A theoretical, historical and applied analysis of growth: the Italian case

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1. INTRODUCTION

1. Introduction

2. Growth decomposition
   a. Method and Goals
   b. Results
   c. Subperiods division
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1. INTRODUCTION

Aim of the project

- Qualitative and quantitative analysis of the **determinants of Italian economic growth**
- Main motivation: the **Italian pattern of growth** presents a particular trajectory. While it was considered a kind of 'miracle' in the 1950s and 1960s, it subsequently experienced a slowdown and a substantial stagnation over the past twenty-five years
- The standard approach attributes now the main cause of stagnation to the lack of growth of labour productivity. The Post-Keynesian approach: factors related to the demand side of the economy

Research project

1. **Historical decomposition** of the Italian growth from the post-war period to the current years , in order to insert the subsequent work into the research agenda of the **Comparative Political Economy (CPE)**
2. Empirical analysis on the **drivers of growth**. Econometric methods applied for a deeper analysis of the drivers that have led growth in the various phases (Kohler and Stockhammer, 2022)
3. In depth analysis on some decisive **institutional events** that have led Italy to the current path of growth

2. GROWTH DECOMPOSITION

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Methods and Goals

- The goal is to identify the most important **contributions** to growth that can divide the process of growth into **subperiods**
- To identify the **common** economic, historical, political and social **characteristics** and conditions in each subperiod
- How the **prevailing economic theory** and the **bargaining power of social classes** in any given phase may have influenced the recognition of the decisive component for growth: **the politics of growth** (Baccaro and Pontusson, 2022)
- Literature: Comparative political economy (CPE); Post-Keynesian (PK); Growth Model Approach (GMA)

- Brief recall of the **Supermutiplier model** (Serrano 1995, Freitas and Serrano, 2015):
  - Extension of the Keynesian principle of the effective demand to the long run
  - Accelerator theory for the Investments (flexible accelerator)
  - Part of the demand is considered autonomous, and it doesn't create productive capacity
  - Distribution is exogenous
  - Critiques: Palumbo and Trezzini (2003, 2016), Nikiforos (2013, 2018), Skott (2016)

2. GROWTH DECOMPOSITION

Methods and Goals

$$Y + M = C_H + I_{PE} + I_H + G_C + G_I + X \tag{1}$$

$$M = (1 - \mu)(C_H + I_{PE} + I_H + G_C + G_I + X) \tag{2}$$

$$C_H = cY \tag{3}$$

$$I_{PE} = hY \tag{4}$$

$$Z = I_H + G_C + G_I + X \tag{5}$$

$$Y^* = \frac{\mu}{1 - \mu(c + h)} Z = \alpha Z \tag{6}$$

$$\alpha = \frac{\mu}{1 - \mu(c + h)} \tag{7}$$

2. GROWTH DECOMPOSITION

Methods and Goals

- Growth decomposition using the **Supermultiplier model**, based on Freitas and Dweck (2013) approach, which allows to:
  - Highlight the role of each component of the aggregate demand
  - **Separate the effects** on growth of the **induced** components from the **autonomous** ones through the Supermultiplier

$$g = \alpha(1)\frac{C_H(0)}{Y(0)}g_c + \alpha(1)\frac{I_{PE}(0)}{Y(0)}g_h + \alpha(1)\frac{I_H(0)}{Y(0)}g_{I_H} + \alpha(1)\frac{G_C(0)}{Y(0)}g_{G_C} + \alpha(1)\frac{G_I(0)}{Y(0)}g_{G_I} + \\ + \alpha(1)\frac{X(0)}{Y(0)}g_X + \frac{\alpha(1)}{\mu(1)}g_\mu + \alpha(1)\frac{E(0)}{Y(0)}g_E \tag{8}$$

- And compared with a more "traditional" decomposition:

$$g = \frac{C(0)}{Y(0)}g_C + \frac{I(0)}{Y(0)}g_I + \frac{G(0)}{Y(0)}g_G + \frac{X(0)}{Y(0)}g_X - \frac{M(0)}{Y(0)}g_M + \frac{E(0)}{Y(0)}g_E \tag{9}$$

2. GROWTH DECOMPOSITION

Results

Fig. 1: **Supermultiplier decomposition of the Italian Growth by period averages (1961-2022)**. Data source Ameco and OECD, own elaboration

