2002).

Poverty reduction depends on the initial level of average income and its subsequent growth, on the initial income distribution and its evolution over time, and on how sensitive poverty is to growth and inequality changes (Bourguignon 2002; Ravaillon 2004; López and Servén 2006). Low initial levels of development preclude a deep impact of growth on poverty. If a fixed poverty line (PL) is defined and, if due to Spain's relative affluence a higher PL is chosen of, say, $4 (expressed in 1985 purchasing power adjusted international dollars) per person and day rather than the conventional $1 or $2, it was not until the turn of the century that average incomes (as measured by per capita GDP) reached the poverty line, and it did not double it until the early 1960s (Graph 8).

How much impact did growth and distribution changes have on absolute poverty? We could speculate that during the nineteenth century and up to World War I low per capita income and growing inequality may have drastically reduced the impact of economic growth on poverty. High initial inequality would have also mitigated the effect of the acceleration in economic activity on poverty during the 1920s, as it would have been the case during the 1953-58 growth recovery. Moreover, falling inequality at a time of faltering growth (the early 1930s and the 'transition to democracy' years, 1976-85) presupposes it may have had a weak effect on poverty reduction. The unprecedented growth of the 1959-74 era, and the fast recovery after accession to the European Union suggest, that once the low initial income constraint has been removed, a the impact on poverty would be noticeable.

Can these guesses be put to the test? Unfortunately, no microeconomic data on Spain's household expenditures are available before the late twentieth century so I had to rely on the macroeconomic evidence on growth and changes in income distribution presented in the previous two sections in order to establish conjectures about historical trends in absolute poverty that would provide hypotheses for further research.

I have calibrated the impact of growth and inequality changes on absolute poverty for the case of Spain on the basis of Humberto López and Luis Servén (2006) recent empirical research that expands previous work by Bourguignon (2002), Ravallion (1997, 2004), and Kraay (2006) and draws on the largest micro database available so far, for a wide sample of developing and developed countries over the last four decades. Using a parametric approach López and Servén (2006) find that the observed distribution of income

is consistent with the hypothesis of lognormality. Under lognormality, the contribution of growth and inequality changes to poverty reduction only depends on the average incomes/poverty line ratio and on a measure of inequality (the Gini coefficient). The poverty headcount, $P_{o,}$ that is, the share of population below the poverty line, is derived as,

$$P_o = \Phi\ (\log\ (z\ /\nu)/\sigma + \sigma/2),$$

$$\text{Where } \sigma = \sqrt{2}\ \Phi^{-1}\ ((1 + G)/2)$$

in which $\boldsymbol{\Phi}$, is a cumulative normal distribution; $\boldsymbol{\nu}$, the average per capita income; $\boldsymbol{z}$, the poverty line; $\boldsymbol{\sigma}$, the standard deviation of the distribution; and $\boldsymbol{G}$, the Gini coefficient.

Thus, all I need to calibrate the poverty headcount is the poverty line/average income ratio and the Gini coefficient. Unfortunately, as discussed in the previous section direct Gini estimates are available for the last quarter of twentieth century. Only by splicing the inequality index with the Gini coefficients for the 'statistical era', from 1974 onwards, a long-run series of Gini can be derived. Thus, in a heuristic exercise, the Gini coefficient computed by Goerlich and Mas (2001) for 1974 has been projected backwards with the rate of variation of the inequality index previously smoothed with the Hodrick-Prescott filter (Graph 9).

No doubt these resulting 'pseudo-Gini' indices are questionable. To begin with, the inequality index is a crude indicator with unknown statistical precision. Besides, by using changes in the inequality index to project Gini coefficients backwards a new time series is created in which two different cardinal measures are used: one, the directly estimated Gini, and another, the backwards projection. These cardinal representations of ordinal inequality measures might result in large discrepancies. Nonetheless, in favor of the proposed pseudo-Gini it can be argued that as the inequality index can be interpreted as the ratio between a *quantile* of the income distribution (wage per hour) and the mean of the distribution (GDP per worked hour), backwards projections of Gini directly estimated coefficients may identify their tendencies correctly although not the amplitude of their swings. The highly tentative results from this heuristic exercise provide, thus, explicit conjectures on poverty trends and hopefully offer testable hypotheses for further research.

A long run decline in absolute poverty, only altered by a reversal 'hump' in the autarchy years (1939-58), is the main feature of the evidence presented in Graph 10. Poverty reduction happened at a different speed: at a slower pace before World War I, that

supports the view that the impact of growth on poverty is weakened in the presence of rising inequality and low initial levels of development, and at a faster and accelerating pace during the twentieth century, especially between 1960 and 1975, once the initial income constraint was released (Table 3). In phases of sluggish growth, poverty reduction was taken to a halt (in the 1890s) or reverted (during the autarchy, 1939-58). It is worth pointing that by the end of Franco's dictatorship the share of those living below the absolute poverty defined here was below 2 percent of the population.

A counterintuitive result in the light of conventional historiography that associates the origins of the Civil War to staggering inequality and extreme poverty is cast by the calibration: absolute poverty headcount declined from more that half the population in 1920 to one-third of the population by the eve of the Civil War (1935) as a joint outcome of economic growth and falling inequality.

Which force, economic growth or falling income inequality, does dominate the long-run reduction of absolute poverty? To provide an answer I have carried out a counterfactual exercise in which poverty reduction is computed keeping inequality constant at its highest level, that of 1950. The results for the calibrated and the counterfactual poverty headcounts are offered in Graph 11 while their respective rates of poverty reduction are offered in Table 3 (the counterfactual rate is presented under the label of 'growth effect'). It turns out that economic growth was the main force behind the decline in absolute poverty observed between 1850 and 1990. Growth prevailed over inequality in the reduction of poverty during the hundred years between 1850 and 1950 except for the Interwar years. High initial inequality, hence, did not prevent a substantial poverty contraction in the 1920s that continued during the early 1930s. Between 1925 and 1935 falling inequality is responsible almost exclusively for the contraction in absolute poverty. Since the 1950s the contribution of declining inequality to reducing poverty rose steadily and from 1975 onwards prevailed over that of economic growth.

Alas, the controlled conjectures about poverty behavior in the long run cannot be confronted with hard empirical evidence except for the late twentieth century. The inequality reduction since the late 1970s was accompanied by an expansion in average expenditure during the 1980s. As a result, welfare increased, in real terms, between 37 and 51 percent during the years 1973/74-1990/91 (Ruiz-Castillo and Sastre 1999). If a fixed

relative poverty line of 50 percent of average expenditure in 1973/74 is accepted, a significant decline in the proportion of the poor took place between 1973 and 1990. In per capita expenditure terms, the relative poverty headcount fell from 22.2 percent of the population in 1973/74 to 15.1 percent in 1980/81 and to 5.1 percent in 1990/91 (del Río and Ruiz-Castillo 1999: 440). Thus, the results derived from the historical calibration of poverty trends presented here are not rejected by the findings of empirical studies carried out on the basis of microdata.

Concluding Remarks

Growth and inequality have been assessed over the long-run and an attempt has been made at calibrating their joint impact on poverty reduction. Inequality rose during the late nineteenth century and up to World War I, though reversed during the Interwar years. The autarchy years (1939-58) witnessed a peak in inequality and only as liberalization was cautiously introduced since the late 1950s inequality fell steadily.

A long run decline is observed in absolute poverty. Growth prevailed over falling inequality as the main cause of poverty reduction. Absolute poverty fell at a slow pace up to World War I as a result of the low initial level of development, and much faster from 1960 onwards once the low income constraint had been released. Despite faltering growth during the II Republic (1931-36) and the 'transition to democracy' (1976-85), the contraction in inequality led to a decline in poverty. Moreover, during 1925-35 and from 1975 onwards falling inequality became the dominant force in the reduction of absolute poverty. No clear conclusion can be reached, however, about the links between democracy and inequality decline and poverty reduction, or between growth and inequality.

