

Australian
Bureau of
Statistics

December 1996

EMBARGO: 11:30 AM (CANBERRA TIME) TUES 4 FEB 1997

Manufacturing Production

Australia

NOTES

FORTHCOMING ISSUES

| <i>ISSUE</i> | <i>RELEASE DATE</i> |
|---------------|---------------------|
| January 1997 | 5 March 1997 |
| February 1997 | 4 April 1997 |
| March 1997 | 2 May 1997 |

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IN THIS ISSUE

This publication presents monthly and quarterly estimates of selected major indicators of manufacturing production for Australia.

From page 5, there are two graphs shown for each available manufactured commodity. The left hand graph shows seasonally adjusted (where available) and trend estimates over the last four years. The right hand graph presents a short-term sensitivity analysis of the trend estimates. The sensitivity analysis shows the current trend and two possible scenarios of how the trend might move if the next seasonally adjusted estimate rises or falls by the historical average monthly or quarterly movement for that series. A worked example is shown on page 25.

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EFFECTS OF ROUNDING

Estimates of change shown in this publication have been calculated using unrounded estimates and may be different from, but are more accurate than, movements obtained from the rounded estimates.

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SYMBOLS AND OTHER USAGES

| | |
|--------|---|
| — | nil or rounded to zero |
| M | manufactured commodity collected by month |
| n.a. | not available |
| n.p. | not publishable |
| n.y.a. | not yet available |
| Q | manufactured commodity collected by quarter |
| r | figure or series revised since previous issue |

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INQUIRIES

For information about other ABS statistics and services, please refer to the back of this publication.

For further information about these statistics, contact John Ridley on (02) 9268 4541.

W. McLennan
Australian Statistician

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KEY POINTS

GENERAL TRENDS

Latest trends indicate that of the 58 indicators available, 22 showed rising production trends, 24 showed falling trends while 12 were relatively stable.

PUBLISHED PRODUCTION TREND.....

| | Indicators available | Rising | Falling | Stable |
|---------------------|----------------------|--------|---------|--------|
| October 1996 issue | 58 | 20 | 21 | 17 |
| November 1996 issue | 58 | 18 | 26 | 14 |
| December 1996 issue | 58 | 22 | 24 | 12 |

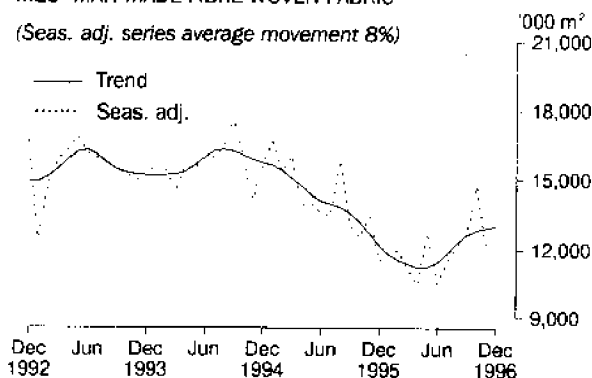
SERIES TRENDS

Two of the more notable trends were production of man-made fibre woven fabric and clay bricks. Production of man-made fibre woven fabric rose 0.7%, continuing the upward trend each month from May 1996. However, this trend growth will be interrupted in January 1997 unless there is a rise in the seasonally adjusted series of nearly 13% (the average movement for this series is 8%).

Clay brick production for December 1996 was stable (falling slightly, by 0.1%). This reversed a trend which had been rising since April 1996. The trend will still fall in January 1997 unless the seasonally adjusted series rises by nearly 4% (the average movement for this series is 3%).

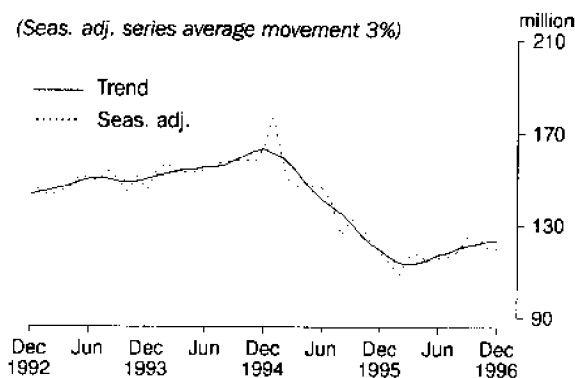
M13 MAN-MADE FIBRE WOVEN FABRIC

(Seas. adj. series average movement 8%)



M36 CLAY BRICKS

(Seas. adj. series average movement 3%)

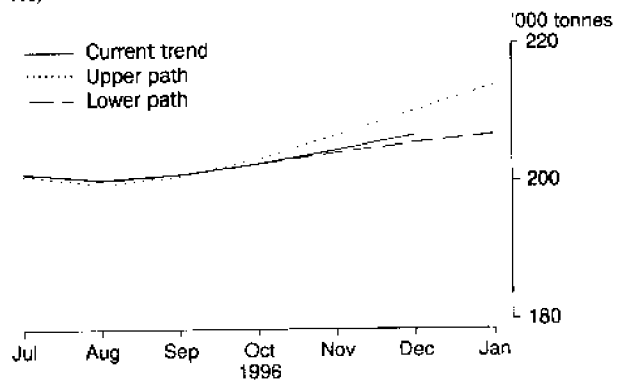
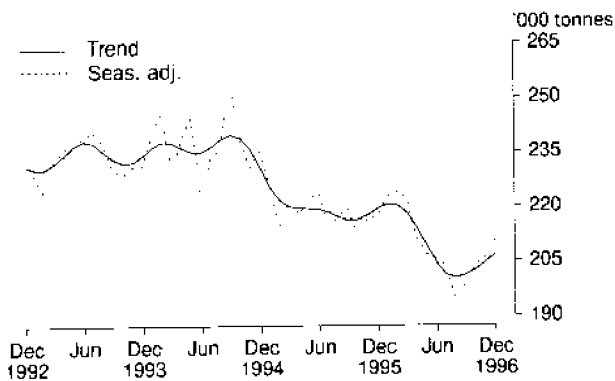


M MONTHLY PRODUCTION

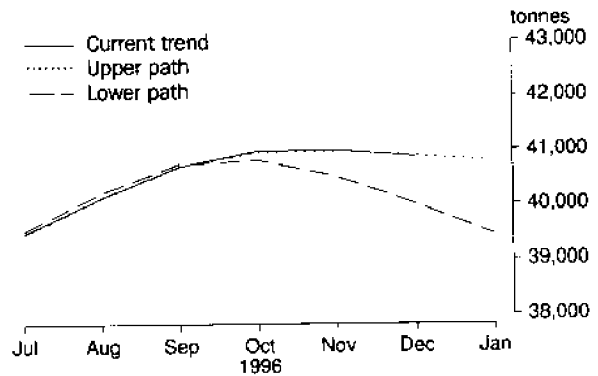
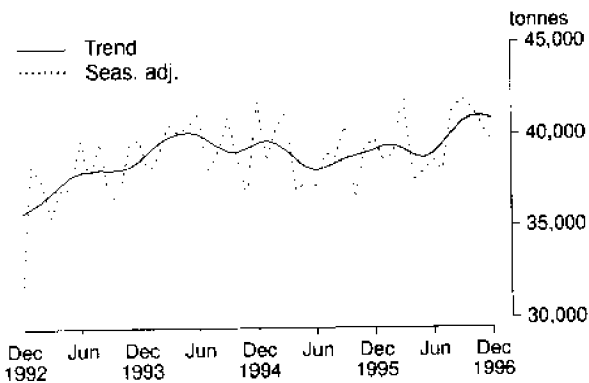
Longer term trend(a)

Short-term sensitivity analysis

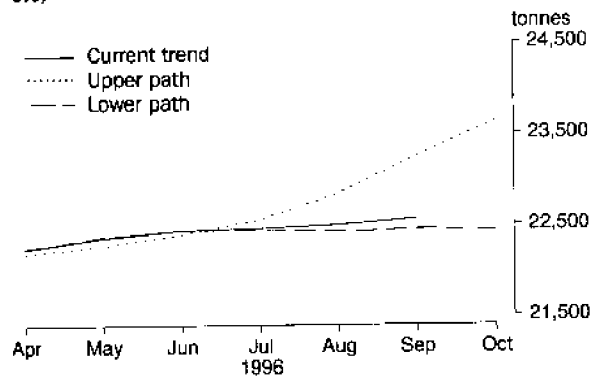
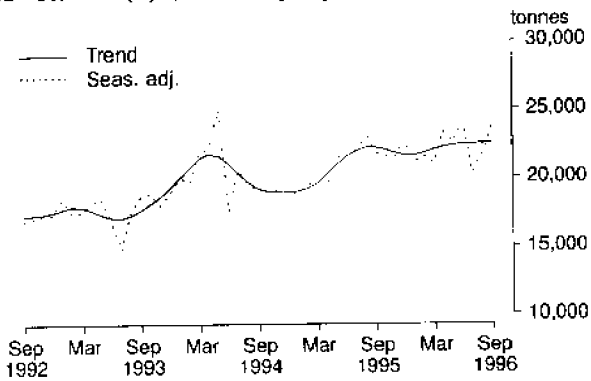
M1 RED MEAT (seasonally adjusted series average movement 4%)



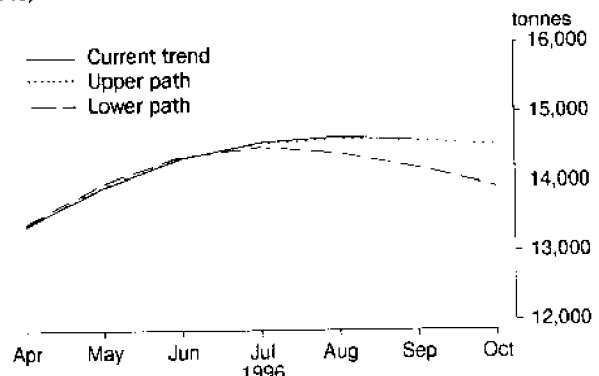
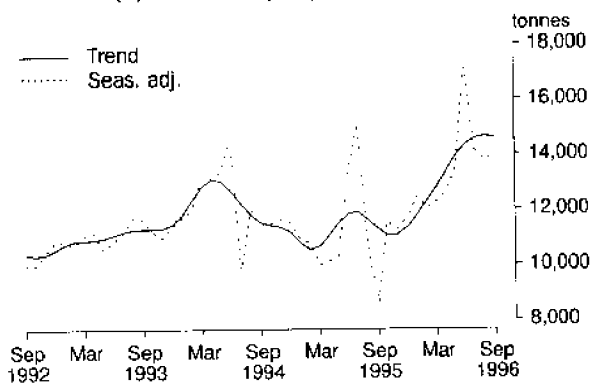
M2 CHICKEN MEAT (seasonally adjusted series average movement 4%)



M3 CHEESE(b) (seasonally adjusted series average movement 6%)



M4 BUTTER(b) (seasonally adjusted series average movement 7%)

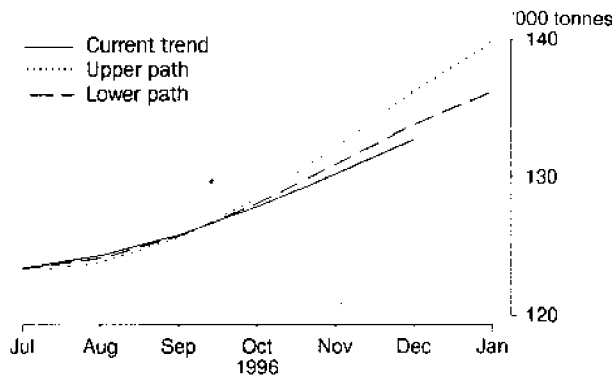
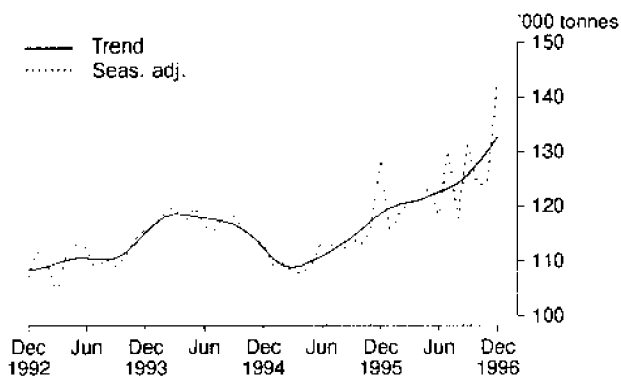


For footnotes see page 23.

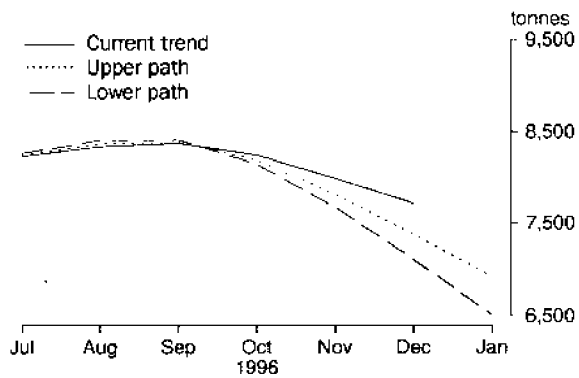
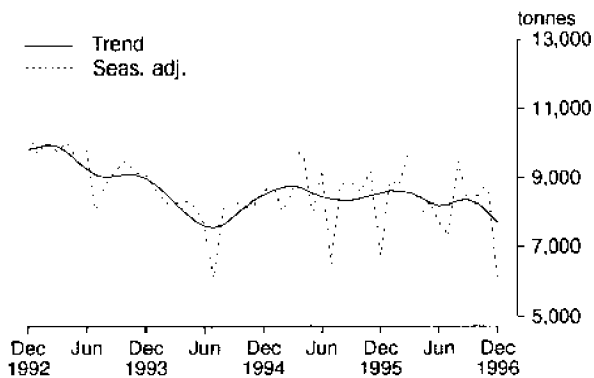
Longer term trend(a)

Short-term sensitivity analysis

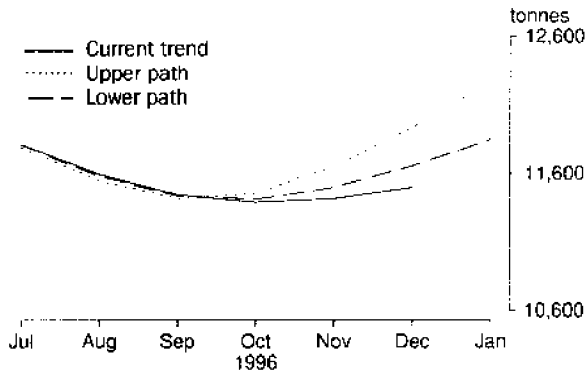
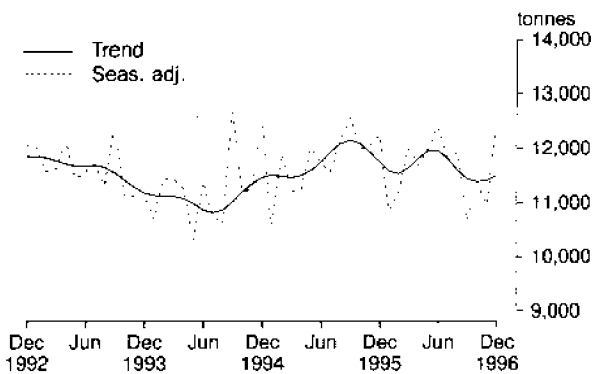
M5 FLOUR OF WHEAT OR OF MESLIN (seasonally adjusted series average movement 3%)



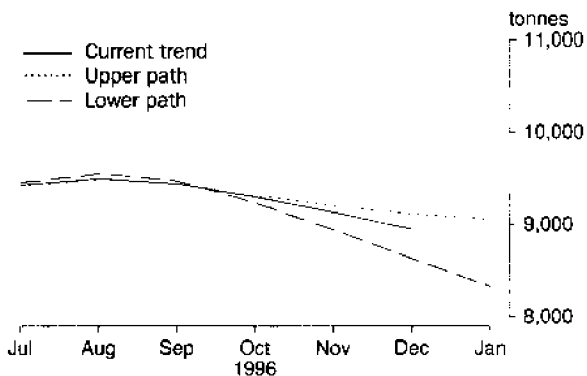
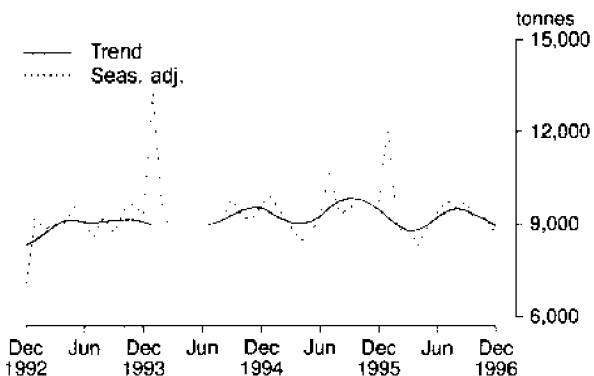
M6 PREPARED FOODS FROM CEREALS (seasonally adjusted series average movement 8%)



M7 BISCUITS (seasonally adjusted series average movement 4%)



M8 CHOCOLATE BASED CONFECTIONERY (seasonally adjusted series average movement 7%)

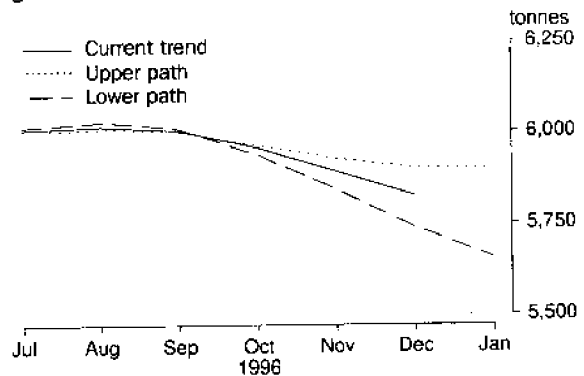
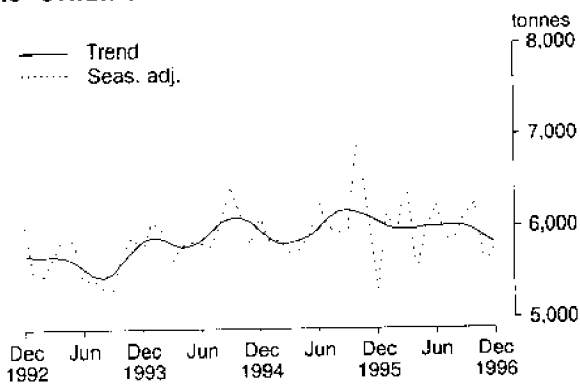


For footnotes see page 23.

