

PORTUGUESE ECONOMIC PERFORMANCE 1250-2000

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Abstract

The purpose of this paper is to present educated guesses and estimates of per capita gross domestic product for the Portuguese economy since the mid-13th century. The exercise is based on official data for the period since 1953, retrospective national accounts for the 19th century and the first half of the 20th century, population and urban population data, price and monetary devaluation data and government revenue figures for previous centuries. The results are tested against qualitative information available about prosperity and depression.

1. Introduction

The purpose of this paper is to present educated guesses and estimates of the main macroeconomic variables for the Portuguese economy since the mid-13th century.

1250 is a good starting point for this exercise because it was around the mid-13th century that Mainland Portugal took its present shape with the conquest of the Algarve¹. This ended the Portuguese participation in the endemic warfare of the Christian reconquest of the Iberian Peninsula. A few years later (1253), a monetary reform gave Portugal a monetary system in keeping with the Carolingian mould commonly used in Western Christendom at that time².

2000 is a good closing point for this exercise because it allows a fifty-year interval for the presentation of the series and does not involve too much risk in making projections from the relevant variables.

Sections 2 to 4 present the bases of the figures proposed, by order of decreasing robustness: population, prices, nominal gross domestic product. Section 5 presents a general discussion of the results in comparison with qualitative data

2. Population

Tables A.1 and A.2 present the relevant population data for Mainland Portugal and for the whole country, respectively.

Population censuses have been regularly held in Portugal since 1864. Thus, population estimates for 1900 and 1950 can be based on census data. These consist of census figures adjusted for the end of the year using vital statistics and emigration data. The 2000 figure is a projection based on the 1991 census, provisional figures obtained for the 2001 census and vital statistics and migration estimates for the 1990s.

¹ After the conquest of the Western Algarve in 1249 (area 87 700 km²), there were only two small changes made to the borders with neighbouring states: in 1297 (area increased to 89 500 km²), and in 1801 (area decreased to 89 000 km²). The archipelagos of Madeira (800 km²) and the Azores (2 300 km²) were populated for the first time under Portuguese sovereignty during the first half of the 15th century.

² Until then, Portugal had shared the monetary system of its Muslim neighbours to the south, in spite of religious and political conflicts.

During the first half of the 19th century, population counts based on ecclesiastical and administrative information were made throughout the country. Although, during the first decade of the century, such counts only covered Mainland Portugal and Madeira, it may be said that they provide a firm basis for the 1800 figures and for linkage to the data obtained through the censuses. The 1850 estimate is an interpolation between these data and the figure of the first census.

Figures for earlier periods must rely on family counts made for fiscal and military purposes only in Mainland Portugal. Although less reliable, they provide a good basis for the 1450-1800 figures. It is usually believed that the 1422, 1527, 1736, 1770 and 1801 counts provide a fairly representative picture of the situation, that the 1636 count clearly underestimates the existing population and that the 1776 count overestimates the existing population. Estimates for 1450, 1500, 1750 and 1800 are simply interpolations of the 1422, 1527, 1736, 1770 and 1801 counts. In order to bridge the period between 1527 and 1736 without the 1636 count, I made the usual assumption of a 17th-century stagnation at around 2 million, and interpolated the 1550 estimate accordingly.

Estimates for the whole country were built using the estimates for Mainland Portugal and based on the assumption that the Atlantic islands of Madeira and the Azores represented a growing proportion of the population of Portugal, rising from 0% in 1400 to 8% in 1800³.

Although some partial data exist for the medieval period, the 1250-1400 evolution must be reckoned as a mere educated guess. I postulated a 1350 figure (intended to represent the situation before the arrival of black death during the late 1340s) similar to the 1500 figure, a figure for 1250 similar to the 1400 figure, and I assumed even growth between 1250 and 1350⁴.

– Urban population

As the evolution of the urban population may be used as a way of checking the general economic evolution, it is useful to review the information available about the largest Portuguese urban centres (see Table A3).

³ The percentage of the population of Madeira and the Azores in the total population of Portugal peaked at around 9% in the mid-19th century and decreased thereafter. It is now slightly less than 5%, according to the provisional figures of the 2001 census.

⁴ For an overall view of data about the Portuguese population, see Mata, Valério, 1994, and Baganha, 2001.

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Quantitative sources are similar to the ones that were mentioned when dealing with the total population. Moreover, there are a few qualitative sources available for the medieval and modern periods, or, in other words, chronicles and town descriptions written for various purposes, sometimes with not very accurate guesses about the size of the population.