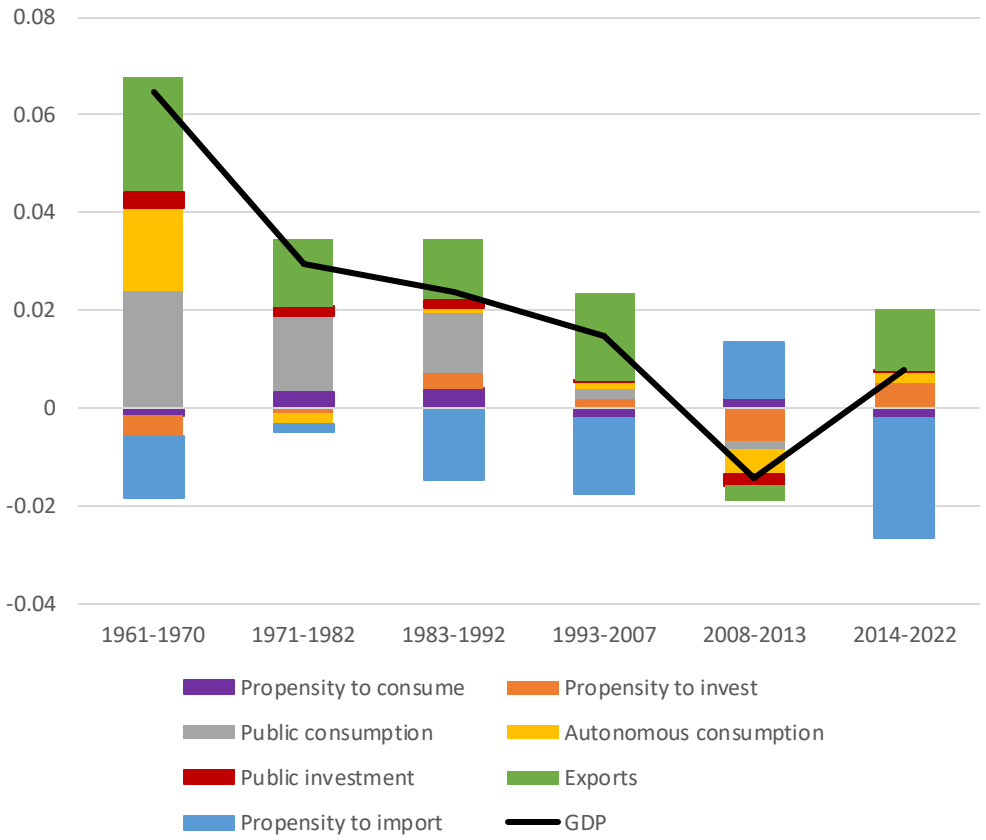
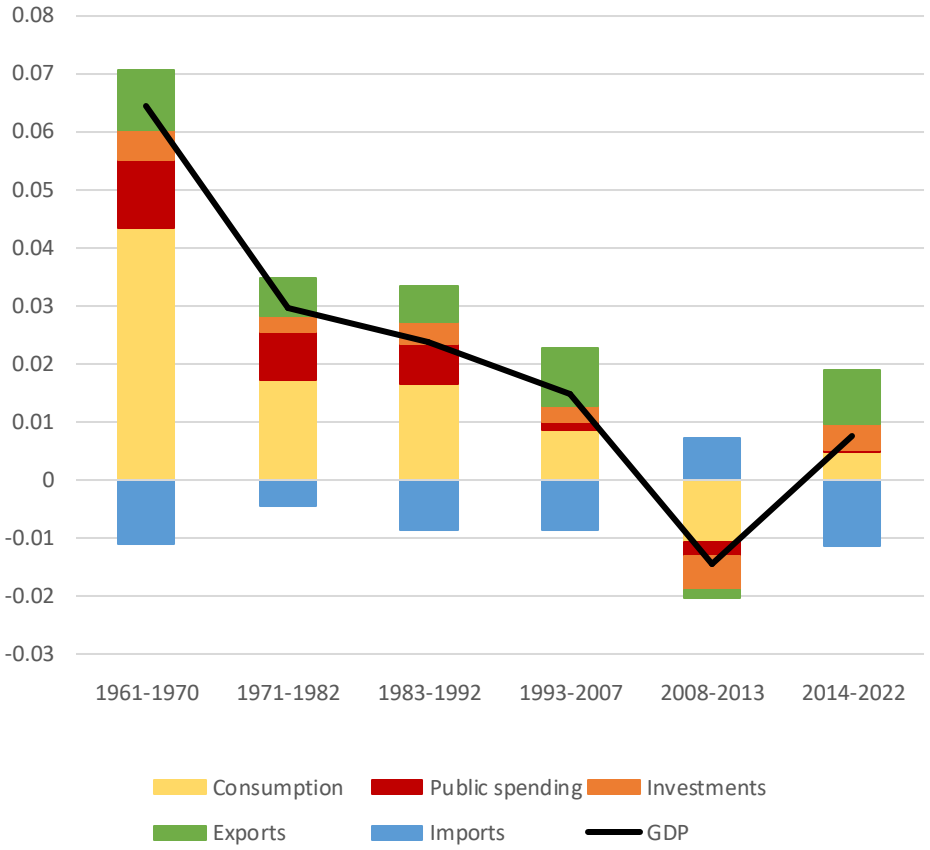


