

Project 1

To obtain the data from the database, the SQL queries were:

- `SELECT * FROM global_data;`
- `SELECT * FROM city_list;`
- `SELECT year, city, avg_temp FROM city_data WHERE city = 'Madrid';`

I have used the tool Google Sheets for the job. I have had to configure the spreadsheet to be used as a country in the United States, since in my case, Spain comes by default and gave an error when loading the data, they could not be operated on.

To calculate the moving average I use the function `=AVERAGE(B?:B?)`, where “B?” were the cells of the different groups from the previous seven years used to calculate the mean. I preferred to visualize the trends using the moving average that gives a smoother graph and where they can be better appreciated.

As observations:

1. The city of Madrid, the closest to my home, is hotter than the global average. This difference has been constant throughout the entire data series.
2. There are similarities in the change in the temperature trend, these are increasing both in the global data and in the Madrid data.
3. The temperature trend is clearly ascending at the global level of the data, except in brief periods of lower temperature, such as in the first two decades of the 19th century.
4. The curious effect can be seen in both data series, that after decades with lower temperatures, in the following years the increase in temperature is greater than in normal years, until a reversion to the average temperature is reached. This effect is clearly seen in both series during the third decade of the 19th century.
5. It can be seen that there have been more sudden changes in temperature, such as those discussed in the previous point, in Madrid than globally.

Below are the different data and graphs to support the analysis:

year	avg_temp	7-Year MA
1750	8.72	
1751	7.98	
1752	5.78	
1753	8.39	
1754	8.47	
1755	8.36	
1756	8.85	8.08
1757	9.02	8.12
1758	6.74	7.94
1759	7.99	8.26
1760	7.19	8.09
1761	8.77	8.13
1762	8.61	8.17
1763	7.50	7.97
1764	8.40	7.89
1765	8.25	8.10
1766	8.41	8.16
1767	8.22	8.31
1768	6.78	8.02
1769	7.69	7.89
1770	7.69	7.92
1771	7.85	7.84
1772	8.19	7.83
1773	8.22	7.81
1774	8.77	7.88
1775	9.18	8.23
1776	8.30	8.31
1777	8.26	8.40
1778	8.54	8.49
1779	8.98	8.61
1780	9.43	8.78
1781	8.10	8.68
1782	7.90	8.50
1783	7.68	8.41
1784	7.86	8.36
1785	7.36	8.19
1786	8.26	8.08
1787	8.03	7.88
1788	8.45	7.93
1789	8.33	8.00
1790	7.98	8.04
1791	8.23	8.09
1792	8.09	8.20
1793	8.23	8.19
1794	8.53	8.26
1795	8.35	8.25
1796	8.27	8.24
1797	8.51	8.32
1798	8.67	8.38
1799	8.51	8.44
1800	8.48	8.47
1801	8.59	8.48
1802	8.58	8.52
1803	8.50	8.55
1804	8.84	8.60
1805	8.56	8.58
1806	8.43	8.57
1807	8.28	8.54
1808	7.63	8.40
1809	7.08	8.19
1810	6.92	7.96
1811	6.86	7.68
1812	7.05	7.46
1813	7.74	7.37
1814	7.59	7.27
1815	7.24	7.21
1816	6.94	7.19
1817	6.98	7.20
1818	7.83	7.34
1819	7.37	7.38

