**RESEARCH PAPER - EUROPE AND ITALY** 



# On Italian Economic Development: What the Long-term Says About the Short-term

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# Abstract

In most of the literature on Italian economic development it is generally claimed that it was during the times of Giolitti that Italy came to be a rapidly industrializing country. In this paper we show that Italian economic development increasingly gained in speed during the first half a century after Unity. There are five breaking points that can be taken as "structural", moments when the GDP growth trajectory changes and the economy enters a new phase. The first phase goes from 1861 to 1913, with its steady growth process, characterized by an acceleration in the last fifteen years. The second phase includes the two World Wars and the twenty-year period in between, from 1914 to 1946, with the ups and downs of the post-war rebound and the Great Depression. The third phase coincides with the post-war growth, from 1947 to the mid-Seventies, when the end of the Bretton Woods system, the first oil "shock" and the buildup of social tensions in Italy brought it to an end. It was in seven thousand days, during that phase, that Italy was able to converge to the other advanced economies' growth path. Between 1975 and 2001 a fourth phase takes place, characterized by "productive decentralization", "competitive devaluations", and a slower growth rate, albeit in line with that of the other main economies. Italy undergoes the years of the "productivity slowdown" exploiting the margins on the cost side, without fundamentally changing its economic structure, with low investment and innovation rates. Between 1999 and 2001 the signs of a further phase start to materialize. Italian capitalism adapts with a jobless growth of its export sector and a non-productive employment growth for the rest of its firms. While industry keeps losing ground, the service sector continues to expand. And yet, it is more and more temporary, part-time, and precarious employment that grow. The lesson is that "nothing is forever": nothing guarantees that even if we implemented all the "reforms" that we were told we would go back to on the old growth paths. Today we are on a track which is a declining table, and we would have to change too many things, this is what the long term says.

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In most of the literature on Italian economic development it is generally claimed that it was during the times of Giovanni Giolitti and his governments, at the very end of the XIX century, that the Italian economy actually "took off" and that only during the Giolitti era Italy came to be a rapidly industrializing country that would soon join the club of highly industrialized nations (see, e.g., Fuà 1978). Even with the abundant new evidence that has been assembled in the recent past by scholars who have delved into the statistical archives and collected new information from a variety of sources, that deeply rooted interpretation of the history and the process that the Italian economy went through seems to have remained well alive, only to be confirmed by the newly available data (Toniolo 2013; Felice 2015).

Yet, if we look more closely at the data, several clues emerge that a more nuanced reading of the development process could be provided. Both the data at the sector level and those on labor markets and activities may lend, in fact, to different interpretations, as Fenoaltea had suggested all along (see, e.g., his last contribution Fenoaltea 2020a, b).

In this paper we show how that might be the case: Italian economic development did non "start" neither during the Giolitti era nor even with Italian Unification in 1861, though it increasingly gained in speed during the first half a century after Unity. In addition to that, the idea that Italy established itself as a major economy in a century or so – from the 1880s to the 1970s – can be questioned on the same grounds. There was a slow, albeit uneven development process all along the Nineteenth century, a relative break or slowdown, with several ups and downs, between 1914 and 1945, and a new, considerable and somehow different development push between 1946 and 1992, after which the Italian economy has come to a slowdown and then to a halt. The high growth rates after the Second World War were due to a different combination of factors – certainly building up on pre-existing conditions – that led to a new development path, which after some time came to an end. Nothing should be taken for granted, history shows.

### 1 "When my Information Changes, I Alter my Conclusions."

The idea that Italy had to wait for Giolitti to start up its economic development process has a long history. From Vera Lutz to Alexander Gerschenkron to Walt W. Rostow a description of the Italian economic growth as following an "incubation" period after which it finally "took off" thanks to a combination of good policies and capital accumulation in certain key sectors has always appealed to economic historians and scholars (e.g., Fuà 1978; Maddison 1991; Rossi et al. 1993), as it provided a certification that it was that particular mix of policy options and conditions on the ground that led Italy on the path of a secure and permanent development. The First World War and the Fascist period then followed only providing a few "dents" on that trajectory, which was obviously affected by the Second World War, only to produce a "readjustment". The economic "miracle" – and even the "boom" – in the 1950 and 1960 s were then the final bloom of a process that had been secured and which was able to harvest the fruits of the copious seeds that had been implanted in the previous sixty years or so, on a development trajectory that had already firmly asserted itself.