A research agenda emerges from this survey of the dramatic historical experience of modern Spain. The fact that the Civil War (1936-39) broke off after one and a half decades of inequality decline and poverty alleviation demands new explanatory hypotheses that will require further research and testing. Lagged perceptions of inequality and extreme poverty might lie at the roots of the civil conflict. Does relative deprivation help to understand the origins of the Civil War? Do unfulfilled expectations by those at the bottom of the distribution, who perceived that the share of a growing GDP accruing to them was not large enough, provide a plausible explanation for the outbreak of the Civil War?

Moreover, rising polarization is compatible with stable or declining inequality (Esteban and Ray 1994). Was increasing polarization, rather than inequality and absolute poverty what triggered social and political conflict in Interwar Spain? Did perhaps the Great Depression and the social unrest of the early thirties contribute to narrow down differences both at the top and at the bottom of the income distribution while widening the gap between them and increasing, therefore, potential conflict?

The dramatic increase in inequality and the sluggish growth during the early Francoism that resulted in staggering poverty, with two out of five Spaniards below the poverty line in the mid 1950s, was offset, in turn, by the drastic reduction of income inequality and absolute poverty that occurred in the late Francoism. Does it help explain the success of the transition to democracy in the last quarter of the twentieth century?

References

Alcaide Inchausti. J., 1999. Distribución sectorial, factorial y personal de la renta, in J.L. García Delgado (ed.), España, Economía: Ante el siglo XXI. Espasa, Madrid, pp. 457-481.

Atkinson, A.B., Brandolini, A., 2001. Promise and pitfalls in the use of 'secondary' data-sets: income inequality in OECD countries as a case study. Journal of Economic Literature XXXIX 3, 771-799.

Bandrés, E., 1999. Gasto público y estructura del bienestar: el sistema de protección social. In J.L. García Delgado (Ed.), España, Economía: Ante el siglo XXI. Espasa, Madrid, pp. 631-660.

Betrán, C., Pons, M.A., 2004. Skilled and unskilled wage differentials and economic integration, 1870-1930. European Review of Economic History 8, 29-60.

Boix, C., 2004. Spain: Development, democracy and equity. Background paper for the IBRD World Development Report 2006.

Bordo, M.D., Rockoff, H., 1996. The Gold Standard as a 'good housekeeping seal of approval'. Journal of Economic History 56, 389-428.

Bourguignon, F., 2002. The growth elasticity of poverty reduction: explaining heterogeneity across countries and time periods. Delta Working Papers 2002-03.

Bueno de Mesquita, B. and Root, H. L., 2000. When bad economics is good politics. In Bueno de Mesquita, B. and Root, H. L. (Eds.), Governing for Prosperity. Princeton University Press, New Haven, pp.1-16.

Carreras, A., 1987. An annual index of Spanish industrial output. In Sánchez-Albornoz, N. (Ed.), The Economic Modernization of Spain, 1830-1930. New York University Press, New York, pp. 75-89.

Carreras, A., 1992. La producción industrial en el muy largo plazo: una comparación entre España e Italia de 1861 a 1980. In Prados de la Escosura, L., Zamagni, V. (Eds.), El desarrollo económico en la Europa del sur: España e Italia en perspectiva histórica. Alianza, Madrid, pp. 173-210.

Comín, F., 199). Una reconstrucción diferente en la España de la postguerra. Estudis d'Historia Económica 2, 63-78.

Comín, F., 1994. El papel del presupuesto en el crecimiento económico español: una visión a largo plazo. Revista de Historia Económica 12, 283-314.

Crafts, N., 2000. Globalization and growth in the twentieth century. International Monetary Fund Working Paper 00/44.

Cuadrado Roura, J.R., 1999. Convergencia versus divergencia de las disparidades interregionales en España. In Maravall Herrero, J.M. (Ed.), Dimensiones de la desigualdad. Fundación Argentaria/Visor, Madrid, pp. 209-49.

Cubel Montesinos, A., Palafox Gámir, J., 1998. La continuidad del crecimiento económico en España. 1850-1936. Revista de Historia Económica 16, 619-643.

Deininger, K., Squire, L, 1996, updated. A New data set measuring income inequality. World Bank Economic Review 10, 565-591.

Domínguez, R., 2002. La riqueza de las regions. Alianza, Madrid.

Esteban, J., Ray, D., 1994. On the measurement of polarization. Econometrica 62, 819-852.

Fraile Balbín, P., 1991. Industrialización y grupos de presión. La economía política de la protección en España 1900-1950. Alianza, Madrid.

Francois, J.F., Rojas-Romagosa, H., 2005. The construction and interpretation of combined cross-section and time-series inequality datasets. World Bank Policy Research Working Paper 3748.

Fuente, A. de la, 2002. On the sources of convergence: A close look at Spanish regions. European Economic Review 46, 569-599.

Gimeno Ullastres, J. A., 1999. La incidencia redistributiva de las prestaciones públicas en especie: sanidad y educación. In Maravall Herrero, J.M. (Ed.), Dimensiones de la desigualdad. Fundación Argentaria/Visor, Madrid, pp. 15-67.

Goerlich, F.J., Mas, M., 2001. Inequality in Spain 1973-91: Contribution to a regional database. Review of Income and Wealth 47, 361-378.

Goerlich, F.J., Mas, M., 2004. Distribución personal de la renta en España. 1973-2001. Papeles de Economía Española 100, 50-58.

González-Páramo, J.M., 1992. El papel del sector público español en el proceso de integración económica en Europa. In Viñals, J. (Ed.), La economía española ante el Mercado Único europeo. Las claves del proceso de integración. Alianza,Madrid, pp. 379-427.

Katz, L., Autor, D., 1999. Changes in the wage structure and earnings inequality. In O.C. Ashenfelter, Card, D. (Eds.) Handbook of Labor Economics, vol. 3A. Elsevier, Amsterdam, pp. 1463-555.

Kraay, A., 2006. When is growth pro-poor? Evidence from a panel of countries. Journal of Development Economics 80, 198-227.

Kuznets, S., 1955. Economic growth and income inequality. American Economic Review 45, 1-28.

López, J.H., Servén, L., 2006. A normal relationship? Poverty, growth, and inequality. World Bank Policy Research Working Paper 3814.

Maluquer de Motes Bernet, J., 2005. Trabajo y relaciones laborales. In Carreras, A., Tafunell, X. (Eds.), Estadísticas Históricas de España. Fundación BBVA, Madrid, iii, pp. 1155-1245.

Marshall, M.G., Jaggers, K., 2002. Polity IV project. University of Maryland, College Park www.cidcm.umd.edu/inscr/polity

Martín Aceña, P., 1994. Spain during the classical Gold Standard years, 1880-1914. In Bordo, M.D., Capie, F. (Eds.), Monetary Régimes in Transition. Cambridge University Press, Cambridge, pp. 135-172.

Martín Aceña, P., 1999. The Spanish monetary experience, 1848-1914. In Martín Aceña, P., Reis, J. (Eds.), Monetary Standards in the Periphery. Paper, Silver, and Gold, 1854-1933. Macmillan, London: pp.112-151

Nadal, J., 1975. El fracaso de la Revolución Industrial en España, 1814-1913. Ariel Barcelona.

O'Rourke, K., Williamson, J.G., 1999. Globalization and History. The Evolution of a Nineteenth Century Atlantic Economy. M.I.T. Press, Cambridge, MA.