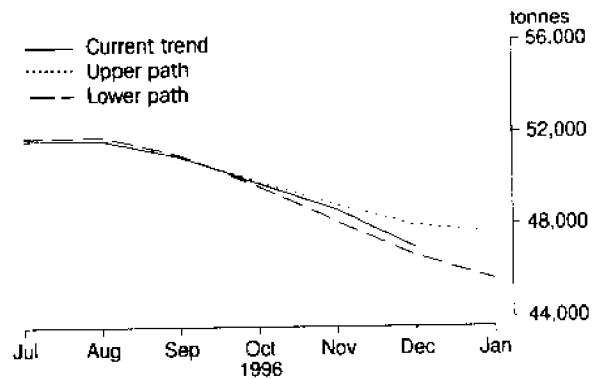
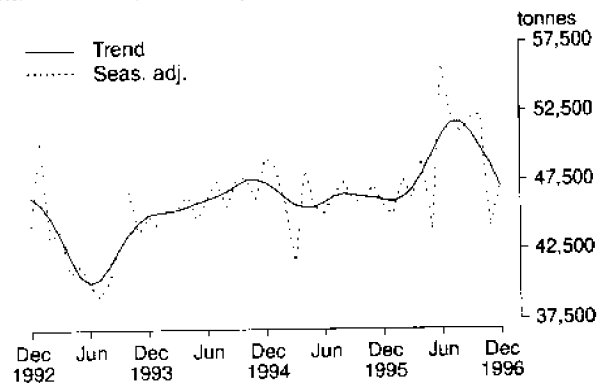
Longer term trend (a)

Short-term sensitivity analysis

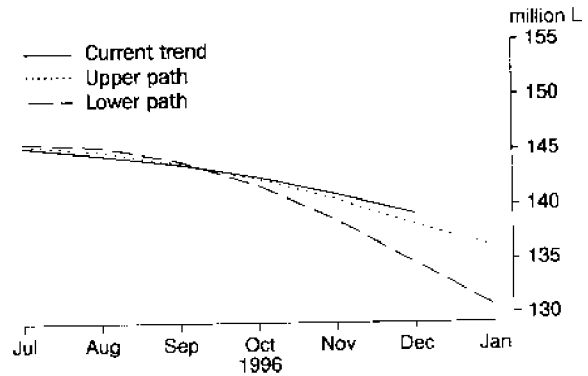
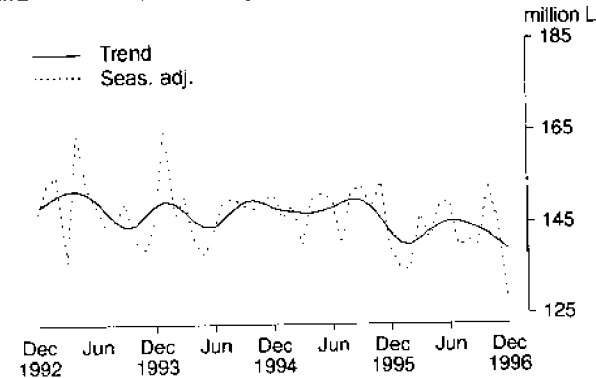
M9 OTHER CONFECTIONERY (seasonally adjusted series average movement 5%)



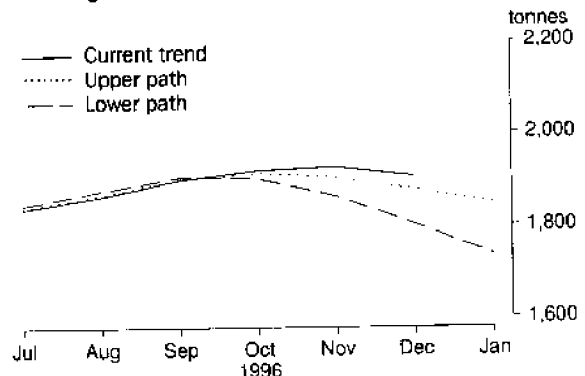
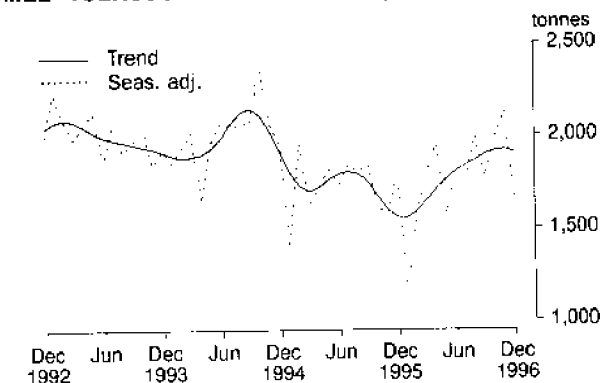
M10 MALT (seasonally adjusted series average movement 5%)



M11 BEER (seasonally adjusted series average movement 5%)



M12 TOBACCO AND CIGARETTES(b) (seasonally adjusted series average movement 8%)

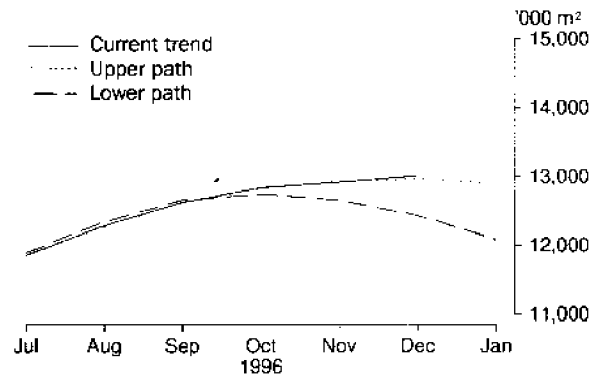
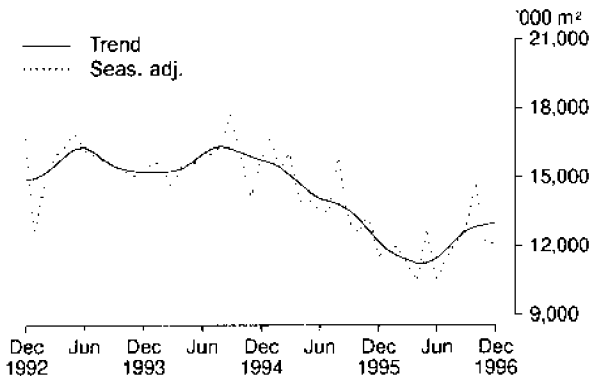


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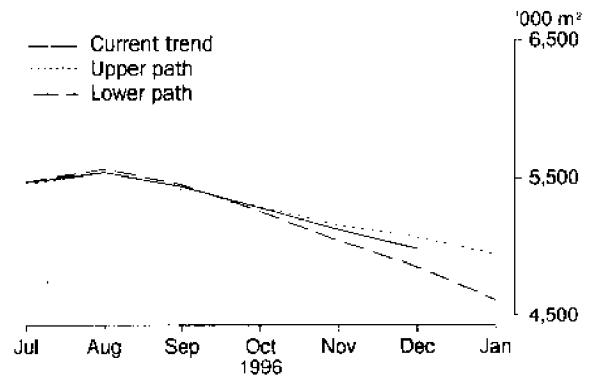
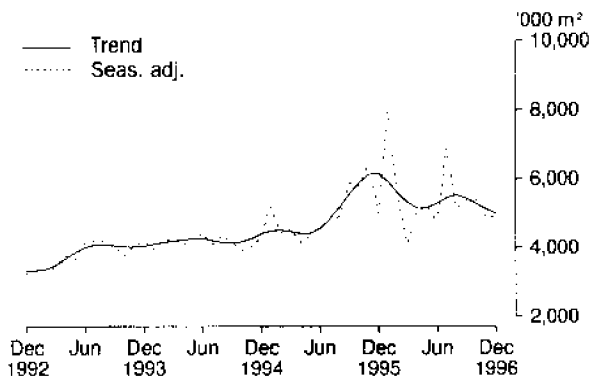
Longer term trend (a)

Short-term sensitivity analysis

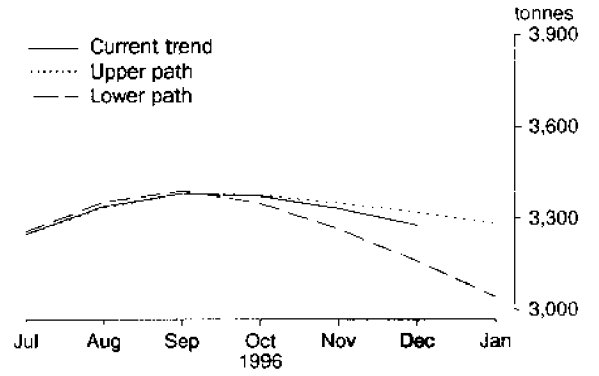
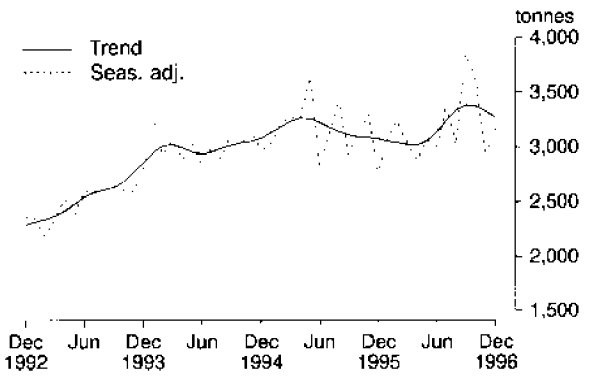
M13 MAN-MADE FIBRE WOVEN FABRIC (seasonally adjusted series average movement 8%)



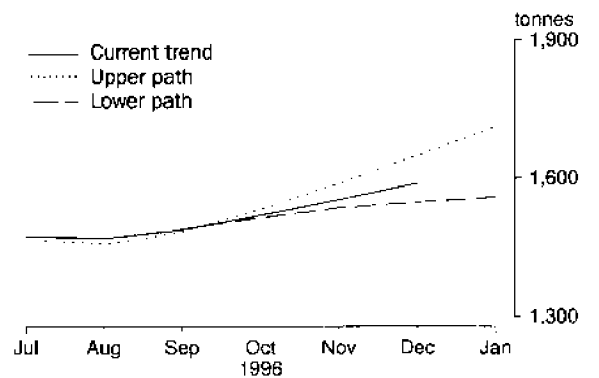
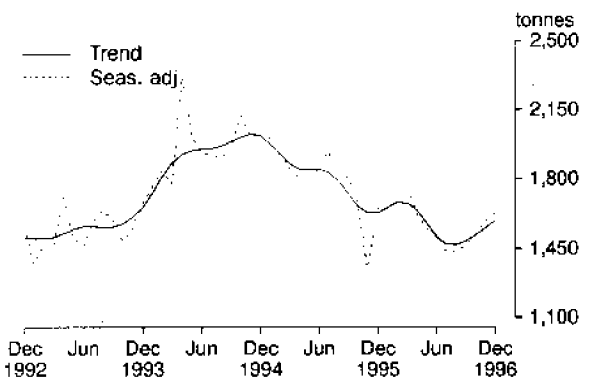
M14 COTTON WOVEN FABRIC (seasonally adjusted series average movement 9%)



M15 COTTON YARN (seasonally adjusted series average movement 9%)



M16 WOOL YARN (seasonally adjusted series average movement 6%)



For footnotes see page 23.

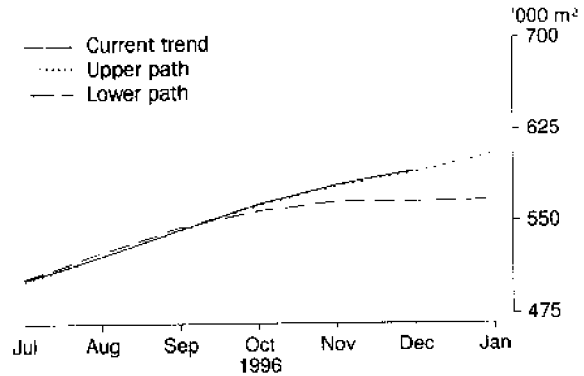
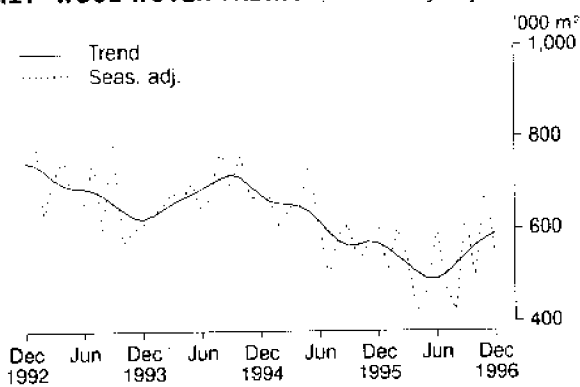
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MONTHLY PRODUCTION *continued*

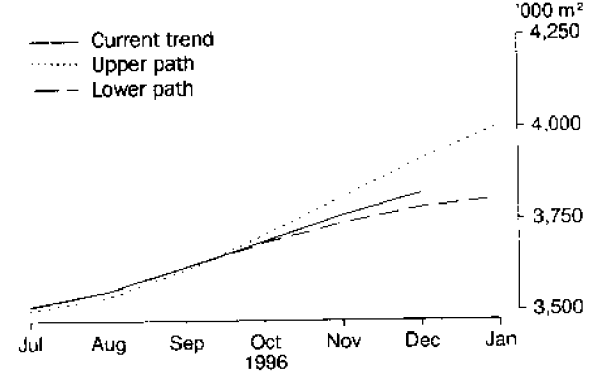
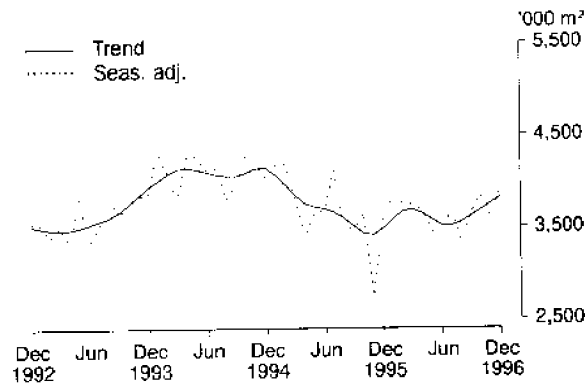
Longer term trend(a)

Short-term sensitivity analysis

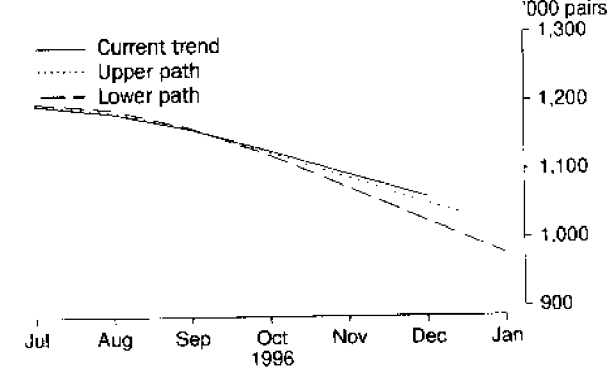
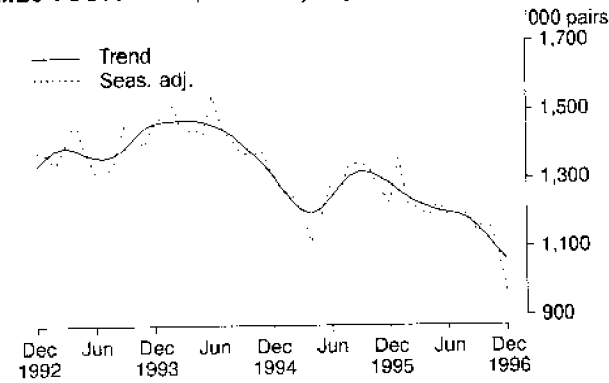
M17 WOOL WOVEN FABRIC *(seasonally adjusted series average movement 8%)*



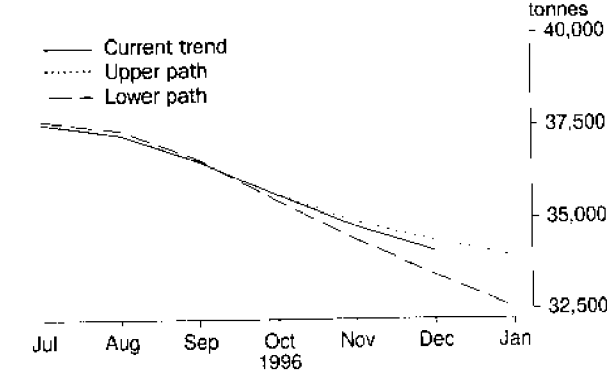
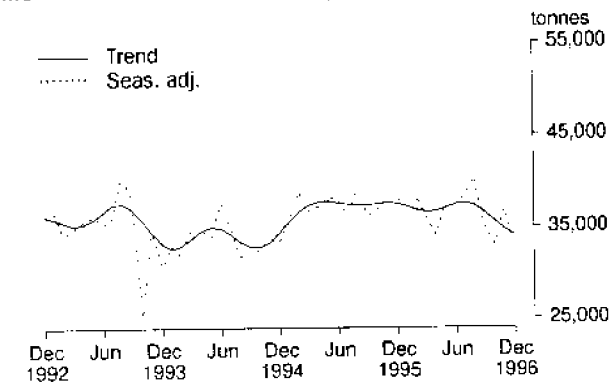
M18 TEXTILE FLOOR COVERINGS *(seasonally adjusted series average movement 6%)*



M19 FOOTWEAR *(seasonally adjusted series average movement 4%)*



M21 NEWSPRINT *(seasonally adjusted series average movement 5%)*

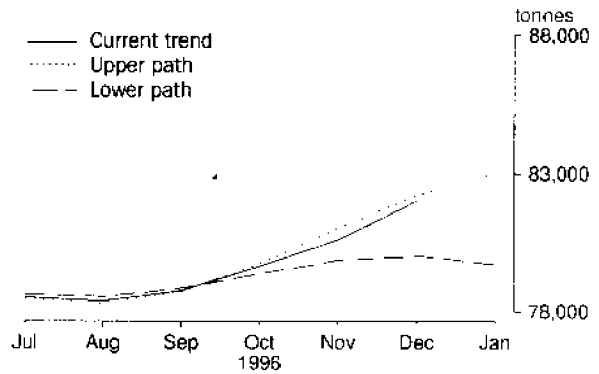
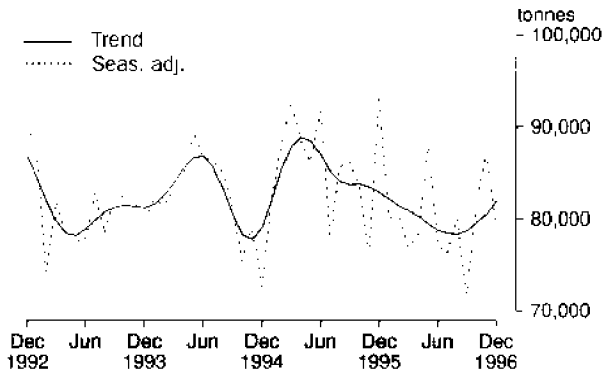


For footnotes see page 23.