In the past, this reading of how the growth process developed had been mostly descriptive, delving on a lot of qualitative information and, especially, on the estimates of GDP and Value Added by sectors (ISTAT, 1957, 1958; Ercolani 1978). Recently, various scholars have been engaged in the process of revision of the available data, coming to more accurate and somewhat different estimates of those indicators. A lot of attention has been given to the data at the sub-sector level, from a variety of sources, thus enriching the number and extension of the available statistical series. New data have then been collected and assembled, giving rise to new estimates for GDP and the other main macroeconomic indicators (Baffigi 2011). In due course, other interpretations of the Italian economic growth process have thus appeared, providing a renewed framework of analysis that has finally questioned that original reading, which can be summarized as follows.

In the first place, it appears that the growth of the Italian economy in the first fifty years after Unification has been much smoother than it was thought, with no apparent "take off" but a slow building up that gained speed only in the last couple of decades before the First World War. So, economic growth started almost right away and only picked up in the later years before the war.<sup>1</sup> Secondly, the war years did not witness that large jump in GDP due to the increased (public) military spending (Felice and Carreras, 2012). In the third place, the 1929 crisis that started the Great Depression hit the Italian economy as much as most other advanced economies, and its aftermath was even longer than originally thought. Finally, the jolt provoked by the Second World War was a sizeable one, giving rise to a real break, after which things started anew in many senses and a long period of smooth growth - at a much higher speed ensued for about thirty years. This was followed by a second period of slower but still considerable growth, up until the 1990s, when Italy entered a much more sluggish path which is still ongoing now. One basic tenet of most interpretations was that the "golden age" period after the Second World War was possible because of the previous build up and along a trajectory that had been already established. This is not what we believe, as we show before.

### 2 Five Idiosyncratic Phases of Growth

If we look at the whole economic development process of Italy from a global perspective, it appears that over the 170 years from 1861 to 2020 there were at least five distinct phases, each characterized by a different setting and quite different relationships

<sup>&</sup>lt;sup>1</sup> This is in line with the work of Fenoaltea (see Fenoaltea 2020a, b, but also much of his previous work) and Baffigi 2011) and the references therein. The analysis by sectors also confirms this reading (Ardeni and Gallegati, 2022).



Fig. 1 Italian GDP (natural logarithm) 1861-2020 and its growth phases

between capital and labor, employment growth, sector allocation of the workforce, income and output growth and wellbeing (on inflation, e.g., see Baffigi et al., 2015). Each phase had its own output trajectory and specific development path (Fig. 1).

Though a cursory look at the figure might seem like a familiar one, it is our interpretation of it that is worth remarking. Phase 1 appears to be like a build-up, on a development path that stems from the pre-existing conditions and that will continue, only slightly changed, during Phase 2. There does not seem to be any specificity in the Giolitti era about Phase 1, while the subsequent period – the fascist one – sees a consolidation of the previous trend, with the up and downs provoked by the internal speed-up of industrial production, favored by the "freezing" of labor market conditions – especially in the rural areas – and State intervention. Phase 3, in this respect, opens a completely new era, with only a partial build up on pre-existing conditions and a totally different development path, highlighting the break provoked by the war. The year 1975 signals a change in paradigm, when the economy enters an era of slower output and employment growth and a markedly high public spending. Phase 4 lasts only as far as it can, surviving the 1992 shock, until it runs out of steam. And it's around the turn of the century that the Italian economy enters the downward slope of a declining development path, characterized by higher shares of precarious employment, low investment and innovation rates and a still high public spending, which we call Phase 5.