Year Global Temperature Data

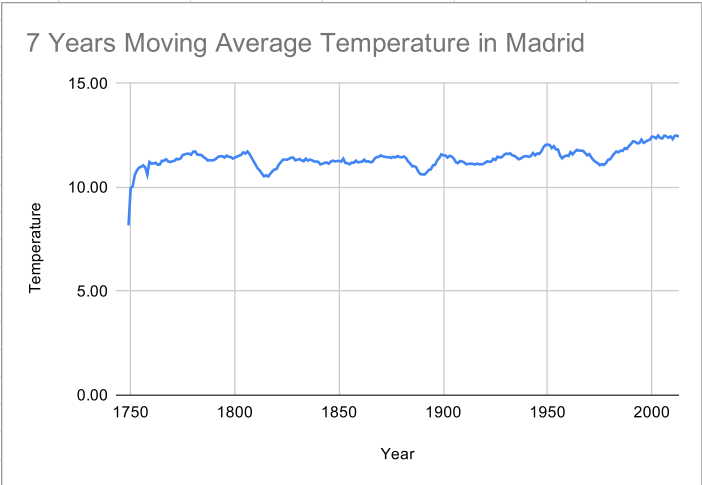
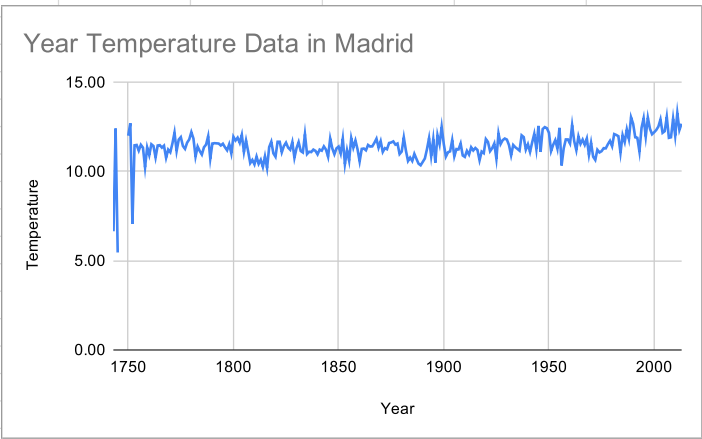
7 Years Moving Average Global Temperature

1820	7.62	7.37							
1821	8.09	7.44							
1822	8.19	7.57							
1823	7.72	7.69							
1824	8.55	7.91							
1825	8.39	7.99							
1826	8.36	8.13							
1827	8.81	8.30							
1828	8.17	8.31							
1829	7.94	8.28							
1830	8.52	8.39							
1831	7.64	8.26							
1832	7.45	8.13							
1833	8.01	8.08							
1834	8.15	7.98							
1835	7.39	7.87							
1836	7.70	7.84							
1837	7.38	7.67							
1838	7.51	7.66							
1839	7.63	7.68							
1840	7.80	7.65							
1841	7.69	7.59							
1842	8.02	7.68							
1843	8.17	7.74							
1844	7.65	7.78							
1845	7.85	7.83							
1846	8.55	7.96							
1847	8.09	8.00							
1848	7.98	8.04							
1849	7.98	8.04							
1850	7.90	8.00							
1851	8.18	8.08							
1852	8.10	8.11							
1853	8.04	8.04							
1854	8.21	8.06							
1855	8.11	8.07							
1856	8.00	8.08							
1857	7.76	8.06							
1858	8.10	8.05							
1859	8.25	8.07							
1860	7.96	8.06							
1861	7.85	8.00							
1862	7.56	7.93							
1863	8.11	7.94							
1864	7.98	7.97							
1865	8.18	7.98							
1866	8.29	7.99							
1867	8.44	8.06							
1868	8.25	8.12							
1869	8.43	8.24							
1870	8.20	8.25							
1871	8.12	8.27							
1872	8.19	8.27							
1873	8.35	8.28							
1874	8.43	8.28							
1875	7.86	8.23							
1876	8.08	8.18							
1877	8.54	8.22							
1878	8.83	8.33							
1879	8.17	8.32							
1880	8.12	8.29							
1881	8.27	8.27							
1882	8.13	8.31							
1883	7.98	8.29							
1884	7.77	8.18							
1885	7.92	8.05							
1886	7.95	8.02							
1887	7.91	7.99							
1888	8.09	7.96							
1889	8.32	7.99							
1890	7.97	7.99							