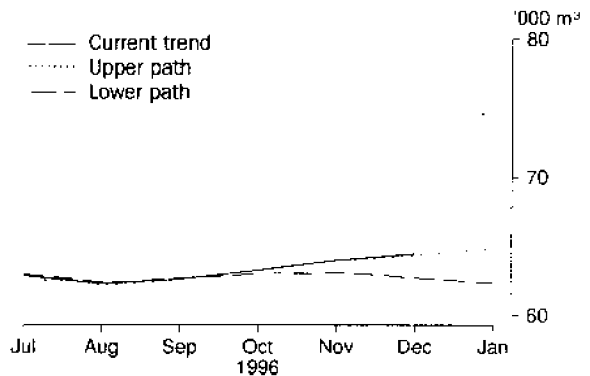
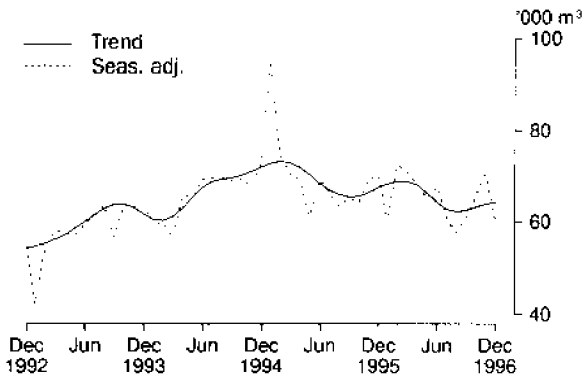
Longer term trend(a)

Short-term sensitivity analysis

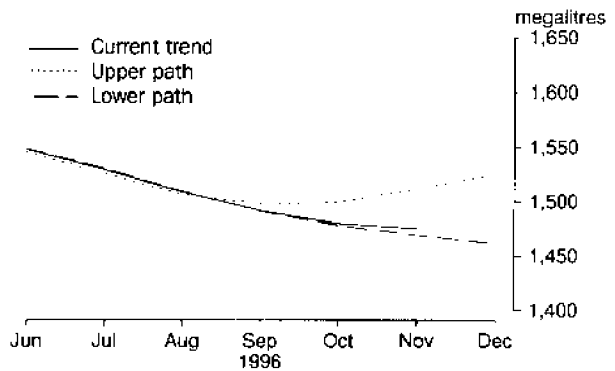
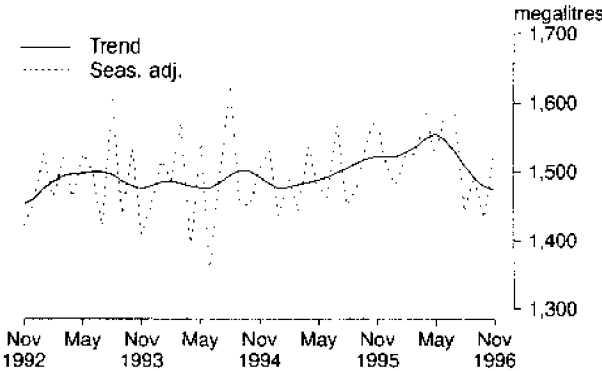
M22 WOOD PULP (seasonally adjusted series average movement 4%)



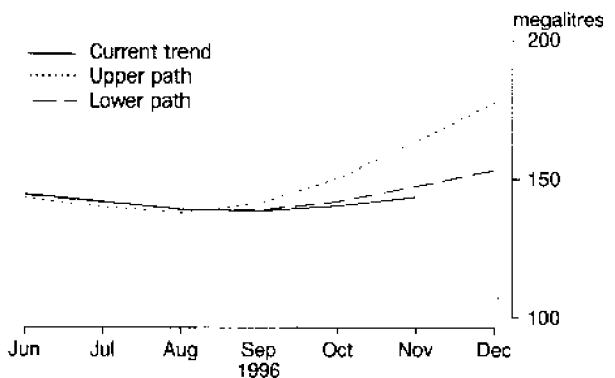
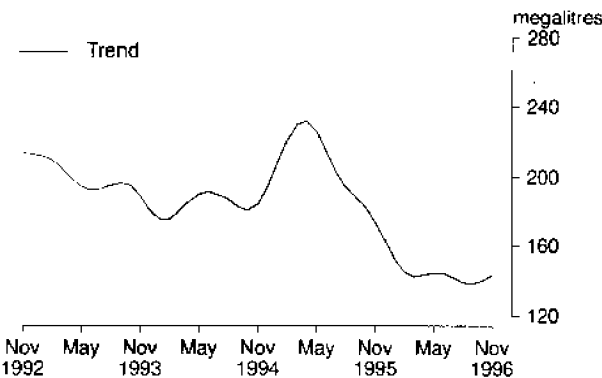
M23 UNLAMINATED PARTICLE BOARD (seasonally adjusted series average movement 5%)



M26 AUTOMOTIVE GASOLINE(b) (seasonally adjusted series average movement 5%)



M27 FUEL OIL(b) (seasonally adjusted series average movement 15%)

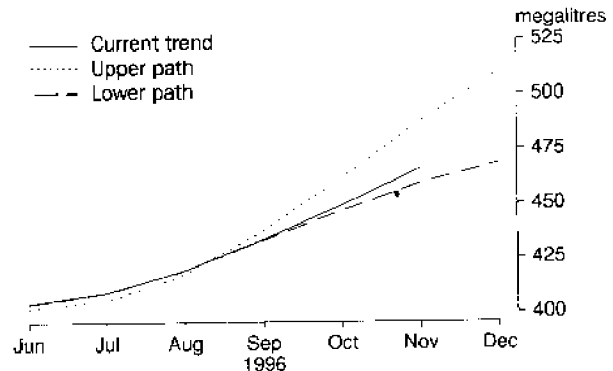
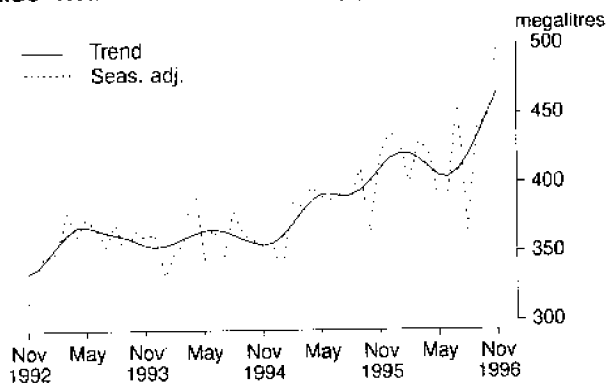


For footnotes see page 23.

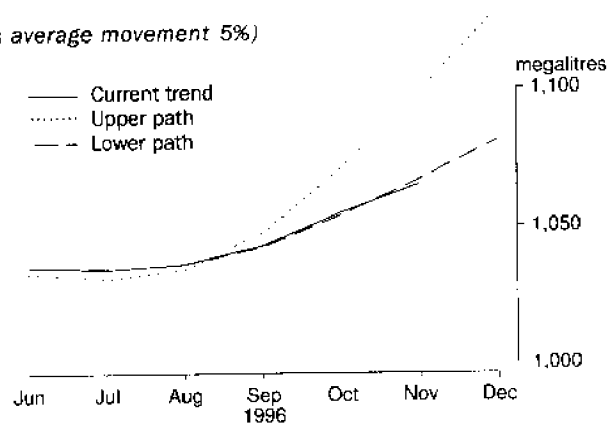
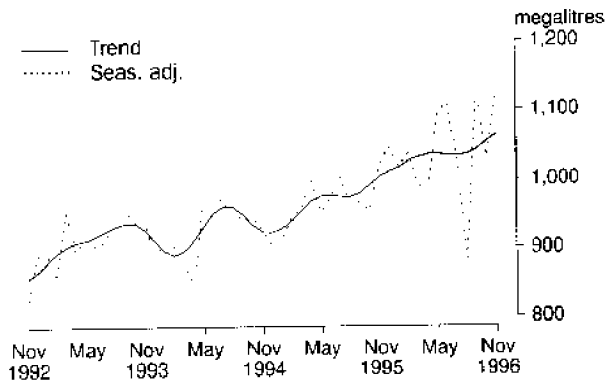
Longer term trend(a)

Short-term sensitivity analysis

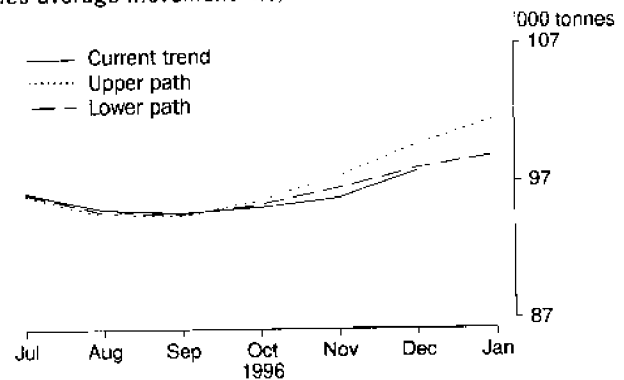
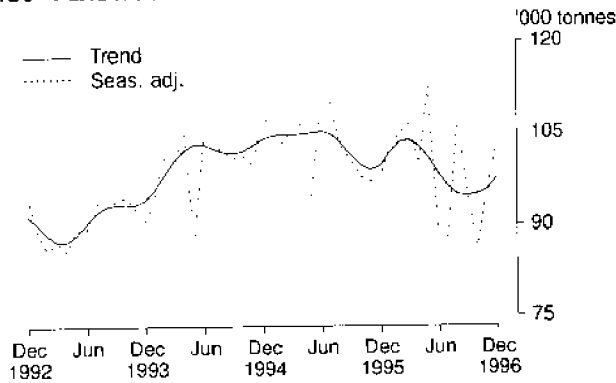
M28 AVIATION TURBINE FUEL(b) (seasonally adjusted series average movement 9%)



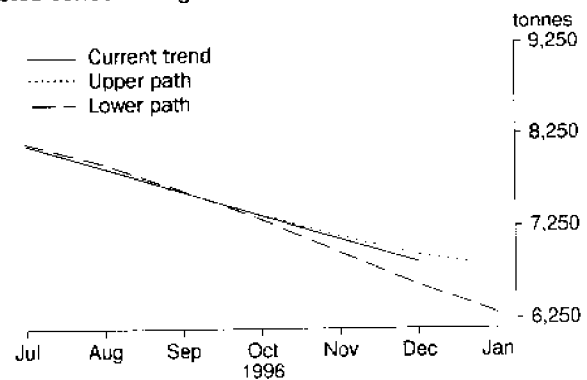
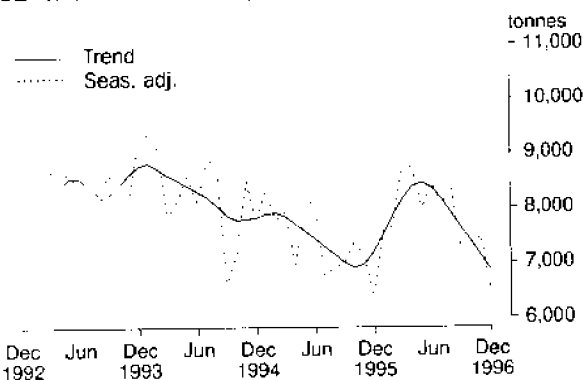
M29 AUTOMOTIVE DIESEL OIL(b) (seasonally adjusted series average movement 5%)



M30 PLASTICS IN PRIMARY FORMS (seasonally adjusted series average movement 4%)



M31 RIGID PVC TUBES, PIPES AND HOSES (seasonally adjusted series average movement 9%)



For footnotes see page 23.

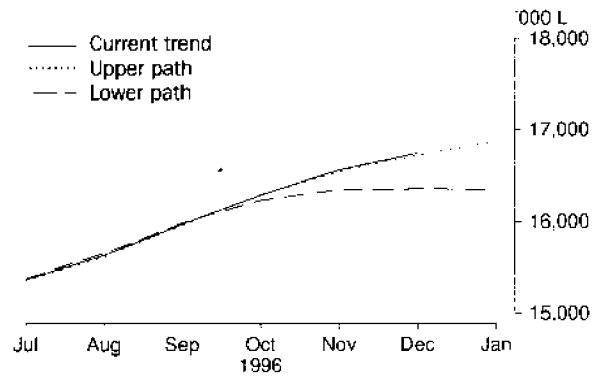
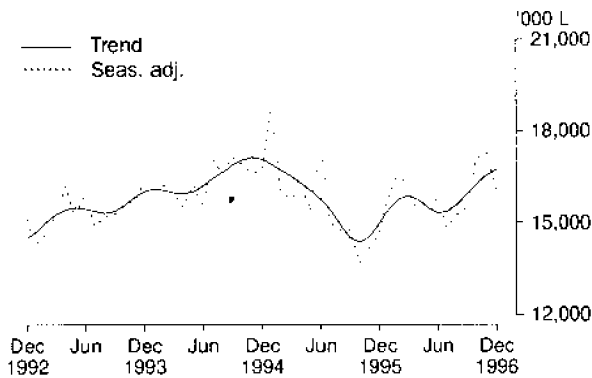
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MONTHLY PRODUCTION *continued*

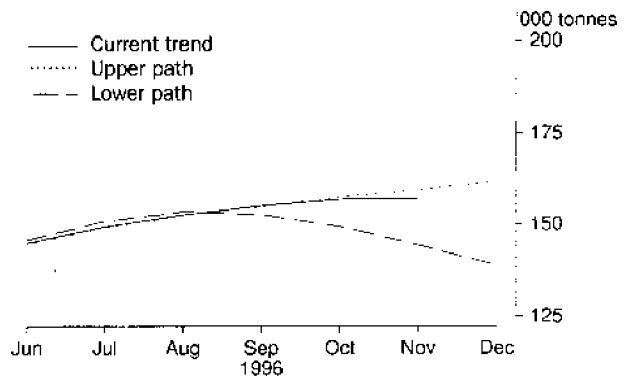
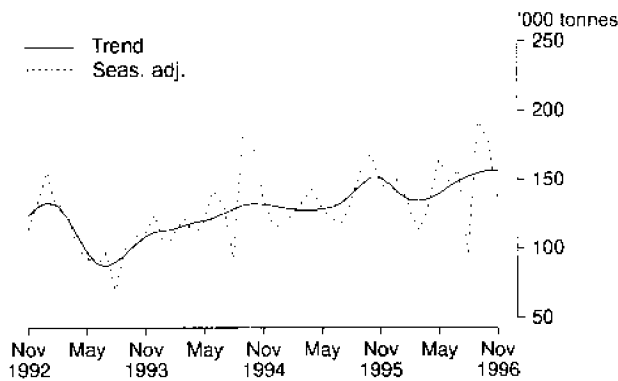
Longer term trend (a)

Short-term sensitivity analysis

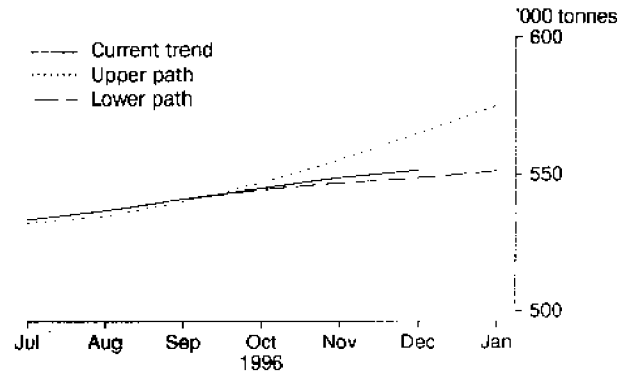
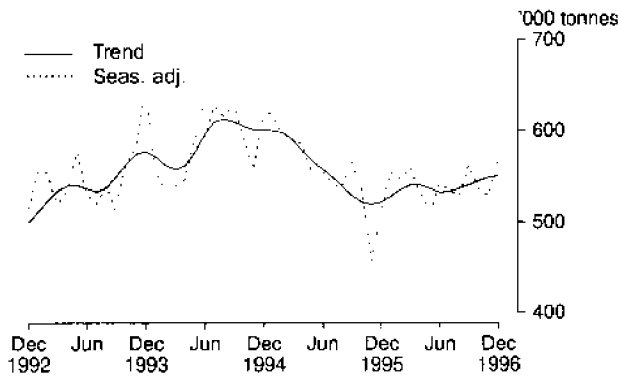
M33 PAINT (seasonally adjusted series average movement 4%)



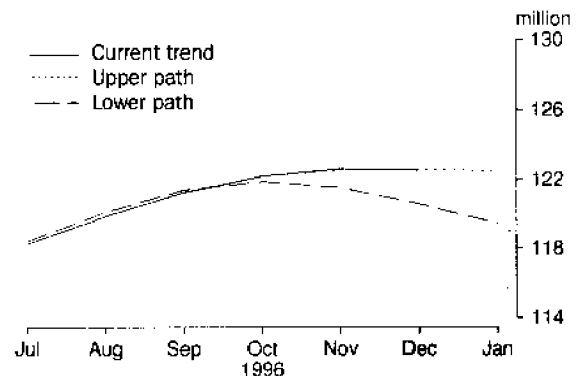
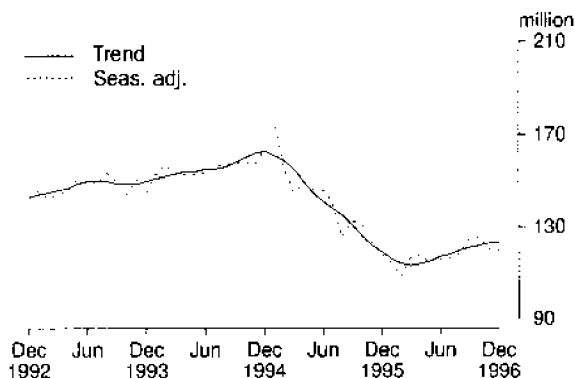
M34 SUPERPHOSPHATES (seasonally adjusted series average movement 15%)



M35 PORTLAND CEMENT (seasonally adjusted series average movement 5%)



M36 CLAY BRICKS (seasonally adjusted series average movement 3%)

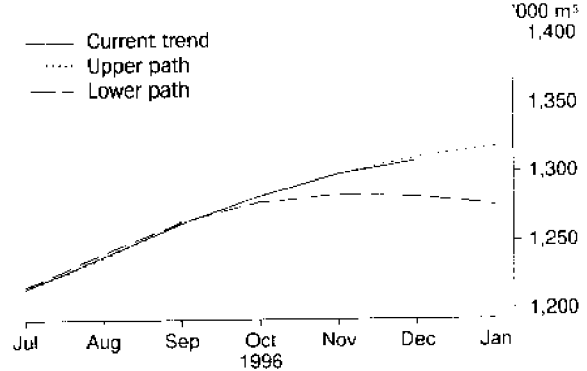
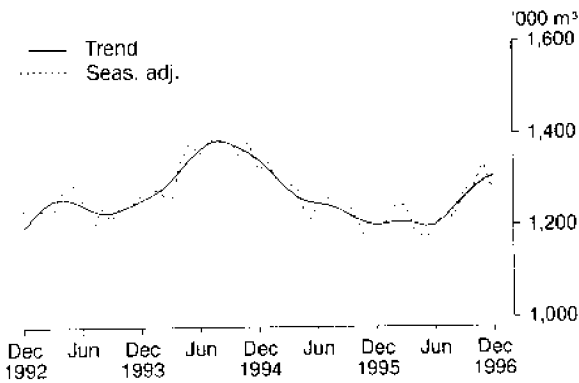


For footnotes see page 23.

