

**GoldMoney Foundation**  
**“Statistical Gold Analysis Worldwide”**

---

**Short notes on the main economic developments and monetary history since mid 19<sup>th</sup> century: Canada, France, Germany, Italy, The Netherlands, Spain, UK, and USA**

(January, 2012)

**Juan Castañeda (Coord.)**

**Team members** \*: Patrice Baubeau (Université Paris Ouest Nanterre), Forrest Capie (Cass Business School, London), Claude Diebolt (Université de Strasbourg), H.A. Feenstra (Geldmuseum/Free University Amsterdam), Ali Kabiri (Cass Business School, University of Buckingham), Pedro Schwartz (Univ. San Pablo-CEU), Simone Selva (University of Bologna), Geoffrey Wood (Cass Business School, London) and C. J. Zuijderduijn (University of Utrecht)

-----  
**Assistant researcher:** Javier Martín (Institute of Fiscal Studies, Madrid)

-----  
**Project's coordinator:** Juan E. Castañeda  
Universidad Nacional de Educación a Distancia (UNED)

[jcastanedaf@cee.uned.es](mailto:jcastanedaf@cee.uned.es)

Office: Paseo Senda del Rey 11. Facultad CC. Económicas (UNED). 28040, Madrid

---

(\*) Juan Castañeda wants to thank all team members and assistant researchers for his work and effort to develop this project. Also, Prof. Francisco Comín (UAH, Madrid) provided useful information to collect Spanish fiscal data for the 19<sup>th</sup> and 20<sup>th</sup> centuries and Prof. Elena Martínez (UAH, Madrid) and Pedro Tedde de Lorca (Univ. San Pablo-CEU) provided useful information to complete the data on Spanish metallic reserves.

## **“Statistical Gold Analysis Worldwide”**

### **Index**

**Chapter 1: The transition from the classical gold standard to a purely fiat money in figures**

**Chapter 2: Brief reports on the monetary and macroeconomic data sets collected for the following countries**

2.1 Canada

2.2 France

2.3 Germany

2.4 Italy

2.5 The Netherlands

2.6 Spain

2.7 UK

2.8 USA

**Chapter 3. The *Latin Monetary Union*; a precedent of the euro**

## **2.4. A short note on Italy's main economic developments and monetary history since the mid 19<sup>th</sup> century**

Simone Selva

### **2.4.1. Introductory notes**

Since the unification of the country, the monetary history of Italy and its interplay with real macroeconomic variables, from inflation to government expenditure to GDP, featured a tight and continuous asymmetry between the ratio of both monetary base and money supply to monetary stability and inflation. This feature marked both the most expansionary and inflationary periods prior to the end of the Second World War (WWII) and the founding of the Italian democracy, and the following inflationary conjunctures and government spending-financed periods of economic growth throughout the historical period following the WWII. Due to a long-standing narrow and poor home capital market, and a separation between monetary and fiscal policy management, the country faced up to government deficit and upward trends in inflation levels and CPI through a deceleration in fiat money in circulation. This trend was combined with, on the one side, an intervention on the foreign exchange rate and, on the other, a rise of interest rates. This twofold monetary policy, which accounts for the country's decision to leave the Gold Standard two times before WWI to deal with an excessive government deficit (Fратиanni and Spinelli, 1997), was aimed to stop a liquidity-induced inflation, to prevent capital outflows in the short term, and to attract capital inflows in the long run. This brief account of the data sets collected and reconstructed herewith follows this interpretative path.

A truly coherent reconstruction of Italy's monetary history begins with the unification of the country. Prior to 1861, in fact, most local States had adopted monometallism based on silver. In particular, this was the case of the southern states, where silver was the only metal in circulation. Notwithstanding, the authorities of the new nation-State believed that a gold-based system would be adopted by most European countries in a matter of few years. This led the new country to adopt a twin convertibility into both gold and silver. However, in practice, after 1861 a gold-based monometallism was introduced and silver played a very marginal role. Furthermore, the unification of the country eliminated the existing regional differences in the money stocks.