Palafox, J., 1999. Proteccionismo y librecambio. In Anes, G. (Ed.), Historia Económica de España. Siglos XIX y XX. Galaxia Gutemberg/Círculo de Lectores, Barcelona, pp. 251-287.

Pardos, E., 1998. La incidencia de la protección arancelaria en los mercados españoles (1870-1913). Banco de España, Madrid, Estudios de Historia Económica, nº 37.

Prados de la Escosura, L., 1992. Crecimiento, atraso y convergencia en España e Italia: Introducción. In Prados de la Escosura, L., Zamagni, V. (Eds.), El desarrollo económico en la Europa del sur: España e Italia en perspectiva histórica. Alianza, Madrid, pp. 27-55.

Prados de la Escosura, L., 2003. El progreso económico de España, 1850-2000. Fundación BBVA, Madrid.

Prados de la Escosura, L., 2006a. Assessing Spain's economic progress, 1850-2000 (processed).

Prados de la Escosura, L., 2006b. La posición internacional de la economía española, 1850-1935 (processed).

Prados de la Escosura, L., Sanz, J.C., 1996. Growth and macroeconomic performance in Spain (1939-1993). In Crafts, N, Toniolo, G. (Eds.), Economic growth in Europe since 1945. CEPR/Cambridge University Press, Cambridge, pp. 355-387.

Prados de la Escosura, L., Rosés, J.R., 2006a. El capital en España, 1850-2000 (processed).

Prados de la Escosura, L., Rosés, J.R., 2006b. The sources of long-run growth in Spain, 1850-2000 (processed).

Quiroga, G., Coll, S., 2000. Income distribution in the mirror of height differences. The case of Spain 1895-1950. Journal of Income Distribution 9, 107-131.

Ravallion, M., 1997. Can high inequality development countries escape absolute poverty?. Economics Letters 56, 51-57.

Ravallion, M., 2004. Pro-poor growth: A primer. World Bank Policy Research Working Paper no. 3242.

Ruiz-Castillo Ucelay, J., Sastre García, M., 1999. Desigualdad y bienestar en España en términos reales: 1973-74, 1980-81 y 1990-91. In Maravall Herrero, J.M. (Ed.), Dimensiones de la desigualdad. Fundación Argentaria/Visor, Madrid, pp. 3453-66.

Río Otero, C. del, Ruiz-Castillo Ucelay, J., 1999. El enfoque de la dominancia en el análisis de la pobreza. In Maravall Herrero, J.M. (Ed.), Dimensiones de la desigualdad. Fundación Argentaria/Visor, Madrid, pp. 429-460.

Roldán, S., García Delgado, J.L., 1973. La formación de la sociedad capitalista en España, 1914-1920. Cajas de Ahorro Confederadas, Madrid.

Rosés, J.R., Sánchez-Alonso, B., 2004. Regional wage convergence in Spain, 1850-1930. Explorations in Economic History 41, 404-425.

Rosés, J.R., Sánchez-Alonso, B, 2006. The dynamics of rural-urban labor markets in Spain, 1850-1930 (processed).

Sánchez-Albornoz, N., 1968. España hace un siglo: una economía dual. Península, Barcelona.

Sánchez-Alonso, B., 2000. European emigration in the late nineteenth century: the paradoxical case of Spain. Economic History Review 53, 309-330.

Silvestre, J., 2005. Internal migrations in Spain, 1877-1930. European Review of Economic History 9, 233-265.

Simpson, J., 1995. Real wages and labour mobility in Spain, 1860-1936. In Sholliers, P., Zamagni, V. (Eds.), Labor's Reward. Edward Elgar, Cheltelham, pp. 182-199.

Stolper, W., Samuelson, P., 1941. Protection and real wages. Review of Economic Studies 9, 58-73.

Tena Junguito, A., 1999. Un nuevo perfil del proteccionismo español durante la Restauración, 1875-1930. Revista de Historia Económica 17, 579-621

Tortella, G., 1973. An interpretation of economic stagnation in nineteenth century Spain Historia Ibérica 1, 121-132.

Tortella, G., 1994. El desarrollo de la España contemporánea. Historia económica de los siglos XIX y XX. Alianza, Madrid.

Velarde Fuertes, J., 1968. Política económica de la Dictadura.Guadiana, Madrid.

WIDER [World Institute for Development Economics Research],(2004. World Income Database. Helsinki: UNO/WIDER/UNDP.

Williamson, J.G., 2002. Land, labor, and globalization in the Third World, 1870–1940. Journal of Economic History 62, 55-85.

Young, A., 1995. The tyranny of numbers: confronting the statistical realities of the East Asian growth experience. Quarterly Journal of Economics 90, 641-680.

Table 1

Per Capita GDP Growth and its Components 1850-2000

	Per Capita GDP	GDP/ employee	Employment /EAP	EAP /PAP	PAP/ Population
Panel A. Long-run Trends					
1850-2000	1.80	1.73	-0.09	0.09	0.07
1850-1950	0.71	0.65		-0.01	0.08
1950-1974	5.44	5.34	-0.04	0.42	-0.28
1974-2000	2.60	2.58	-0.50	0.17	0.35
Panel B. Long Swings					
1850-1883	1.41	1.30		0.09	0.03
1883-1920	0.64	0.69		-0.04	-0.01
1920-1929	2.55	2.44		0.02	0.10
1929-1952	-0.26	-0.48		-0.05	0.27
1952-1958	3.51	2.98	0.04	0.84	-0.35
1958-1974	5.86	5.97	-0.08	0.21	-0.25
1974-1986	1.76	3.95	-1.76	-0.80	0.38
1986-2000	3.31	1.40	0.58	1.00	0.33

Sources: Prados de la Escosura (2003).
EAP: Economically Active Population; PAP: Potentially Active Population (15 to 64 years)

Table 2

Comparing Inequality Trends: Gini Coefficients and the Inequality Index (1974= 1.00)

		Inequality Index		
	Goerlich & Mas (2001)	**Alcaide (1999)**	**GDP per EAP/ average wage**	**GDP per EAP/ unskilled wage**
1964		0.94	1.02	1.03
1967		1.04	1.05	1.06
1974	1.00	1.00	1.00	1.00
1981	0.98	0.81	0.96	1.16
1991	0.94	0.78	0.99	1.40

Sources: See the text.