Various scholars – Toniolo (2013) and Ciocca (2020), for instance, but also Felice (2015, 2019; with Carreras, 2012) – had seen in the Giolitti era the primary cause of a structural change that had put Italy on a faster industrial development path which

would then lead, cumulatively, to the successes of the post-war "golden age" years. Interestingly, for instance, Toniolo (2013, p. 7) depicts a different periodization for the Italian development process, writing (our translation):

In the context of a standard convergence profile, the economic history of Italy from 1861 to 2011 is characterized by a central period of about a century (from the second half of the 1890s to the second half of the 1990s) of strong catch-up, inscribed within two 'tails' (1861–1896 and 1992–2011) of low growth, when the country has lost ground with regard to the countries with higher productivity.

We believe that this is not an accurate picture and that what happens after the Second World War is the result of a break. It is not the previous build-up, launched by the Giolitti era and carried on in the following decades unaffected, that comes alive. Though the post-war development obviously drew on a pre-existing industrial base, it was the *different* type of development it embarked on that made the growth rates of that period possible. Besides, despite the good omens brought by the "Giolitti spring", it was the fascist "winter" that had erased them, and the Italian economy after the war had to start anew in a lot of aspects. In this sense, we reject that post-Rostow or neo-Gerschenkron interpretation of Italian development. It did not begin there - there was no spurt, no take off, no spring - as it had come a long way from its artisanal background of a sparse, albeit alive industry (with as much "industrious revolution" as there had been in England, only without the steam machine!). As Fenoaltea had argued all along, fighting it with his candid unapologetic spirit, this is a vision of (Italian) development that is «ideologically whiggish», all centered on an abstract idea of progress, to be measured in terms of how much ground has been covered from there to here, from then to now. Which sees development as running ahead, all the time, forward and up. Progress does not work that way. There have been phases, different from one another, and if each one obviously builds on the previous one, they have all had their own trajectory and path, their own determinants and drivers. And that is a reason to be concerned. The phase we have now entered is a new one, which discounts all the mistakes that have been cumulating in the previous decades. But nothing guarantees that one day we will go back to a growth path we lost some time ago. There is no automatic going back, that's what the long-term shows about today, as nothing is forever.

# 3 Trends and Cycles in Italian GDP

The question of how to identify the long-term growth trajectory – the trend – in a series has been much discussed in the literature. Clearly, while a linear time trend appears to be too simplistic a representation, which trend should then be identified in the series is then left to the empirical assessment. However, as Harvey (1997) already argued, leaving the data "speak for themselves" is going to be arbitrary anyway, especially if too strong assumptions are introduced regarding the behavior of the series. Unless a multivariate model is constructed, whereby the evolution of a series results

from the interaction of several variables, the best thing to do is to look at the long-run properties of the series.

When looking at long-run trends, fundamentally the issue is to disentangle the variations in the levels and the changes over time, the "permanent" (long-term) from the "temporary" (short-term) ones. In a graph, the slope parameters may be taken as constant, in which case the resulting trend is a *linear one*, or as continuously varying, in which case the slope parameters are essentially assumed to follow *random walks*. These are the two extreme cases. Structural time series models (Harvey 1989; Harvey and Jaeger 1993) are a way to encompass both cases (and all the ones in between). If the trend is purely stochastic, levels and slope evolve over time. In such a model, trends are estimated through the Kalman filter, extracted with a smoothing algorithm.

In such representations, the trend accounts for the long-term component, while the deviations from it account for the "cycle".<sup>2</sup> As such, the cycle is defined as the short-term component that eventually reverts to the trend, whether linear or stochastic. The linear "trend-cycle decomposition" of the natural logarithm (*ln*) of real GDP plots a straight line (the trend) through the series, where the deviations from the straight line identify the cycle. If we denote the trend (in log real GDP) as  $y_{t}^*$ , when the trend is *linear*, its growth rate is a constant g:

$$ln\left(y_{t}^{*}\right) - ln\left(y_{t-1}^{*}\right) \approx \frac{y_{t}^{*} - y_{t-1}^{*}}{y_{t-1}^{*}} = g$$

The question, in practice, is whether a straight line (a linear trend) is the "best possible" trend representation, or whether we should allow it to change over time. Clearly, we know that a linear trend is not the best possible representation and, however, it is not clear which alternative one is the best possible, as there are potentially many. If we allow the trend to change over time, it may be changing *all the time* or it may be changing at *some crucial point*. In which case, we will be looking for a break (these are called "structural").