Fig. 2: Traditional decomposition of the Italian Growth by period averages (1961-2022). Data source Ameco and OECD, own elaboration



2. GROWTH DECOMPOSITION

1. Years 1961-1970: Post-war, reconstruction and end of the economic miracle

Public consumption, exports

- Public spending - consumption and investments - has contributed for the 40% of the positive contributors, exports for the 35% and residencial investments for the 25%
- Important role of the autonomous consumption. Reasons for this phenomenon are to be found in the historical, social and political sphere
- **The politics of growth**: Neoclassical synthesis is the prevailing economic thought: policy intervention necessary to correct market imperfections
- **The political events and the policies:**
  - Political election of 1963: Decrease in support for Christian democracy (DC), while it grew the Italian liberal party in the Right-wing
  - Change of direction of the monetary policy in 1963 (even if only for a one-off) : ends of the economic miracle
  - Liberal idea: public intervention to businesses was frowned upon. Absence of a State that support technological innovation through research funding

2. GROWTH DECOMPOSITION

2. Years 1971-1982: Trade union struggles, oil crises and flexible exchange rates

Public consumption

- Largest role is still public spending with the 51% of the positive contributions, exports for the 40%
- Propensities to invest and to import significantly reduce their negative impact; improvement in the contribution of the propensity to consume
- Decline combined with inflation, with an increase in the unemployment rate, international currency disorder, volatility of interest rates, oil crises and fragility of financial intermediation
- **The politics of growth**: economic theory coined the term "**stagflation**" for the new phenomenon that the neoclassical synthesis was unable to explain → monetarism. the decline is due to the increase in wages and the resulting high inflation (Modigliani and Padoa-Schioppa, 1977)
  - **The political events and the policies:**
    - Autonomy of Bank of Italy
    - Restrictive monetary policies
    - Unsatisfactory contract renewal for workers in 1973

2. GROWTH DECOMPOSITION

3. Years 1983-1992: The European monetary system

Public consumption, exports

- Total public spending is worth 40% of the positive contributions and exports 36%, therefore the weight of these on the total is growing, despite the actual contribution, as well as the growth, being lower
- Positive and stable contribution of propensity to consume; the propensity to invest has now a significant positive role
- The politics of growth: pre-Keynesian theoretical thought with the New Classical Macroeconomics → halting of wage growth to slow down inflation and the fight against public debt
- **The political events and the policies**:
  - The entry into operation of the EMS and of the unaccommodating policy, (strengthening of the real exchange rate)
  - Divorce between the Bank of Italy and the treasury in 1981
  - Weakening of the escalator process, and complete abolishment in 1992

2. GROWTH DECOMPOSITION

4. Years 1993-2007: The European Union, constitution and implementation

Exports

- The growth paradigm changes completely: exports represent not only the main contributor to growth, but essentially also the only one
- Exports represent 76% of the positive contributions and the only space left to public spending is 10% (almost entirely public consumption, investments are only 1%)
- The politics of growth: pre-Keynesian theory, New-Warlasian. External constraint necessary to fight inflation and contain public debt
- **The political events and the policies:**
  - Entry into the European Union and in the European Monetary Union
  - Policies that have been implemented to achieve convergence parameters
  - Downsizing and suppression of the state shareholding system and privatizations, abolition of "Cassa per il Mezzogiorno"
  - Fragmented political framework (Falcone and Borsellino murders, Electoral law in 1993, maxi trial of "Mani Pulite")