1891	8.02	8.03							
1892	8.07	8.05							
1893	8.06	8.06							
1894	8.16	8.10							
1895	8.15	8.11							
1896	8.21	8.09							
1897	8.29	8.14							
1898	8.18	8.16							
1899	8.40	8.21							
1900	8.50	8.27							
1901	8.54	8.32							
1902	8.30	8.35							
1903	8.22	8.35							
1904	8.09	8.32							
1905	8.23	8.33							
1906	8.38	8.32							
1907	7.95	8.24							
1908	8.19	8.19							
1909	8.18	8.18							
1910	8.22	8.18							
1911	8.18	8.19							
1912	8.17	8.18							
1913	8.30	8.17							
1914	8.59	8.26							
1915	8.59	8.32							
1916	8.23	8.33							
1917	8.02	8.30							
1918	8.13	8.29							
1919	8.38	8.32							
1920	8.36	8.33							
1921	8.57	8.33							
1922	8.41	8.30							
1923	8.42	8.33							
1924	8.51	8.40							
1925	8.53	8.45							
1926	8.73	8.50							
1927	8.52	8.53							
1928	8.63	8.54							
1929	8.24	8.51							
1930	8.63	8.54							
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1932	8.71	8.60							
1933	8.34	8.54							
1934	8.63	8.56							
1935	8.52	8.54							
1936	8.55	8.59							
1937	8.70	8.60							
1938	8.86	8.62							
1939	8.76	8.62							
1940	8.76	8.68							
1941	8.77	8.70							
1942	8.73	8.73							
1943	8.76	8.76							
1944	8.85	8.78							
1945	8.58	8.74							
1946	8.68	8.73							
1947	8.80	8.74							
1948	8.75	8.74							
1949	8.59	8.72							
1950	8.37	8.66							
1951	8.63	8.63							
1952	8.64	8.64							
1953	8.87	8.66							
1954	8.56	8.63							
1955	8.63	8.61							
1956	8.28	8.57							
1957	8.73	8.62							
1958	8.77	8.64							
1959	8.73	8.65							
1960	8.58	8.61							
1961	8.80	8.65							

1962	8.75	8.66							
1963	8.86	8.75							
1964	8.41	8.70							
1965	8.53	8.67							
1966	8.60	8.65							
1967	8.70	8.66							
1968	8.52	8.62							
1969	8.60	8.60							
1970	8.70	8.58							
1971	8.60	8.61							
1972	8.50	8.60							
1973	8.95	8.65							
1974	8.47	8.62							
1975	8.74	8.65							
1976	8.35	8.62							
1977	8.85	8.64							
1978	8.69	8.65							
1979	8.73	8.68							
1980	8.98	8.69							
1981	9.17	8.79							
1982	8.64	8.77							
1983	9.03	8.87							
1984	8.69	8.85							
1985	8.66	8.84							
1986	8.83	8.86							
1987	8.99	8.86							
1988	9.20	8.86							
1989	8.92	8.90							
1990	9.23	8.93							
1991	9.18	9.00							
1992	8.84	9.03							
1993	8.87	9.03							
1994	9.04	9.04							
1995	9.35	9.06							
1996	9.04	9.08							
1997	9.20	9.07							
1998	9.52	9.12							
1999	9.29	9.19							
2000	9.20	9.23							
2001	9.41	9.29							
2002	9.57	9.32							
2003	9.53	9.39							
2004	9.32	9.41							
2005	9.70	9.43							
2006	9.53	9.47							
2007	9.73	9.54							
2008	9.43	9.54							
2009	9.51	9.54							
2010	9.70	9.56							
2011	9.52	9.59							
2012	9.51	9.56							
2013	9.61	9.57							
2014	9.57	9.55							
2015	9.83	9.61							