Which trend is more "acceptable" is a matter of what the theoretical underpinnings of our representation are. While we may reject the idea that the trend is purely stochastic – it changes every year, driven by a random walk, as in the Real-Business-Cycle representation – we may also feel that trends are established when the economy takes on a certain "pace" and they last for some time, after which, something (exogenous) happens, so that they change. Not a definitive "linear" representation over a long period, but a "broken", linear one. The search for breaks can be done statistically, by testing whether there is a change in the slope of the trend. But leaving the data speak for themselves is not necessarily good, as we may get some guidance from history.

One further way to see what is the "best" trend, is to look at the properties of the cycle. As we said, the cycle is defined as the (percent) deviation from the trend:

<sup>&</sup>lt;sup>2</sup> Different trend decompositions will give rise to somewhat different business "cycles" and their *peaks* and *troughs*, particularly when there are growth cycles. It is up to their interpretation to sort them out and choose which one fits best, instead of leaving the data "speak".

$$Cycle = \ln(y_t) - \ln(y_t^*) = \ln\left(\frac{y_t}{y_t^*}\right) = \ln\left[1 + \frac{y_t - y_t^*}{y_t^*}\right] = \frac{y_t - y_t^*}{y_t^*}$$

For the cycle to be "reasonable", it should more or less average zero over a certain range and cross the zero line at some points, corresponding the actual behavior of the economy.

An example of a stochastic trend is that one proposed by Hodrick and Prescott (1997), where  $ln(y_t^*)$  is computed for each t so as to minimize the following

$$\sum_{t=1}^{T} \left[ ln\left(y_{t}\right) - \ln\left(y_{t}^{*}\right) \right]^{2} + \lambda \sum_{t=2}^{T-1} \left[ \Delta ln\left(y_{t+1}^{*}\right) - \Delta \ln\left(y_{t}^{*}\right) \right]^{2}$$

where  $\Delta ln(y_t^*) \equiv ln(y_t^*) - ln(y_{t-1}^*)$  and  $\lambda$  is a smoothing parameter so that when  $\lambda=0$ , changes in trend are not important (i.e.,  $ln(y_t^*) = ln(y_{t-1}^*)$ ), while when  $\lambda \rightarrow \infty$ , then  $\Delta ln(y_{t+1}^*) = \Delta ln(y_t^*) = g$ . Typically, a value of  $\lambda = 100$  is used for annual data (implying a moderately large annual change of the trend growth rate of half a percentage point). The sequence of  $y_t^*$  which minimizes the above expression can be found with a Kalman filter (or by inverting the data matrix, given  $\lambda$ ).

When we talk about trends and cycles over time, one important aspect is the time span we are considering, and the horizon of the analysis. Clearly, speaking of the Italian economy and the behavior of the GDP series over a period of almost 170 years is one thing; taking a closer look at some shorter time periods is a different one. Consider the picture below (Fig. 1). The graphical representation of the natural logs of the values of real GDP clearly shows that there were at least five "phases", over which the fit of both linear trends and a HP stochastic trend appears to be good (taking out the war years). During the first phase (1861–1913), the HP trend seems to have a slightly better fit. The second phase(from 1921 to 1939) is more erratic, and both trends show a pretty hectic cycle. In the third phase (1946 to 1974), both trends appear to have a good fit. The fourth phase, going from 1974 to 2001, shows some variability, of which both trends do not account for, as in the fifth phase, clearly characterized by a change in trend.

How much the "phases" are an artificial representation or not, is obviously a question of interpretation. As we know, the first growth period of the Italian economy was clearly interrupted by the First World War and so was the second period, between the two wars. The question might be whether GDP went back on its original growth path after the First War or not (which we address below). That the period after the Second World War signed a completely new era is only confirmed by the data: a different slope of the curve, soon to be characterized by growing levels of GDP.