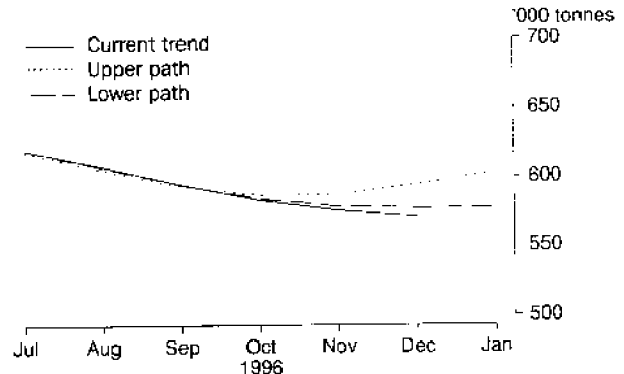
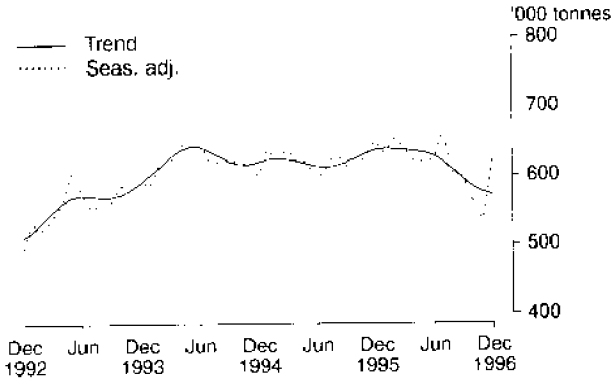
Longer term trend (a)

Short-term sensitivity analysis

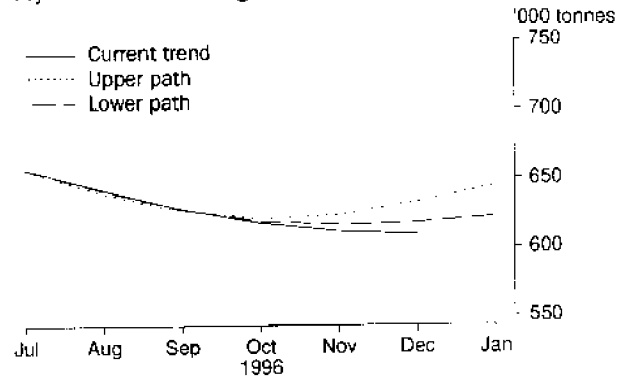
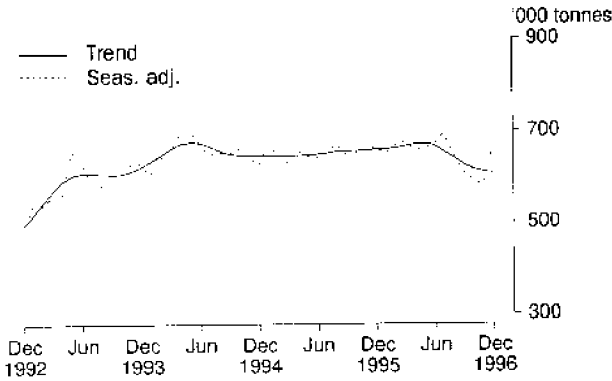
M37 READY MIXED CONCRETE (seasonally adjusted series average movement 4%)



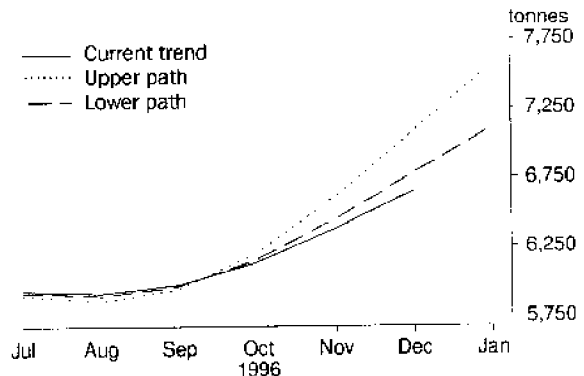
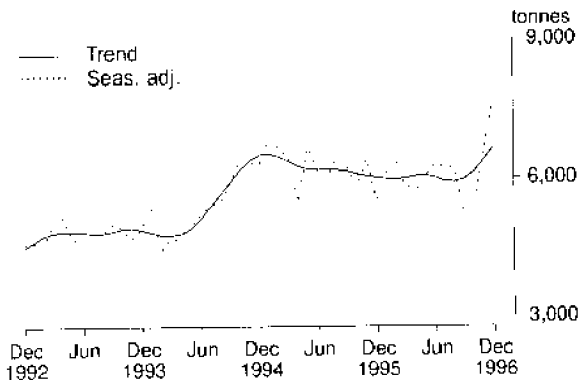
M38 BASIC IRON, SPIEGELEISEN AND SPONGE IRON(c) (seasonally adjusted series average movement 5%)



M39 BLOOMS AND SLABS OF IRON OR STEEL(c) (seasonally adjusted series average movement 4%)



M40 INSULATED WIRE (seasonally adjusted series average movement 7%)



For footnotes see page 23.

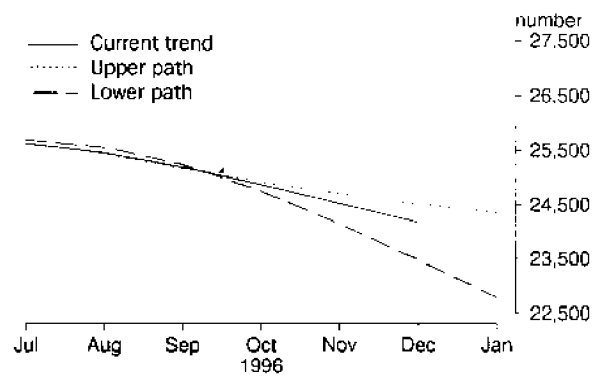
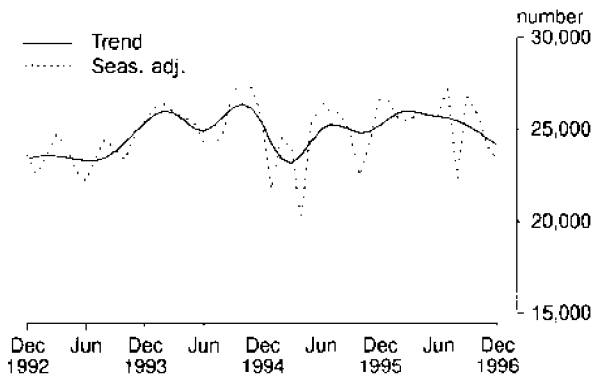
M

MONTHLY PRODUCTION *continued*

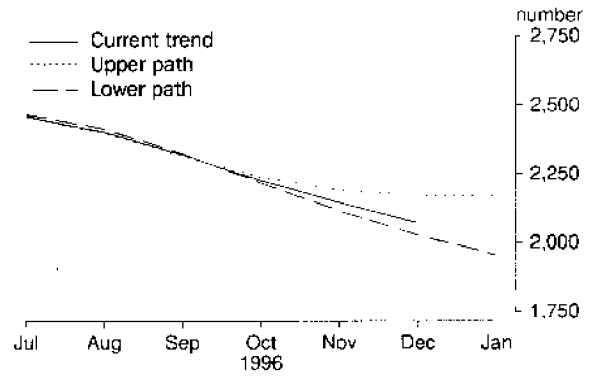
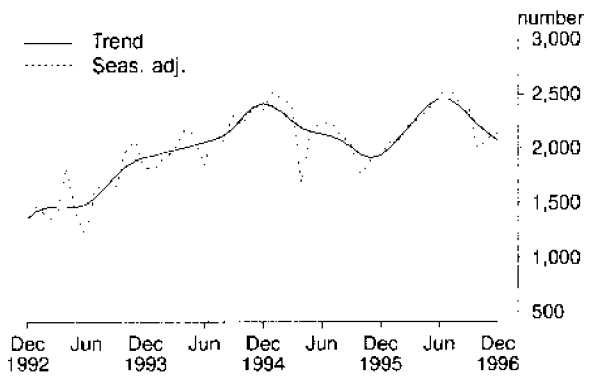
Longer term trend (a)

Short-term sensitivity analysis

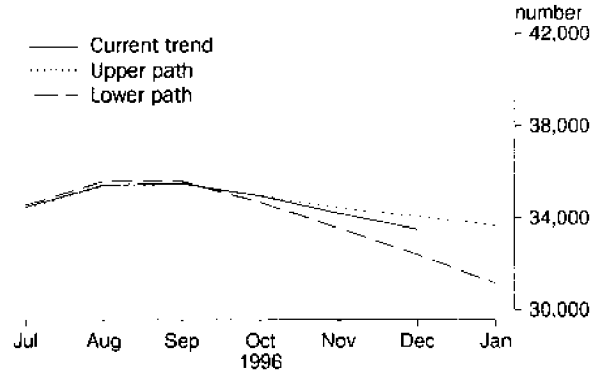
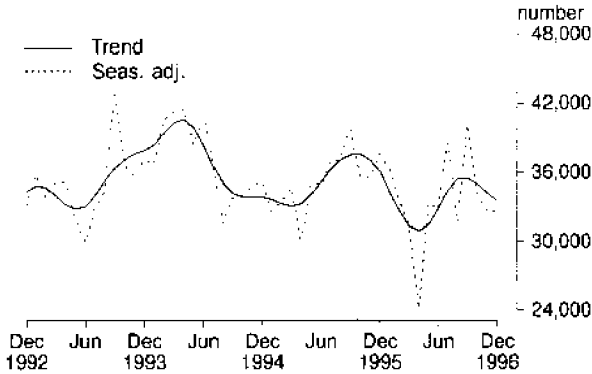
M41 CARS AND STATION WAGONS (seasonally adjusted series average movement 8%)



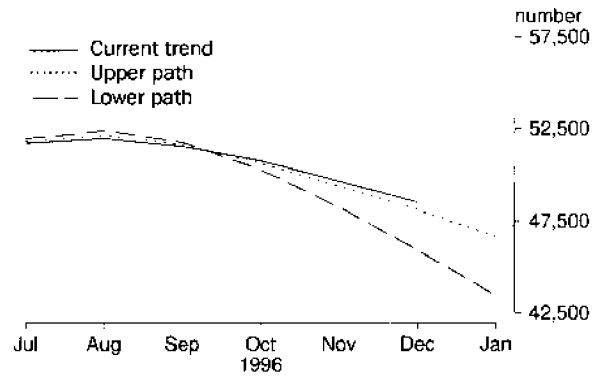
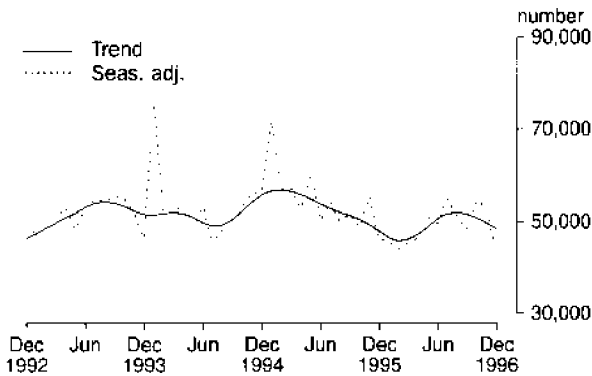
M42 VEHICLES FOR GOODS AND MATERIALS (seasonally adjusted series average movement 11%)



M44 DOMESTIC REFRIGERATORS (seasonally adjusted series average movement 8%)



M45 WATER HEATERS (seasonally adjusted series average movement 7%)

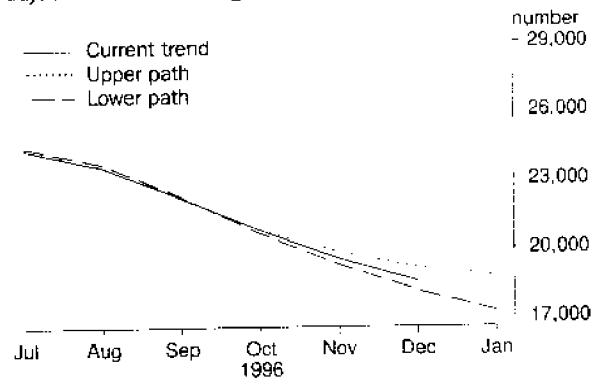
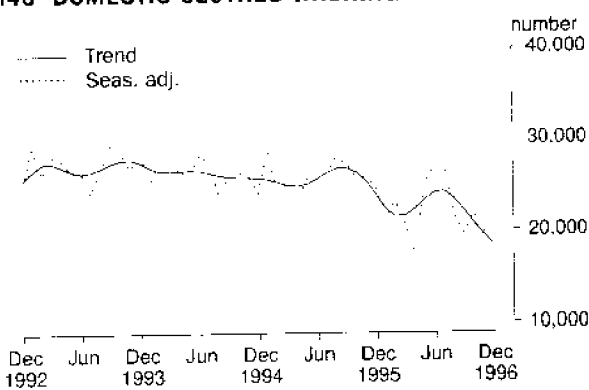


For footnotes see page 23.

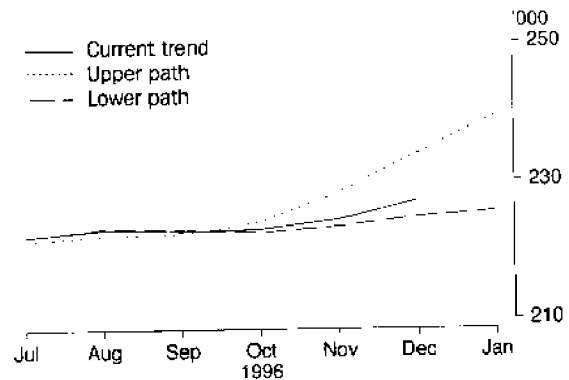
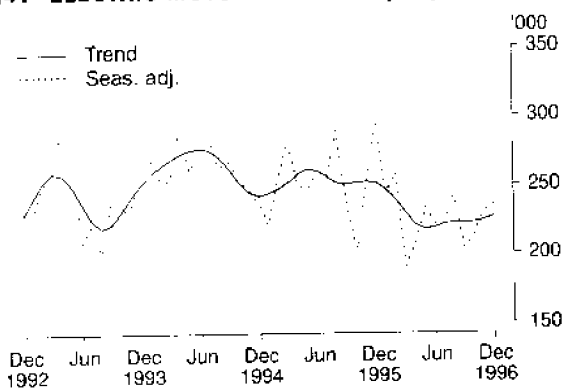
Longer term trend (a)

Short-term sensitivity analysis

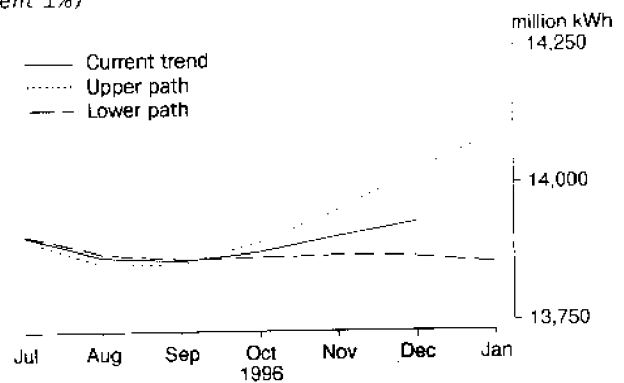
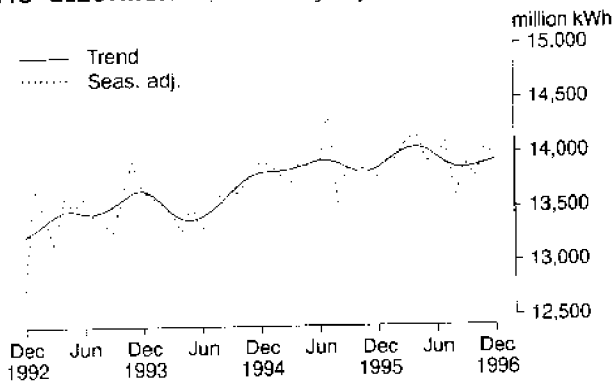
M46 DOMESTIC CLOTHES WASHING MACHINES (seasonally adjusted series average movement 9%)



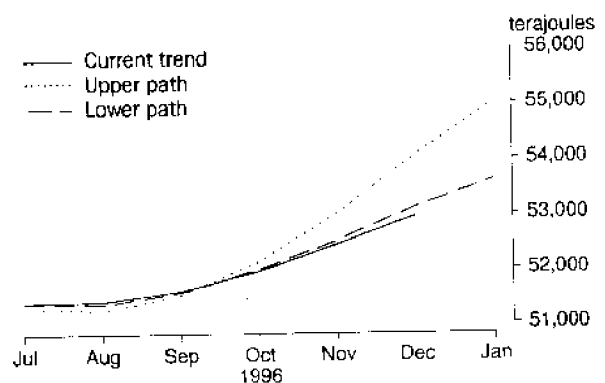
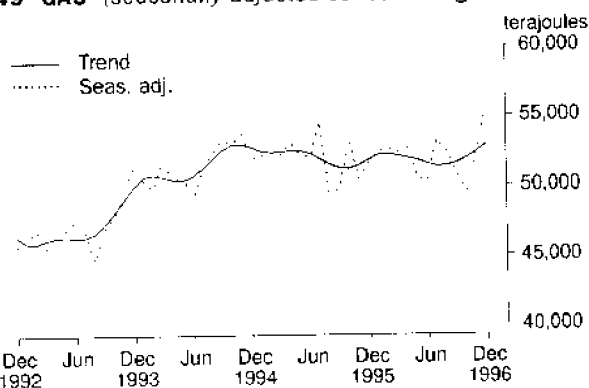
M47 ELECTRIC MOTORS (seasonally adjusted series average movement 7%)



M48 ELECTRICITY (seasonally adjusted series average movement 1%)



M49 GAS (seasonally adjusted series average movement 3%)



For footnotes see page 23.