year	city	avg_temp	7-Year MA
1743	Madrid	6.65	
1744	Madrid	12.41	
1745	Madrid	5.46	
1746	Madrid		
1747	Madrid		
1748	Madrid		
1749	Madrid		8.17
1750	Madrid	12.01	9.96
1751	Madrid	12.71	10.06
1752	Madrid	7.07	10.60
1753	Madrid	11.47	10.82
1754	Madrid	11.49	10.95
1755	Madrid	11.17	10.99
1756	Madrid	11.50	11.06
1757	Madrid	11.34	10.96
1758	Madrid	10.24	10.61
1759	Madrid	11.35	11.22
1760	Madrid	10.92	11.14
1761	Madrid	11.53	11.15
1762	Madrid	11.43	11.19
1763	Madrid	10.79	11.09
1764	Madrid	11.46	11.10
1765	Madrid	11.48	11.28
1766	Madrid	11.34	11.28
1767	Madrid	11.45	11.35
1768	Madrid	10.77	11.25
1769	Madrid	11.23	11.22
1770	Madrid	11.08	11.26
1771	Madrid	11.57	11.27
1772	Madrid	12.18	11.37
1773	Madrid	11.15	11.35
1774	Madrid	11.79	11.40
1775	Madrid	11.93	11.56
1776	Madrid	11.43	11.59
1777	Madrid	11.27	11.62
1778	Madrid	11.62	11.62
1779	Madrid	11.80	11.57
1780	Madrid	12.21	11.72
1781	Madrid	11.85	11.73
1782	Madrid	10.84	11.57
1783	Madrid	11.40	11.57
1784	Madrid	11.15	11.55
1785	Madrid	10.95	11.46
1786	Madrid	11.36	11.39
1787	Madrid	11.51	11.29
1788	Madrid	11.98	11.31
1789	Madrid	10.72	11.30
1790	Madrid	11.57	11.32
1791	Madrid	11.59	11.38
1792	Madrid	11.58	11.47
1793	Madrid	11.57	11.50
1794	Madrid	11.46	11.50
1795	Madrid	11.56	11.44
1796	Madrid	11.36	11.53
1797	Madrid	11.19	11.47
1798	Madrid	11.53	11.46
1799	Madrid	11.02	11.38
1800	Madrid	11.95	11.44
1801	Madrid	11.74	11.48
1802	Madrid	11.90	11.53
1803	Madrid	11.61	11.56
1804	Madrid	12.06	11.69
1805	Madrid	11.10	11.63
1806	Madrid	11.74	11.73
1807	Madrid	11.13	11.61
1808	Madrid	10.47	11.43
1809	Madrid	10.65	11.25
1810	Madrid	10.40	11.08
1811	Madrid	10.84	10.90
1812	Madrid	10.43	10.81