The first recession in 1975 brought that era to an end: average growth rates decreased; the long-term trend changed slope. The question, again, is whether those trends continued after 1993, for instance (when a second recession hit the Italian economy), or after 2001, when another phase seems to have started. To have a better clue about these questions, a glance at the cycles resulting from the trend decompositions underlying Fig. 1 above might be of help (Fig. 2).

As one can see, the linear trend approximation for the first phase generates too large a "cycle", with two wide expansions in the first and the last decades (and in



Fig. 2 GDP cycles for linear and stochastic trends, 1861-2020

1886) and a long downturn in between. Similarly, between the two wars, there are two expansions up to 1929 and then from 1937 to 1939, and a downturn in between. After the second war, there appear to be expansion upturns in the Fifties (the "miracle"), in the Sixties (the "boom"), in the Seventies and in the late Eighties and then before the 2008 crisis and in 2019. All of these "cycles" are somewhat spurious, as they tend to be either rather long or quite large (sometimes as much as between 5 and 10% of long-term GDP). The cycle resulting from the HP stochastic trend, on the other hand, appears to be more variable, crossing the zero line quite frequently. Especially during the first and the third phases, it is quite different from the linear trend cycle, though it also has quite ample upturns.

All in all, this all-encompassing view of the evolution of GDP across the whole 1861–2020 period shows that a close-up picture is necessary to account for the long-term trends and cycles in a more convincing way; there are two evident breaks in the series coinciding with the war years; a test is necessary to assert whether there was a change in slope and/or long-term trend between phase 1 and 2 and between phase 2 and 3.

Let us start with the 1861–1913 period. There appear to be four linear time trends with three breaks. This representation provides a better decomposition that the HP stochastic one (see Fig. 3). The first sub-period, from 1861 to 1876, can be identified with the first quite erratic years (with one war and two recessions), with an average annual growth rate of 0.73% and a substantial coincidence of the linear and the stochastic trend. The second sub-period, heralded by the 1877 recession, is characterized by a new trend with an average annual growth rate of 1.86% per year and carries



Fig. 3 Linear and stochastic trends, 1861-1913

on until 1888. The 1889 recession, in fact, brings in a break, giving place to a new slower trend with an average growth rate of 1.35% (these are the Crispi years), until 1899, after which GDP starts to accelerate (the Giolitti years) and a new trend sets it, with an average growth rate of 2.44% per year. In this case, it is noticeable how close the linear broken trend and the stochastic trend appear to be. As we already stated above, this representation is consistent with that of a slow buildup of the growth process that led to an acceleration, not to an exponential take-off.

Under this decomposition, the representations of the cycle appear to be more convincing, too, with frequent up and downswings during the whole period (Fig. 4), as opposed to the long-term linear trend cycle.<sup>3</sup> The two upturns in the first sub-period are due to the increased public spending for the 1866 war and the 1870 capture of Rome. In the second sub-period, there are two upswings (larger for the HP cycle) due to the Depretis government spending and a certain increase in investment. In the third sub-period, when the growth pace slowed down, the two downturns are just offset by a long weak upturn, while in the fourth sub-period, the initial downturn is then overcome by a long upswing (the best Giolitti years), which ends with the war in Libya and a rebound.

The second period, from 1914 to 1945, was more erratic. The two sub-periods covering the wars show a variability which can certainly be explained in terms of economic fundamentals but is not interesting from the trend-and-cycle decomposition

<sup>&</sup>lt;sup>3</sup> The picture shows the broken linear trend (LBT) cycle, the long-term linear trend (LLT) cycle, the HP cycle and the trend break years.



Fig. 4 Cyclical components, 1861–1913

point of view, as it was so conditioned by exogenous factors. The first "war period" spans from 1914 to 1921: two recession years, followed by a two-year expansion due to the increased public spending, then two more years of recession, a rebound in 1920 and a further recession. In 1921, real GDP was down to its 1908-09 value. From 1921, the economy rebounds and picks up rapidly, at a 6.43% annual growth rate (Fig. 5), until 1925, after which it slows down (the overvaluation of the currency having its effect), has a slump in 1927, and picks up again until 1929 (a new trend sets in 1926-27, with an average growth rate of 3.35%, but is short-lived). In 1930, the international crisis is felt in Italy, too, and for the next six years GDP lingers around the same values (the annual growth rate is about 0.51%). It is only in 1936 that military spending gives the necessary burst for a new upturn (and a trend with a 4.44% annual growth rate), which lasts only until 1939, after which the Second World War starts. So, all in all, there are basically four sub-periods, with their relative trends, all breaking with recession years (1926-27, 1930, 1936).

