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20120417 - Referential NZD based on CPI (2011e)

[Technology] [[<Normal page](#)] [**PEREZGONZALEZ Jose D (2011)**. *Referential NZD based on CPI (2011e)*³. Journal of Knowledge Advancement & Integration ([ISSN 1177-4576](#)), 2012, pages 123-127.]

Referential NZD

The following table provides the inflator/deflator multiplier for calculating [referential New Zealand dollars](#) (rNZD, r\$). It is based on the average annual CPI for all groups (estimated from quarter inflation index values provided by the Reserve Bank of New Zealand²).

The formula for calculating rNZD is the following:

$$\text{rNZD} = \text{nominal NZD} + (\text{nominal NZD} * \text{multiplier})$$

| Year | CPI A.Avg | Base 2010 | multiplier |
|------|-----------|-----------|------------|
| 1900 | 13.3 | 1111.0 | 82.8491 |
| 1901 | 13.7 | 1111.0 | 80.3919 |
| 1902 | 14.0 | 1111.0 | 78.2157 |
| 1903 | 14.1 | 1111.0 | 77.7943 |
| 1904 | 14.0 | 1111.0 | 78.2157 |
| 1905 | 14.4 | 1111.0 | 76.0191 |
| 1906 | 14.9 | 1111.0 | 73.4389 |
| 1907 | 14.9 | 1111.0 | 73.4389 |
| 1908 | 14.9 | 1111.0 | 73.5638 |
| 1909 | 14.7 | 1111.0 | 74.4499 |
| 1910 | 14.8 | 1111.0 | 74.0676 |
| 1911 | 14.8 | 1111.0 | 74.3220 |
| 1912 | 15.0 | 1111.0 | 73.0667 |
| 1913 | 15.4 | 1111.0 | 71.1429 |
| 1914 | 15.9 | 1111.0 | 68.7645 |
| 1915 | 17.0 | 1111.0 | 64.5457 |
| 1916 | 18.3 | 1111.0 | 59.8767 |
| 1917 | 20.0 | 1111.0 | 54.5500 |
| 1918 | 22.4 | 1111.0 | 48.5982 |
| 1919 | 24.8 | 1111.0 | 43.8436 |
| 1920 | 28.1 | 1111.0 | 38.5022 |
| 1921 | 28.3 | 1111.0 | 38.2233 |
| 1922 | 25.4 | 1111.0 | 42.8264 |
| 1923 | 25.0 | 1111.0 | 43.4845 |

| | | | |
|------|------|--------|---------|
| 1924 | 25.4 | 1111.0 | 42.7833 |
| 1925 | 25.5 | 1111.0 | 42.5260 |
| 1926 | 25.7 | 1111.0 | 42.2296 |
| 1927 | 25.5 | 1111.0 | 42.6114 |
| 1928 | 25.6 | 1111.0 | 42.4834 |
| 1929 | 25.5 | 1111.0 | 42.6542 |
| 1930 | 24.9 | 1111.0 | 43.5737 |
| 1931 | 23.0 | 1111.0 | 47.3043 |
| 1932 | 21.2 | 1111.0 | 51.4057 |
| 1933 | 20.2 | 1111.0 | 53.9320 |
| 1934 | 20.5 | 1111.0 | 53.1291 |
| 1935 | 21.3 | 1111.0 | 51.1596 |
| 1936 | 21.9 | 1111.0 | 49.7886 |
| 1937 | 23.4 | 1111.0 | 46.4786 |
| 1938 | 24.1 | 1111.0 | 45.0996 |
| 1939 | 25.2 | 1111.0 | 43.0436 |
| 1940 | 26.3 | 1111.0 | 41.2835 |
| 1941 | 27.2 | 1111.0 | 39.8081 |
| 1942 | 28.1 | 1111.0 | 38.5022 |
| 1943 | 28.8 | 1111.0 | 37.5429 |
| 1944 | 29.3 | 1111.0 | 36.8858 |
| 1945 | 29.7 | 1111.0 | 36.4074 |
| 1946 | 30.0 | 1111.0 | 36.0952 |
| 1947 | 30.9 | 1111.0 | 34.9256 |
| 1948 | 33.3 | 1111.0 | 32.3383 |
| 1949 | 33.9 | 1111.0 | 31.7729 |
| 1950 | 35.8 | 1111.0 | 30.0119 |
| 1951 | 39.8 | 1111.0 | 26.9146 |
| 1952 | 42.9 | 1111.0 | 24.9125 |
| 1953 | 44.8 | 1111.0 | 23.8130 |
| 1954 | 46.9 | 1111.0 | 22.7140 |
| 1955 | 48.1 | 1111.0 | 22.1217 |
| 1956 | 49.7 | 1111.0 | 21.3429 |
| 1957 | 50.8 | 1111.0 | 20.8808 |
| 1958 | 53.1 | 1111.0 | 19.9425 |
| 1959 | 55.1 | 1111.0 | 19.1633 |
| 1960 | 55.5 | 1111.0 | 19.0361 |
| 1961 | 56.5 | 1111.0 | 18.6724 |
| 1962 | 58.0 | 1111.0 | 18.1717 |