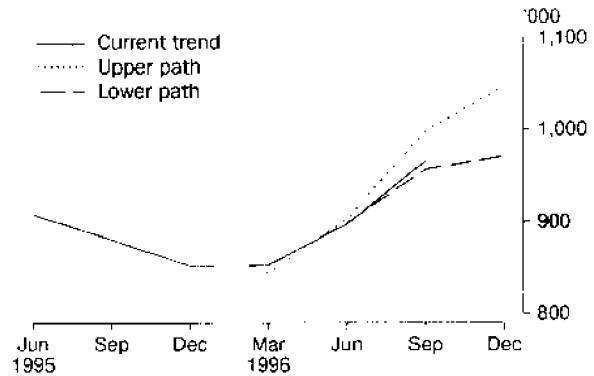
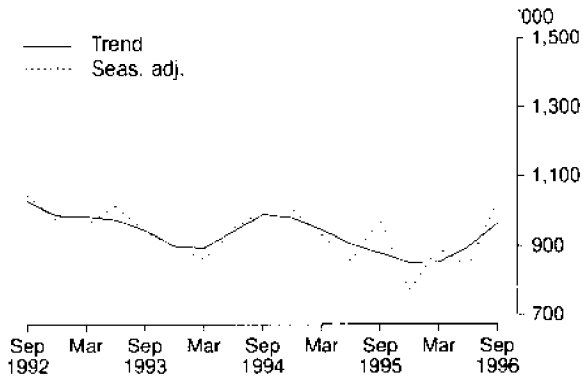
Q

QUARTERLY PRODUCTION

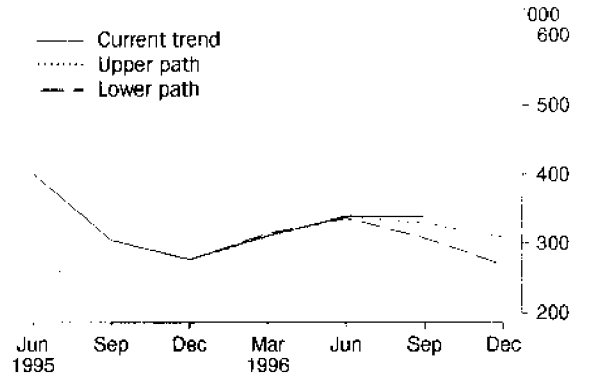
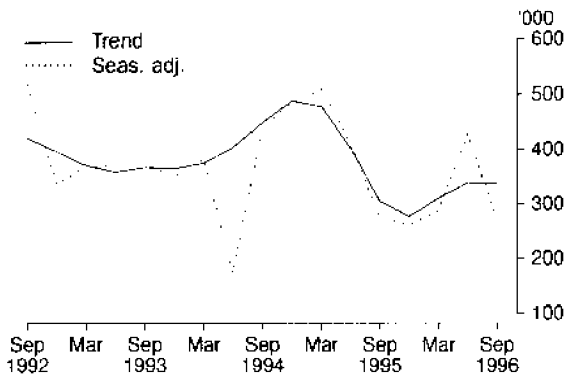
Longer term trend (a)

Short-term sensitivity analysis

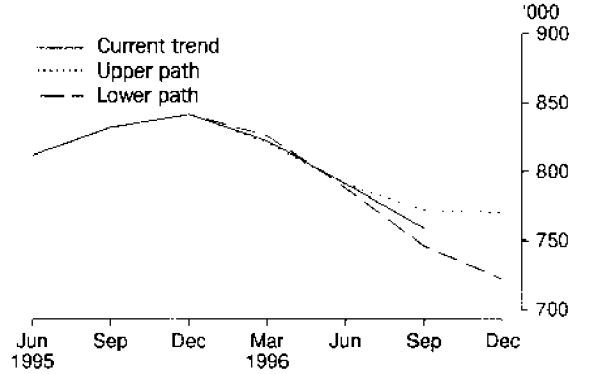
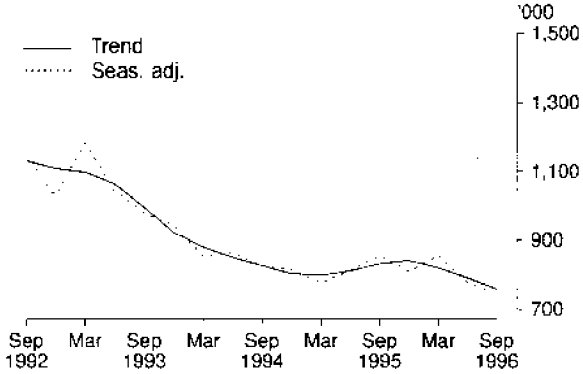
Q1 MEN'S AND BOYS' LONG TROUSERS (seasonally adjusted series average movement 7%)



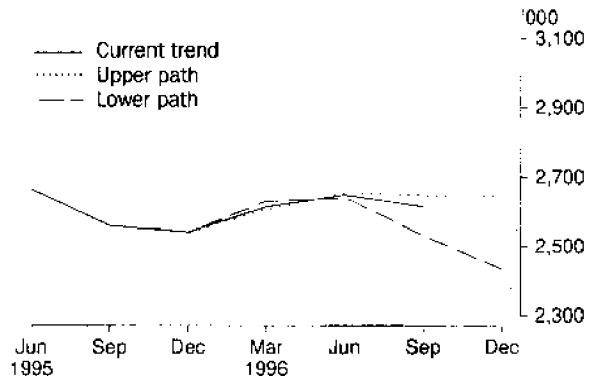
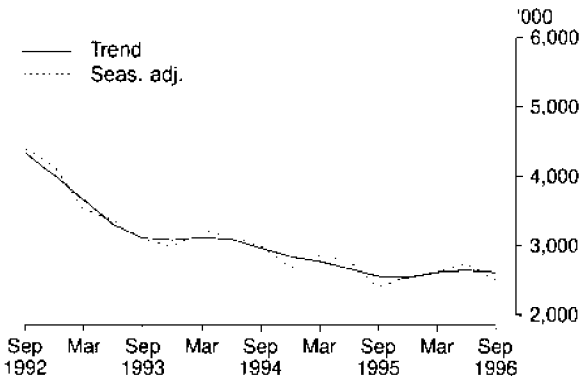
Q2 WOMEN'S AND GIRLS' LONG TROUSERS (seasonally adjusted series average movement 14%)



Q3 JEANS (seasonally adjusted series average movement 6%)



Q4 MEN'S AND BOYS' SHIRTS (seasonally adjusted series average movement 8%)



For footnotes see page 24.

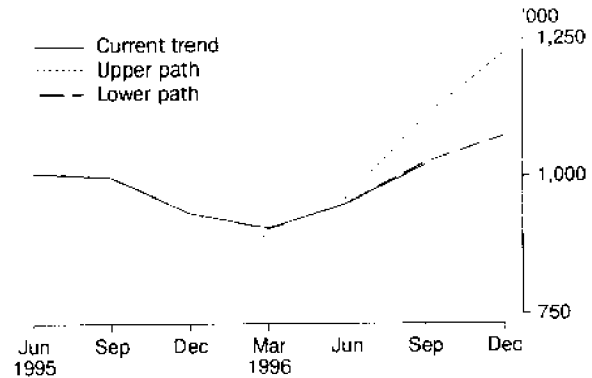
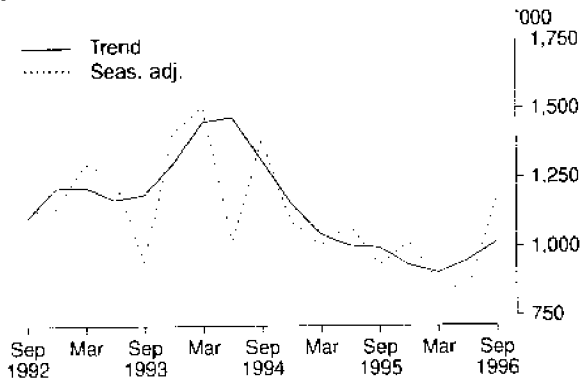
Q

QUARTERLY PRODUCTION *continued*

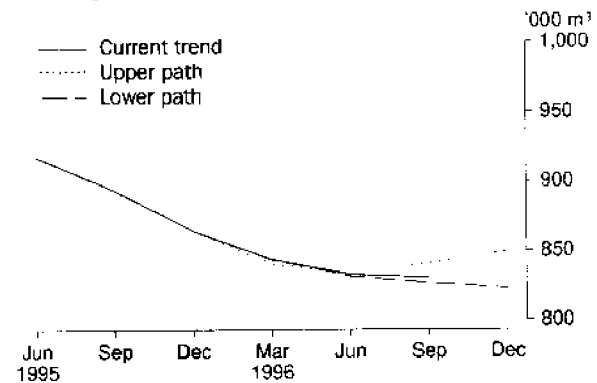
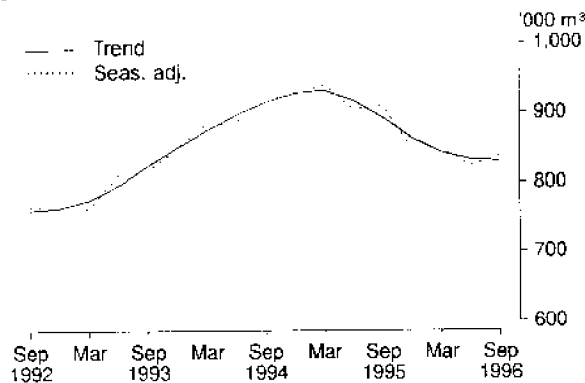
Longer term trend(a)

Short-term sensitivity analysis

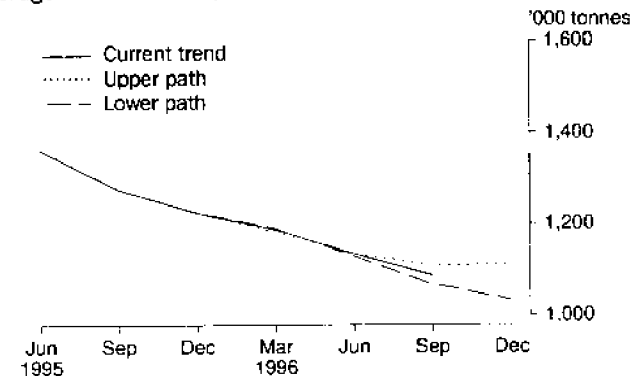
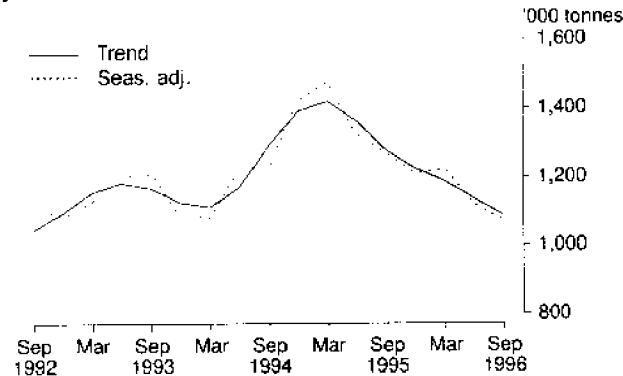
Q5 WOMEN'S SHIRTS AND BLOUSES *(seasonally adjusted series average movement 12%)*



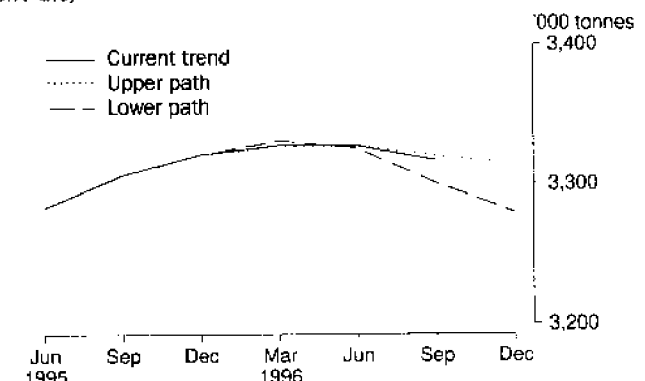
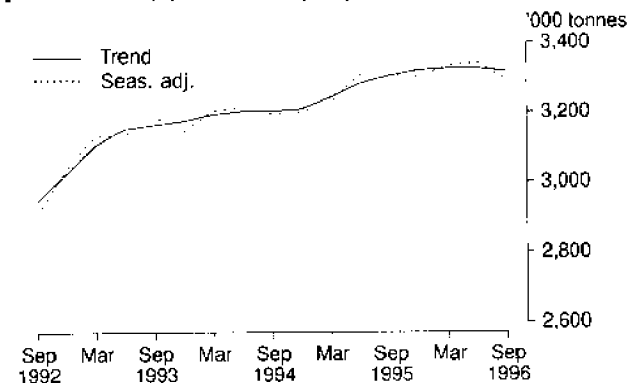
Q6 UNDRESSED SAWN TIMBER(b) *(seasonally adjusted series average movement 3%)*



Q7 HARDWOOD WOODCHIPS *(seasonally adjusted series average movement 7%)*



Q8 ALUMINA(b) *(seasonally adjusted series average movement 1%)*



For footnotes see page 24.

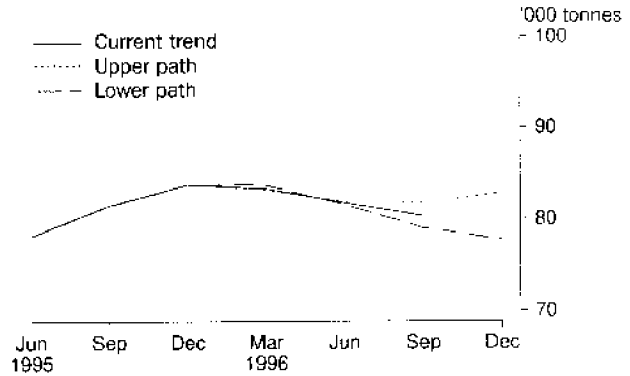
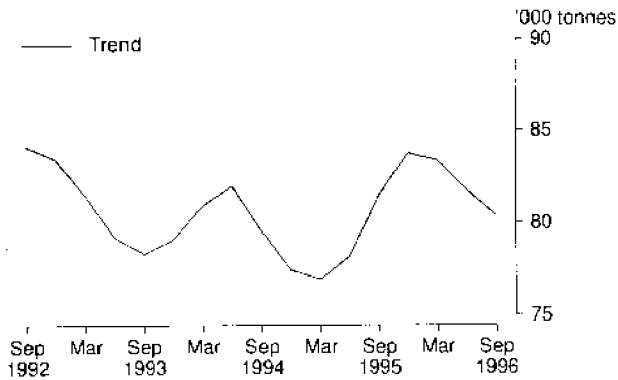
Q

QUARTERLY PRODUCTION *continued*

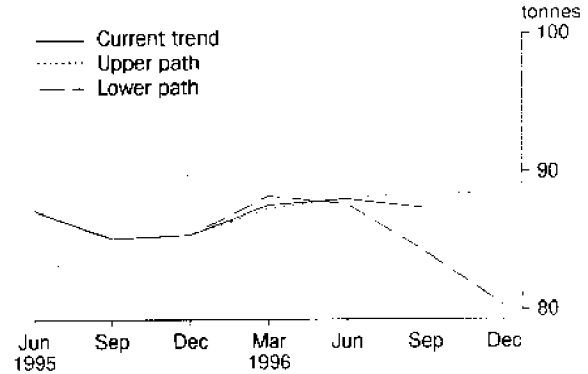
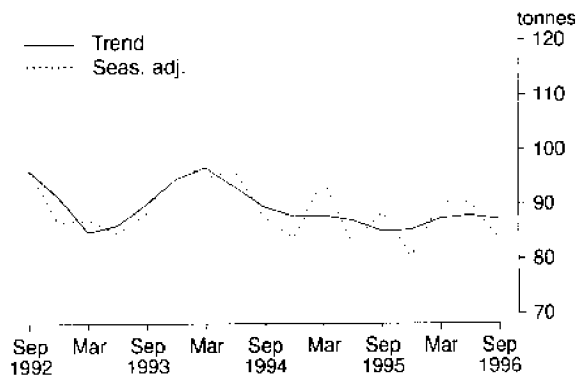
Longer term trend (a)

Short-term sensitivity analysis

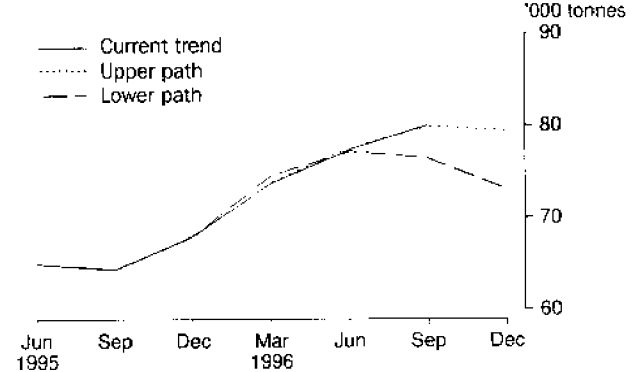
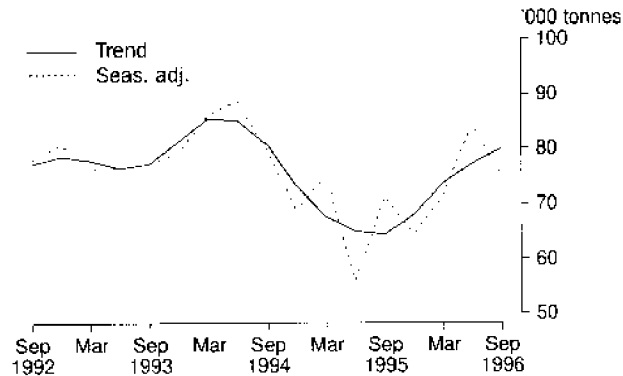
Q9 ZINC(b) (seasonally adjusted series average movement 6%)



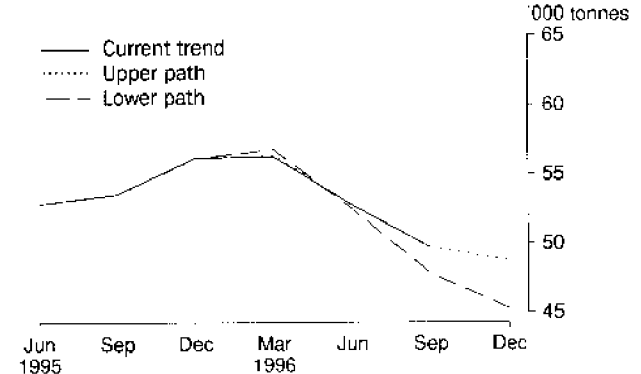
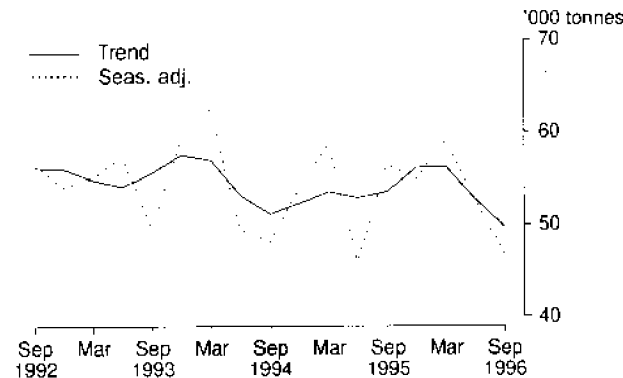
Q10 SILVER(b) (seasonally adjusted series average movement 9%)



Q11 COPPER(b) (seasonally adjusted series average movement 8%)



Q12 LEAD(b) (seasonally adjusted series average movement 7%)



For footnotes see page 24.