5. Years 2008 – 2013: Double deep

Decline

- The contribution of exports and public spending is negative. Important negative role of the propensity to investment (greater impact in recession) and autonomous consumption; propensity to consume is positive
- Great financial crisis and sovereign debt crisis (two negative peaks in 2009 and 2012). It is through the foreign channel that the crisis had its greatest impact
- **The politics of growth:** mainstream economic theory. The stability of public debt is essential for growth, with the latter being driven mostly by productivity
- **The political events and the policies:**
  - Austerity policies and a "support" of productivity with a decrease in real wages and job protection
  - 2008: first elections for Italy where no exponent of the traditional left-wing parties (Communist or Socialist Parties) in the parliament
  - 2011: "technical" Monti government
  - Reform of the pension system, reform of job market with the definitive corporatization of the contractual system

2. GROWTH DECOMPOSITION

6. Years 2014 – 2022: The recovery and the pandemic

Exports

- Exports still have the largest positive contribution (62%), but now interesting positive contribution from investments (25%). The role of public spending is negligible, but return of the residential investment (Super bonus)
- Economic crisis caused by COVID and the Russian-Ukrainian war
- **The politics of growth:** A "New-Keynesian" vision of economic policy; DSGE models. A role for aggregate demand and economic policies is recognized in the short term
- **The political events and the policies:**
  - The change of direction of the European Central Bank to address the sovereign debt crisis
  - Changes in political paradigms: The "third pole". In its conception the Five Star movement (M5S) was not to be assimilated to any traditional party
  - New policies to deregulate the labour market (2015)
  - Implementation in 2018 of the first form of guaranteed minimum income (Reddito di cittadinanza). Support eliminated in 2023

2. GROWTH DECOMPOSITION

The Supermultiplier and the propensity to import

- Negative path with only three peaks, corresponding to three important crises: 1975, 2009, 2020
- Trend of the Supermultiplier determined mainly by the propensity to import
- Values initially like those of Japan and the USA, today very low and closer to those of Sweden and Germany. Less impact if you act on autonomous demand

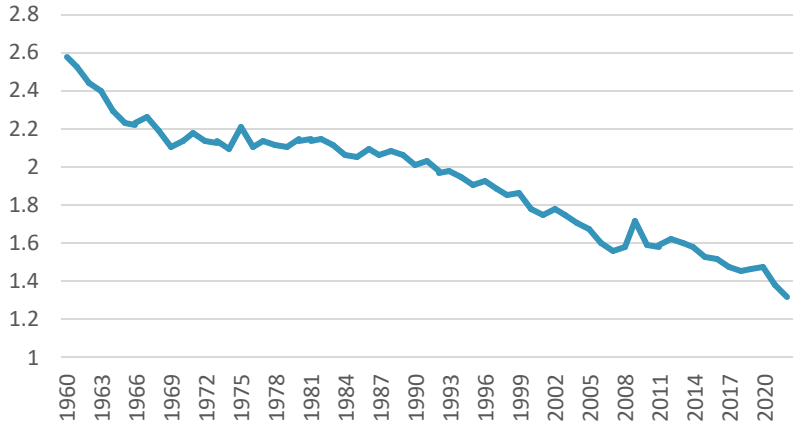


Fig. 3: **The Supermultiplier (1960-2022)**. Data source Ameco and OECD, own elaboration

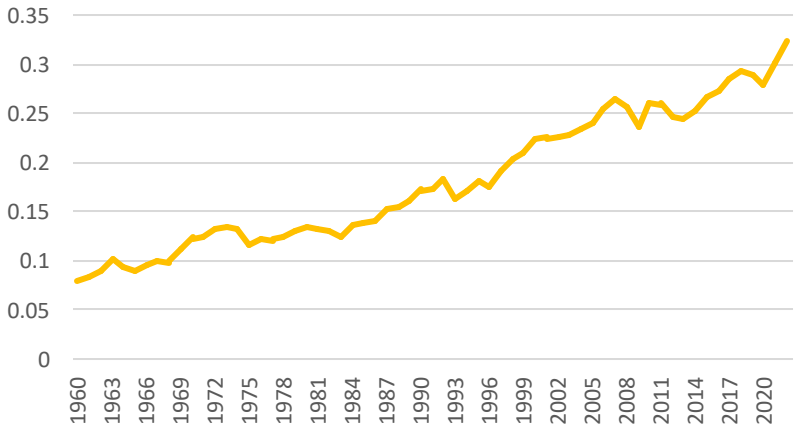


Fig. 4: **Propensity to import (1960-2022)**. Data source Ameco and OECD, own elaboration

- Main determinant of the trend of the Supermultiplier trend
- Greater slope towards the 1990s: price factors, growing globalization, the impact that the European Union and deindustrialization

