

Germany's GDP per Capita before 1991

A Replication from Destatis to the World Bank

Joseph Francis

October 3, 2025
(v1.0)

Abstract

The series for GDP per capita for Germany provided by the World Bank has a significant error. Germany's statistical authority Destatis provides a GDP series for West Germany up to reunification and for unified Germany thereafter. The World Bank ratio splices these series in 1991 and treats the result as being for unified Germany throughout. As a result, before 1991, the numerator in GDP per capita is calculated using growth rates from West Germany's GDP but East Germany's population is included in the denominator. The World Bank's series of GDP per capita for Germany is therefore inaccurate.

Keywords: Destatis, GDP, Germany, measurement, World Bank

JEL codes: N34, O47

The series for Germany's gross domestic product (GDP) per capita made available by the World Bank illustrates why large databases of economic statistics should be treated with some caution. As this paper will show, its series is calculated using rates of change from West Germany's GDP in the numerator before 1991 but includes East Germany's population in the denominator. Consequently, for the World Bank series to be used, either the numerator has to be adjusted to include East Germany's GDP, as in the Maddison Project, or the denominator should be adjusted to ensure that it only includes West Germany's population.

Table 1 compares the raw nominal GDP data from Destatis, Germany's statistical authority, with the series processed and published by the World Bank. As can be seen, Destatis provides three series covering the 1960–2024. The first is from an older version of the national accounts for 1960–1970,

Joseph Francis is an economic historian from Wales. He is an honorary research fellow at the University of Birmingham and can be contacted at joe Francis505@gmail.com.

covering the "Former Federal Territory" („*Früheres Bundesgebiet*")—that is, West Germany. The second series is for the years 1970–1991 and is again for West Germany, taken from the 2005 revision of the national accounts. Finally, a series is provided for unified Germany during 1991–2024. The World Bank, however, treats all these series as if they were for a unified Germany and simply splices them together in the overlapping years. For this reason, the rates of change are the same—the World Bank is treating West Germany's series as if it can be used to extrapolate back a series for unified Germany.

The ratio splicing procedure used by the World Bank is simple. In 1991, Destatis provides a nominal GDP for unified Germany of €1,591.6 billion, while it gives the value of €1,415.8 billion for West Germany. The World Bank therefore takes the ratio of $1591.6/1415.8=1.1242$ and applies it to previous years of West Germany's GDP. Hence, Destatis gives a figure of €1,306.7 billion for West Germany in 1990, which the World Bank then multiplies by 1.1242 to arrive at €1,468.9 billion for unified Germany. The same ratio is then applied to all previous years back to 1970, when West Germany's GDP of €360.6 billion is multiplied by 1.1242 to give €405.4 billion for unified Germany. Another ratio is then used to splice the series back to 1960. The figure of €405.4 billion for unified Germany is divided by the notional €345.3 billion for West Germany, giving 1.1741, which becomes the new splicing ratio applied to previous years.

The problem is then what happens with the population data. Where exactly the World Bank's population series comes from is not clear, but dividing its series for GDP by its series for GDP per capita clearly shows that it is for unified Germany, as seen in Table 3. The population implicit in Destatis' GDP per capita series, by contrast, is for West Germany up to 1991 and then for unified Germany from 1991. In other words, Destatis sensibly uses the same territory for both the GDP series that forms the numerator of GDP per capita and the population data that provides the denominator. The World Bank, by contrast, does not. Consequently, the World Bank's series for Germany's GDP per capita is not a meaningful construct before 1991. It uses growth rates from West Germany's GDP in the numerator but includes East Germany's population in the denominator—the numerator and the denominator do not refer to the same territory.

As a result, the World Bank publishes an inaccurate series of GDP per capita. It is, in fact, the GDP per capita of unified Germany in 1991, extrapolated back using the rate of change in West Germany's GDP divided by unified Germany's population. Nonetheless, it is being presented

as "Germany," even though it is not a meaningful construct. It therefore presents a salutary lesson in why the statistics published by international organizations should be treated with a certain degree of scepticism. The same, moreover, applies to real GDP. Hence, when compiling his dataset, Angus Maddison (2001, 177–178) had to adjust the same official statistics to include East Germany in the total for unified Germany. Similar adjustments would need to be made for the World Bank's series to be usable. East Germany's GDP either needs to be added to the numerator or its population should be subtracted from the denominator.

