

WEB解説7.3 ダミー変数 (一時的ダミー変数)

消費関数の例

ファイルを開く

| | A | B | C | D | E |
|----|---------------------|------------|--------------|-------------|---|
| 1 | 消費関数用年次データ1980-2009 | | | | |
| 2 | | | | | |
| 3 | | 実質民間最終消費支出 | 実質国民総可処分所得（不 | 実質金融資産残高 | |
| 4 | | RC | RYD | RMA | |
| 5 | 1980 | 178,232.9 | 304,774.9 | 457507.3739 | |
| 6 | 1981 | 181,000.2 | 314,386.4 | 489346.8401 | |
| 7 | 1982 | 188,722.4 | 322,011.9 | 527042.1117 | |
| 8 | 1983 | 194,070.8 | 329,101.9 | 582493.4679 | |
| 9 | 1984 | 198,450.2 | 338,908.7 | 629559.5402 | |
| 10 | 1985 | 205,919.8 | 358,121.7 | 683019.2135 | |
| 11 | 1986 | 212,428.1 | 371,861.8 | 763625.7174 | |
| 12 | 1987 | 220,709.3 | 386,722.5 | 846323.348 | |
| 13 | 1988 | 230,958.4 | 410,766.9 | 954802.7263 | |
| 14 | 1989 | 241,157.6 | 431,427.2 | 1070629.374 | |
| 15 | 1990 | 252,408.6 | 455,788.9 | 1027010.021 | |
| 16 | 1991 | 257,039.6 | 471,835.9 | 1046293.788 | |
| 17 | 1992 | 262,234.2 | 478,055.9 | 1044534.187 | |
| 18 | 1993 | 264,250.6 | 478,547.3 | 1101718.217 | |
| 19 | 1994 | 269,749.5 | 480,173.3 | 1161100.293 | |
| 20 | 1995 | 274,169.7 | 487,568.1 | 1212521.722 | |
| 21 | 1996 | 280,003.0 | 499,707.8 | 1257892.059 | |
| 22 | 1997 | 281,316.8 | 505,048.8 | 1263504.377 | |
| 23 | 1998 | 278,649.6 | 498,183.1 | 1289971.984 | |
| 24 | 1999 | 280,997.9 | 497,518.0 | 1389274.803 | |
| 25 | 2000 | 282,786.3 | 505,945.9 | 1414657.1 | |
| 26 | 2001 | 287,422.5 | 505,478.2 | 1409891.287 | |
| 27 | 2002 | 290,572.0 | 508,863.0 | 1419756.276 | |
| 28 | 2003 | 292,592.1 | 517,713.4 | 1484907.547 | |
| 29 | 2004 | 298,443.1 | 530,307.1 | 1536396.174 | |
| 30 | 2005 | 303,925.5 | 545,316.8 | 1665349.514 | |
| 31 | 2006 | 309,510.2 | 553,582.2 | 1703642.329 | |
| 32 | 2007 | 319,617.7 | 566,452.0 | 1679010.444 | |
| 33 | 2008 | 323,702.2 | 551,157.9 | 1620334.585 | |
| 34 | 2009 | 328,593.5 | 519,869.1 | 1689483.14 | |
| 35 | | | | | |
| 36 | | | | | |
| 37 | | | | | |