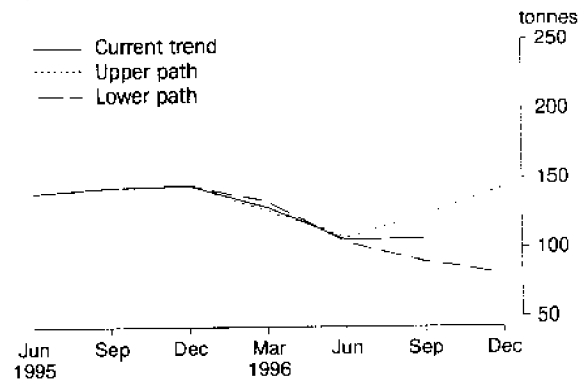
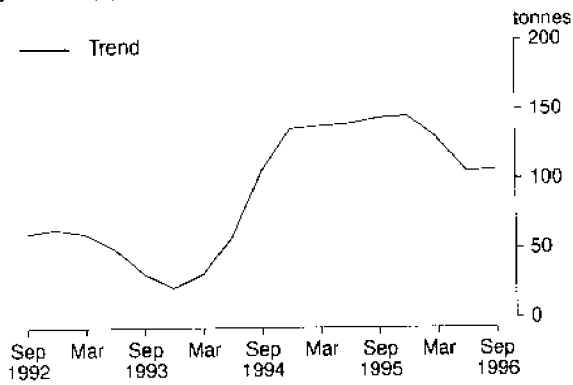
Q

QUARTERLY PRODUCTION *continued*

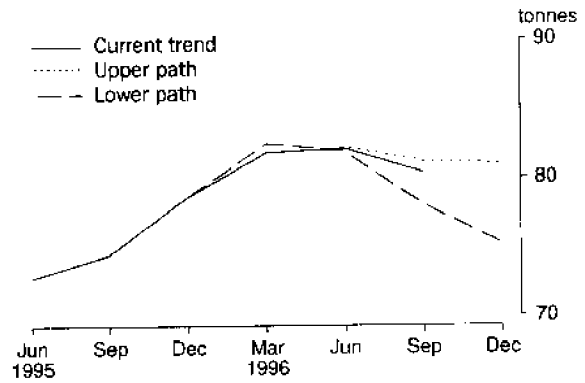
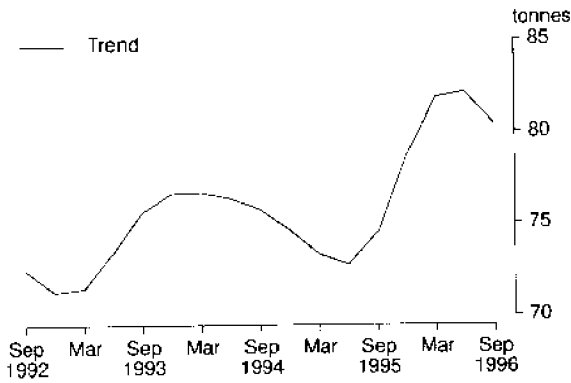
Longer term trend (a)

Short-term sensitivity analysis

Q13 TIN(b) (seasonally adjusted series average movement 52%)



Q14 GOLD(b) (seasonally adjusted series average movement 7%)



For footnotes see page 24.

1

MONTHLY PRODUCTION

1996

Percentage changes
between latest month
shown and.....

| No. | Item/Series(a) | Unit | Apr | May | June | July | Aug | Sep | Oct | Nov | Dec | Percentage changes | |
|------------|--------------------------------------|---------------------|--------|--------|--------|--------|---------|---------|---------|---------|--------|--------------------|-----------------------|
| | | | | | | | | | | | | prev. month | same month prev. year |
| M1 | Red meat | | | | | | | | | | | | |
| | Original | '000 t | 202 | 229 | 196 | 203 | r197 | r199 | r225 | 220 | 190 | -13.4 | -1.7 |
| | Seasonally adjusted | '000 t | 211 | 207 | 205 | 204 | r194 | r199 | r204 | 206 | 211 | 2.5 | -2.9 |
| | Trend | '000 t | 214 | 209 | 204 | 201 | 200 | 201 | 203 | 205 | 207 | 1.0 | -5.9 |
| M2 | Chicken meat | | | | | | | | | | | | |
| | Original | t | 38 388 | 38 071 | 38 189 | 40 184 | r38 185 | r41 070 | r43 556 | 37 788 | 42 022 | 11.2 | -0.4 |
| | Seasonally adjusted | t | 37 483 | 37 996 | 38 624 | 38 037 | r41 243 | r41 974 | r41 445 | 40 588 | 39 568 | -2.5 | -0.5 |
| | Trend | t | 38 882 | 38 712 | 38 945 | 39 477 | 40 135 | 40 709 | 40 977 | 40 997 | 40 870 | -0.3 | 4.3 |
| M3 | Cheese(b) | | | | | | | | | | | | |
| | Original | t | 19 805 | 16 140 | 12 118 | 11 783 | 17 548 | 28 873 | n.y.a. | n.y.a. | n.y.a. | 64.5 | 5.7 |
| | Seasonally adjusted | t | 23 320 | 22 518 | 24 036 | 20 324 | 21 864 | 23 798 | n.y.a. | n.y.a. | n.y.a. | 8.8 | 9.0 |
| | Trend | t | 22 240 | 22 363 | 22 437 | 22 462 | 22 493 | 22 565 | n.y.a. | n.y.a. | n.y.a. | 0.3 | 1.6 |
| M4 | Butter(b) | | | | | | | | | | | | |
| | Original | t | 8 793 | 7 065 | 8 562 | 6 186 | 8 598 | 16 590 | n.y.a. | n.y.a. | n.y.a. | 93.0 | 63.2 |
| | Seasonally adjusted | t | 12 653 | 13 482 | 17 107 | 14 142 | 13 785 | 14 090 | n.y.a. | n.y.a. | n.y.a. | 2.2 | 63.5 |
| | Trend | t | 13 371 | 13 934 | 14 345 | 14 573 | 14 647 | 14 600 | n.y.a. | n.y.a. | n.y.a. | -0.3 | 29.3 |
| M5 | Flour of wheat or of meslin | | | | | | | | | | | | |
| | Original | '000 t | 111 | 135 | 122 | 128 | 126 | 132 | 127 | 130 | 128 | -1.5 | 8.0 |
| | Seasonally adjusted | '000 t | 122 | 123 | 118 | 130 | 118 | 131 | 124 | 125 | 142 | 14.2 | 10.5 |
| | Trend | '000 t | 121 | 122 | 123 | 123 | 124 | 126 | 128 | 130 | 133 | 1.9 | 11.8 |
| M6 | Prepared foods from cereals | | | | | | | | | | | | |
| | Original | t | 7 277 | 8 951 | 7 758 | 7 012 | 8 991 | 8 722 | 8 713 | 9 274 | 6 096 | -34.3 | -7.5 |
| | Seasonally adjusted | t | 7 852 | 8 330 | 7 728 | 7 289 | 9 506 | 8 294 | 8 505 | 8 870 | 6 019 | -32.1 | -10.8 |
| | Trend | t | 8 451 | 8 283 | 8 204 | 8 233 | 8 342 | 8 375 | 8 250 | 7 996 | 7 716 | -3.5 | -9.8 |
| M7 | Biscuits | | | | | | | | | | | | |
| | Original | t | 9 936 | 12 875 | 12 742 | 12 602 | 12 817 | 11 984 | 12 424 | 12 052 | 10 924 | -9.4 | 2.3 |
| | Seasonally adjusted | t | 11 692 | 12 007 | 12 400 | 11 855 | 11 922 | 10 673 | 11 365 | 10 967 | 12 503 | 14.0 | 2.1 |
| | Trend | t | 11 831 | 11 972 | 11 969 | 11 814 | 11 598 | 11 451 | 11 396 | 11 424 | 11 504 | 0.7 | -2.1 |
| M8 | Chocolate based confectionery | | | | | | | | | | | | |
| | Original | t | 6 499 | 9 395 | 9 302 | 9 852 | 11 148 | 9 962 | 10 375 | 10 363 | 8 461 | -18.4 | -11.3 |
| | Seasonally adjusted | t | 8 277 | 8 913 | 9 366 | 9 750 | 9 498 | 9 735 | 9 000 | 9 238 | 8 640 | -6.5 | -10.6 |
| | Trend | t | 8 796 | 8 967 | 9 216 | 9 420 | 9 494 | 9 435 | 9 297 | 9 128 | 8 949 | -2.0 | -5.4 |
| M9 | Other confectionery | | | | | | | | | | | | |
| | Original | t | 4 418 | 6 057 | 6 605 | 6 201 | 6 907 | 6 822 | 7 028 | 6 694 | 5 414 | -19.1 | 8.3 |
| | Seasonally adjusted | t | 5 478 | 5 993 | 6 244 | 5 864 | 5 891 | 6 148 | 6 267 | 5 590 | 5 776 | 3.3 | 8.6 |
| | Trend | t | 5 985 | 6 004 | 6 005 | 6 008 | 6 017 | 6 004 | 5 959 | 5 893 | 5 828 | -1.1 | -3.8 |
| M10 | Malt | | | | | | | | | | | | |
| | Original | t | 46 119 | 48 050 | 54 107 | 50 339 | 51 910 | 50 375 | 50 817 | 48 372 | 46 904 | -3.0 | 4.2 |
| | Seasonally adjusted | t | 49 036 | 43 886 | 55 918 | 52 208 | 51 025 | 52 030 | 52 350 | 44 076 | 47 475 | 7.7 | 3.9 |
| | Trend | t | 48 050 | 49 504 | 50 916 | 51 731 | 51 739 | 51 002 | 49 842 | 48 633 | 47 001 | -3.4 | 1.9 |
| M11 | Beer | | | | | | | | | | | | |
| | Original | million L | 131 | 146 | 120 | 129 | 136 | 133 | 177 | 175 | 156 | -10.8 | 3.2 |
| | Seasonally adjusted | million L | 142 | 149 | 150 | 140 | 141 | 140 | 153 | 145 | 128 | -11.9 | 8.3 |
| | Trend | million L | 143 | 145 | 146 | 145 | 145 | 144 | 143 | 141 | 139 | 1.3 | -2.7 |
| M12 | Tobacco and cigarettes | | | | | | | | | | | | |
| | Original | t | 1 629 | 1 834 | 1 777 | 2 255 | 2 242 | 1 796 | 1 838 | 2 183 | 1 552 | -28.9 | -5.8 |
| | Seasonally adjusted | t | 1 951 | 1 571 | 1 817 | 1 758 | 1 994 | 1 770 | 1 980 | 2 130 | 1 669 | 21.6 | -6.8 |
| | Trend | t | 1 715 | 1 763 | 1 805 | 1 837 | 1 865 | 1 898 | 1 918 | 1 925 | 1 905 | -1.0 | 22.3 |
| M13 | Man-made fibre woven fabric | | | | | | | | | | | | |
| | Original | '000 m ² | 9 327 | 14 094 | 11 011 | 12 258 | 13 061 | 12 598 | 15 479 | r13 502 | 9 956 | 26.3 | 3.1 |
| | Seasonally adjusted | '000 m ² | 10 464 | 12 745 | 10 544 | 11 438 | 12 147 | 12 682 | 14 760 | r12 137 | 12 094 | -0.4 | 4.9 |
| | Trend | '000 m ² | 11 232 | 11 248 | 11 482 | 11 858 | 12 286 | 12 627 | 12 843 | 12 921 | 13 011 | 0.7 | 6.7 |
| M14 | Cotton woven fabric | | | | | | | | | | | | |
| | Original | '000 m ² | 4 394 | 6 033 | 5 109 | 6 692 | 6 003 | 5 918 | 5 648 | 5 510 | 4 083 | -25.9 | 8.7 |
| | Seasonally adjusted | '000 m ² | 5 064 | 5 208 | 4 713 | 6 882 | 5 134 | 5 371 | 5 415 | 4 870 | 4 915 | 0.9 | -1.6 |
| | Trend | '000 m ² | 5 144 | 5 154 | 5 298 | 5 470 | 5 540 | 5 435 | 5 280 | 5 125 | 4 982 | -2.8 | -18.8 |
| M15 | Cotton yarn | | | | | | | | | | | | |
| | Original | t | 2 509 | 3 281 | 3 527 | 3 641 | 3 409 | 3 848 | 3 779 | 3 220 | 2 523 | -21.6 | 8.8 |
| | Seasonally adjusted | t | 2 886 | 3 071 | 3 011 | 3 398 | 3 020 | 3 848 | 3 606 | 2 949 | 3 168 | 7.4 | 14.4 |
| | Trend | t | 3 019 | 3 061 | 3 147 | 3 250 | 3 341 | 3 382 | 3 374 | 3 333 | 3 278 | -1.6 | 6.4 |

For footnotes see page 23.

| No. | Item/Series(a) | Unit | 1996..... | | | | | | | | | Percentage changes between latest month shown and..... | | |
|------------|--|---------------------|-----------|--------|--------|--------|--------|--------|---------|---------|--------|--|-----------------------------|--|
| | | | Apr | May | June | July | Aug | Sep | Oct | Nov | Dec | prev. month | same month prev. year | |
| M16 | Wool yarn | | | | | | | | | | | | | |
| | Original | t | 1 445 | 1 673 | 1 483 | 1 646 | 1 577 | 1 569 | 1 847 | r1 613 | 1 344 | -16.7 | 3.4 | |
| | Seasonally adjusted | t | 1 624 | 1 547 | 1 525 | 1 437 | 1 440 | 1 464 | 1 524 | r1 590 | 1 631 | 2.6 | -1.5 | |
| | Trend | t | 1 644 | 1 579 | 1 512 | 1 475 | 1 470 | 1 490 | 1 520 | 1 554 | 1 589 | 2.2 | -2.6 | |
| M17 | Wool woven fabric | | | | | | | | | | | | | |
| | Original | '000 m ² | 412 | 528 | 536 | 487 | 449 | 566 | 581 | 723 | 450 | -37.8 | -11.6 | |
| | Seasonally adjusted | '000 m ² | 419 | 468 | 604 | 473 | 421 | 633 | 495 | 692 | 541 | -21.9 | -12.5 | |
| | Trend | '000 m ² | 505 | 492 | 491 | 503 | 522 | 544 | 564 | 580 | 591 | 1.8 | 3.5 | |
| M18 | Textile floor coverings | | | | | | | | | | | | | |
| | Original | '000 m ² | 3 456 | 3 621 | 3 249 | 3 784 | 3 684 | 3 791 | 4 434 | r4 079 | 3 429 | -16.0 | 12.5 | |
| | Seasonally adjusted | '000 m ² | 3 673 | 3 454 | 3 427 | 3 684 | 3 345 | 3 650 | 3 841 | r3 609 | 3 943 | 9.2 | 9.7 | |
| | Trend | '000 m ² | 3 654 | 3 582 | 3 518 | 3 515 | 3 556 | 3 621 | 3 691 | 3 761 | 3 820 | 1.6 | 9.5 | |
| M19 | Footwear | | | | | | | | | | | | | |
| | Original | '000 pairs | 1 183 | 1 346 | 1 089 | 1 229 | 1 314 | 1 248 | 1 355 | r1 161 | 828 | -28.7 | -19.5 | |
| | Seasonally adjusted | '000 pairs | 1 189 | 1 230 | 1 194 | 1 195 | 1 195 | 1 146 | 1 180 | r1 110 | 969 | -12.7 | -21.1 | |
| | Trend | '000 pairs | 1 217 | 1 206 | 1 201 | 1 196 | 1 184 | 1 160 | 1 128 | 1 094 | 1 061 | -3.0 | -17.5 | |
| M21 | Newsprint | | | | | | | | | | | | | |
| | Original | t | 34 818 | 40 194 | 35 515 | 38 160 | 39 422 | 33 716 | 31 685 | 36 428 | 33 424 | -8.2 | -9.0 | |
| | Seasonally adjusted | t | 34 046 | 37 595 | 37 379 | 38 449 | 40 315 | 35 018 | 32 976 | 36 886 | 33 245 | -9.9 | -12.7 | |
| | Trend | t | 36 657 | 37 019 | 37 437 | 37 582 | 37 277 | 36 547 | 35 647 | 34 779 | 34 080 | -2.0 | -9.2 | |
| M22 | Wood pulp | | | | | | | | | | | | | |
| | Original | t | 76 641 | 90 827 | 76 614 | 74 031 | 85 486 | 71 242 | 75 903 | 92 247 | 75 439 | -18.2 | -18.4 | |
| | Seasonally adjusted | t | 78 495 | 87 927 | 77 345 | 76 196 | 80 106 | 71 744 | 81 984 | 87 169 | 78 890 | -9.5 | -15.6 | |
| | Trend | t | 80 403 | 79 566 | 78 856 | 78 522 | 78 379 | 78 769 | 79 653 | 80 615 | 82 026 | 1.7 | -1.1 | |
| M23 | Unlaminated particle board | | | | | | | | | | | | | |
| | Original | '000 m ³ | 68 | 73 | 67 | 63 | 62 | 65 | 78 | 74 | 50 | -31.8 | -11.1 | |
| | Seasonally adjusted | '000 m ³ | 68 | 65 | 68 | 61 | 58 | 61 | 65 | 70 | 60 | -14.2 | -14.1 | |
| | Trend | '000 m ³ | 68 | 66 | 64 | 63 | 62 | 63 | 63 | 64 | 64 | 0.8 | -4.6 | |
| M25 | Paperboard containers | | | | | | | | | | | | | |
| | Original | '000 t | 84 024 | 88 295 | 81 107 | 99 703 | 94 662 | 95 312 | 109 883 | 103 329 | 86 920 | -15.9 | 4.9 | |
| | Seasonally adjusted | '000 t | n.a. | n.a. | n.a. | n.a. | n.a. | n.a. | n.a. | n.a. | n.a. | n.a. | n.a. | |
| | Trend | '000 t | n.a. | n.a. | n.a. | n.a. | n.a. | n.a. | n.a. | n.a. | n.a. | n.a. | n.a. | |
| M26 | Automotive gasoline(b) | | | | | | | | | | | | | |
| | Original | ML | 1 544 | 1 573 | 1 565 | 1 694 | 1 438 | 1 464 | 1 416 | 1 439 | n.y.a. | 1.6 | -3.2 | |
| | Seasonally adjusted | ML | 1 586 | 1 521 | 1 583 | 1 585 | 1 443 | 1 495 | 1 432 | 1 530 | n.y.a. | 6.9 | -3.2 | |
| | Trend | ML | 1 550 | 1 555 | 1 548 | 1 529 | 1 509 | 1 492 | 1 480 | 1 475 | n.y.a. | -0.3 | -3.1 | |
| M27 | Fuel oil(b) | | | | | | | | | | | | | |
| | Original | ML | 127 | 138 | 165 | 194 | 93 | 147 | 119 | 164 | n.y.a. | 37.8 | 0.2 | |
| | Seasonally adjusted | ML | n.p. | n.p. | n.p. | n.p. | n.p. | n.p. | n.p. | n.p. | n.p. | n.p. | n.p. | |
| | Trend | ML | 144 | 145 | 145 | 142 | 139 | 138 | 140 | 143 | n.y.a. | 2.4 | -17.8 | |
| M28 | Aviation turbine fuel(b) | | | | | | | | | | | | | |
| | Original | ML | 392 | 378 | 359 | 443 | 369 | 447 | 502 | 481 | n.y.a. | -4.2 | 11.8 | |
| | Seasonally adjusted | ML | 422 | 387 | 390 | 456 | 366 | 440 | 446 | 499 | n.y.a. | 11.8 | 18.8 | |
| | Trend | ML | 411 | 405 | 404 | 409 | 419 | 433 | 449 | 466 | n.y.a. | 3.7 | 13.7 | |
| M29 | Automotive diesel oil(b) | | | | | | | | | | | | | |
| | Original | ML | 955 | 1 127 | 1 082 | 1 078 | 895 | 1 103 | 1 032 | 1 111 | n.y.a. | 7.6 | 9.9 | |
| | Seasonally adjusted | ML | 986 | 1 094 | 1 110 | 1 029 | 884 | 1 127 | 1 032 | 1 123 | n.y.a. | 8.8 | 9.7 | |
| | Trend | ML | 1 036 | 1 036 | 1 035 | 1 035 | 1 036 | 1 043 | 1 055 | 1 065 | n.y.a. | 1.0 | 6.1 | |
| M30 | Plastics in primary forms | | | | | | | | | | | | | |
| | Original | '000 t | 100 | 113 | 81 | 100 | 108 | 100 | 96 | 92 | 94 | 3.0 | 10.4 | |
| | Seasonally adjusted | '000 t | 100 | 112 | 88 | 88 | 107 | 96 | 86 | 96 | 103 | 7.5 | 5.5 | |
| | Trend | '000 t | 103 | 101 | 99 | 96 | 95 | 95 | 95 | 96 | 98 | 2.0 | -1.9 | |
| M31 | Rigid PVC tubes, pipes and hoses | | | | | | | | | | | | | |
| | Original | t | 7 599 | 9 608 | 8 780 | 9 439 | 8 944 | 6 847 | 7 186 | 7 653 | 5 993 | -21.7 | 7.3 | |
| | Seasonally adjusted | t | 8 707 | 7 990 | 8 444 | 8 021 | 8 392 | 7 233 | 7 281 | 7 496 | 6 445 | -14.0 | 1.4 | |
| | Trend | t | 8 400 | 8 462 | 8 361 | 8 146 | 7 894 | 7 637 | 7 372 | 7 117 | 6 863 | -3.6 | -4.6 | |
| M32 | Polyethylene bottles up to two litres | | | | | | | | | | | | | |
| | Original | million | 136 | 151 | 134 | 130 | 147 | 158 | 161 | 189 | 196 | 5.1 | 11.5 | |
| | Seasonally adjusted | million | n.a. | n.a. | n.a. | n.a. | n.a. | n.a. | n.a. | n.a. | n.a. | n.a. | n.a. | |
| | Trend | million | n.a. | n.a. | n.a. | n.a. | n.a. | n.a. | n.a. | n.a. | n.a. | n.a. | n.a. | |

For footnotes see page 23.