2. GROWTH DECOMPOSITION

The propensity to consume and the propensity to invest

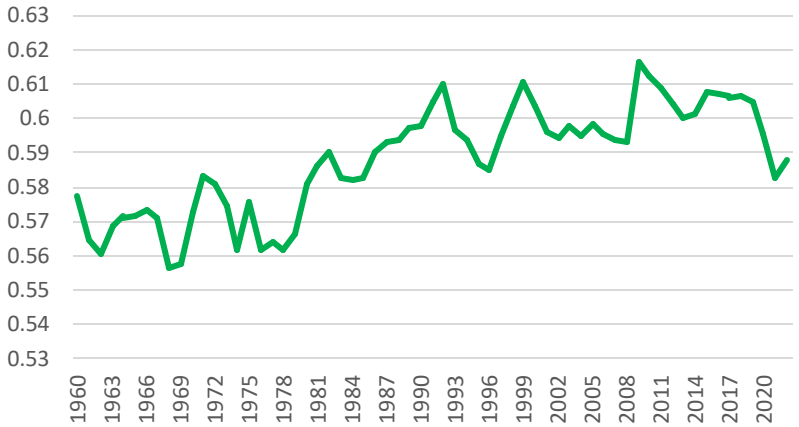


Fig. 5: **Propensity to consume (1960-2022)**. Data source Ameco and OECD, own elaboration

- Even if in its narrow range that goes from 0.56 in 1968 to 0.61 in 2009, has not shown a stable trend
- In 1980's: Spread of mass consumption, availability of new goods and services, large-scale distribution of products
- Depending on the type of crisis the propensity to consume has reacted differently

- Flexible parameter, susceptible to various influences (institutional, social and political factors)
- Falls often coincide with an economic crisis: 1982 crisis following the second oil crisis, the 1992 currency crisis, the 2009 financial crisis
- Highest value in 2022: incentives to improve technological development, consideration of climate change

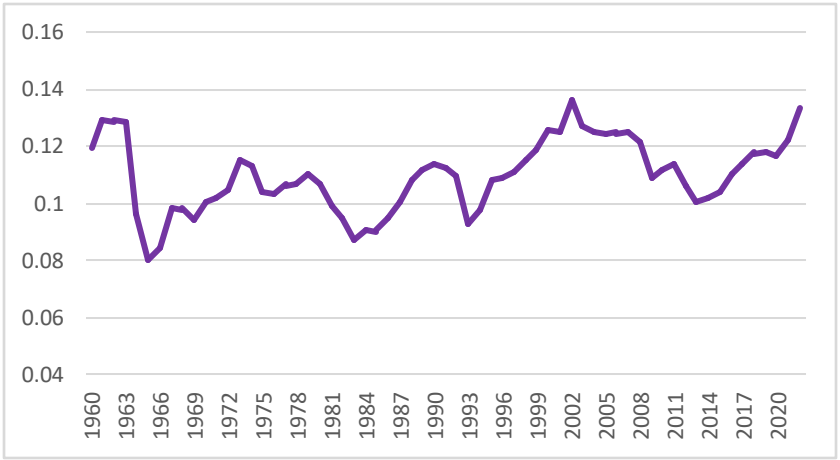


Fig. 5: **Propensity to invest (1960-2022)**. Data source Ameco and OECD, own elaboration

3. NEXT STEPS

Analysis of Growth drivers

- This first empirical phase will constitute the premise for a subsequent empirical analysis on the drivers of growth. Econometric methods will be applied for a deeper analysis of the drivers that have led growth in the various phases (Kohler and Stockhammer, 2022)
  - Causal relation between public spending and growth until 1992 and then exports

Institutional moments

- In depth analysis of **specific institutional moments** identified in the previous phase: fundamental events for the current path of growth
- Use of the scheme proposed by **Montoya and Mahoney (2023)** on the Italian experience. They propose a structure for the analysis of causality of critical events
- For example, on this scheme Baccaro and D'Antoni (2020): the external constraint of European rules is a necessary condition for the Italian stagnation

4. CONCLUSIONS

Summary

- Research question:
  - What have been the factors that have guided Italian growth over time? What were the conditions before, during and after each subperiod? What historical and institutional events were critical events that led Italy to the current path of growth?
- What I have done:
  - Growth decomposition
    - Comparison between the traditional decomposition and the one with the Supermultiplier: export became the driver after the constitution of the European Union
    - Subperiod analysis and interpretation
- Next steps:
  - Econometrical analysis for the drivers in the subperiods
  - Study of the critical events: Montoya and Mahoney scheme with a counterfactual analysis to verify the importance of some institutional moments

Thank you for the attention!