Year	Billion euros			% rate of change			
	Destatis		World Bank	Destatis		World Bank	
	Former	Former		Former	Former		
	Federal	Federal	"Germany"	Federal	Federal	"Germany"	
	Territory	Territory		Territory	Territory		
1960	154.8		181.7				
1961	169.6		199.1	8.7		8.7	
1962	184.5		216.6	8.1		8.1	
1963	195.5		229.5	5.6		5.6	
1964	214.8		252.2	9.0		9.0	
1965	234.8		275.6	8.5		8.5	
1966	249.6		293.1	6.0		6.0	
1967	252.8		296.8	1.2		1.2	
1968	272.7		320.1	7.3		7.3	
1969	305.2		358.3	10.7		10.7	
1970	345.3	360.6	405.4	11.6		11.6	
1971		400.2	449.9		9.9	9.9	
1972		436.4	490.6		8.3	8.3	
1973		486.0	546.4		10.2	10.2	
1974		526.0	591.3		7.6	7.6	
1975		551.0	619.4		4.5	4.5	
1976		597.4	671.6		7.8	7.8	
1977		636.5	715.6		6.1	6.1	
1978		678.9	763.2		6.2	6.2	
1979		737.4	828.9		7.9	7.9	
1980		788.5	886.4		6.5	6.5	
1981		825.8	928.3		4.5	4.5	
1982		860.2	967.0		4.0	4.0	
1983		898.3	1009.8		4.2	4.2	
1984		942.0	1059.0		4.6	4.6	
1985		984.4	1106.7		4.3	4.3	
1986		1037.1	1165.9		5.1	5.1	
1987		1065.1	1197.4		2.6	2.6	
1988		1123.3	1262.8		5.2	5.2	
1989		1200.7	1349.8		6.4	6.4	
1990		1306.7	1468.9		8.1	8.1	
1991		1415.8	1591.6		7.7	7.7	

Table 1

Nominal GDP, 1960–2024

Note: See Destatis (2025, Sheet 81000-117); and the World Bank, Series NY.GDP.MKTP.CN (<https://data.worldbank.org/indicator/NY.GDP.MKTP.CN?locations=DE>).

Year	Billion euros				% rate of change			
	Destatis		Germany	World Bank "Germany"	Destatis		Germany	World Bank "Germany"
	Former	Former			Former	Former		
	Federal Territory	Federal Territory			Federal Territory	Federal Territory		
1992			1709.9	1709.9			6.9	6.9
1993			1757.3	1757.3			2.7	2.7
1994			1838.0	1838.0			4.4	4.4
1995			1899.9	1899.9			3.3	3.3
1996			1928.6	1928.6			1.5	1.5
1997			1967.2	1967.2			2.0	2.0
1998			2022.3	2022.3			2.7	2.7
1999			2077.2	2077.2			2.6	2.6
2000			2129.7	2129.7			2.5	2.5
2001			2195.5	2195.5			3.0	3.0
2002			2223.4	2223.4			1.3	1.3
2003			2240.8	2240.8			0.8	0.8
2004			2293.0	2293.0			2.3	2.3
2005			2325.7	2325.7			1.4	1.4
2006			2426.2	2426.2			4.1	4.1
2007			2542.2	2542.2			4.6	4.6
2008			2589.3	2589.7			1.8	1.8
2009			2494.0	2494.9			-3.8	-3.8
2010			2615.3	2616.1			4.6	4.6
2011			2746.9	2747.8			4.8	4.8
2012			2799.3	2800.4			1.9	1.9
2013			2866.5	2867.3			2.3	2.3
2014			2984.5	2985.2			4.0	3.9
2015			3087.0	3085.7			3.3	3.3
2016			3195.2	3196.1			3.4	3.5
2017			3333.1	3331.1			4.1	4.1
2018			3434.0	3431.1			2.9	2.9
2019			3537.3	3534.9			2.9	2.9
2020			3450.7	3449.6			-2.5	-2.5
2021			3682.3	3676.5			6.3	6.2
2022			3989.4	3953.9			7.7	7.0
2023			4219.3	4185.6			5.4	5.5
2024			4329.0	4305.3			2.5	2.8