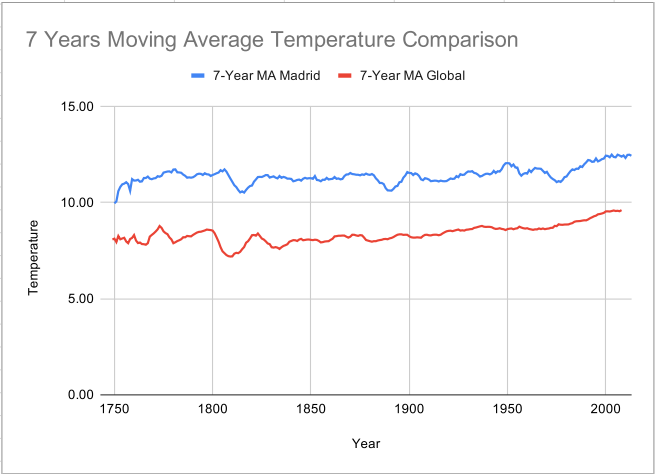


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1814	Madrid	10.26	10.53					
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1816	Madrid	10.20	10.52					
1817	Madrid	11.37	10.66					
1818	Madrid	11.67	10.78					
1819	Madrid	11.02	10.86					
1820	Madrid	10.83	10.89					
1821	Madrid	11.67	11.09					
1822	Madrid	11.67	11.20					
1823	Madrid	11.08	11.33					
1824	Madrid	11.43	11.34					
1825	Madrid	11.62	11.33					
1826	Madrid	11.34	11.38					
1827	Madrid	11.22	11.43					
1828	Madrid	11.65	11.43					
1829	Madrid	10.77	11.30					
1830	Madrid	11.31	11.33					
1831	Madrid	11.65	11.37					
1832	Madrid	11.15	11.30					
1833	Madrid	11.07	11.26					
1834	Madrid	12.09	11.38					
1835	Madrid	10.98	11.29					
1836	Madrid	11.11	11.34					
1837	Madrid	11.09	11.31					
1838	Madrid	11.23	11.25					
1839	Madrid	11.16	11.25					
1840	Madrid	10.96	11.23					
1841	Madrid	11.23	11.11					
1842	Madrid	11.17	11.14					
1843	Madrid	11.41	11.18					
1844	Madrid	11.23	11.20					
1845	Madrid	10.83	11.14					
1846	Madrid	11.85	11.24					
1847	Madrid	11.30	11.29					
1848	Madrid	10.97	11.25					
1849	Madrid	11.30	11.27					
1850	Madrid	11.40	11.27					
1851	Madrid	11.01	11.24					
1852	Madrid	11.84	11.38					
1853	Madrid	10.42	11.18					
1854	Madrid	11.19	11.16					
1855	Madrid	10.61	11.11					
1856	Madrid	11.87	11.19					
1857	Madrid	11.34	11.18					
1858	Madrid	11.74	11.29					
1859	Madrid	11.25	11.20					
1860	Madrid	10.57	11.22					
1861	Madrid	11.27	11.24					
1862	Madrid	11.29	11.33					
1863	Madrid	11.19	11.24					
1864	Madrid	11.49	11.26					
1865	Madrid	11.40	11.21					
1866	Madrid	11.41	11.23					
1867	Madrid	11.61	11.38					
1868	Madrid	11.84	11.46					
1869	Madrid	11.34	11.47					
1870	Madrid	11.70	11.54					
1871	Madrid	11.10	11.49					
1872	Madrid	11.31	11.47					
1873	Madrid	11.25	11.45					
1874	Madrid	11.60	11.45					
1875	Madrid	11.63	11.42					
1876	Madrid	11.69	11.47					
1877	Madrid	11.51	11.44					
1878	Madrid	11.57	11.51					
1879	Madrid	10.98	11.46					
1880	Madrid	11.12	11.44					
1881	Madrid	11.91	11.49					
1882	Madrid	11.17	11.42					
1883	Madrid	10.59	11.26					