4. CONCLUSIONS

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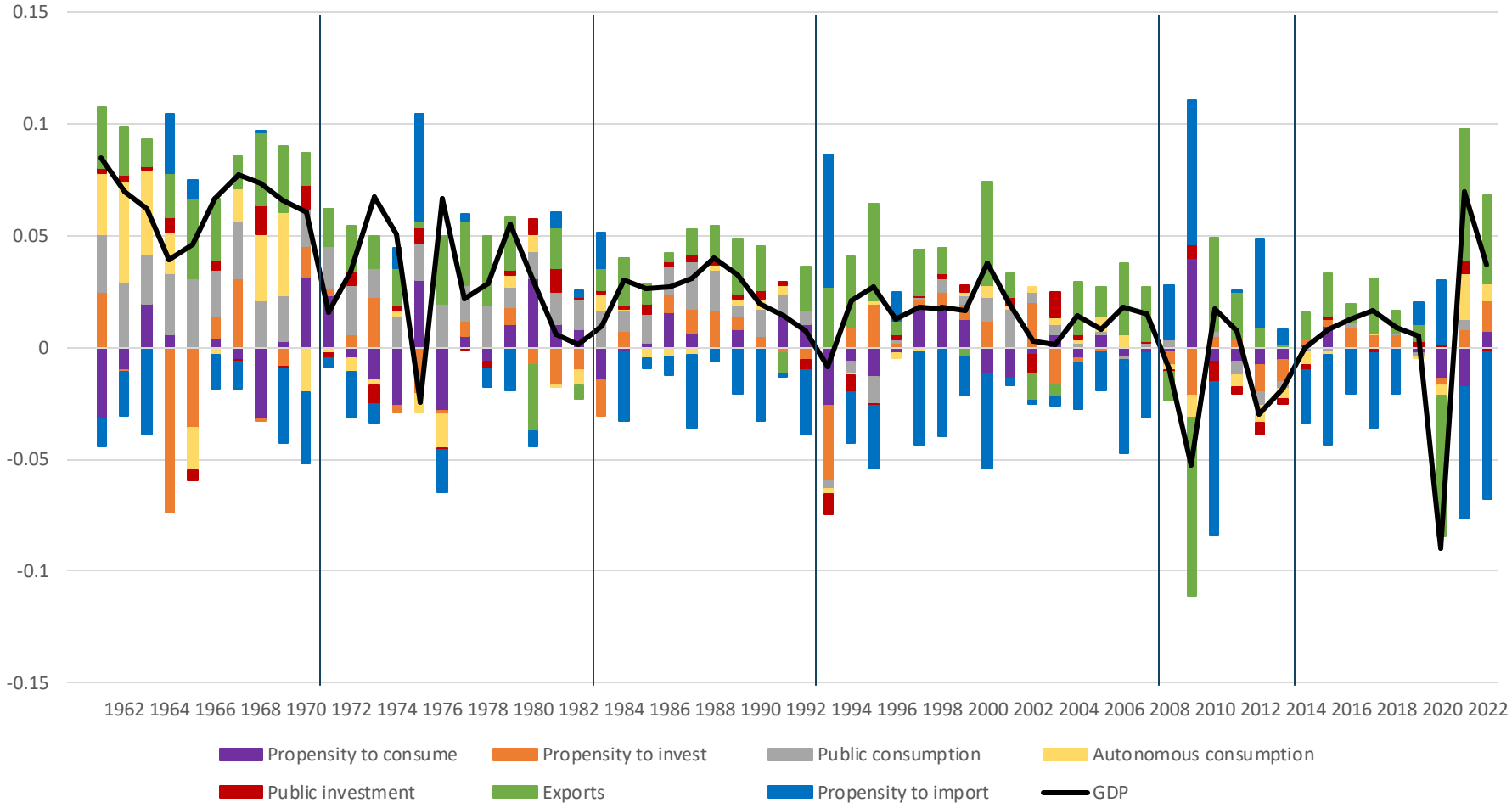
4. APPENDIX 1