| | | | |
|------|-------|--------|---------|
| 1963 | 59.1 | 1111.0 | 17.7907 |
| 1964 | 61.2 | 1111.0 | 17.1610 |
| 1965 | 63.3 | 1111.0 | 16.5583 |
| 1966 | 65.0 | 1111.0 | 16.0989 |
| 1967 | 69.0 | 1111.0 | 15.1131 |
| 1968 | 71.9 | 1111.0 | 14.4466 |
| 1969 | 75.5 | 1111.0 | 13.7201 |
| 1970 | 80.4 | 1111.0 | 12.8227 |
| 1971 | 88.7 | 1111.0 | 11.5289 |
| 1972 | 94.9 | 1111.0 | 10.7101 |
| 1973 | 102.6 | 1111.0 | 9.8285 |
| 1974 | 114.0 | 1111.0 | 8.7456 |
| 1975 | 130.8 | 1111.0 | 7.4971 |
| 1976 | 152.9 | 1111.0 | 6.2686 |
| 1977 | 174.9 | 1111.0 | 5.3540 |
| 1978 | 195.8 | 1111.0 | 4.6756 |
| 1979 | 222.6 | 1111.0 | 3.9916 |
| 1980 | 260.7 | 1111.0 | 3.2612 |
| 1981 | 300.8 | 1111.0 | 2.6935 |
| 1982 | 349.4 | 1111.0 | 2.1800 |
| 1983 | 375.1 | 1111.0 | 1.9623 |
| 1984 | 398.2 | 1111.0 | 1.7899 |
| 1985 | 459.6 | 1111.0 | 1.4173 |
| 1986 | 520.3 | 1111.0 | 1.1352 |
| 1987 | 602.2 | 1111.0 | 0.8448 |
| 1988 | 640.6 | 1111.0 | 0.7342 |
| 1989 | 677.3 | 1111.0 | 0.6405 |
| 1990 | 718.6 | 1111.0 | 0.5461 |
| 1991 | 737.3 | 1111.0 | 0.5070 |
| 1992 | 744.7 | 1111.0 | 0.4918 |
| 1993 | 754.3 | 1111.0 | 0.4728 |
| 1994 | 767.5 | 1111.0 | 0.4476 |
| 1995 | 796.3 | 1111.0 | 0.3952 |
| 1996 | 814.5 | 1111.0 | 0.3640 |
| 1997 | 824.2 | 1111.0 | 0.3480 |
| 1998 | 834.6 | 1111.0 | 0.3312 |
| 1999 | 833.7 | 1111.0 | 0.3327 |
| 2000 | 855.5 | 1111.0 | 0.2987 |
| 2001 | 877.9 | 1111.0 | 0.2655 |

| | | | |
|-------|--------|--------|---------|
| 2002 | 901.4 | 1111.0 | 0.2325 |
| 2003 | 917.2 | 1111.0 | 0.2113 |
| 2004 | 938.2 | 1111.0 | 0.1842 |
| 2005 | 966.7 | 1111.0 | 0.1492 |
| 2006 | 999.3 | 1111.0 | 0.1118 |
| 2007 | 1023.0 | 1111.0 | 0.0860 |
| 2008 | 1063.5 | 1111.0 | 0.0447 |
| 2009 | 1086.0 | 1111.0 | 0.0230 |
| 2010 | 1111.0 | 1111.0 | 0.0000 |
| 2011 | 1155.8 | 1111.0 | -0.0388 |
| 2012* | 1190.5 | 1111.0 | -0.0668 |
| 2013* | 1226.2 | 1111.0 | -0.0939 |
| 2014* | 1263.0 | 1111.0 | -0.1203 |
| 2015* | 1300.9 | 1111.0 | -0.1460 |
| 2016* | 1339.9 | 1111.0 | -0.1708 |
| 2017* | 1380.1 | 1111.0 | -0.1950 |
| 2018* | 1421.5 | 1111.0 | -0.2184 |
| 2019* | 1464.1 | 1111.0 | -0.2412 |
| 2020* | 1508.1 | 1111.0 | -0.2633 |
| 2021* | 1553.3 | 1111.0 | -0.2847 |

(*It assumes a 3% inflation rate for each year after 2011. These multipliers should be substituted with their real inflation values as soon as they are known.)

References

1. **PEREZGONZALEZ Jose D (2010)**. *Referential NZD based on CPI*. Journal of Knowledge Advancement & Integration ([ISSN 1177-4576](#)), 2011, pages 113-117.
 2. **RESERVE BANK OF NEW ZEALAND (2011)**. *New Zealand inflation calculator*. Retrieved from the [Reserve Bank of New Zealand](#) on 16 April 2012.
- +++ **Footnotes** +++
3. The 2011 edition updates the 2010 edition¹ with the official CPI values for that year.

Want to know more?

[MeasuringWorth](#)

A handy website to learn about different inflation indexes and calculate the value of money according to those indexes.

[New Zealand inflation calculator](#)

A handy calculator for estimating the cost of money over time. It allows for calculating inflation per quarter. If you use 2010 as base year, you could interpret the result as referential New Zealand dollars (rNZD, r\$).

[Wiki of Science - Referential currency \(list of topics\)](#)

This Wiki of Science page provides a list of topics related to referential currencies.

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