1884	Madrid	10.78	11.16					
1885	Madrid	10.59	11.02					
1886	Madrid	10.99	11.02					
1887	Madrid	10.71	10.96					
1888	Madrid	10.44	10.75					
1889	Madrid	10.35	10.64					
1890	Madrid	10.54	10.63					
1891	Madrid	10.73	10.62					
1892	Madrid	11.25	10.72					
1893	Madrid	11.87	10.84					
1894	Madrid	10.87	10.86					
1895	Madrid	11.81	11.06					
1896	Madrid	10.50	11.08					
1897	Madrid	12.04	11.30					
1898	Madrid	11.53	11.41					
1899	Madrid	12.50	11.59					
1900	Madrid	11.54	11.54					
1901	Madrid	10.84	11.54					
1902	Madrid	11.08	11.43					
1903	Madrid	11.13	11.52					
1904	Madrid	11.76	11.48					
1905	Madrid	10.85	11.39					
1906	Madrid	11.26	11.21					
1907	Madrid	11.24	11.17					
1908	Madrid	11.57	11.27					
1909	Madrid	10.90	11.24					
1910	Madrid	10.82	11.20					
1911	Madrid	11.16	11.11					
1912	Madrid	10.95	11.13					
1913	Madrid	11.36	11.14					
1914	Madrid	11.18	11.13					
1915	Madrid	11.32	11.10					
1916	Madrid	11.21	11.14					
1917	Madrid	10.63	11.12					
1918	Madrid	11.12	11.11					
1919	Madrid	11.03	11.12					
1920	Madrid	11.82	11.19					
1921	Madrid	11.66	11.26					
1922	Madrid	11.14	11.23					
1923	Madrid	11.31	11.24					
1924	Madrid	11.57	11.38					
1925	Madrid	10.72	11.32					
1926	Madrid	12.13	11.48					
1927	Madrid	11.54	11.44					
1928	Madrid	11.76	11.45					
1929	Madrid	11.85	11.55					
1930	Madrid	11.79	11.62					
1931	Madrid	11.48	11.61					
1932	Madrid	10.91	11.64					
1933	Madrid	11.49	11.55					
1934	Madrid	11.36	11.52					
1935	Madrid	11.27	11.45					
1936	Madrid	11.17	11.35					
1937	Madrid	12.03	11.39					
1938	Madrid	11.93	11.45					
1939	Madrid	11.23	11.50					
1940	Madrid	11.53	11.50					
1941	Madrid	11.10	11.47					
1942	Madrid	11.63	11.52					
1943	Madrid	12.11	11.65					
1944	Madrid	11.26	11.54					
1945	Madrid	12.56	11.63					
1946	Madrid	11.10	11.61					
1947	Madrid	12.38	11.73					
1948	Madrid	12.49	11.93					
1949	Madrid	12.43	12.05					
1950	Madrid	12.17	12.06					
1951	Madrid	11.15	12.04					
1952	Madrid	11.50	11.89					
1953	Madrid	11.76	11.98					
1954	Madrid	11.29	11.83					

1955	Madrid	12.45	11.82					
1956	Madrid	10.34	11.52					
1957	Madrid	11.30	11.40					
1958	Madrid	11.80	11.49					
1959	Madrid	11.80	11.53					
1960	Madrid	11.57	11.51					
1961	Madrid	12.60	11.69					
1962	Madrid	11.70	11.59					
1963	Madrid	11.20	11.71					
1964	Madrid	11.97	11.81					
1965	Madrid	11.55	11.77					
1966	Madrid	11.79	11.77					
1967	Madrid	11.50	11.76					
1968	Madrid	11.85	11.65					
1969	Madrid	10.94	11.54					
1970	Madrid	11.61	11.60					
1971	Madrid	10.83	11.44					
1972	Madrid	10.65	11.31					
1973	Madrid	11.22	11.23					
1974	Madrid	11.07	11.17					
1975	Madrid	11.14	11.07					
1976	Madrid	11.31	11.12					
1977	Madrid	11.30	11.07					
1978	Madrid	11.53	11.17					
1979	Madrid	11.72	11.33					
1980	Madrid	11.42	11.36					
1981	Madrid	12.10	11.50					
1982	Madrid	12.05	11.63					
1983	Madrid	11.98	11.73					
1984	Madrid	11.05	11.69					
1985	Madrid	12.04	11.77					
1986	Madrid	11.65	11.76					
1987	Madrid	12.36	11.89					
1988	Madrid	11.83	11.85					
1989	Madrid	13.04	11.99					
1990	Madrid	12.68	12.09					
1991	Madrid	11.92	12.22					
1992	Madrid	11.89	12.20					
1993	Madrid	11.12	12.12					
1994	Madrid	12.45	12.13					
1995	Madrid	12.99	12.30					
1996	Madrid	11.96	12.14					
1997	Madrid	13.02	12.19					
1998	Madrid	12.40	12.26					
1999	Madrid	12.09	12.29					
2000	Madrid	12.20	12.44					
2001	Madrid	12.33	12.43					
2002	Madrid	12.52	12.36					
2003	Madrid	12.92	12.50					
2004	Madrid	12.17	12.38					
2005	Madrid	12.26	12.36					
2006	Madrid	13.06	12.49					
2007	Madrid	11.89	12.45					
2008	Madrid	11.92	12.39					
2009	Madrid	12.96	12.45					
2010	Madrid	12.01	12.32					
2011	Madrid	13.28	12.48					
2012	Madrid	12.33	12.49					
2013	Madrid	12.68	12.44					