Table 1 (continued)
Nominal GDP, 1960–2024

Year	Euros per capita				% rate of change			
	Destatis		World Bank		Destatis		World Bank	
	Former	Former	Germany	"Germany"	Former	Former	Germany	"Germany"
	Federal	Federal			Federal	Federal		
	Territory	Territory			Territory	Territory		
1960	2,792			2,496				
1961	3,019			2,714	8.1			8.7
1962	3,245			2,926	7.5			7.8
1963	3,407			3,072	5.0			5.0
1964	3,706			3,349	8.8			9.0
1965	4,005			3,629	8.1			8.4
1966	4,220			3,826	5.4			5.4
1967	4,263			3,856	1.0			0.8
1968	4,583			4,142	7.5			7.4
1969	5,081			4,600	10.9			11.1
1970	5,693	5,945		5,186	12.0			12.7
1971		6,529		5,745		9.8		10.8
1972		7,076		6,234		8.4		8.5
1973		7,842		6,922		10.8		11.0
1974		8,477		7,488		8.1		8.2
1975		8,912		7,873		5.1		5.1
1976		9,709		8,573		8.9		8.9
1977		10,367		9,155		6.8		6.8
1978		11,071		9,774		6.8		6.8
1979		12,017		10,610		8.5		8.5
1980		12,808		11,323		6.6		6.7
1981		13,388		11,840		4.5		4.6
1982		13,956		12,345		4.2		4.3
1983		14,624		12,925		4.8		4.7
1984		15,398		13,601		5.3		5.2
1985		16,132		14,245		4.8		4.7
1986		16,984		15,001		5.3		5.3
1987		17,439		15,383		2.7		2.5
1988		18,280		16,159		4.8		5.0
1989		19,346		17,139		5.8		6.1
1990		20,658		18,493		6.8		7.9
1991		22,096	19,902	19,892		7.0		7.6

Table 2

Nominal GDP per capita, 1960–2024

Note: See Destatis (2025, Sheet 81000-117); and the World Bank, Series NY.GDP.PCAP.CN (<https://data.worldbank.org/indicator/NY.GDP.PCAP.CN?locations=DE>).

Year	Euros per capita				% rate of change			
	Destatis		Germany	World Bank "Germany"	Destatis		Germany	World Bank "Germany"
	Former Federal Territory	Former Federal Territory			Former Federal Territory	Former Federal Territory		
1992			21,241	21,208			6.7	6.6
1993			21,710	21,654			2.2	2.1
1994			22,650	22,569			4.3	4.2
1995			23,367	23,261			3.2	3.1
1996			23,673	23,543			1.3	1.2
1997			24,134	23,980			1.9	1.9
1998			24,830	24,648			2.9	2.8
1999			25,512	25,301			2.7	2.6
2000			26,145	25,905			2.5	2.4
2001			26,933	26,661			3.0	2.9
2002			27,254	26,954			1.2	1.1
2003			27,478	27,150			0.8	0.7
2004			28,151	27,789			2.4	2.4
2005			28,594	28,201			1.6	1.5
2006			29,889	29,452			4.5	4.4
2007			31,389	30,902			5.0	4.9
2008			32,060	31,539			2.1	2.1
2009			30,988	30,462			-3.3	-3.4
2010			32,575	31,990			5.1	5.0
2011			34,219	34,230			5.0	7.0
2012			34,823	34,819			1.8	1.7
2013			35,601	35,554			2.2	2.1
2014			36,956	36,862			3.8	3.7
2015			37,949	37,774			2.7	2.5
2016			39,029	38,812			2.8	2.7
2017			40,629	40,300			4.1	3.8
2018			41,798	41,386			2.9	2.7
2019			43,031	42,541			2.9	2.8
2020			42,017	41,481			-2.4	-2.5
2021			44,909	44,190			6.9	6.5
2022			48,339	47,183			7.6	6.8
2023			50,660	49,886			4.8	5.7
2024			51,833	51,553			2.3	3.3