1996.....

Percentage changes
between latest month
shown and.....

| No. | Item/Series(a) | Unit | Apr | May | June | July | Aug | Sep | Oct | Nov | Dec | Percentage changes | | |
|--|---------------------|---------------------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------------------|-----------------------|-------|
| | | | | | | | | | | | | prev. month | same month prev. year | |
| M33 Paint | | | | | | | | | | | | | | |
| | Original | '000 L | 13 947 | 16 119 | 14 627 | 15 253 | 15 662 | 15 649 | 18 331 | 19 014 | 15 522 | | -18.4 | 2.8 |
| | Seasonally adjusted | '000 L | 15 299 | 15 218 | 15 907 | 14 858 | 15 281 | 15 525 | 17 103 | 17 303 | 16 027 | | -7.4 | 9.2 |
| | Trend | '000 L | 15 779 | 15 504 | 15 325 | 15 371 | 15 633 | 15 973 | 16 294 | 16 563 | 16 750 | | 1.1 | 11.8 |
| M34 Superphosphates | | | | | | | | | | | | | | |
| | Original | '000 t | 156 | 174 | 101 | 85 | 45 | 103 | 187 | 173 | n.p. | | -7.5 | -5.8 |
| | Seasonally adjusted | '000 t | 133 | 164 | 148 | 158 | 96 | 193 | 178 | 136 | n.p. | | -23.6 | -9.1 |
| | Trend | '000 t | 136 | 140 | 145 | 149 | 153 | 155 | 157 | 157 | n.p. | | 0.2 | 3.5 |
| M35 Portland cement | | | | | | | | | | | | | | |
| | Original | '000 t | 491 | 543 | 559 | 564 | 582 | 561 | 566 | 586 | 540 | | 7.8 | 11.8 |
| | Seasonally adjusted | '000 t | 533 | 512 | 542 | 535 | 529 | 562 | 537 | 529 | 572 | | 8.3 | 12.4 |
| | Trend | '000 t | 541 | 537 | 533 | 534 | 537 | 541 | 545 | 549 | 551 | | 0.5 | 5.6 |
| M36 Clay bricks | | | | | | | | | | | | | | |
| | Original | million | 116 | 125 | 117 | 126 | 128 | 126 | 137 | 122 | 110 | | -10.4 | 5.4 |
| | Seasonally adjusted | million | 118 | 113 | 116 | 116 | 119 | 125 | 126 | 120 | 120 | | -0.4 | 1.3 |
| | Trend | million | 114 | 115 | 117 | 118 | 120 | 121 | 122 | 123 | 123 | | -0.1 | 3.3 |
| M37 Ready mixed concrete | | | | | | | | | | | | | | |
| | Original | '000 m ³ | 1 104 | 1 307 | 1 157 | 1 319 | 1 320 | 1 272 | 1 438 | 1 404 | 1 099 | | -21.7 | 8.5 |
| | Seasonally adjusted | '000 m ³ | 1 184 | 1 173 | 1 193 | 1 229 | 1 214 | 1 280 | 1 286 | 1 335 | 1 273 | | -4.7 | 7.7 |
| | Trend | '000 m ³ | 1 204 | 1 199 | 1 202 | 1 216 | 1 239 | 1 263 | 1 283 | 1 298 | 1 308 | | 0.8 | 8.8 |
| M38 Basic iron, spiegeleisen and sponge iron(c) | | | | | | | | | | | | | | |
| | Original | '000 t | 614 | 620 | 620 | 678 | 627 | 611 | 578 | 544 | 612 | | 12.5 | -4.1 |
| | Seasonally adjusted | '000 t | 621 | 619 | 624 | 663 | 604 | 598 | 561 | 534 | 623 | | 16.7 | -4.3 |
| | Trend | '000 t | 635 | 633 | 629 | 620 | 608 | 595 | 583 | 576 | 571 | | -0.8 | -10.4 |
| M39 Blooms and slabs of iron or steel(c) | | | | | | | | | | | | | | |
| | Original | '000 t | 642 | 655 | 658 | 696 | 666 | 633 | 626 | 590 | 661 | | 12.0 | -0.5 |
| | Seasonally adjusted | '000 t | 659 | 664 | 670 | 694 | 648 | 611 | 593 | 581 | 665 | | 14.4 | -0.3 |
| | Trend | '000 t | 672 | 674 | 669 | 657 | 642 | 628 | 618 | 611 | 609 | | -0.4 | -7.8 |
| M40 Insulated wire | | | | | | | | | | | | | | |
| | Original | t | 5 457 | 6 705 | 6 037 | 6 604 | 6 426 | 5 801 | 6 143 | 7 160 | 6 252 | | -12.7 | 38.0 |
| | Seasonally adjusted | t | 5 734 | 6 035 | 6 310 | 6 216 | 6 191 | 5 264 | 5 490 | 6 593 | 7 666 | | 16.3 | 38.4 |
| | Trend | t | 6 053 | 6 070 | 6 015 | 5 937 | 5 918 | 5 978 | 6 140 | 6 383 | 6 660 | | 4.3 | 10.6 |
| M41 Cars and station wagons | | | | | | | | | | | | | | |
| | Original | No. | 22 629 | 30 293 | 25 310 | 30 701 | 25 747 | 28 863 | 29 916 | 26 149 | 19 124 | | -26.9 | -8.2 |
| | Seasonally adjusted | No. | 25 924 | 25 761 | 25 720 | 27 208 | 22 334 | 26 777 | 25 848 | 24 109 | 23 351 | | 3.1 | -12.3 |
| | Trend | No. | 25 913 | 25 747 | 25 679 | 25 617 | 25 446 | 25 182 | 24 873 | 24 536 | 24 185 | | -1.4 | -4.0 |
| M42 Vehicles for goods and materials | | | | | | | | | | | | | | |
| | Original | No. | 2 168 | 2 864 | 2 419 | 2 830 | 2 714 | 2 465 | 2 397 | 2 227 | 1 677 | | -24.7 | 13.6 |
| | Seasonally adjusted | No. | 2 283 | 2 379 | 2 478 | 2 572 | 2 437 | 2 432 | 2 002 | 2 090 | 2 145 | | 2.6 | 10.4 |
| | Trend | No. | 2 318 | 2 409 | 2 462 | 2 459 | 2 403 | 2 317 | 2 226 | 2 144 | 2 073 | | -3.3 | 6.8 |
| M43 Telephones | | | | | | | | | | | | | | |
| | Original | '000 | 79 | 108 | 76 | 101 | 119 | 120 | 115 | 123 | n.p. | | 6.3 | -14.8 |
| | Seasonally adjusted | '000 | n.a. | n.a. | n.a. | n.a. | n.a. | n.a. | n.a. | n.a. | n.a. | | n.a. | n.a. |
| | Trend | '000 | n.a. | n.a. | n.a. | n.a. | n.a. | n.a. | n.a. | n.a. | n.a. | | n.a. | n.a. |
| M44 Domestic refrigerators | | | | | | | | | | | | | | |
| | Original | No. | 20 441 | 36 299 | 27 261 | 35 700 | 29 593 | 37 143 | 40 414 | 35 942 | 31 257 | | -13.0 | -9.4 |
| | Seasonally adjusted | No. | 24 079 | 33 366 | 32 761 | 38 557 | 31 683 | 40 168 | 34 102 | 32 567 | 32 668 | | 0.3 | -13.2 |
| | Trend | No. | 30 924 | 31 483 | 32 912 | 34 496 | 35 447 | 35 505 | 34 986 | 34 209 | 33 518 | | -2.0 | -7.0 |
| M45 Water heaters | | | | | | | | | | | | | | |
| | Original | No. | 38 653 | 59 112 | 50 558 | 60 777 | 55 840 | 51 491 | 62 504 | 56 973 | 39 683 | | -30.3 | -2.4 |
| | Seasonally adjusted | No. | 46 632 | 51 014 | 49 603 | 55 091 | 50 901 | 48 326 | 54 793 | 52 451 | 42 799 | | -18.4 | -7.1 |
| | Trend | No. | 47 412 | 49 034 | 50 719 | 51 745 | 51 993 | 51 578 | 50 765 | 49 685 | 48 553 | | -2.3 | 1.3 |
| M46 Domestic clothes washing machines | | | | | | | | | | | | | | |
| | Original | No. | 15 306 | 25 940 | 27 380 | 31 489 | 26 685 | 21 682 | 24 860 | 22 056 | 15 492 | | -29.8 | -25.8 |
| | Seasonally adjusted | No. | 17 435 | 25 089 | 27 200 | 27 587 | 21 813 | 19 629 | 21 854 | 19 924 | 18 235 | | -8.5 | -26.5 |
| | Trend | No. | 22 412 | 23 447 | 24 251 | 24 319 | 23 548 | 22 214 | 20 809 | 19 554 | 18 557 | | -5.1 | -22.6 |
| M47 Electric motors | | | | | | | | | | | | | | |
| | Original | '000 | 185 | 267 | 213 | 228 | 254 | 214 | 248 | 249 | 201 | | -19.1 | -20.5 |
| | Seasonally adjusted | '000 | 208 | 234 | 221 | 223 | 242 | 203 | 214 | 231 | 236 | | 2.3 | -21.4 |
| | Trend | '000 | 222 | 218 | 219 | 222 | 223 | 223 | 223 | 224 | 227 | | 1.2 | -9.9 |

For footnotes see page 23.

1

MONTHLY PRODUCTION *continued*

| No. | Item/Series(a) | Unit | 1996 | | | | | | | | | Percentage changes between latest month shown and..... | |
|------------------------|---------------------|-------------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--|-----------------------------|
| | | | Apr | May | June | July | Aug | Sep | Oct | Nov | Dec | prev. month | same month prev. year |
| M48 Electricity | | | | | | | | | | | | | |
| | Original | million kWh | 13 342 | 14 414 | 14 366 | 15 343 | 14 668 | 13 730 | 13 733 | 13 460 | 13 569 | 0.8 | 1.1 |
| | Seasonally adjusted | million kWh | 14 169 | 13 925 | 13 950 | 14 101 | 13 602 | 13 911 | 13 770 | 14 046 | 13 969 | -0.5 | 1.4 |
| | Trend | million kWh | 14 051 | 14 025 | 13 967 | 13 906 | 13 868 | 13 862 | 13 877 | 13 905 | 13 931 | 0.2 | 0.5 |
| M49 Gas | | | | | | | | | | | | | |
| | Original | terajoules | 48 910 | 54 562 | 58 615 | 65 895 | 62 709 | 55 103 | 50 582 | 48 591 | 47 218 | -2.8 | 7.5 |
| | Seasonally adjusted | terajoules | 52 715 | 50 485 | 50 295 | 53 308 | 52 420 | 50 874 | 49 609 | 52 435 | 55 426 | 5.7 | 7.0 |
| | Trend | terajoules | 51 995 | 51 842 | 51 578 | 51 409 | 51 419 | 51 611 | 51 954 | 52 446 | 52 964 | 1.0 | 2.0 |

(a) Trend estimates shown may have been revised. See paragraph 14 of the Explanatory Notes on page 27.

(c) This data item comprises production of BHP Steel only.

(b) Source: non-ABS. See paragraphs 2 and 6 to 8 of the Explanatory Notes on page 26.

2

QUARTERLY PRODUCTION

| No. | Item/Series(a) | Unit | 1994..... 1995..... 1996..... | | | | | | | | Percentage changes between latest quarter shown and.... | | | |
|------------|---|---------------------|-------------------------------|-------|-------|-------|-------|-------|-------|-------|---|--------------------------|-----------------------|--|
| | | | Sep | Dec | Mar | Jun | Sep | Dec | Mar | Jun | Sep | same prev. quarter | same prev. year | |
| | | | | | | | | | | | | | | |
| Q1 | Men's and boys' long trousers | | | | | | | | | | | | | |
| | Original | '000 | 1 039 | 987 | 822 | 944 | 1 013 | 756 | 788 | 923 | 1 065 | 15.4 | 5.2 | |
| | Seasonally adjusted | '000 | 1 005 | 1 006 | 932 | 858 | 977 | 772 | 893 | 839 | 1 027 | 22.4 | 5.1 | |
| | Trend | '000 | 991 | 982 | 947 | 907 | 880 | 852 | 854 | 897 | 966 | 7.6 | 9.7 | |
| Q2 | Women's and girls' long trousers | | | | | | | | | | | | | |
| | Original | '000 | 407 | 380 | 628 | 443 | 252 | 202 | 359 | 458 | 247 | -46.0 | -2.1 | |
| | Seasonally adjusted | '000 | 440 | 486 | 510 | 414 | 275 | 261 | 288 | 429 | 271 | -36.9 | -1.7 | |
| | Trend | '000 | 449 | 489 | 478 | 403 | 305 | 277 | 312 | 340 | 338 | -0.5 | 10.9 | |
| Q3 | Jeans | | | | | | | | | | | | | |
| | Original | '000 | 941 | 770 | 641 | 887 | 979 | 764 | 706 | 851 | 852 | 0.2 | -12.9 | |
| | Seasonally adjusted | '000 | 826 | 817 | 777 | 813 | 857 | 810 | 858 | 779 | 746 | -4.2 | 13.0 | |
| | Trend | '000 | 828 | 806 | 799 | 812 | 833 | 842 | 823 | 791 | 759 | -4.1 | -8.9 | |
| Q4 | Men's and boys' shirts | | | | | | | | | | | | | |
| | Original | '000 | 3 545 | 2 900 | 2 347 | 2 554 | 2 841 | 2 741 | 2 179 | 2 529 | 2 974 | 17.6 | 4.7 | |
| | Seasonally adjusted | '000 | 2 995 | 2 688 | 2 859 | 2 772 | 2 404 | 2 557 | 2 632 | 2 741 | 2 519 | -8.1 | 4.8 | |
| | Trend | '000 | 2 963 | 2 844 | 2 767 | 2 667 | 2 561 | 2 542 | 2 616 | 2 651 | 2 616 | -1.3 | 2.1 | |
| Q5 | Women's shirts and blouses | | | | | | | | | | | | | |
| | Original | '000 | 1 787 | 1 218 | 806 | 864 | 1 202 | 1 132 | 697 | 674 | 1 511 | 124.3 | 25.7 | |
| | Seasonally adjusted | '000 | 1 388 | 1 094 | 1 009 | 1 076 | 935 | 1 017 | 874 | 835 | 1 177 | 40.9 | 25.8 | |
| | Trend | '000 | 1 314 | 1 158 | 1 047 | 1 006 | 998 | 935 | 907 | 951 | 1 021 | 7.3 | 2.3 | |
| Q6 | Undressed sawn timber(b) | | | | | | | | | | | | | |
| | Original | '000 m ³ | 967 | 916 | 883 | 925 | r958 | r840 | r799 | r840 | 882 | 5.0 | -7.9 | |
| | Seasonally adjusted | '000 m ³ | 921 | 924 | 940 | 907 | r911 | r850 | r849 | r825 | 838 | 1.6 | -8.0 | |
| | Trend | '000 m ³ | 916 | 928 | 932 | 918 | 894 | 865 | 844 | 833 | 831 | -0.2 | -7.1 | |
| Q7 | Hardwood woodchips | | | | | | | | | | | | | |
| | Original | '000 t | 1 286 | 1 417 | 1 402 | 1 332 | 1 334 | 1 203 | 1 163 | 1 128 | 1 128 | — | -15.4 | |
| | Seasonally adjusted | '000 t | 1 223 | 1 424 | 1 477 | 1 324 | 1 269 | 1 211 | 1 224 | 1 120 | 1 073 | -4.2 | -15.4 | |
| | Trend | '000 t | 1 291 | 1 392 | 1 420 | 1 364 | 1 277 | 1 226 | 1 188 | 1 136 | 1 087 | -4.3 | -14.9 | |
| Q8 | Alumina(b) | | | | | | | | | | | | | |
| | Original | '000 t | 3 235 | 3 203 | 3 203 | 3 299 | 3 348 | 3 297 | 3 311 | 3 336 | 3 334 | -0.1 | -0.4 | |
| | Seasonally adjusted | '000 t | 3 197 | 3 204 | 3 232 | 3 306 | 3 307 | 3 302 | 3 337 | 3 345 | 3 293 | -1.6 | -0.4 | |
| | Trend | '000 t | 3 204 | 3 210 | 3 245 | 3 284 | 3 307 | 3 321 | 3 327 | 3 327 | 3 317 | -0.3 | 0.3 | |
| Q9 | Zinc(b) | | | | | | | | | | | | | |
| | Original | '000 t | 82 | 78 | 72 | 81 | 82 | 85 | 81 | 82 | 82 | — | — | |
| | Seasonally adjusted | '000 t | n.p. | n.p. | n.p. | n.p. | n.p. | n.p. | n.p. | n.p. | n.p. | n.p. | n.p. | |
| | Trend | '000 t | 80 | 77 | 77 | 78 | 82 | 84 | 83 | 82 | 80 | -1.7 | -1.4 | |
| Q10 | Silver(b) | | | | | | | | | | | | | |
| | Original | t | 88 | 79 | 93 | 89 | 89 | 75 | 90 | 97 | 84 | -13.4 | -5.6 | |
| | Seasonally adjusted | t | 88 | 84 | 95 | 83 | 89 | 80 | 91 | 90 | 84 | -7.3 | -5.6 | |
| | Trend | t | 90 | 88 | 88 | 87 | 85 | 85 | 88 | 88 | 87 | -0.7 | 2.6 | |
| Q11 | Copper(b) | | | | | | | | | | | | | |
| | Original | '000 t | 87 | 68 | 71 | 55 | 78 | 63 | 68 | 83 | 82 | -1.2 | 5.1 | |
| | Seasonally adjusted | '000 t | 80 | 69 | 75 | 56 | 71 | 64 | 72 | 84 | 75 | -11.3 | 5.0 | |
| | Trend | '000 t | 81 | 73 | 68 | 65 | 64 | 68 | 74 | 77 | 80 | 3.4 | 24.2 | |
| Q12 | Lead(b) | | | | | | | | | | | | | |
| | Original | '000 t | 49 | 55 | 53 | 49 | 57 | 56 | 54 | 56 | 47 | -16.1 | -17.5 | |
| | Seasonally adjusted | '000 t | 48 | 54 | 59 | 46 | 56 | 55 | 59 | 53 | 47 | -11.4 | -17.3 | |
| | Trend | '000 t | 51 | 52 | 54 | 53 | 54 | 56 | 56 | 53 | 50 | -5.8 | -7.2 | |
| Q13 | Tin(b) | | | | | | | | | | | | | |
| | Original | t | 75 | 135 | 180 | 65 | 165 | 160 | 90 | 135 | 100 | -25.9 | -39.4 | |
| | Seasonally adjusted | t | n.p. | n.p. | n.p. | n.p. | n.p. | n.p. | n.p. | n.p. | n.p. | n.p. | n.p. | |
| | Trend | t | 106 | 136 | 138 | 140 | 144 | 145 | 130 | 106 | 107 | 1.3 | -25.7 | |
| Q14 | Gold(b) | | | | | | | | | | | | | |
| | Original | t | 78 | 71 | 74 | 74 | 75 | 75 | 85 | 83 | 81 | -3.1 | 7.4 | |
| | Seasonally adjusted | t | n.p. | n.p. | n.p. | n.p. | n.p. | n.p. | n.p. | n.p. | n.p. | n.p. | n.p. | |
| | Trend | t | 76 | 75 | 73 | 73 | 74 | 79 | 82 | 82 | 80 | -2.1 | 7.9 | |