すべてのデータで回帰

| | A | B | C | D | E |
|----|---------------------|----------------------------|-----------|-------------|---|
| 1 | 消費関数用年次データ1980-2009 | | | | |
| 2 | | | | | |
| 3 | | 実質民間最終実質国民総可処分所得（不実質金融資産残高 | | | |
| 4 | | RC | RYD | RMA | |
| 5 | 1980 | 178,232.9 | 304,774.9 | 457507.3739 | |
| 6 | 1981 | 181,000.2 | 314,386.4 | 489346.8401 | |
| 7 | 1982 | 188,722.4 | 322,011.9 | 527042.1117 | |
| 8 | 1983 | 194,070.8 | 329,101.9 | 582493.4679 | |
| 9 | 1984 | 198,450.2 | 338,908.7 | 629559.5402 | |
| 10 | 1985 | 205,919.8 | 358,121.7 | 683019.2139 | |
| 11 | 1986 | 212,428.1 | 371,861.8 | 763625.7174 | |
| 12 | 1987 | 220,709.3 | 386,722.5 | 846323.3488 | |
| 13 | 1988 | 230,958.4 | 410,766.9 | 954802.7263 | |
| 14 | 1989 | 241,157.6 | 431,427.2 | 1070629.374 | |
| 15 | 1990 | 252,408.6 | 455,788.9 | 1027010.021 | |
| 16 | 1991 | 257,039.6 | 471,835.9 | 1046293.788 | |
| 17 | 1992 | 262,234.2 | 478,055.9 | 1044534.187 | |
| 18 | 1993 | 264,250.6 | 478,547.3 | 1101718.217 | |
| 19 | 1994 | 269,749.5 | 480,173.3 | 1161100.293 | |
| 20 | 1995 | 274,169.7 | 487,568.1 | 1212521.722 | |
| 21 | 1996 | 280,003.0 | 499,707.8 | 1257892.059 | |
| 22 | 1997 | 281,316.8 | 505,048.8 | 1263504.377 | |
| 23 | 1998 | 278,649.6 | 498,183.1 | 1289971.984 | |
| 24 | 1999 | 280,997.9 | 497,518.0 | 1389274.803 | |
| 25 | 2000 | 282,786.3 | 505,945.9 | 1414657.1 | |
| 26 | 2001 | 287,422.5 | 505,478.2 | 1409891.287 | |
| 27 | 2002 | 290,572.0 | 508,863.0 | 1419756.276 | |
| 28 | 2003 | 292,592.1 | 517,713.4 | 1484907.547 | |
| 29 | 2004 | 298,443.1 | 530,307.1 | 1536396.174 | |
| 30 | 2005 | 303,925.5 | 545,316.8 | 1665349.514 | |
| 31 | 2006 | 309,510.2 | 553,582.2 | 1703642.329 | |
| 32 | 2007 | 319,617.7 | 566,452.0 | 1679010.444 | |
| 33 | 2008 | 323,702.2 | 551,157.9 | 1620334.589 | |
| 34 | 2009 | 328,593.5 | 519,869.1 | 1689483.14 | |
| 35 | | | | | |
| 36 | | | | | |
| 37 | | | | | |

| | | | | | | | | | |
|----|--------|------------|-------------|-------------|----------|----------|----------|----------|----------|
| 32 | 2007 | 319,617.7 | 566,452.0 | 1679010.444 | | | | | |
| 33 | 2008 | 323,702.2 | 551,157.9 | 1620334.585 | | | | | |
| 34 | 2009 | 328,593.5 | 519,869.1 | 1689483.14 | | | | | |
| 35 | | | | | | | | | |
| 36 | | | | | | | | | |
| 37 | 概要 | | | | | | | | |
| 38 | | | | | | | | | |
| 39 | 回帰統計 | | | | | | | | |
| 40 | 重相関 R | 0.99210717 | | | | | | | |
| 41 | 重決定 R2 | 0.98427663 | | | | | | | |
| 42 | 補正 R2 | 0.98311194 | | | | | | | |
| 43 | 標準誤差 | 5788.69415 | | | | | | | |
| 44 | 観測数 | 30 | | | | | | | |
| 45 | | | | | | | | | |
| 46 | 分散分析表 | | | | | | | | |
| 47 | | 自由度 | 変動 | 分散 | 割された分散 | 有意 F | | | |
| 48 | 回帰 | 2 | 56636522212 | 28318261106 | 845.0947 | 4.5E-25 | | | |
| 49 | 残差 | 27 | 904742458.6 | 33508979.95 | | | | | |
| 50 | 合計 | 29 | 57541264671 | | | | | | |
| 51 | | | | | | | | | |
| 52 | | 係数 | 標準誤差 | t | P-値 | 下限 95% | 上限 95% | 下限 95.0% | 上限 95.0% |
| 53 | 切片 | 70873.1951 | 13440.98723 | 5.272915882 | 1.46E-05 | 43294.57 | 98451.82 | 43294.57 | 98451.82 |
| 54 | RYD | 0.25909782 | 0.05704399 | 4.54207034 | 0.000104 | 0.142053 | 0.376142 | 0.142053 | 0.376142 |
| 55 | RMA | 0.06121941 | 0.011730241 | 5.218938718 | 1.69E-05 | 0.037151 | 0.085288 | 0.037151 | 0.085288 |
| 56 | | | | | | | | | |
| 57 | | | | | | | | | |