Table 2 (continued)
Nominal GDP per capita, 1960–2024

GERMANY'S GDP PER CAPITA BEFORE 1991

Year	Millions			% rate of change			
	Destatis		World Bank	Destatis		World Bank	
	Former	Former	Germany	Former	Former	Germany	"Germany"
	Federal	Federal	"Germany"	Federal	Federal	"Germany"	"Germany"
	Territory	Territory		Territory	Territory		
1960	55.4		72.8				
1961	56.2		73.4	1.3			0.8
1962	56.8		74.0	1.2			0.9
1963	57.4		74.7	0.9			0.9
1964	58.0		75.3	1.0			0.8
1965	58.6		76.0	1.1			0.8
1966	59.2		76.6	0.9			0.8
1967	59.3		77.0	0.2			0.5
1968	59.5		77.3	0.3			0.4
1969	60.1		77.9	1.0			0.8
1970	60.6	60.7	78.2	1.0			0.3
1971		61.3	78.3		1.1		0.2
1972		61.7	78.7		0.6		0.5
1973		62.0	78.9		0.5		0.3
1974		62.1	79.0		0.1		0.0
1975		61.8	78.7		−0.4		−0.4
1976		61.5	78.3		−0.5		−0.4
1977		61.4	78.2		−0.2		−0.2
1978		61.3	78.1		−0.1		−0.1
1979		61.4	78.1		0.1		0.0
1980		61.6	78.3		0.3		0.2
1981		61.7	78.4		0.2		0.2
1982		61.6	78.3		−0.1		−0.1
1983		61.4	78.1		−0.3		−0.3
1984		61.2	77.9		−0.4		−0.3
1985		61.0	77.7		−0.3		−0.2
1986		61.1	77.7		0.1		0.0
1987		61.1	77.8		0.0		0.2
1988		61.4	78.1		0.6		0.4
1989		62.1	78.8		1.0		0.8
1990		63.3	79.4		1.9		0.9
1991		64.1	80.0		1.3		0.7

Table 3

Implicit Population, 1960–2024

Note: The implicit populations are calculated by dividing the series for GDP in Table 1 by the series for GDP per capita in Table 2.

Year	Millions			% rate of change			
	Destatis		World Bank	Destatis		World Bank	
	Former	Former		Former	Former		
	Federal	Federal	"Germany"	Federal	Federal	"Germany"	"Germany"
	Territory	Territory		Territory	Territory		
1992			80.5			0.7	0.8
1993			80.9			0.6	0.7
1994			81.1			0.2	0.3
1995			81.3			0.2	0.3
1996			81.5			0.2	0.3
1997			81.5			0.1	0.1
1998			81.4			−0.1	0.0
1999			81.4			0.0	0.1
2000			81.5			0.0	0.1
2001			81.5			0.1	0.2
2002			81.6			0.1	0.2
2003			81.5			0.0	0.1
2004			81.5			−0.1	0.0
2005			81.3			−0.1	−0.1
2006			81.2			−0.2	−0.1
2007			81.0			−0.2	−0.1
2008			80.8			−0.3	−0.2
2009			80.5			−0.4	−0.3
2010			80.3			−0.2	−0.2
2011			80.3			0.0	−1.9
2012			80.4			0.1	0.2
2013			80.5			0.2	0.3
2014			80.8			0.3	0.4
2015			81.3			0.7	0.9
2016			81.9			0.6	0.8
2017			82.0			0.2	0.4
2018			82.2			0.1	0.3
2019			82.2			0.1	0.2
2020			82.1			−0.1	0.1
2021			82.0			−0.2	0.0
2022			82.5			0.6	0.7
2023			83.3			0.9	0.1
2024			83.5			0.3	−0.5

Table 3 (continued)
Implicit Population, 1960–2024

References

- Destatis (2025) "Statistischer Bericht: Volkswirtschaftliche Gesamtrechnungen: 2. Vierteljahr 2025." Sept. 2. <https://www.destatis.de/DE/Themen/Wirtschaft/Volkswirtschaftliche-Gesamtrechnungen-Inlandsprodukt/Publikationen/Downloads-Inlandsprodukt/statistischer-bericht-2180120.html>.
- Maddison, Angus (2001) *The World Economy: A Millennium Perspective*. Paris: Development Centre of the Organisation for Economic Co-operation and Development.