Anyway, the general picture is clear. From the 13th century onwards, Lisbon overtook the traditional ecclesiastical and political centres of the early medieval period (Braga and Coimbra) and became the main commercial centre and the political capital of the kingdom. Its superiority grew until the 16th century, when Lisbon monopolised the East India trade and became one of the largest cities in Europe. During the 16th century, a few other centres began to grow: Oporto, because of its important role in trade with Brazil, Coimbra and Évora as university towns. During the 17th century, stagnation came to Lisbon and the other centres, with the possible exception of Oporto, because of the beginnings of the port wine trade. The 18th century saw a new expansionary phase for Lisbon, because of the Brazilian trade, and for Oporto, because of the port wine trade. Meanwhile, Coimbra stagnated, Évora receded (as it ceased to be a university centre), and a few other places reached the threshold of 10 thousand inhabitants. The end of the Brazilian empire was a severe blow to Lisbon, which stagnated during the first half of the 19th century, while Oporto kept on growing. From the mid-19th century onwards, there was a more or less constant growth, which rose sharply during the second half of the 20th century.

3. Prices

The price index used in this exercise is based on Valério, 1991, Valério, 1997 and Valério, 1998.

The 1900 and 1950 figures are gross domestic product deflators based on official figures for the cost of living index published by the Portuguese statistical office (Instituto Nacional de Estatística). The 2000 figure for the deflator of gross domestic product is a provisional figure presented in the annual report of the Board of Directors of the Bank of Portugal.

The 1500-1900 evolution was computed using the prices of basic foodstuffs, to which textile and fuel prices were added for the 19th century.

The 1369-1500 evolution was computed using royal decrees that imposed increases in nominal money rents.

The 1250 (or, to be more precise, 1253) -1369 evolution was computed using coin depreciation data.

4. Nominal gross domestic product

Valério, 1998 presents estimates for the evolution of Portuguese gross domestic product for the period 1837-1993. These estimates provided the 1950, 1900 and 1850 figures used in this exercise (to be precise, the 1850 figure is an interpolation of the 1848 and 1851 figures). The 2000 figure is a provisional figure presented in the annual report of the Board of Directors of the Bank of Portugal.

The 1800 figure was computed using the same technique used in Valério, 1998 for generating pre-1953 figures and data on public accounts published in Silveira, 1987 and data on foreign trade published by the Portuguese statistical office in 1968.

The only reliable macroeconomic data available for the period prior to the late 18th century are money supply and government revenue figures. Tables B.1 and B.2 summarise these data.

Tables C.1 and C.2 present a first approach to an estimate of gross domestic product for the period for which, respectively, money supply and government revenue figures are available, assuming a constant ratio between these variables and gross domestic product, similar to the 1800 figure. Of course, these are rough estimates that must be examined mainly on the basis of their plausibility.

It is clear that the estimates for the 18th century based on money supply present a very irregular evolution, which may be attributed to the very special circumstances that made Portugal (or, to be more precise, the Portuguese colony of Brazil) the world's main gold producer throughout most of the century. Estimates based on the government revenue figures seem much more reliable for the whole period dating back to the 16th century, with the exception of the estimate for 1518-1519, which seems too high, perhaps because of an exceptionally favourable situation in regard to the East India trade that increased royal revenue.

The situation is quite different for the 14th and 15th centuries, because the estimates are clearly too low. It must be assumed that, before the discovery of the Cape of Good Hope route to India, the Portuguese royal exchequer was able to obtain only a very tiny proportion of the gross domestic product.

5. Conclusion

Table C.3 presents a second approach to an estimate of Portuguese gross domestic product for the whole period under consideration. Figures for the years 1800-2000 were computed as explained above. Figures for the years 1550-1750 are based on the first approach presented in section 4. They are interpolations of the estimates based on government revenue

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figures, which have been slightly manipulated by using the hypothesis of a stagnation of per capita gross domestic product during the 17th century. Figures for the years 1250-1500 are mere educated guesses based on reasonable assumptions about the evolution of the country's economic situation. All figures were rounded off, in order to underline the tentative nature of the exercise.

A low starting point was chosen for the 1250 per capita gross domestic product, and a rise slightly above 0.2% per year was postulated for the late medieval period before the outbreak of black death. This seems reasonable, because this period was characterised by peace and some population and urban growth. In monetary terms, although there was some depreciation of the Portuguese monetary unit (the Portuguese pound), this depreciation did not reach very significant levels.