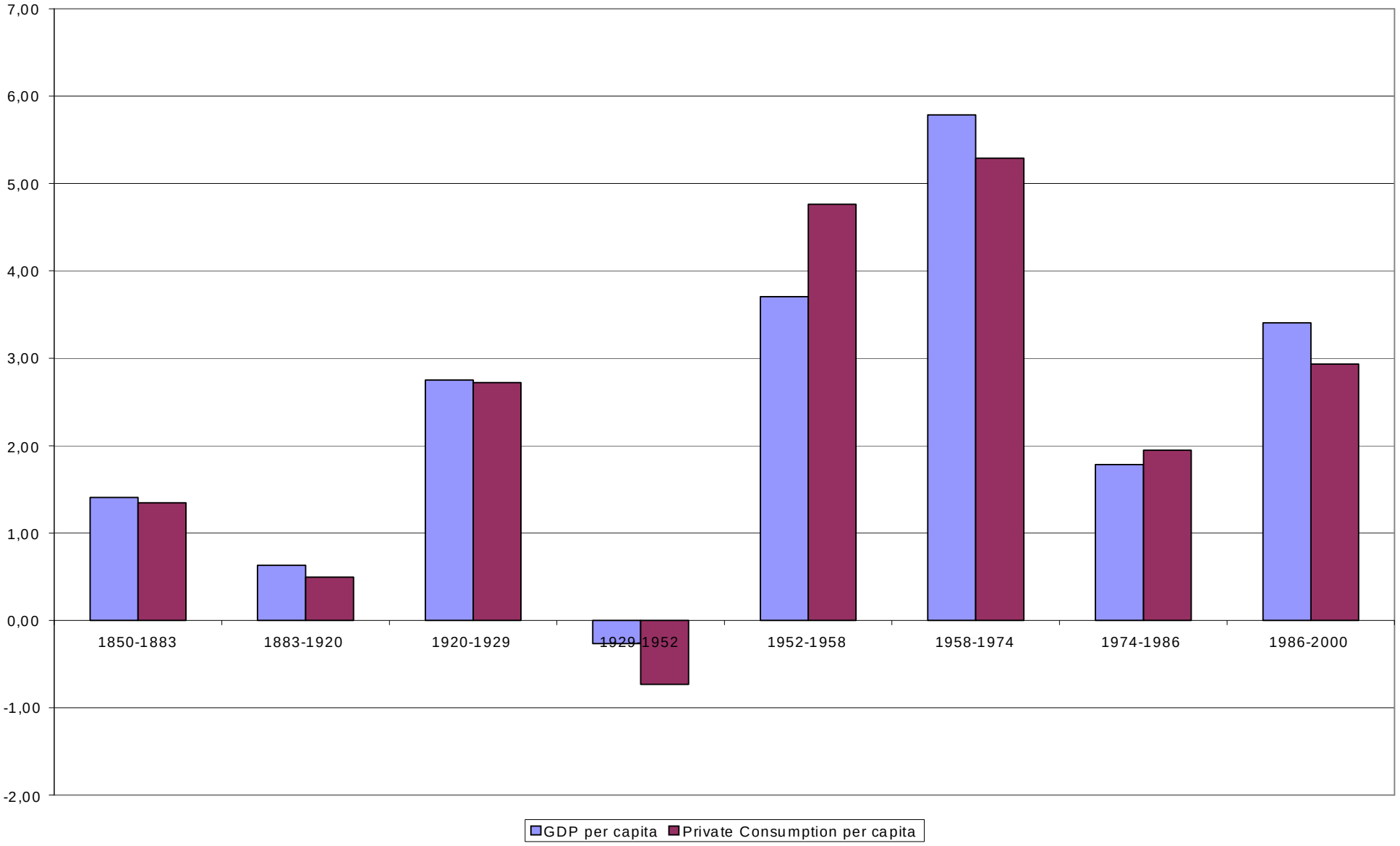
Table 3

Absolute Poverty Reduction and its Composition: Annual Rate of Variation (%)

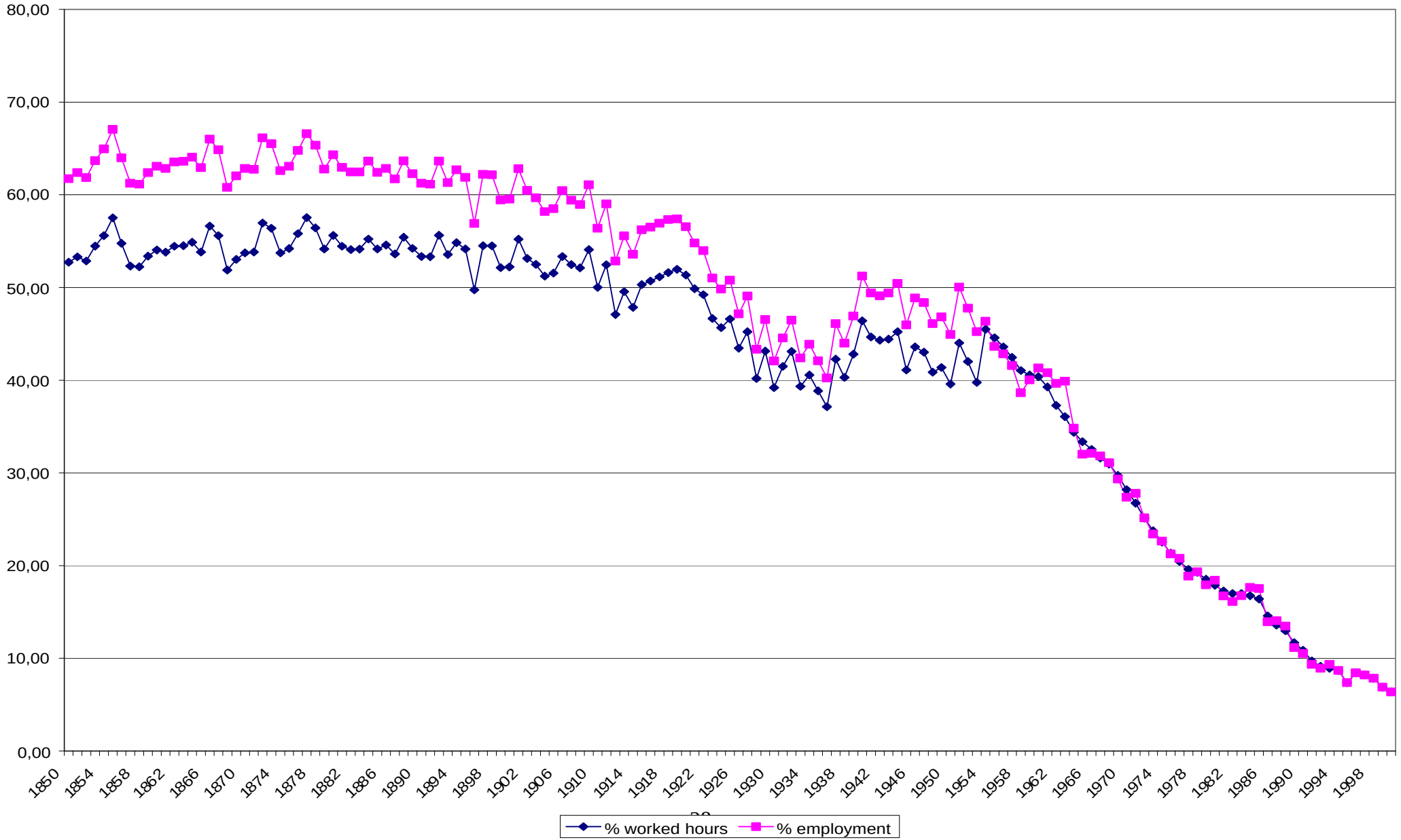
	Total	Growth Effect	Growth Contribution (%)
1850-1920	0.6	0.6	93.0
1920-1935	3.3	1.2	36.5
1950-1960	5.6	3.8	68.9
1960-1975	20.9	12.5	59.7
1975-1990	16.4	7.0	42.7
1850-1950	0.4	0.4	93.5
1950-1990	15.4	8.3	53.7

Sources: See the text.