ダミー変数の作成

| | A | B | C | D | E | F |
|----|---------------------|------------|--------------|-------------|-------|---|
| 1 | 消費関数用年次データ1980-2009 | | | | | |
| 2 | | | | | | |
| 3 | | 実質民間最終消費支出 | 実質国民総可処分所得（不 | 実質金融資産残高 | | |
| 4 | | RC | RYD | RMA | D2008 | |
| 5 | 1980 | 178,232.9 | 304,774.9 | 457507.3739 | 0 | |
| 6 | 1981 | 181,000.2 | 314,386.4 | 489346.8401 | 0 | |
| 7 | 1982 | 188,722.4 | 322,011.9 | 527042.1117 | 0 | |
| 8 | 1983 | 194,070.8 | 329,101.9 | 582493.4679 | 0 | |
| 9 | 1984 | 198,450.2 | 338,908.7 | 629559.5402 | 0 | |
| 10 | 1985 | 205,919.8 | 358,121.7 | 683019.2135 | 0 | |
| 11 | 1986 | 212,428.1 | 371,861.8 | 763625.7174 | 0 | |
| 12 | 1987 | 220,709.3 | 386,722.5 | 846323.348 | 0 | |
| 13 | 1988 | 230,958.4 | 410,766.9 | 954802.7263 | 0 | |
| 14 | 1989 | 241,157.6 | 431,427.2 | 1070629.374 | 0 | |
| 15 | 1990 | 252,408.6 | 455,788.9 | 1027010.021 | 0 | |
| 16 | 1991 | 257,039.6 | 471,835.9 | 1046293.788 | 0 | |
| 17 | 1992 | 262,234.2 | 478,055.9 | 1044534.187 | 0 | |
| 18 | 1993 | 264,250.6 | 478,547.3 | 1101718.217 | 0 | |
| 19 | 1994 | 269,749.5 | 480,173.3 | 1161100.293 | 0 | |
| 20 | 1995 | 274,169.7 | 487,568.1 | 1212521.722 | 0 | |
| 21 | 1996 | 280,003.0 | 499,707.8 | 1257892.059 | 0 | |
| 22 | 1997 | 281,316.8 | 505,048.8 | 1263504.377 | 0 | |
| 23 | 1998 | 278,649.6 | 498,183.1 | 1289971.984 | 0 | |
| 24 | 1999 | 280,997.9 | 497,518.0 | 1389274.803 | 0 | |
| 25 | 2000 | 282,786.3 | 505,945.9 | 1414657.1 | 0 | |
| 26 | 2001 | 287,422.5 | 505,478.2 | 1409891.287 | 0 | |
| 27 | 2002 | 290,572.0 | 508,863.0 | 1419756.276 | 0 | |
| 28 | 2003 | 292,592.1 | 517,713.4 | 1484907.547 | 0 | |
| 29 | 2004 | 298,443.1 | 530,307.1 | 1536396.174 | 0 | |
| 30 | 2005 | 303,925.5 | 545,316.8 | 1665349.514 | 0 | |
| 31 | 2006 | 309,510.2 | 553,582.2 | 1703642.329 | 0 | |
| 32 | 2007 | 319,617.7 | 566,452.0 | 1679010.444 | 0 | |
| 33 | 2008 | 328,702.2 | 551,157.9 | 1620394.585 | 1 | |
| 34 | 2009 | 328,593.5 | 519,869.1 | 1689483.14 | 0 | |
| 35 | | | | | | |

D2008の名前で、
ダミー変数を作成。

| | A | B | C | D | E | F | G |
|----|---------------------|------------|--------------|-------------|-------|-------|---|
| 1 | 消費関数用年次データ1980-2009 | | | | | | |
| 2 | | | | | | | |
| 3 | | 実質民間最終消費支出 | 実質国民総可処分所得（不 | 実質金融資産残高 | | | |
| 4 | | RC | RYD | RMA | D2008 | D2009 | |
| 5 | 1980 | 178,232.9 | 304,774.9 | 457507.3739 | 0 | 0 | |
| 6 | 1981 | 181,000.2 | 314,386.4 | 489346.8401 | 0 | 0 | |
| 7 | 1982 | 188,722.4 | 322,011.9 | 527042.1117 | 0 | 0 | |
| 8 | 1983 | 194,070.8 | 329,101.9 | 582493.4679 | 0 | 0 | |
| 9 | 1984 | 198,450.2 | 338,908.7 | 629559.5402 | 0 | 0 | |
| 10 | 1985 | 205,919.8 | 358,121.7 | 683019.2135 | 0 | 0 | |
| 11 | 1986 | 212,428.1 | 371,861.8 | 763625.7174 | 0 | 0 | |
| 12 | 1987 | 220,709.3 | 386,722.5 | 846323.348 | 0 | 0 | |
| 13 | 1988 | 230,958.4 | 410,766.9 | 954802.7263 | 0 | 0 | |
| 14 | 1989 | 241,157.6 | 431,427.2 | 1070629.374 | 0 | 0 | |
| 15 | 1990 | 252,408.6 | 455,788.9 | 1027010.021 | 0 | 0 | |
| 16 | 1991 | 257,039.6 | 471,835.9 | 1046293.788 | 0 | 0 | |
| 17 | 1992 | 262,234.2 | 478,055.9 | 1044534.187 | 0 | 0 | |
| 18 | 1993 | 264,250.6 | 478,547.3 | 1101718.217 | 0 | 0 | |
| 19 | 1994 | 269,749.5 | 480,173.3 | 1161100.293 | 0 | 0 | |
| 20 | 1995 | 274,169.7 | 487,568.1 | 1212521.722 | 0 | 0 | |
| 21 | 1996 | 280,003.0 | 499,707.8 | 1257892.059 | 0 | 0 | |
| 22 | 1997 | 281,316.8 | 505,048.8 | 1263504.377 | 0 | 0 | |
| 23 | 1998 | 278,649.6 | 498,183.1 | 1289971.984 | 0 | 0 | |
| 24 | 1999 | 280,997.9 | 497,518.0 | 1389274.803 | 0 | 0 | |
| 25 | 2000 | 282,786.3 | 505,945.9 | 1414657.1 | 0 | 0 | |
| 26 | 2001 | 287,422.5 | 505,478.2 | 1409891.287 | 0 | 0 | |
| 27 | 2002 | 290,572.0 | 508,863.0 | 1419756.276 | 0 | 0 | |
| 28 | 2003 | 292,592.1 | 517,713.4 | 1484907.547 | 0 | 0 | |
| 29 | 2004 | 298,443.1 | 530,307.1 | 1536396.174 | 0 | 0 | |
| 30 | 2005 | 303,925.5 | 545,316.8 | 1665349.514 | 0 | 0 | |
| 31 | 2006 | 309,510.2 | 553,582.2 | 1703642.329 | 0 | 0 | |
| 32 | 2007 | 319,617.7 | 566,452.0 | 1679010.444 | 0 | 0 | |
| 33 | 2008 | 323,702.2 | 551,157.9 | 1620334.585 | 1 | 0 | |
| 34 | 2009 | 328,593.5 | 519,869.1 | 1689483.14 | 0 | 1 | |
| 35 | | | | | | | |