### **2.4.2. Money and reserves**

As most industrialised countries, with political unification Italy joined the classical gold standard according to the international exchange rate rule. This international agreement fixed each national currency at the unique rate of 25.225 per pound (Pezzolla, 2011). An overall look at the main trends of the monetary and economic variables from 1861 to 1913 accounts for a long term period of price and inflation level stability; as well as limited monetary changes with a stable growth in the money supply and monetary base. Notwithstanding, as the series on base money, money supply and metallic reserves cover only the period since 1871 thereafter, it is worth stressing what happened before to get a better understanding of the ups and down in the monetary and real economy prior to the First World War (WWI).

Following the political unification, the country came through a significant turbulent period in terms of monetary indices. In particular, a surge in metal demand on the part of the United States' grain exporters led in 1864 the Italian authorities to change the discount rate and, as a result, to fluctuations in the growth of both monetary base and money supply. These fluctuations, combined with a substantial rise in the ratio of the government deficit to the national income, led the Italian monetary authorities to get off the gold standard in order to raise the interest rates and attract foreign investments. These years are the first example of how the ratio of securities and debt instruments to money supply did matter to keep economic growth and inflation stable in the framework of both expansionary government expenditure and rising deficit.

Thereafter, Italy rejoined the international gold standard in 1883, when convertibility was resumed following a gold coin injection into the monetary system. Afterwards, from the 1890s through the outbreak of World War I, Italy can be considered a good case to underline the historical argument that supports that those years can probably be regarded as the best period of the international gold standard. In the Italian case the creation of the Central Bank of Italy in 1893 led to centralise monetary policy and the right to issue notes (thus notes issue monopoly). Out of the series provided herein, the stability of the Italian monetary variables is proved further by the parallel growth in both fiat and metallic money in circulation, as well as by the consistent trends featuring changes in the monetary base and the money supply.

The demise of the gold standard at international level, coupled with the expansion of government expenditure boosted by the First World War, accounts for the

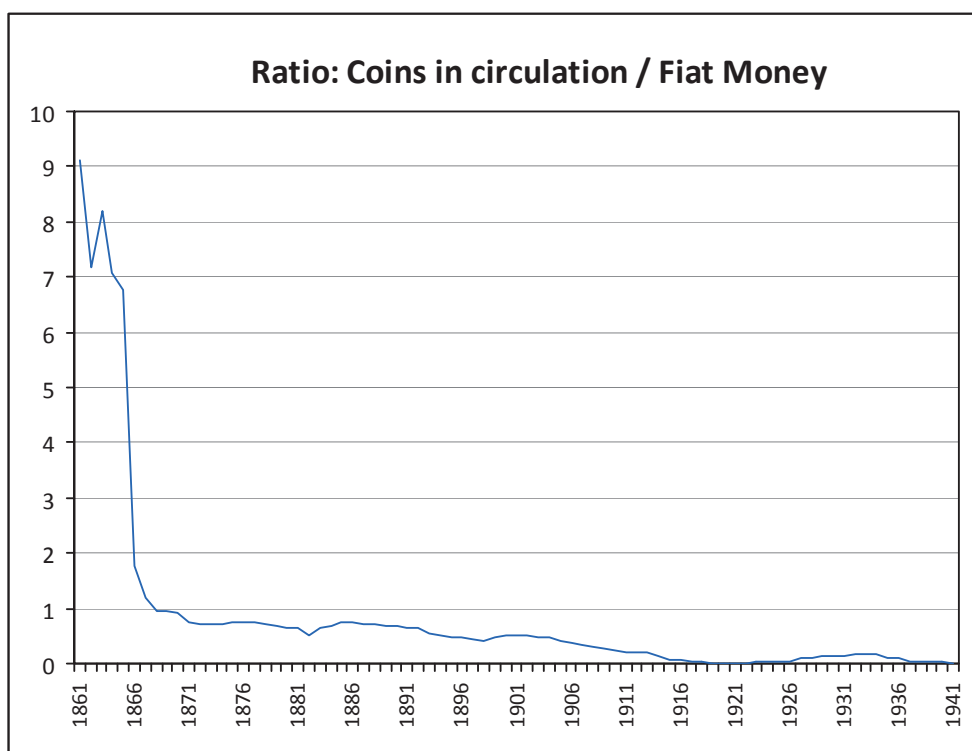
trend featuring the monetary variables after 1913. The involvement of the country in the conflict was financed through liquidity injections and coinage.