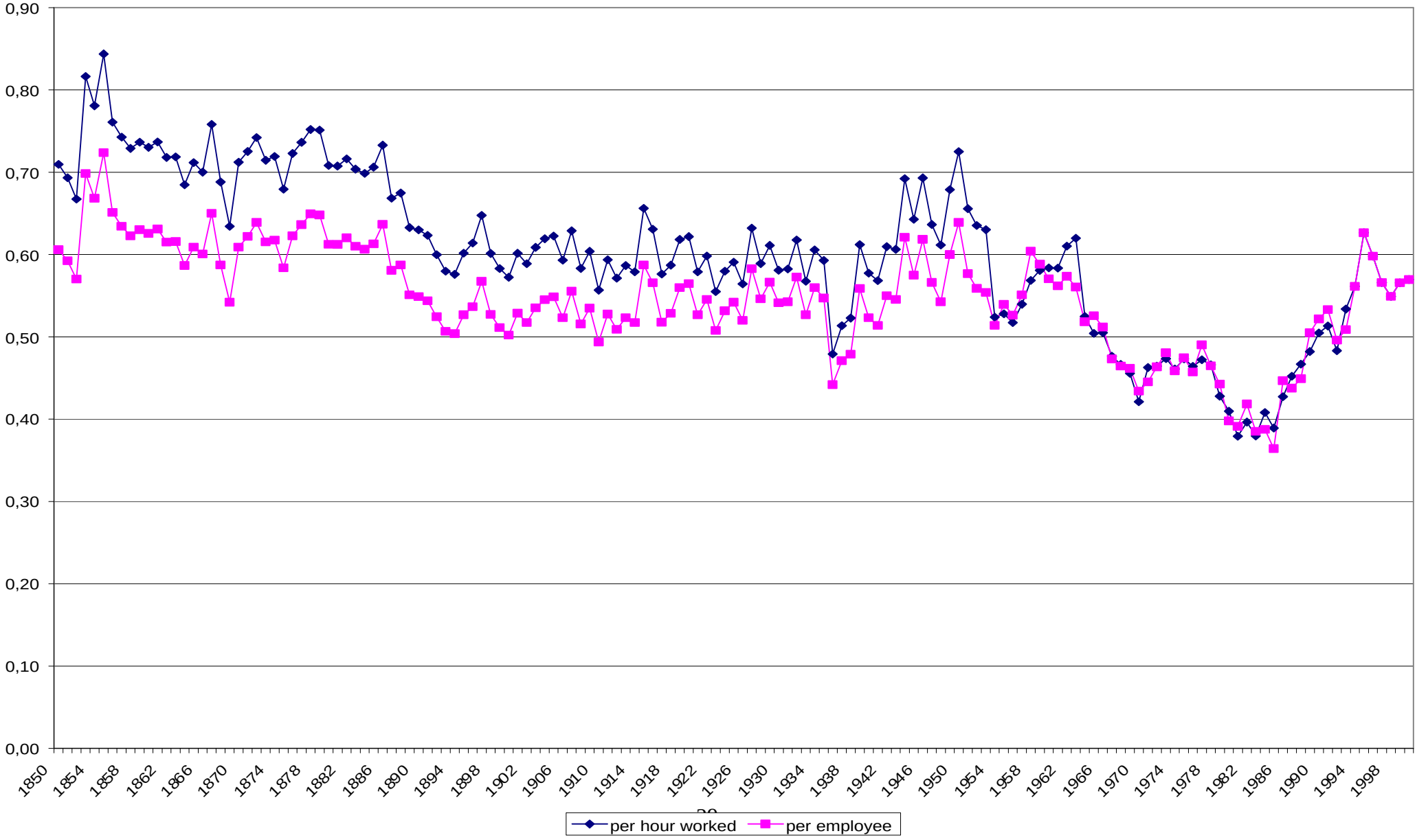
Graph 1. Per Capita GDP and Private Consumption Growth. 1850-2000 (annual average rate %)



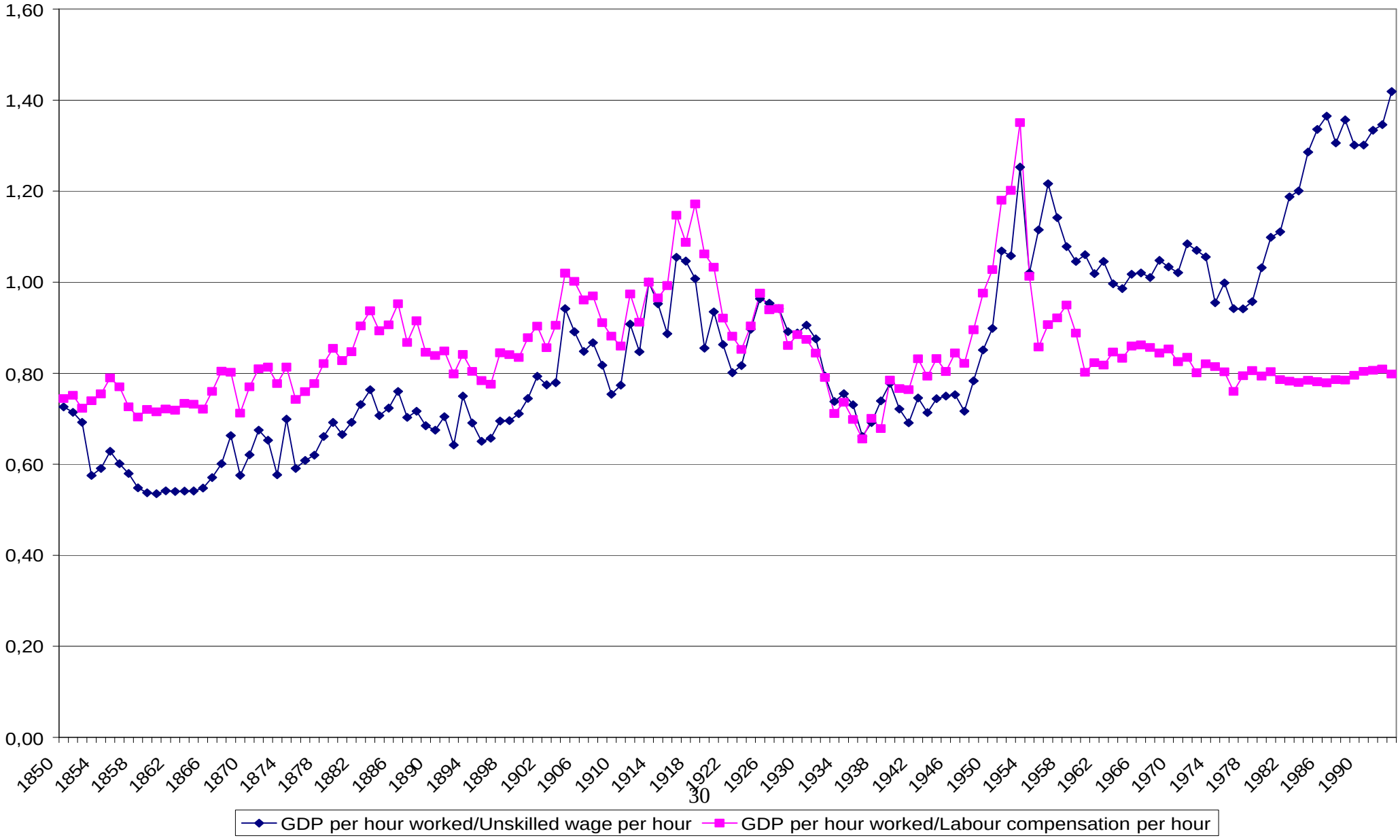
Graph 2. Share of Agriculture in Total Employment