As one can see, the changes in trend in those years between the two wars are quite evident. The HP stochastic trend can barely account for those dynamics, as it "underestimates" the trend until 1930 and it "overestimates" it until 1936. A broken linear trend appears to be a better fit. The cyclical components resulting from the various decompositions are shown in Fig. 6. The HP cycle resembles the cycle resulting from long-term linear trend decomposition seen above in Fig. 1. The cycle from the broken linear trend decomposition is the one that looks more able to account for the upturns in the mid-Twenties and in the run up to 1929, as well as the upswing induced by the increased military spending in 1934-35.





Fig. 5 Linear and stochastic trends, 1921–1939





Now, if we looked at the forecast that we would get by projecting onto the period 1921–1939 the estimated trends for the previous period (1861–1913, which we called Phase 1 in Fig. 1 above) we would get the following picture (Fig. 7). Neither the long-term linear trend nor the linear trend for sub-phase 4 estimated from the 1861–1913 period (in Fig. 3) seem to represent good "fits". The trend that minimizes the Forecast Mean Square Error (MSE) for the 1921–1939 period is the broken linear trend, better than the HP trend and the other estimated trends. All of this suggests that, in all likeli-



Fig. 7 Forecasts from 1861-1913 onto 1921-1939 period

hood, there was a regime change between Phase 1 and Phase 2 in the growth process (at least for the GDP series under consideration).<sup>4</sup>

The post-second war period can be characterized by the following picture, depicting both the broken linear and the HP stochastic trends (Fig. 8). We have a first subperiod, the reconstruction years, from 1946 to 1951, during which GDP rebounds (with an average growth rate of 9.84%). From 1951 on, a steady growth trend sets in, to last until 1974, for 24 years, with an average yearly growth rate of 5.93%. The year 1975 registers the first post-war recession, and from then on, things change dramatically. Average GDP growth slows down to a rate of 2.46% for the next eighteen years. This third sub-period comes to an end with the 1993 recession (whose inception is visible the year before). A new sub-phase thus sets in - as the average growth rate falls further down to 1.98% – but lasts only nine years. Around the year 2001, another phase – a declining one – finally begins. In spite of real GDP having a cusp a few years later, the average growth rate from 2001 to 2020 is a negative -0.19%. As Fig. 8 shows, the four break points for the linear trend are also accounted for by the HP decomposition. The estimated MSE is smaller for the HP decomposition in the 1951-74, 1975-92 and 2002-20 sub-periods, but not for the 1946-50 and 1993-2001 ones (Table 1).

Noticeably, both trend decompositions give rise to similar cyclical components, though the HP decomposition is more accurate in anticipating the changes in GDP growth that will come with the 1975 and 1993 recessions (Fig. 9). A closer look at the behavior of the cyclical components shows several interesting points. There is an upswing right after the war (the overheating of the rebound brought by the

<sup>&</sup>lt;sup>4</sup> As suggested by an anonymous reviewer, whom we thank, we carried the same exercise using the industrial value added series (not shown here). We obtained the same results, which also confirms that a regime change must have occurred.



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Fig. 8 Linear and stochastic trends, 1946-2020

Table 1MSE for the two trenddecompositions (multiplied by $10^3$ ) over the five sup-periods		1946-50	1951-74	1975-92	1993– 2001	2002- 20
	Bro- ken LT	0.7128	0.4985	0.3330	0.0272	0.6776
	HP	1.5640	0.3777	0.3007	0.1621	0.5341