D2009の名前で、
ダミー変数を作成。

ダミー変数を使った回帰

| | | | | | | | | | | | |
|----|--------|------------|-------------|-------------|----------|----------|----------|----------|----------|--|--|
| 52 | | 係数 | 標準誤差 | t | P-値 | 下限 95% | 上限 95% | 下限 95.0% | 上限 95.0% | | |
| 53 | 切片 | 70873.1951 | 13440.98723 | 5.272915882 | 1.46E-05 | 43294.57 | 98451.82 | 43294.57 | 98451.82 | | |
| 54 | RYD | 0.25909782 | 0.05704399 | 4.54207034 | 0.000104 | 0.142053 | 0.376142 | 0.142053 | 0.376142 | | |
| 55 | RMA | 0.06121941 | 0.011730241 | 5.218938718 | 1.69E-05 | 0.037151 | 0.085288 | 0.037151 | 0.085288 | | |
| 56 | | | | | | | | | | | |
| 57 | 概要 | | | | | | | | | | |
| 58 | | | | | | | | | | | |
| 59 | 回帰統計 | | | | | | | | | | |
| 60 | 重相関 R | 0.99870463 | | | | | | | | | |
| 61 | 重決定 R2 | 0.99741094 | | | | | | | | | |
| 62 | 補正 R2 | 0.99699669 | | | | | | | | | |
| 63 | 標準誤差 | 2441.12807 | | | | | | | | | |
| 64 | 観測数 | 30 | | | | | | | | | |
| 65 | | | | | | | | | | | |
| 66 | 分散分析表 | | | | | | | | | | |
| 67 | | 自由度 | 変動 | 分散 | 割された分散 | 有意 F | | | | | |
| 68 | 回帰 | 4 | 57392287014 | 14348071754 | 2407.756 | 6.22E-32 | | | | | |
| 69 | 残差 | 25 | 148977656.8 | 5959106.273 | | | | | | | |
| 70 | 合計 | 29 | 57541264671 | | | | | | | | |
| 71 | | | | | | | | | | | |
| 72 | | 係数 | 標準誤差 | t | P-値 | 下限 95% | 上限 95% | 下限 95.0% | 上限 95.0% | | |
| 73 | 切片 | 44381.39 | 6265.443146 | 7.083519707 | 2E-07 | 31477.47 | 57285.31 | 31477.47 | 57285.31 | | |
| 74 | RYD | 0.39554227 | 0.027439412 | 14.41511441 | 1.28E-13 | 0.33903 | 0.452055 | 0.33903 | 0.452055 | | |
| 75 | RMA | 0.02858726 | 0.005812728 | 4.918045594 | 4.61E-05 | 0.016616 | 0.040559 | 0.016616 | 0.040559 | | |
| 76 | D2008 | 14993.6311 | 2569.813338 | 5.834521455 | 4.38E-06 | 9701.001 | 20286.26 | 9701.001 | 20286.26 | | |
| 77 | D2009 | 30284.2061 | 2950.800254 | 10.26304848 | 1.89E-10 | 24206.92 | 36361.49 | 24206.92 | 36361.49 | | |
| 78 | | | | | | | | | | | |
| 79 | | | | | | | | | | | |