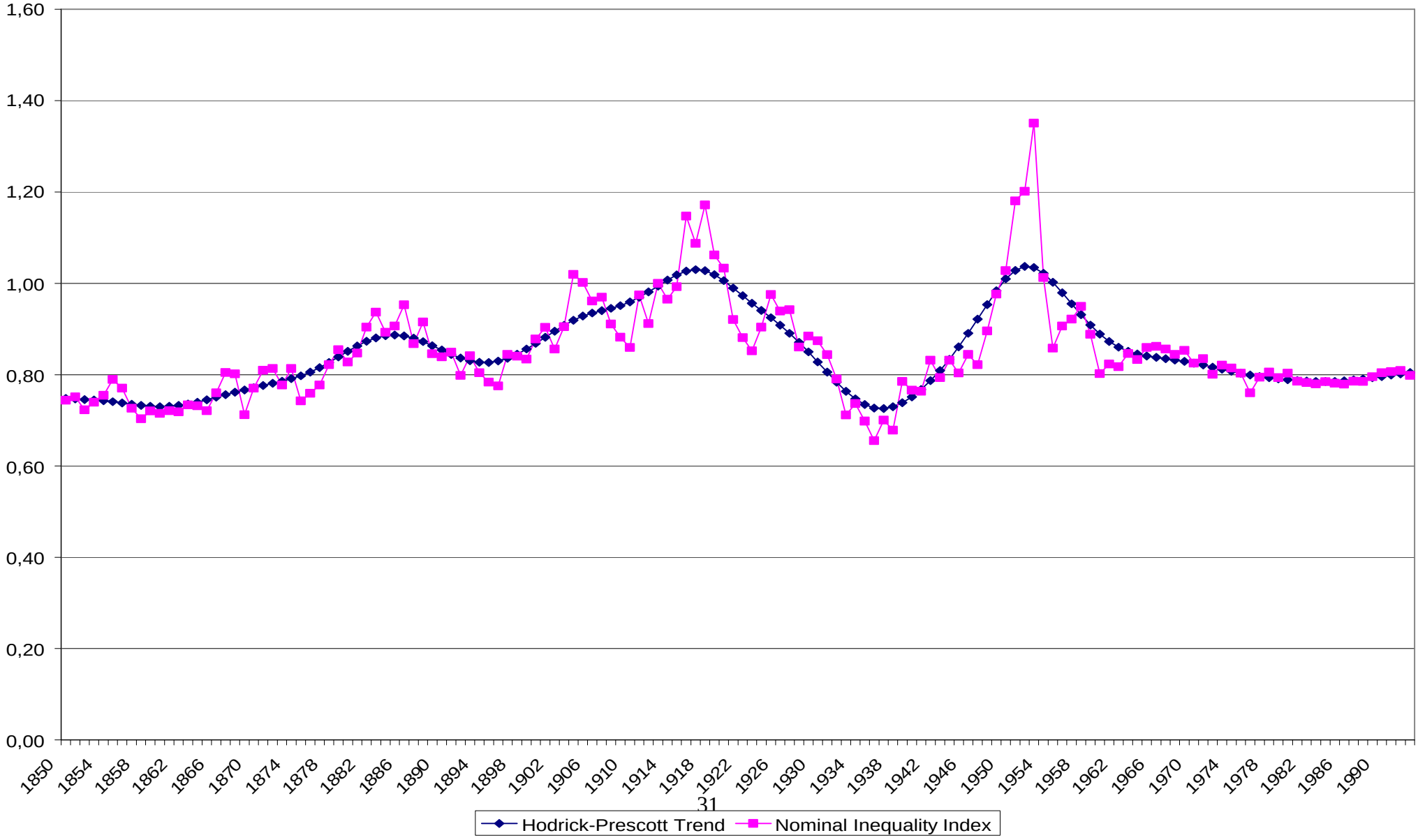
Graph 3. Relative Labor Productivity in Agriculture [Total Economy = 1]