Results annual decomposition

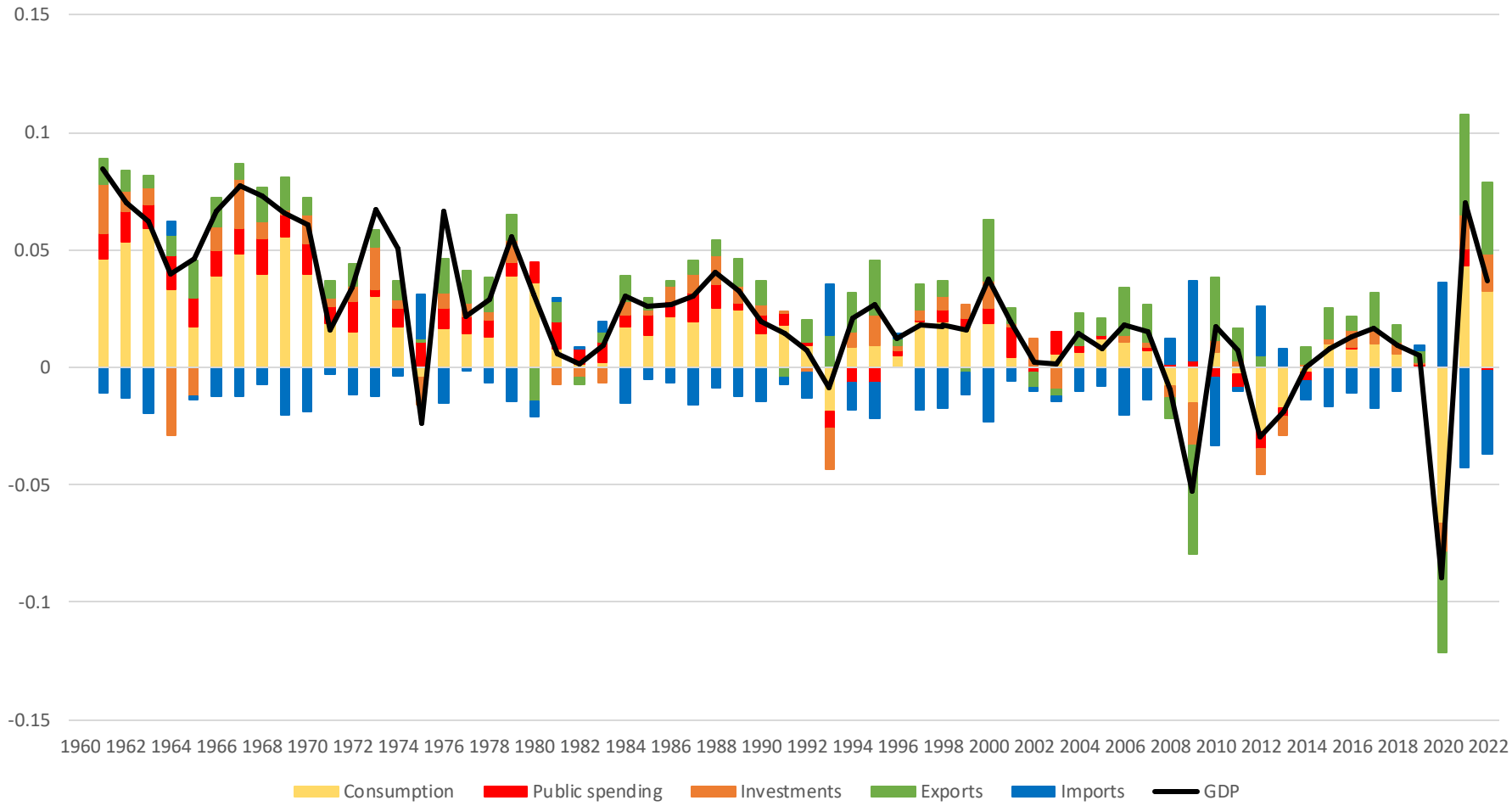
Fig. 7: **Supermultiplier decomposition of the Italian Growth (1961-2022)**. Data source Ameco and OECD, own elaboration



4. APPENDIX 1

Results annual decomposition

Fig. 8: Traditional decomposition of the Italian Growth (1961-2022). Data source Ameco and OECD, own elaboration



4. APPENDIX 2

Data sources

Sources	Variable
AMECO	GDP, Demand, Private consumption, Public consumption, Exports, Imports, Inventories
OECD	Private Investments, Public investments, Residential investments (Autonomous consumption)