year	7-Year MA Madrid	7-Year MA Global
1743		
1744		
1745		
1746		
1747		
1748		
1749		8.08
1750	9.96	8.12
1751	10.06	7.94
1752	10.60	8.26
1753	10.82	8.09
1754	10.95	8.13
1755	10.99	8.17
1756	11.06	7.97
1757	10.96	7.89
1758	10.61	8.10
1759	11.22	8.16
1760	11.14	8.31
1761	11.15	8.02
1762	11.19	7.89
1763	11.09	7.92
1764	11.10	7.84
1765	11.28	7.83
1766	11.28	7.81
1767	11.35	7.88
1768	11.25	8.23
1769	11.22	8.31
1770	11.26	8.40
1771	11.27	8.49
1772	11.37	8.61
1773	11.35	8.78
1774	11.40	8.68
1775	11.56	8.50
1776	11.59	8.41
1777	11.62	8.36
1778	11.62	8.19
1779	11.57	8.08
1780	11.72	7.88
1781	11.73	7.93
1782	11.57	8.00
1783	11.57	8.04
1784	11.55	8.09
1785	11.46	8.20
1786	11.39	8.19
1787	11.29	8.26
1788	11.31	8.25
1789	11.30	8.24
1790	11.32	8.32
1791	11.38	8.38
1792	11.47	8.44
1793	11.50	8.47
1794	11.50	8.48
1795	11.44	8.52
1796	11.53	8.55
1797	11.47	8.60
1798	11.46	8.58
1799	11.38	8.57
1800	11.44	8.54
1801	11.48	8.40
1802	11.53	8.19
1803	11.56	7.96
1804	11.69	7.68
1805	11.63	7.46
1806	11.73	7.37
1807	11.61	7.27
1808	11.43	7.21
1809	11.25	7.19
1810	11.08	7.20
1811	10.90	7.34
1812	10.81	7.38
1813	10.65	7.37
1814	10.53	7.44
1815	10.58	7.57
1816	10.52	7.69
1817	10.66	7.91
1818	10.78	7.99
1819	10.86	8.13
1820	10.89	8.30
1821	11.09	8.31
1822	11.20	8.28
1823	11.33	8.39
1824	11.34	8.26
1825	11.33	8.13
1826	11.38	8.08