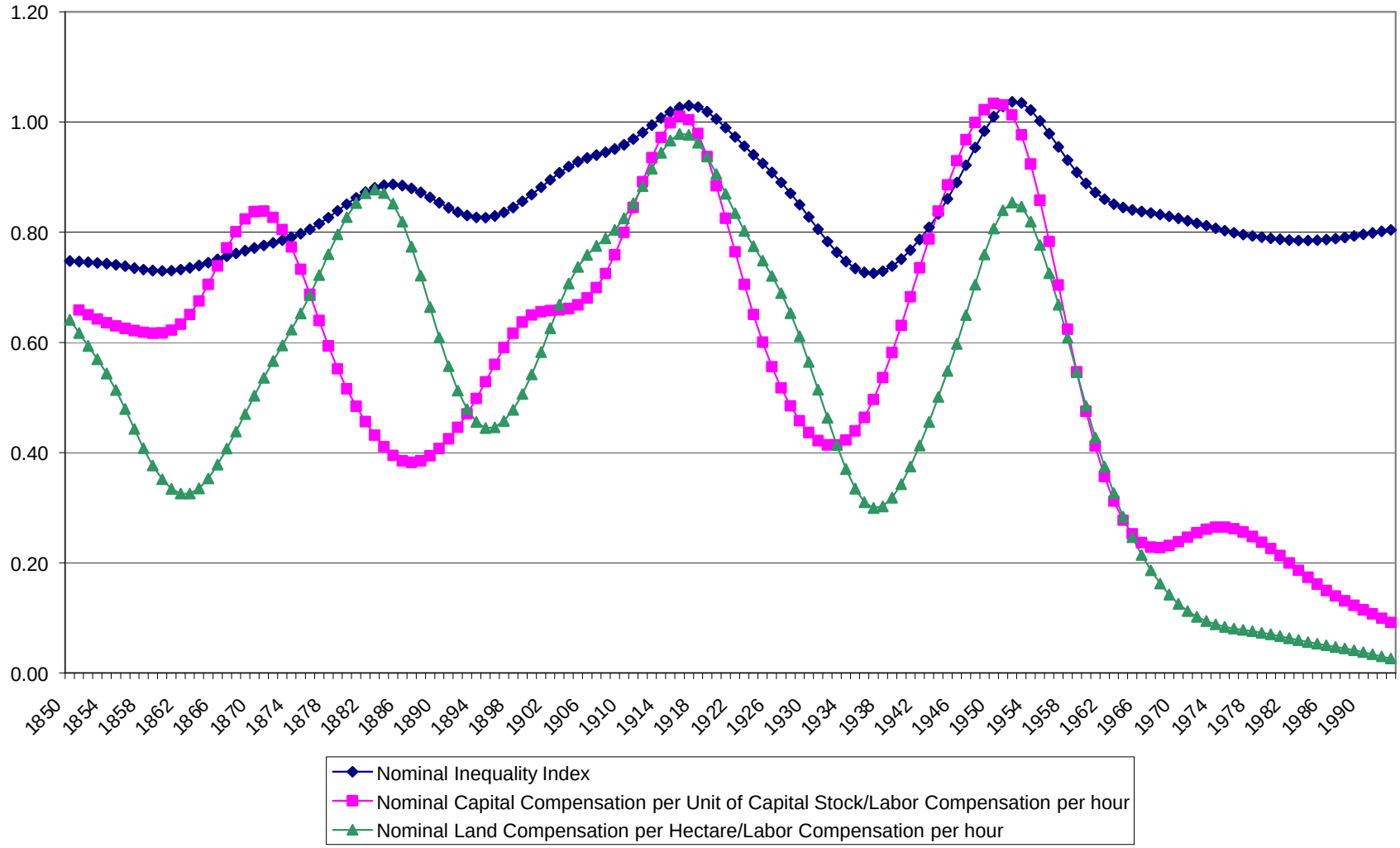
Graph 4. Alternative Inequality Indices



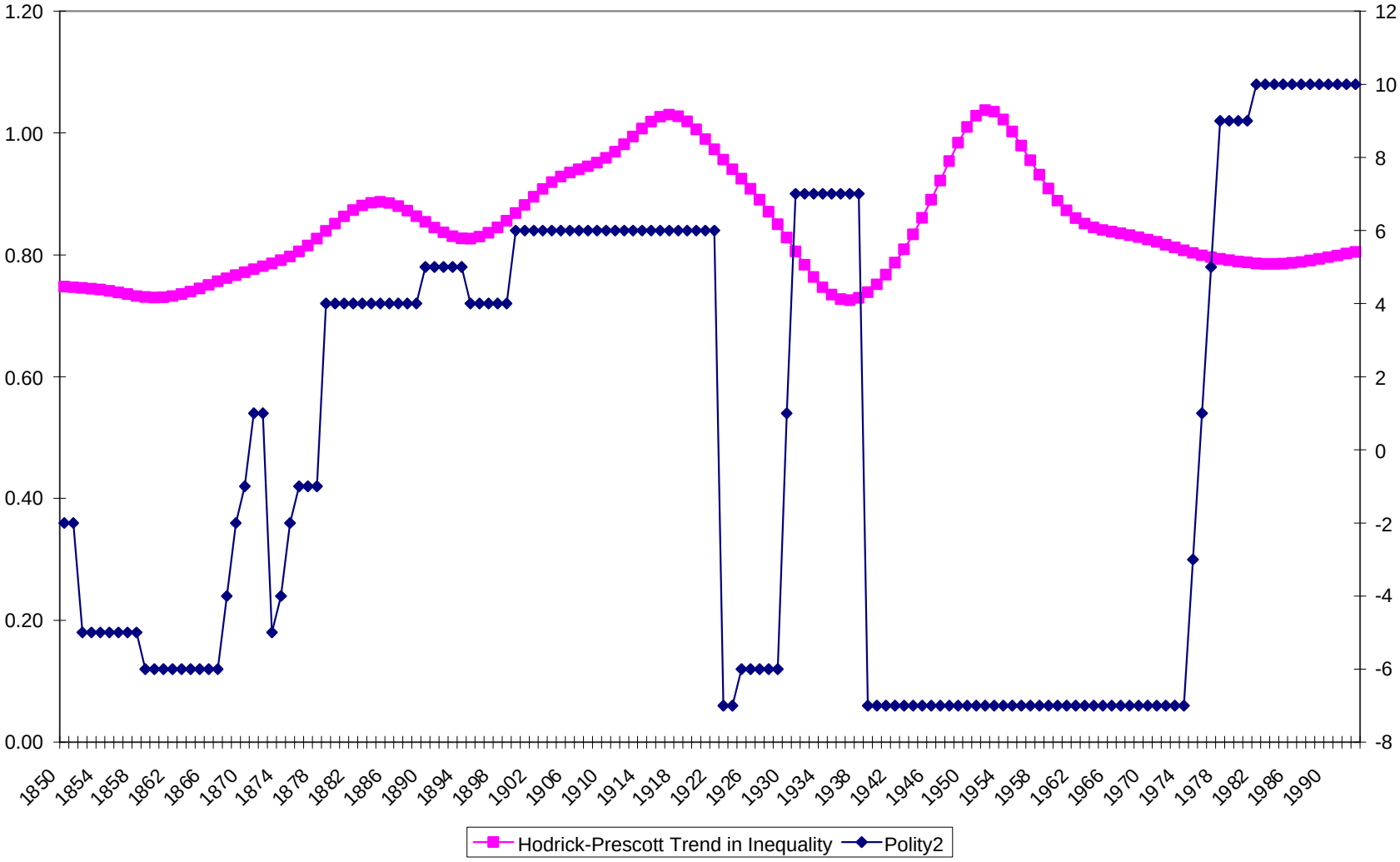
Graph 5. Nominal Inequality Index and its Hodrick-Prescott Trend
[Nominal Inequality Index=GDP per hour worked/ Labor Compensation per hour] (1913=100)



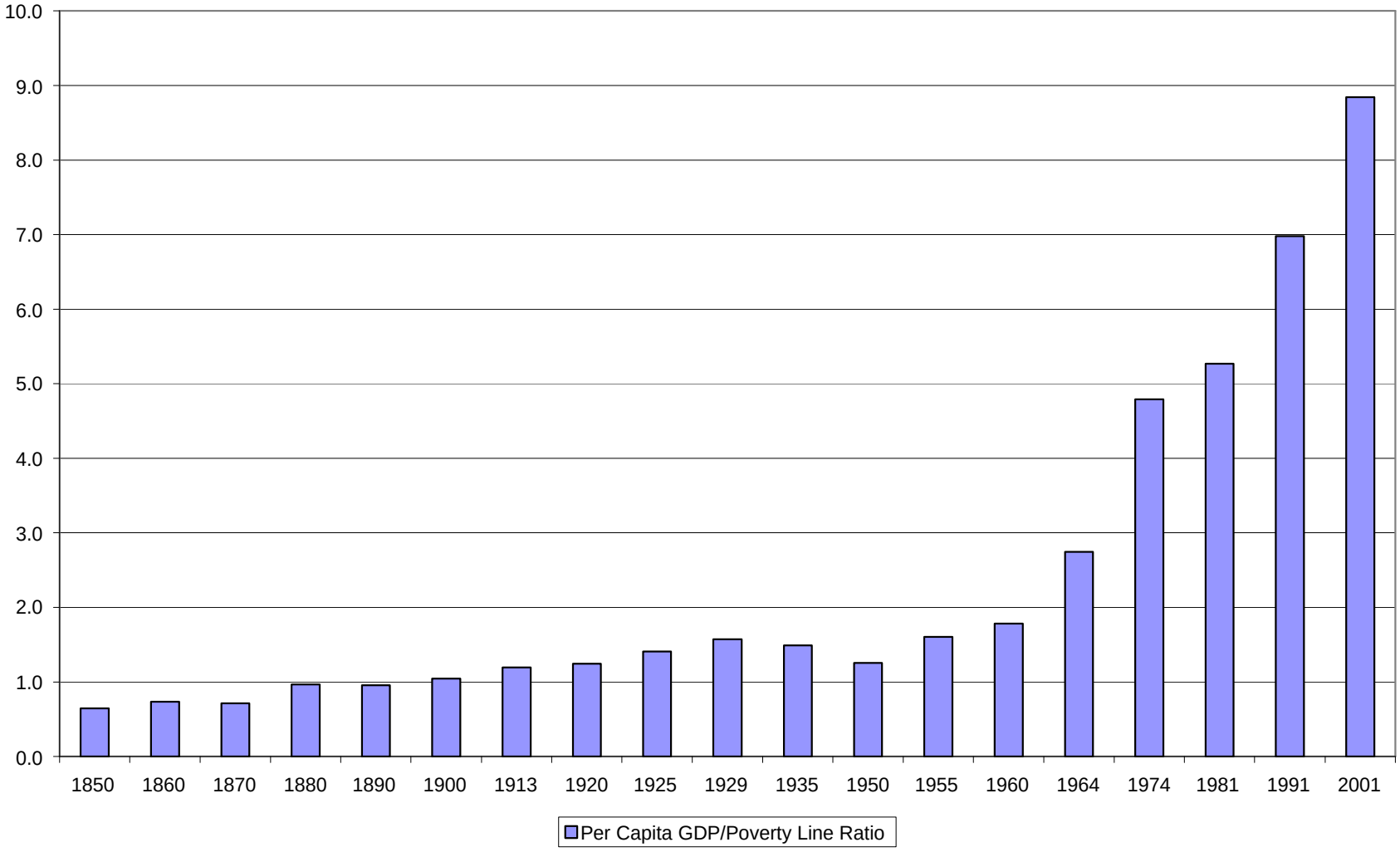
Graph 6. Nominal Inequality Index and its Components: Hodrick-Prescott Trends