A fall to the 1250 level was postulated for 1400, accompanied by a decline in population numbers, despite the rise in the proportion of the urban population⁵. A staggering inflationary process, which, by the 1430s, had reduced the Portuguese pound to a value 2,500 times lower than the one prevailing in the 1360s, may also be considered another factor of disturbance during this period.

There then followed a recovery until 1450 to the 1350 level, once more keeping pace with population and urban growth. This period was also characterised by the gradual control of the inflationary process that had plagued the period after the end of black death.

A growth rate of around 0.3% per year between 1450 and 1600 may be justified by the success of overseas explorations. Population and urban growth confirm the general positive trend brought about by the arrival of gold, ivory and slaves from Africa, and, above all, spices from the East Indies. Of course, it is reasonable to suppose that domestic economic activities were also stimulated by colonial trade.

Stagnation in the growth of population, urbanisation and per capita gross domestic product during the 17th century may be attributed to the closing of the new opportunities afforded by the colonial endeavours. Political union with the Western Hapsburg Empire (1580-1640), followed by the so-called War of Restoration (1640-1668), and the competition of France, England and, above all, the Netherlands in the colonial world were traditionally blamed for the less than brilliant development of Portuguese life during this period. This may be somewhat unfair to the efforts of the Western Hapsburg Empire during the early stages of its government in Portugal (roughly until 1620), but the main point is that Brazilian sugar was the only colonial business to show any long-term prosperity for the whole of the century.

⁵ It should be noted that 1400 was, moreover, a war year.

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Brazilian gold and port wine may explain the rather high figure for 1750, and war with France and Spain the rather low figure for 1800⁶. Nonetheless, the 18th century as a whole was a century of population and urban growth, and it is possible to suggest that it also improved per capita gross domestic product by more than 0.3% per year. The absence of any significant industrial enterprise not based on some kind of government support must, however, be reckoned as the most notable weakness of the Portuguese economy, precisely at the time when modern economic growth first began in 18th century Britain.

Foreign and civil wars crippled economic growth during the first half of the 19th century. The population showed a slight increase, but urbanisation stagnated. It is almost certain that it was during this period that the Portuguese economy definitively acquired its significant state of backwardness in comparison with the world's leading economies, a situation that still persists to this day.

From the mid-19th century onwards, there were more periods of economic growth than periods of stagnation. As could be expected, economic growth was accompanied by population and urban growth. Even so, until 1950, Portuguese economic growth was unable to keep pace with the growth of the world's leading economies, and barely exceeded the world average. Moreover, the First World War put an end to four centuries of relatively stable money⁷, heralding a 20th century of inflationary processes that reduced the value of the Portuguese escudo, introduced in 1911, by an amount similar to that which occurred during the inflationary process in the period immediately after the black death in late mediaeval times⁸.

Only during the second half of the 20th century did Portugal experience modern economic growth in a Kuznetian sense. As a consequence, by the end of the millennium, the country had become highly developed, although per capita gross domestic product was still clearly below the figures recorded by the world's leading economies⁹.

⁶ During that year the southern part of Mainland Portugal was invaded by a Spanish army.

⁷ The Portuguese real, which replaced the Portuguese pound in 1435, remained the Portuguese currency unit until 1911, with an overall depreciation of less than 1% per year. For more information on the history of the Portuguese real, see Macedo, Silva, Sousa, 2000.

⁸ For more information on the history of the Portuguese escudo, see Valério 2001.

⁹ The same is true concerning the figures for the European Union (of which Portugal became a member in 1986) and the Eurozone (into which Portugal was integrated in 1999).

Table A.1 — Population of Mainland Portugal

figures in thousands

Year	censuses	counts	estimates	educated guesses
1250				1 000
1300				1 095
1350				1 200
1400			1 000	
1422		1 043		
1450			1 097	
1500			1 202	
1527		1 262		
1550			1 554	
1600			2 000	
1636		1 100		
1650			2 000	
1700			2 000	
1736		2 143		
1750			2 410	
1770		2 850		
1776		3 352		
1800			2 929	
1801		2 932		