reconstruction) in the HP decomposition, and an apparent downswing in the years of the "miracle" (a trough around 2% is in 1959 in both decompositions), as the longterm trend of the whole sub-period runs higher. The upturn of the "boom" years is followed by a short downturn around 1965 and a new upswing up to 1969-70. The encroaching 1975 crisis is accounted for by the broken linear trend decomposition with a downturn of the cycle, while the HP decomposition shows a further short upturn in 1974. Both trend decompositions show the rather large upswing around 1979-80, followed by the rather long downturn until the next 1989 peak and the following fall. Interestingly, the coincidence of the two cyclical decompositions shows that 1975 was indeed a break. Conversely, the trough for the next downturn is in 1992 for the linear trend and in 1993 for the HP trend (it is a feature of such trend to flatten out more cleanly the break around two years). Overall, it seems that the whole period between the beginning of the Nineties and the beginning of the Twenty-first century is better accounted for by the linear trend – with two breaks in 1993 and 2002 – than the HP trend. The latter, in fact, gives rise to a long downturn between 1993 and 1999, while in the linear trend decomposition the cycle is more regular. As we know, with the Nineties the globalization era sets in and the overall growth rates fall down, and when we get to the year 2001, the euro is adopted as a common currency. That a new



Fig. 9 Cyclical components, 1946-2020

phase sets in around 2001-02 is apparent with both trend decompositions. From then on, the two cycles appear to coincide, with two peaks in 2007 and 2011, a trough in 2009 and a final peak in 2019 of more than 4% over the long-term trend. As it turns out, total factor productivity stops growing from 2001 (this is the underlying longterm factor), while the short-term gains in output competitiveness until 2007 are then swiped out by the 2008-09 and 2012-13 recessions, which turn out to be a finishing blow to an already compromised scenario.

# 4 Conclusion

Economists and historians have proposed several trend-and-cycle decompositions of GDP time series at least since the times of Fuà (1978), where every representation has corresponded to a different reading of long-term development. Fuà and his associates, Maddison, Rossi, Sorgato and Toniolo all stated that growth had been negligeable until 1896 and it was only with Giolitti's era that the Italian economy experienced a take-off. Conversely, Baffigi and the others working on the Bank of Italy "150-year project" – thanks to the work of Fenoaltea (2005), the studies on agriculture of Federico (2003), as well as the work of Battilani, Felice and Zamagni (2014) on the service sector – came to see the years before Giolitti as times of a non-irrelevant, albeit slow, growth, so that when we got to 1896 there was only an "acceleration", not a "take-off" (see also Felice 2019). All along, there was a steady,

progressive development process. That process continued during the long twentieth century, but it did it with breaks and changes in speed.

As we have shown above, there are at least five breaking points that can be taken as "structural", moments when the GDP growth trajectory changes and the economy enters a new phase. The first phase goes from 1861 to 1913, with its steady growth process, characterized by an acceleration in the last fifteen years. The second phase includes the two World Wars and the twenty-year period in between, from 1914 to 1946, with the ups and downs of the post-war rebound and the Great Depression, following a new trend. A phase that did not see the burst that had been previously identified with the increased public spending during the first war and that witnessed a long slump following the 1929 crisis. The third phase coincides with the post-second war growth, on an entirely new growth path, from 1947 to the mid-Seventies, when the end of the Bretton Woods system, the first oil "shock" and the buildup of social tensions in Italy brought it to an end. It was in those seven thousand days, during that phase, that Italy was able to converge to the other advanced economies' growth path – by growing by an average 6% a year – a process that would then come to an end, giving place to a divergence, from then on, that still continues.

After 1975, Italy enters a phase that is new, in many respects. Industry embarks on what was called "productive decentralization" - the outsourcing of production stages and components, especially to smaller enterprises - which soon turns out to be the winning strategy for reducing costs and curb workers unions. The floating currency exchange system becomes an easy way to make exports cheaper – through "competitive devaluations" - thus "importing" more inflation, which amplifies the inflationary effects of a growing public debt (pushed by social spending, encouraged by the need to keep social tensions at bay). The tertiary and the public sector, in this phase, grow more than industry, both in terms of employment and their contributions to GDP. It is a wholly different new phase, where the political use of public spending by the governing parties has the declared purpose of downsizing the consensus of the Communist party, while providing an answer to the growing demand for equity by the lower classes. So, between 1975 and 2001, with the year 1992 in the middle - Italy's annus horribilis - a fourth phase takes place, with a slower growth rate (about half the previous one), albeit in line with that of the other main economies. Italy undergoes the years of the "productivity slowdown" exploiting the margins on the cost side, without fundamentally changing its economic structure, with low investment and innovation rates, while its political system gets progressively clogged until the explosion of corruption scandals, the resurgence of criminality and a major currency crisis. It is only the drive "towards the euro" - between the sign of the Maastricht Treaty in 1992 and the beginning of the euro zone in 1999 – that keeps the economy on track. And between 1999 and 2001 the signs of a further phase start to materialize, which definitely begins after 2001. A phase of such a slowdown that someone has called it of decline.