A comparison between the growth of monetary base and that of money supply, with the former rising above the latter one, demonstrates this trend straightforwardly. Furthermore, in consistence with this dynamic, currency in circulation grew accordingly: by 1919 it was 6 times broader than in 1913. At the same time, significantly, coins in circulation declined. Although this trend marked the war years, after the end of the gold standard and the break up of WWI the main problem associated with monetary stability was the capital and securities' components of money supply. Due to the country's war debts, foreign investments declined and forced the Italian business community to turn to the internal credit market. As a consequence, this tendency expanded money supply which, between 1919 and 1924, grew by one third.

Italy joined the gold exchange standard by the end of 1927 after a fierce resistance to a revaluation of the lira from both the Italian export industries and the electric firms aiming at keeping production costs stable. The country got off the gold standard once again by 1936, after experiencing severe consequences such as domestic deflation, sharp decline in the Italian exports and balance of payments disequilibria. Furthermore, the new convertibility agreements associated with the gold exchange standard committed Italy to pegging the currency in circulation to a maximum amount of up to 40 percent of its gold reserves. This broader framework explains the stability of the currency in circulation until the mid 1930s. However, with the Ethiopian war (1935-36) the country adopted a strong devaluation, which led Italy to get off the gold exchange standard.

The post World War II decades featured quite a constant increase in both paper money, and monetary base as well as money supply, whereas metallic reserves were kept stable. It is worth noting, as outlined above, how during the post WWII decades once again when inflation rose and government deficit expanded the Italian monetary authorities decelerated the monetary base. They pursued this policy in order to prevent capital outflows and a contraction of the capital and securities component of money supply. Both in the first half of the 1960s and during the following decades this policy was adopted to sustain the aggregate money supply by keeping foreign capitals stable (Fратиanni and Spinelli, 1997).