Table A.2 — Population of Portugal

figures in thousands

Year	censuses	counts	estimates	educated guesses
1250				1 000
1300				1 095
1350				1 200
1400			1 000	
1450			1 110	
1500			1 225	
1550			1 600	
1600			2 080	
1650			2 100	
1700			2 120	
1750			2 580	
1800			3 165	
1820		3 261		
1841		3 737		
1850			3 850	
1864	4 188			
1878	4 551			
1890	5 050			
1900	5 423		5 450	
1911	5 962			
1920	6 033			
1930	6 826			
1940	7 724			
1950	8 510		8 512	
1960	8 889			
1970	8 663			
1981	9 833			
Year	censuses	counts	estimates	educated guesses

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1991	9 832			
2000			10 308	
2001	10 318			

Table A.3 — Portuguese urban centres (with populations over 10 thousand inhabitants)

figures in thousands

year	Lisbon	Oporto	other centres	total urban population	ratio to total population
1250	15	<10	—	15	0.01
1300	20	< 10	—	20	0.02
1350	25	< 10	—	25	0.02
1400	30	< 10	—	30	0.03
1450	40	< 10	—	40	0.04
1500	50	< 10	—	50	0.04
1550	75	< 10	—	75	0.05
1600	100	10	(Coimbra + Évora) 20	130	0.06
1650	100	10	(Coimbra + Évora) 20	130	0.06
1700	100	10	(Coimbra + Évora) 20	130	0.06
1750	150	25	(Coimbra + Évora) 25	200	0.08
1800	200	50	(6 centres) 65	315	0.10
1850	190	76	(6 centres) 76	342	0.09
1900	356	168	(10 centres) 135	659	0.12
1950	* 994	** 500	(25 centres) 460	1 954	0.23
2000	* 2 371	** 1 119	(44 centres) 1340	4 830	0.47

* Greater Lisbon

** Greater Oporto

Table B.1 – Money supply

Source – Sousa, 1999.

figures in contos (1 conto \approx 5 euros)

Year	money supply
1700	5 857
...	
1716	17 687
...	
1750	33 648
...	
1763	41 773
...	
1797	55 772

Note – The source provides yearly estimates. Only the estimates used for calculations are presented here.

Table B.2 – Government revenue

Source – Godinho, 1978.

figures in contos (1 conto \approx 5 euros)

Year	revenue
1367	0,0285
1402	0,212
1477	43
1506	200
1518-1519	309
1588	1 111
1607	1 440
1619	1 556
1681	1 665
1716	3 792
1763	5 881

**Table C.1 – Portuguese economic performance 1700-1800:
first approach based on money supply**

year	nominal gross domestic product (contos)	price index (basis 2000 =1000)	population (thousands)	per capita gross domestic product (contos, 2000 prices)
1700	26 254	0.37	2 120	33
1716	79 283	0.39	2 257	90
1750	150 828	0.44	2 580	133
1763	187 249	0.43	2 721	160

(1 conto ≈ 5 euros)

**Table C.2 – Portuguese economic performance 1367-1763:
first approach based on government revenue**

Year	nominal gross domestic product (contos)	price index (basis 2000 =1000)	population (thousands)	per capita gross domestic product (contos, 2000 prices)
1367	0.7125	0.00006	1 128	11
1402	5.3	0.0009	1 004	6
1477	1 075	0.06	1 171	15
1506	5 000	0.06	1 265	66
1518-1519	7 725	0.06	1 356	95
1588	27 775	0.26	1 953	55
1607	36 000	0.30	2 083	58
1619	38 900	0.25	2 088	75
1681	41 625	0.27	2 112	73
1716	94 800	0.39	2 257	108
1763	147 025	0.43	2 721	126

(1 conto ≈ 5 euros)

Table C.3 — Portuguese economic performance 1250-2000: a summary

Year	nominal gross domestic product (contos)	price index (basis 200 =1000)	population (thousands)	per capita gross domestic product (contos, 2000 prices)
1250	1.2	0.00003	1 000	40
1300	2.0	0.00004	1 095	45
1350	3.6	0.00006	1 200	50
1400	36	0.0009	1 000	40
1450	2 300	0.042	1 110	50
1500	4 400	0.06	1 225	60
1550	11 000	0.10	1 600	70
1600	45 000	0.27	2 080	80
1650	55 000	0.33	2 100	80
1700	65 000	0.37	2 120	80
1750	130 000	0.44	2 580	115
1800	250 000	1.03	3 165	75
1850	250 000	0.55	3 850	120
1900	1 020 000	0.93	5 450	200
1950	50 665 000	20	8 510	300
2000	30 000 000 000	1 000	10 000	3 000

(1 conto ≈ 5 euros)

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