Economists and historians, in Italy as well as in other countries, are still wondering whether a change in paradigm has occurred or it was just a temporary shift in pace. The aging of the population, with its effects on the social security and the healthcare system, the impact of inflation and stagnation, and then the changes in international trade and demand brought by globalization all question the capacity of the Italian economy to face the new world setting. A new phase set in, recognizable by growth rates close to zero or negative, no employment growth and deteriorating terms of trade, with a smaller and smaller export sector. The fact is that "globalization" meant, for a lot of companies, delocalizing. Under the straitjacket of the euro, the Italian economy, which had not invested in innovation or diversification, crawled along. Italian capitalism adapted with a jobless growth of its export sector and a non-productive employment growth for the rest of its firms. While industry kept losing ground, the service sector continued to expand. And yet, it is more and more temporary, part-time and precarious employment that grew in size.

This is where we stand today and what the Twenty-First century shows: the most dynamic part of industry finds some competitiveness on the world markets, while the other part, inward oriented, and the service sector, linger, showing no growth in productivity. In the meantime, all through the 1990's, the 2000's and the 2010's, income inequality grew, back to the old-time levels. The political system, which has not found a new stability after the turmoil of the Nineties, is not able to channel the growing discontent, thus giving rise to populism and an enduring loss of consensus of the traditional parties. As the "communist threat" has waned, democracy and the representative system has become more fragile, while the now fragmented lower classes do not find an answer to their demands, thus providing a way for capitalism and the elites and their power grip a key for their political survival.

Most scholars had seen the rigidity of the institutional and regulatory setting and the lack of "flexibility" of the Italian labor market as the main problem. So, they had advocated "structural reforms" that turned out to be just a key for increased competition on the low tail of the salary distribution. Without affecting the economy and its structural low productivity problem. Ardeni and Gallegati (2022) point out that a production system still too oriented towards "traditional" products – which globalization makes difficult to market – and still relying on low labor costs was deemed to struggle in order to survive. The easy profits, obtained without any investment on R&D – which is made impossible by the small size of most enterprises – were bound to vanish in the short term. And when the common currency was adopted, from 2001 on, no competitive devaluation was possible. With very little public investment on education and research, the Italian economy appears to be sailing ahead with no direction. In twenty years, Italian GDP, relative to Germany's 100, has gone from 67 to 54, a performance that is worse than that of many recently developed countries. And Italy appears to be perilously back where it started from 170 years ago.

All in all, the long terms shows that there were at least five phases which were quite different from one another in terms of growth rates, growth features and the characteristics of the cycles. In this sense, the simple econometrics proposed in this paper provides a more nuanced view of what we know about Italian economic history. Fluctuations, in particular, appear to have been quite different in the upward periods as opposed to the downward ones – recessions have been more pronounced than short-term expansions. Being the industrial structure mostly composed by several hundred thousand small enterprises, it appears as if when things go well they do for everybody, while when things do not bode well, they are felt more acutely for the small ones (and so are more widespread). With perspective secular stagnation looking ahead and an international economic order too unbalanced between producers of

raw materials and basic commodities and high-tech producers of goods and services, Italy is going to suffer in the old niches that it has so jealously cultivated. The lesson, we believe, is that "nothing is forever", which means that nothing guarantees that even if we implemented all the "reforms" that we were told we would go back to on the old growth paths. Today – this is what the long term says – we are on a track which is a declining table, and we would have to change too many things.

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#### Declarations

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