(a) Trend estimates shown may have been revised. See paragraph 14 of the Explanatory Notes on page 27.

(b) Source: non-ABS. See paragraphs 2 and 6 to 8 of the Explanatory Notes on page 26.

WHAT IF...? Revisions to Trend Estimates

THE EFFECT OF NEW SEASONALLY ADJUSTED ESTIMATES

Each time new seasonally adjusted estimates become available, trend estimates are revised (see paragraphs 13 to 15 of the Explanatory Notes, on page 27).

TREND REVISIONS

The example in the table below shows four illustrative scenarios and the consequent revisions to previous trend estimates of man-made fibre woven fabric production.

- 1** The January 1997 seasonally adjusted estimate is the same as the December 1996 estimate.
- 2** The January 1997 seasonally adjusted estimate is higher than the December 1996 estimate by 8%.
- 3** The January 1997 seasonally adjusted estimate is lower than the December 1996 estimate by 8%.
- 4** The January 1997 seasonally adjusted estimate results in a revised December 1996 trend estimate which is identical to the new January 1997 trend estimate.

The percentage change of 8% was chosen because it currently represents the average absolute monthly percentage change for this series over the last thirty years.

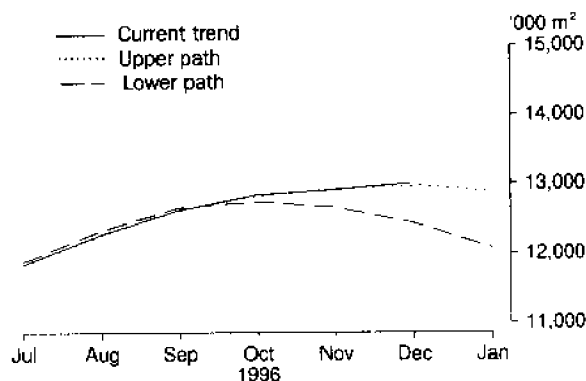
M13 MAN-MADE FIBRE WOVEN FABRIC ('000 m²)

WHAT IF NEXT MONTH'S SEASONALLY ADJUSTED ESTIMATE IS:

| | | 1 | 2 | 3 | 4 |
|---------------|--------------------|-------------------------------------|----------------------------|----------------------------|---|
| | TREND as PUBLISHED | 12 094 i.e. the same as Dec 1996 | 13 030 i.e. rises by 8% | 11 158 i.e. falls by 8% | 13 645 i.e. same trend for Dec and Jan |
| 1996 | | | | | |
| October | 12 843 | 12 796 | 12 838 | 12 754 | 12 866 |
| November | 12 921 | 12 798 | 12 937 | 12 660 | 13 028 |
| December | 13 011 | 12 708 | 12 970 | 12 447 | 13 141 |
| 1997 | | | | | |
| January (new) | — | 12 488 | 12 882 | 12 094 | 13 141 |

Of these series, the trend as published ('Current trend'), trend scenario **2** ('Upper path') and trend scenario **3** ('Lower path') are shown in the 'Short-term sensitivity analysis' graphs, as this example shows.

SHORT-TERM SENSITIVITY ANALYSIS OF MAN-MADE FIBRE WOVEN FABRIC



EXPLANATORY NOTES

INTRODUCTION

1 This publication presents monthly and quarterly estimates of production of selected major manufacturing indicators for Australia.

SCOPE AND COVERAGE

2 Data presented in this publication are collected from a number of different sources. The prime source is the ABS surveys of manufacturing production. Data are also obtained from surveys undertaken by the Department of Primary Industries and Energy (DPIE), the Australian Bureau of Agricultural and Resource Economics (ABARE), the Australian Dairy Corporation (ADC), the Australian Tobacco Marketing Committee (until April 1995) and from ABS agriculture collections. Scope and coverage varies slightly depending on the source of the information.

3 Where production statistics are collected by the ABS manufacturing production surveys, they are not collected from single establishment manufacturing businesses with less than four persons employed nor from establishments predominantly engaged in non-manufacturing activities but which may carry out some manufacturing in a minor way. However, in general, the contribution of these small producers to statistical aggregates is only marginal and data contained in this publication provide reliable information for the evaluation of movements in commodity production.

4 The statistics on meat production include data collected from abattoirs and other major slaughtering establishments and include estimates of animals slaughtered on farms and by country butchers and other small slaughtering establishments for human consumption.

5 The statistics on chicken meat have been collected from commercial poultry slaughtering establishments. Producers in Tasmania, the Northern Territory and the Australian Capital Territory and the very small producers are excluded from the collection.

6 Data on the production of quarterly estimates of base metal production and sawn timber are obtained from the ABARE publication *Mineral Statistics* and as unpublished data.

7 Data on the production of fuels are obtained from the DPIE Petroleum and Fisheries Division publication *Australian Petroleum Statistics*, from July 1996. Previously, these data were obtained from ABARE.

8 Data on the production of cheese and butter are obtained from the ADC publication *Dairystats*. Data on tobacco and cigarettes produced were obtained from the Australian Tobacco Marketing Committee until April 1995.

COMPARABILITY WITH OTHER ESTIMATES

9 The ABS publishes quarterly estimates of constant price manufacturing production in the publication *Indexes of Industrial Production, Australia* (8125.0). These estimates are shown as index numbers and are derived mainly from estimates of manufacturers' sales and stocks.

10 The production statistics collected monthly and quarterly referred to in paragraph 1 account, in total, for less than half of the output of the manufacturing sector. For information on general trends in the manufacturing sector, refer to the publication referred to in paragraph 9.

SEASONALLY ADJUSTED AND TREND ESTIMATES

11 Seasonally adjusted statistics are shown for most of the data items contained in this publication. In the seasonal adjustment, account has been taken not only of normal seasonal factors, but also where appropriate, of 'working day' effects (arising from the varying numbers of Sundays, Mondays, Tuesdays, etc. in the month) and the influence of Easter and Australia Day which may, in successive years, affect figures for different months or quarters. Details of the methods used in seasonally adjusting these series are available on request.

12 Seasonal adjustment procedures do not aim to remove the irregular or non-seasonal influences which may be present in any particular month or quarter, such as the non-systematic effect of strikes, holiday shutdowns, providers' inconsistent reporting periods (where, for example, a 'month' may variously represent 4 or 5 weeks production), or other factors which vary with the prevailing demand for products. Irregular influences that are highly volatile can make it difficult to interpret the movement of the series even after seasonal adjustment.

13 The smoothing of seasonally adjusted series to create trend estimates is a means of reducing the impact of the irregular component of the series. The trend estimates have been derived by applying a 13-term Henderson weighted moving average to the monthly and a 7-term moving average to the quarterly seasonally adjusted series. The 7- and 13-term Henderson averages (like all Henderson averages) are symmetric but, as the end of a time series is approached, asymmetric forms of the average are applied. Unlike the weights of the standard 7-term Henderson moving average, the surrogate weights employed with the quarterly data have been tailored to suit the particular characteristics of individual series.

14 While the asymmetric weights enable trend estimates for recent months or quarters to be produced, it does result in revisions to the estimates for the most recent months or quarters as additional observations become available. Generally, subsequent revisions become smaller and after 3 months or 2 quarters have little impact on the series. There will also be revisions as a result of revisions to the original estimates and annual reviews of seasonal and 'working day' factors.

15 Users may wish to refer to the ABS Information Paper *A Guide to Interpreting Time Series — Monitoring Trends*, an overview (1348.0) for more detailed information on smoothing of seasonally adjusted time series data.

RELATED PUBLICATIONS

16 Other ABS publications which may be of interest are

- *International Trade, Australia: FASTTRACCS Service — Hardcopy Reports* (5461.0)
- *Stocks, Selected Industry Sales and Expected Sales, Australia* (5629.0) issued quarterly
- *Livestock products, Australia* (7215.0) issued monthly
- *Indexes of Industrial Production, Australia* (8125.0) issued quarterly
- *Manufacturing Industry, Australia: Preliminary* (8201.0) issued annually
- *Information Paper: Availability of Statistics Related to Manufacturing, 1996* (8205.0), released on 21 March 1996
- *Manufacturing Industry, Australia* (8221.0) issued annually

EXPLANATORY NOTES *continued*

- *Manufacturing Production, Australia: Principal Commodities Produced, 1989-90* (8365.0)
- *Australian Mining Industry* (8414.0) issued annually

UNPUBLISHED STATISTICS

17 Additional manufacturing production data are collected by the ABS through user funded surveys and are available to users as a special data service. These series are:

domestic refrigerators
domestic deep-freezers
water heaters
clothes drying machines
domestic cooking stoves, ovens and ranges
space heaters
mowers
air conditioners
audio cassette tapes
audio compact discs
liquid supply or production meters
brass bars, rods and sections
strip for retreading rubber tyres
electricity
gas
semi-trailers
mineral waters and aerated waters
starches, wheat gluten and glucose
ham and bacon and canned meat
ready mixed concrete
concrete blocks, bricks and pavers
roof tiles
clay bricks
Portland cement
mattresses and mattress supports
knitted underwear
foundation garments
footwear

A more detailed breakdown of most published series is also available as a special data service.

For further information, please call John Ridley on (02) 9268 4541.

CURRENT PUBLICATIONS

18 Current publications produced by the ABS are listed in the *Catalogue of Publications and Products* (1101.0). The ABS also issues, on Tuesdays and Fridays, a *Release Advice* (1105.0) which lists publications to be released in the next few days. The *Catalogue* and *Release Advice* are available from any ABS office.

APPENDIX CLARIFICATION OF TERMS

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| | |
|----------------------------------|---|
| M1 Red meat | Includes veal, pork and buffalo. |
| M2 Chicken meat | Expressed in the dressed weight of whole birds, pieces and giblets. |
| M3 Cheese | Includes fresh cheeses such as ricotta, cottage, cream and quark. |
| M4 Butter | Includes direct butter oil. |
| M5 Flour of wheat or of meslin | Excludes self-raising flour. |
| M6 Prepared foods from cereals | Prepared foods obtained by the swelling or roasting of cereals or cereal products. |
| M7 Biscuits | Sweet biscuits and other biscuits, waffles, wafers and ginger bread; excludes dog biscuits and crispbread. |
| M8 Chocolate based confectionery | Includes confectionery containing chocolate; excludes chocolate biscuits and chocolate intended for further manufacturing. |
| M9 Other confectionery | Excludes chocolate based confectionery. |
| M10 Malt | Includes malt flour. |
| M11 Beer | Includes ale and stout; excludes low alcohol beer containing less than 1.15% but more than 0.5%, by volume of alcohol. |
| M12 Tobacco and cigarettes | Includes those containing tobacco substitutes. |
| M13 Man-made fibre woven fabric | Broadwoven fabric of, or predominantly of, synthetic staple fibres and/or filament. |
| M14 Cotton woven fabric | Broadwoven fabric of, or predominantly of, cotton; excludes gauze. |
| M15 Cotton yarn | Of, or predominantly of cotton, reported on a single yarn basis; excludes sewing thread. |
| M16 Wool yarn | Of, or predominantly of, wool or fine animal hair. |
| M17 Wool woven fabric | Broadwoven woollen and worsted fabrics of, or predominantly of, wool or fine animal hair. |
| M18 Textile floor coverings | Consisting of carpets, carpeting (excluding underfelt), floor rugs, mats and matting of, or predominantly of, textile materials. |
| M19 Footwear | Includes sports and waterproof footwear; excludes thongs. |
| M21 Newsprint | Excludes directory paper, mechanical and printing paper. |
| M22 Wood pulp | Expressed as air-dried weight. |
| M23 Unlaminated particle board | Particle or similar boards of wood or other ligneous materials whether or not for subsequent conversions to other purposes; excludes fibreboard and fibre paperboard. |
| M25 Paperboard containers | Includes corrugated paperboard and solid paperboard containers. |
| M26 Automotive gasoline | Produced by Australian refineries from imported and indigenous petroleum. |

APPENDIX CLARIFICATION OF TERMS *continued*

| | |
|---|---|
| M27 Fuel oil | Oils derived from the distillation of petroleum which are generally used for domestic heating or fuelling furnaces; produced by Australian refineries from imported and indigenous petroleum. |
| M28 Aviation turbine fuel | Produced by Australian refineries from imported and indigenous petroleum. |
| M29 Automotive diesel oil | Produced by Australian refineries from imported and indigenous petroleum. |
| M30 Plastics in primary forms | Includes liquid, paste, powder, granules, flakes, blocks, irregular shapes, lumps and similar forms. |
| M31 Rigid PVC tubes, pipes and hoses | Plastic tubes, pipes and hose of rigid polyvinyl chloride. Excludes electrical conduit. |
| M32 Polyethylene bottles up to two litres | Plastic bottles of polyethylene, up to and including two litres. |
| M33 Paint | Includes architectural, decorative and industrial enamels and clears, heavy duty coatings and wood stains; marine coatings are included from January 1995. |
| M34 Superphosphates | Expressed in terms of single super phosphate (9% P equivalent). |
| M35 Portland cement | Includes blended portland cement. Excludes both portland cement clinker and portland cement used to make blended portland cement in-house. |
| M36 Clay bricks | Saleable bricks removed from kiln; excludes firebricks and bricks for other than structural purposes. |
| M37 Ready mixed concrete | Excludes production used or for use within the same business. |
| M38 Basic iron, spiegeleisen and sponge iron | In pigs, blocks and other primary forms; includes pig iron. |
| M39 Blooms and slabs of iron or steel | Continuous cast; includes steel in the molten state. |
| M40 Insulated wire | Includes cables and other insulated electrical conductors; excludes coaxial cables and automotive low voltage wire and ignition wiring sets. |
| M41 Cars and station wagons | Cars and station wagons for less than 10 persons; excludes mini-buses, passenger mini-vans. |
| M42 Vehicles for goods and materials | Excludes off-highway trucks, fork lift trucks and semi-trailers. |
| M43 Telephones | Excludes keyphones. |
| M44 Domestic refrigerators | One and two door models, includes combination refrigerator freezers. |
| M45 Water heaters | Includes solar. |
| M46 Domestic clothes washing machines | Of a dry linen capacity not exceeding 10 kg. |
| M47 Electric motors | Includes direct current generators; excludes motors and generators for motor vehicles and aircraft. |
| M48 Electricity | Excludes purchases or transfers in of electricity. |

APPENDIX CLARIFICATION OF TERMS *continued*



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|-------------------------------------|--|
| M49 Gas | Gas (including natural gas) available for issue through mains. From July 1996, includes gas production for distribution via natural gas pipelines which service a single user. |
| Q1 Men's and boys' long trousers | Excludes jeans and waterproof trousers and trousers made as part of a complete suit. |
| Q2 Women's and girls' long trousers | Excludes jeans and waterproof trousers. |
| Q3 Jeans | Men's, women's, boys' and girls' jeans; excludes shorts. |
| Q4 Men's and boys' shirts | Excludes sweatshirts and nightshirts. |
| Q5 Women's shirts and blouses | Excludes sweatshirts and nightshirts. |
| Q6 Undressed sawn timber | Expressed in terms of green off saw volumes. |
| Q7 Hardwood woodchips | Expressed as greenweight; excludes chips which are not sold or are used in own works. |
| Q8 Alumina | Aluminium oxide. |
| Q9 Zinc | Primary origin only. |
| Q10 Silver | Refined. |
| Q11 Copper | Primary origin only. |
| Q12 Lead | Includes lead content of lead from primary sources. |
| Q13 Tin | Primary origin only. |
| Q14 Gold | From primary and secondary sources. |

For more information . . .

The ABS publishes a wide range of statistics and other information on Australia's economic and social conditions. Details of what is available in various publications and other products can be found in the ABS Catalogue of Publications and Products available from all ABS Offices.

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Many standard products are available from ABS bookshops located in each State and Territory. In addition to these products, information tailored to the needs of clients can be obtained on a wide range of media by contacting your nearest ABS Office. The ABS also provides a Subscription Service for standard products and some tailored information services.

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