Figure 2.4.1



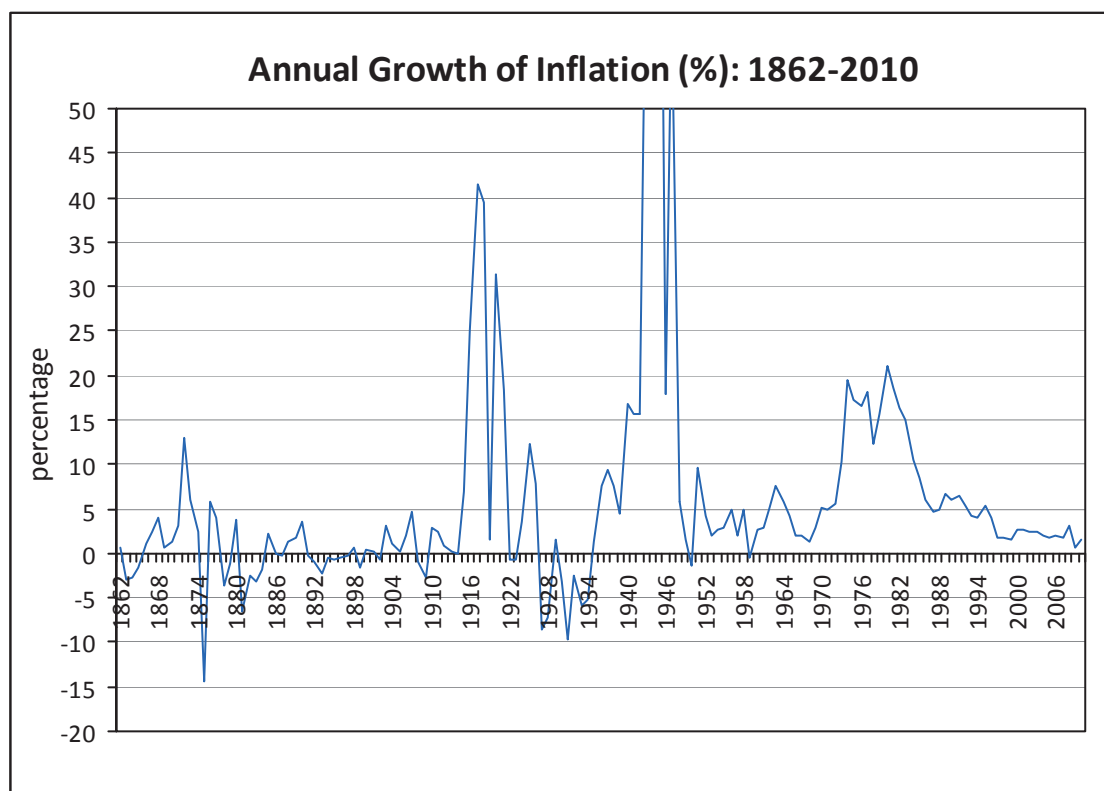
### 2.4.3. Prices and inflation

Under the classical gold standard years, the Consumer Price Index (CPI) and the inflation level was rather stable with a significant upward trend before the first time the country left the gold standard. Afterwards, both prices and the inflation level grew as a result of the WWI. After the end of the conflict, and particularly during 1920-21, due to the country's commitment to pay for war reparations, a severe reduction of foreign investments led the business community to resort to the internal capital market. This produced an expansion of money supply turning into a sharp rise in both price and, above all, the inflation levels. This trend was particularly leapfrogging, as the series on prices show in 1920 and 1921 (see Figure 2.4.2 below). This domestic inflation brought about a depreciation of the lira.

The following appreciation of the Italian currency on the foreign exchange markets, which the Fascist regime implemented during the 1920s, after its joining the interwar Gold Standard, led to stable prices again. As stated above, this came about at the price of a contraction in the Italian export industries' share of international trade. The end of this restrictive monetary policy occurred in correspondence with the Ethiopian war (1935-36), mainly financed through government expenditure.

Consistently with a remarkable rise in the money supply, CPI increased significantly and the inflation index grew at a skyrocketing level (see Figure 2.4.2 below). This trend continued throughout the Second World War and did not relax until after the adoption of stabilisation measures in the late 1940s, in order to stabilise the lira and keep inflation under control. Since the monetary stabilisation following the Second World War down into the early 1970s inflationary conjuncture, CPI and inflation changed in proportion to fluctuations of money supply and monetary base within the monetary stability framework provided by the Bretton Woods international monetary system; but inflation grew at a pace slower than economic growth. This finding is consistent with the most recent literature on the subject (see Battilossi, Foreman Peck and Kling, 2010).

Figure 2.4.2



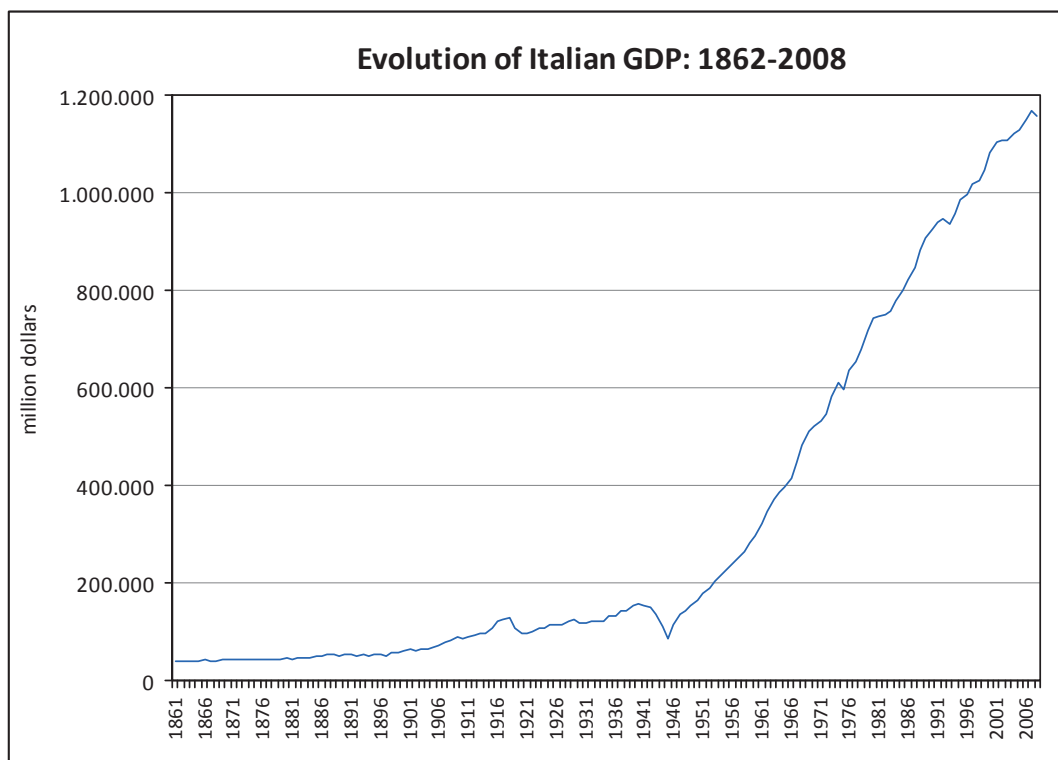
#### 2.4.4. Per capita GDP and GDP level