1827	11.43	7.98								
1828	11.43	7.87								
1829	11.30	7.84								
1830	11.33	7.67								
1831	11.37	7.66								
1832	11.30	7.68								
1833	11.26	7.65								
1834	11.38	7.59								
1835	11.29	7.68								
1836	11.34	7.74								
1837	11.31	7.78								
1838	11.25	7.83								
1839	11.25	7.96								
1840	11.23	8.00								
1841	11.11	8.04								
1842	11.14	8.04								
1843	11.18	8.00								
1844	11.20	8.08								
1845	11.14	8.11								
1846	11.24	8.04								
1847	11.29	8.06								
1848	11.25	8.07								
1849	11.27	8.08								
1850	11.27	8.06								
1851	11.24	8.05								
1852	11.38	8.07								
1853	11.18	8.06								
1854	11.16	8.00								
1855	11.11	7.93								
1856	11.19	7.94								
1857	11.18	7.97								
1858	11.29	7.98								
1859	11.20	7.99								
1860	11.22	8.06								
1861	11.24	8.12								
1862	11.33	8.24								
1863	11.24	8.25								
1864	11.26	8.27								
1865	11.21	8.27								
1866	11.23	8.28								
1867	11.38	8.28								
1868	11.46	8.23								
1869	11.47	8.18								
1870	11.54	8.22								
1871	11.49	8.33								
1872	11.47	8.32								
1873	11.45	8.29								
1874	11.45	8.27								
1875	11.42	8.31								
1876	11.47	8.29								
1877	11.44	8.18								
1878	11.51	8.05								
1879	11.46	8.02								
1880	11.44	7.99								
1881	11.49	7.96								
1882	11.42	7.99								
1883	11.26	7.99								
1884	11.16	8.03								
1885	11.02	8.05								
1886	11.02	8.06								
1887	10.96	8.10								
1888	10.75	8.11								
1889	10.64	8.09								
1890	10.63	8.14								
1891	10.62	8.16								
1892	10.72	8.21								
1893	10.84	8.27								
1894	10.86	8.32								
1895	11.06	8.35								
1896	11.08	8.35								
1897	11.30	8.32								
1898	11.41	8.33								
1899	11.59	8.32								
1900	11.54	8.24								
1901	11.54	8.19								
1902	11.43	8.18								
1903	11.52	8.18								
1904	11.48	8.19								
1905	11.39	8.18								
1906	11.21	8.17								
1907	11.17	8.26								
1908	11.27	8.32								
1909	11.24	8.33								
1910	11.20	8.30								
1911	11.11	8.29								

1912	11.13	8.32								
1913	11.14	8.33								
1914	11.13	8.33								
1915	11.10	8.30								
1916	11.14	8.33								
1917	11.12	8.40								
1918	11.11	8.45								
1919	11.12	8.50								
1920	11.19	8.53								
1921	11.26	8.54								
1922	11.23	8.51								
1923	11.24	8.54								
1924	11.38	8.57								
1925	11.32	8.60								
1926	11.48	8.54								
1927	11.44	8.56								
1928	11.45	8.54								
1929	11.55	8.59								
1930	11.62	8.60								
1931	11.61	8.62								
1932	11.64	8.62								
1933	11.55	8.68								
1934	11.52	8.70								
1935	11.45	8.73								
1936	11.35	8.76								
1937	11.39	8.78								
1938	11.45	8.74								
1939	11.50	8.73								
1940	11.50	8.74								
1941	11.47	8.74								
1942	11.52	8.72								
1943	11.65	8.66								
1944	11.54	8.63								
1945	11.63	8.64								
1946	11.61	8.66								
1947	11.73	8.63								
1948	11.93	8.61								
1949	12.05	8.57								
1950	12.06	8.62								
1951	12.04	8.64								
1952	11.89	8.65								
1953	11.98	8.61								
1954	11.83	8.65								
1955	11.82	8.66								
1956	11.52	8.75								
1957	11.40	8.70								
1958	11.49	8.67								
1959	11.53	8.65								
1960	11.51	8.66								
1961	11.69	8.62								
1962	11.59	8.60								
1963	11.71	8.58								
1964	11.81	8.61								
1965	11.77	8.60								
1966	11.77	8.65								
1967	11.76	8.62								
1968	11.65	8.65								
1969	11.54	8.62								
1970	11.60	8.64								
1971	11.44	8.65								
1972	11.31	8.68								
1973	11.23	8.69								
1974	11.17	8.79								
1975	11.07	8.77								
1976	11.12	8.87								
1977	11.07	8.85								
1978	11.17	8.84								
1979	11.33	8.86								
1980	11.36	8.86								
1981	11.50	8.86								
1982	11.63	8.90								
1983	11.73	8.93								
1984	11.69	9.00								
1985	11.77	9.03								
1986	11.76	9.03								
1987	11.89	9.04								
1988	11.85	9.06								
1989	11.99	9.08								
1990	12.09	9.07								
1991	12.22	9.12								
1992	12.20	9.19								
1993	12.12	9.23								
1994	12.13	9.29								
1995	12.30	9.32								
1996	12.14	9.39								