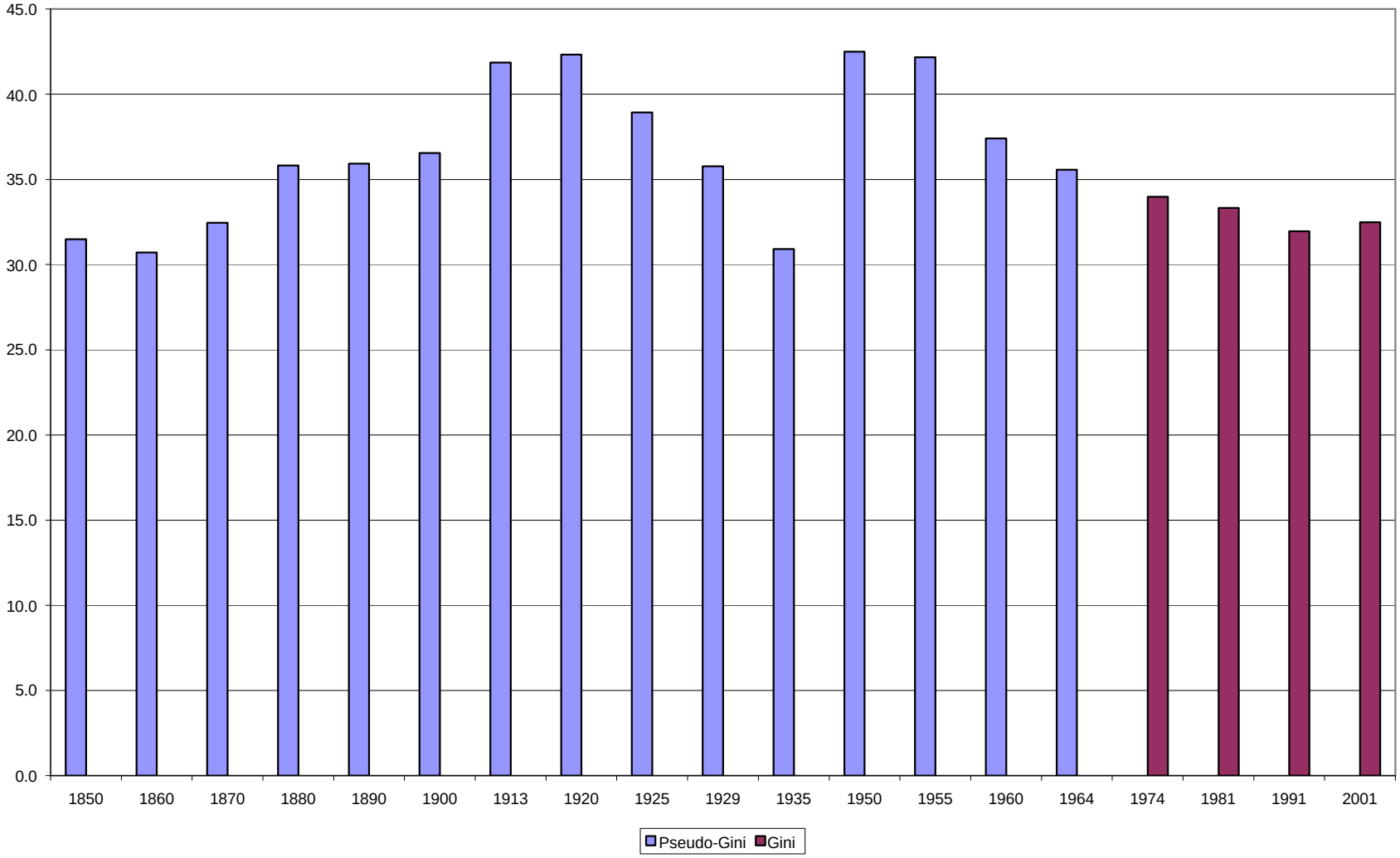
Graph 7. Democracy and Inequality



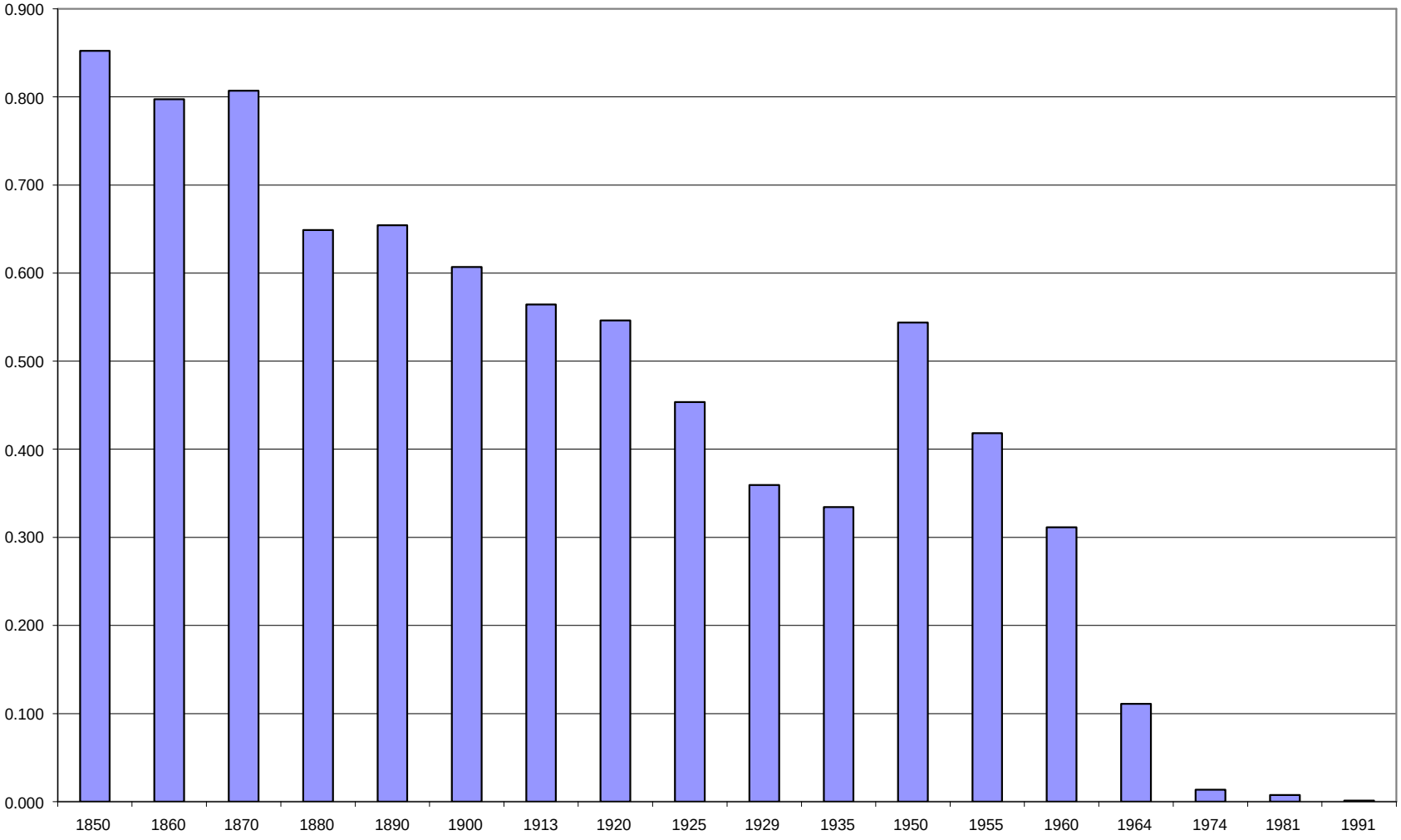
Graph 8. Per Capita GDP/Poverty Line Ratio



Graph 9. Gini and Pseudo-Gini: Direct Estimates and Conjectures



Graph 10. Poverty Headcount in Spain (%) [Poverty Line 1985 $ G-K 4 a day per person]



Graph 11. Actual and Counterfactual Poverty Headcount in Spain (%)