The trend that characterised the Italian GDP from the country's unification through 1913 has been at the center of a debate and dispute in the academia. Whereas some statistical reconstructions stressed a significant upward trend in both national income and the broader economic growth rates of the country, according to the series

reconstructed herewith two trends shaped the period. On the one side, the growth rate was quite slow, particularly in terms of per capita GDP, as stressed by the statistical estimation made on the subject some time ago (Maddison, 1991 and Istat, 1957). On the other, however, the data set reconstructed herewith demonstrates that GDP level grew significantly, particularly since the beginning of the new century as a result of growth in government expenditure associated with massive public works and an increase in the State involvement in economic activities (Fenoaltea, 2010).

The most remarkable growth in every GDP index came about during the two world wars. As to the post World War II decades, it is noteworthy to underline that during the Bretton Woods era (widely-known for the Western European countries economic miracles), the growth rate of Italian GDP was more constant than the one registered during the following decade, marked by a floating international exchange market and inflationary spirals. The end of the post WWII relative monetary stability and fixed exchange rates paved way for an industrial restructuring and capital markets reorganization, expansion of money supply and monetary base, which turned into a remarkably higher GDP level and a constant growth of per capita GDP.

Figure 2.4.3





### 2.4.5. Note on sources

The series presented herewith reflect a collection and organization based on a mixture of different sources. Therefore, here the classical division of competence between the National Statistical Institute and the Central Bank in reconstructing the statistical series, whereby the former usually deals with real variables and the latter is in charge of monetary variables, has been left aside. As a matter of fact, our reconstruction of the data base combines both statistical sources and complements them with series reconstructed by individual academics, such as that on per capita GDP, offered by Daniele and Malanima recently (see Daniele and Malanima, 2011). Moreover, other long term data sets have been collected by resorting to other sources: this is the case for government expenditure, reconstructed only by the Italian Treasury. However, all in all, the Italian National Statistical Institute is the main source due also to the launch of the new online database on Italy's economy (see, [www.seriistoriche.istat.it](http://www.seriistoriche.istat.it)). Our aim has been to provide long term series not only complete but also as much homogeneous as possible.

### 2.4.6. References

- Battilossi, S, Foreman Peck, J. and G. Kling (2010): "Business cycles and Economic Policy 1945-2007". In S. Broadberry and K. O'Rourke (eds): *The Cambridge economic history of modern Europe*, Cambridge, Cambridge University Press.
- Daniele, V, and Malanima, P. (2010): "Italian per capita GDP and North South disparities 1861-2004". In [http://www.paolomalanima.it/default\\_file/Page646.htm](http://www.paolomalanima.it/default_file/Page646.htm)
- Fenoaltea, S. (2010): "The reconstruction of historical national account: the case of Italy". In *PSL Quarterly Review*, vol 63, n. 252.
- Fratianni, M. and Spinelli, F. (1997): *A Monetary History of Italy*. Cambridge, Cambridge University Press.
- Istat, Indagine statistica sullo sviluppo del reddito nazionale dell'Italia dal 1861 al 1956. *Annali di Statistica*, series VIII, vol. 9, Rome, 1957.
- Maddison, A. (1991): "A revised estimate of Italian economic growth 1861-1989". *BNL Quarterly Review*, vol. 177.
- Pezzolla, E. (2011): "The Italian Great Depression: an SVECM Analysis". In <http://www.ehes2011.com>