4. APPENDIX 3

Supermultiplier decomposition (Freitas and Dweck, 2013)

$$Y+M=C_{HND}+C_{HD}+I_H+C_G+I_G+I_{SE}+I_{PE}+X+E$$

$$M=(1-\mu)\ (C_{HND}+C_{HD}+I_H+C_G+I_G+I_{SE}+I_{PE}+X+E)$$

$$C_{HND}=cY$$

$$IPE=hY$$

$$Z=C_{HD}+I_H+C_G+I_G+I_{SE}+X$$

$$\begin{aligned} gY(0)=&\mu(1)c(1)gY(0)+\mu(1)h(1)gY(0)+[\mu(1)c(1)-\mu(0)c(0)]Y(0)\\ &+[\mu(1)h(1)-\mu(0)h(0)]\ Y(0)+\mu(1)\ [\Delta Z+\Delta E]+\Delta\mu\,[Z(0)+E(0)] \end{aligned}$$

$$Y=\mu cY+\mu hY+\mu(Z+E)$$

$$\begin{aligned} Y(1)-Y(0)=&\mu(1)c(1)Y(1)-\mu(0)c(0)Y(0)+\mu(1)h(1)Y(1)\\ &-\mu(0)h(0)Y(0)+\mu(1)[Z(1)+E(1)]-\mu(0)[Z(0)+E(0)] \end{aligned}$$

4. APPENDIX 3

Supermultiplier decomposition (Freitas and Dweck, 2013)

$$g=\mu(1)c(1)g+\mu(1)h(1)g+\mu(1)c(1)-\mu(0)c(0)+\mu(1)h(1)-\mu(0)h(0) \quad +\mu(1)\left[\frac{\Delta Z}{Y(0)}\right]+\mu(1)\left[\frac{\Delta E}{Y(0)}\right]+\Delta\mu\left[\frac{Z(0)+E(0)}{Y(0)}\right]$$

$$g=\mu(1)\ c(1)\ g+\mu(1)\ h(1)\ g+\mu(1)\ \Delta c+\Delta\mu\, c(0)+\mu(1)\ \Delta h+\Delta\mu h(0) \quad +\mu(1)\left[\frac{\Delta Z}{Y(0)}\right]+\mu(1)\left[\frac{\Delta E}{Y(0)}\right]+\Delta\mu\left[\frac{Z(0)+E(0)}{Y(0)}\right] \quad +\alpha(1)\left[\frac{\Delta E}{Y(0)}\right]+\frac{\alpha(1)}{\mu(1)}\Delta\mu\left[\frac{Z(0)+E(0)}{Y(0)}\right]$$

$$g=\alpha(1)\Delta c+\frac{\alpha(1)}{\mu(1)}\Delta\mu c(0)+\alpha(1)\Delta h+\frac{\alpha(1)}{\mu(1)}\Delta\mu h(0)+\alpha(1)\left[\frac{\Delta Z}{Y(0)}\right]$$

$$\Delta Z=\Delta C_{HD}+\Delta I_H+\Delta C_G+\Delta I_G+\Delta I_{SE}+\Delta X$$

$$g=\alpha(1)\Delta c+\alpha(1)\Delta h+\alpha(1)\left[\frac{\Delta C_{HD}+\Delta I_H+\Delta C_G+\Delta I_G+\Delta I_{SE}+\Delta X}{Y(0)}\right] \quad +\frac{\alpha(1)}{\mu(1)}g_\mu\left[\frac{\mu(0)\{c(0)Y(0)+h(0)Y(0)+Z(0)+E(0)\}}{Y(0)}\right]+\alpha(1)\left[\frac{\Delta E}{Y(0)}\right]$$

$$Y(0)=\mu(0)c(0)Y(0)+\mu(0)h(0)Y(0)+\mu(0)(Z(0)+E(0)).$$

$$g=\alpha(1)\left[\frac{C_{HND}(0)}{Y(0)}\right]g_c+\alpha(1)\left[\frac{I_{PE}(0)}{Y(0)}\right]g_h+\alpha(1)\left[\frac{C_{HD}(0)}{Y(0)}\right]g_{C_{HD}}+\alpha(1)\left[\frac{I_H(0)}{Y(0)}\right]g_{I_H} \quad +\alpha(1)\left[\frac{C_G(0)}{Y(0)}\right]g_{C_G}+\alpha(1)\left(\frac{I_G(0)}{Y(0)}\right)g_{I_G}+\alpha(1)\left(\frac{I_{SE}(0)}{Y(0)}\right)g_{I_{SE}} \quad +\alpha(1)\left[\frac{X(0)}{Y(0)}\right]g_X+\frac{\alpha(1)}{\mu(1)}g_\mu+\alpha(1)\left(\frac{E(0)}{Y(0)}\right)g_E$$