Chapter 17

Other source data

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17.1 Macroeconomic data

The 1995 macroeconomic data that were used directly in the FIT process to update the regional input-output tables include the following components of GDP: private consumption, government consumption, and gross capital formation or investment. Per capita GDP data were used in forming combinations of regions with input-output tables to create the composite regions. Macroeconomic data on GDP and GDP components (private consumption, government consumption, gross domestic fixed investment, stocks, exports, imports) and population data were obtained from the Development Economics Analytical Data Base (DAD) maintained by the Development Economics Prospects Group of the World Bank.[1] The DAD is an appropriate source of macroeconomic data for GTAP since it covers a wide range of countries and can report data that has been reconciled for statistical discrepancies. It is the underlying data base for the *Global Economic Prospects and the Developing Countries*, an annual publication of the World Bank.

The macroeconomic data for 134 individual countries, given in thousands of 1995 US dollars, were mapped to GTAP's 45-region aggregation scheme. There are some countries belonging to 12 of GTAP's 45 regions for which data on GDP and GDP components were not available from the DAD data base. Before summing up the data for each of the 45 regions, estimates of the missing data for the individual countries were obtained from other sources such as the United Nations' *Demographic Yearbook*, the *International Financial Statistics* and the *World Development Report.*

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[1] The assistance provided by T.G. Srinivasan in acquiring the basic macroeconomic data from the World Bank DAD is gratefully acknowledged.

The data obtained from these additional sources include population, GDP and GNP per capita estimates for 1994 and 1995. When 1995 data were not available, we extrapolated the 1994 daata to 1995 using estimates of average annual growth rates.

The 12 GTAP regions which include countries for which GDP and GDP component data was not covered in the DAD data base countries are: Vietnam, Rest of South Asia, Central America and the Caribbean, Rest of European Union, EFTA, Central European Associates, Former Soviet Union, Rest of Middle East, Rest of North Africa, Rest of South Africa, Rest of Sub-Saharan Africa and Rest of World. The following procedures were followed in bridging the data gaps in the DAD data base:

(i) Estimates of GDP and population were obtained from other sources

(ii) For countries for which estimates of GDP were not available, estimates of GNP per capita were multiplied with population data to get GDP estimates

(iii) For countries for which estimates of GDP and GDP per capita were not available, the average GDP per capita for other countries in the same region were applied to population data to get the GDP estimates.

(iv) For Belgium and Luxembourg, DAD data for Benelux was split using population data as share weights.

Overall, less than one percent of the global GDP were obtained from other sources and/or estimated using one of the methods outlined above. As a proportion of total GDP for each individual region, the percentage of total GDP that is estimated is as follows: 100% for VNM, 0.7% for RAS, 18.7% for CAM, 0.03% for REU, 0.3% for EFT, 8.5% for CEA, 1.5% for FSU, 1.7% for RME, 11.5% for RNF, 7.4% for RSA, 0.7% for RSS, and 53.9% for the ROW.

Within each GTAP region, for the individual countries for which GDP component data was not available from the data base, estimates of GDP components were obtained by computing the average share of each GDP component to GDP in that region based on the subtotal from countries in the region with complete data, and then applying the shares to the GDP of that individual country. As with the GDP data, the GDP component data are also summed up for each GTAP region after the data gaps have been filled. Table 17.1 shows theGDP, private consumption, investment and government consumption data expressed in 1995 US $ million for the 45 GTAP regions.

Table 17.1 Macroeconomic data (1995 US$ million)

	Gross domestic product	Private consumption	Gross capital formation	Government consumption
AUS	348,678	217,818	74,546	60,890
NZL	59,741	36,855	11,721	8,358
JPN	5,110,494	3,072,985	1,453,487	498,253
KOR	455,476	243,930	166,814	47,177
IDN	201,183	119,970	58,339	16,266
MYS	85,311	43,222	34,125	10,365
PHL	74,180	54,938	16,675	8,322
SGP	83,695	33,074	28,116	7,127
THA	167,056	90,267	71,467	16,275
VNM	15,570	8,696	5,315	1,486
CHN	697,647	333,360	246,126	85,295
HKG	143,668	84,499	41,678	12,315
TWN	260,806	155,139	60,077	37,673
IND	324,081	219,944	76,794	33,510
LKA	12,915	9,560	3,228	1,527
RAS	94,645	70,509	16,310	11,548
CAN	565,157	339,233	102,232	108,907
USA	7,253,801	4,924,900	1,202,060	1,130,400
MEX	254,533	197,701	39,278	25,706
CAM	88,159	67,772	15,590	8,248
VEN	75,016	54,992	11,349	4,592
COL	76,658	52,919	15,321	8,876
RAP	82,835	59,098	18,452	8,145
ARG	281,060	203,196	30,771	23,195
BRA	716,942	454,271	150,497	117,829
CHL	67,297	41,714	15,642	5,892
URY	17,847	13,214	2,158	2,278
RSM	8,885	7,453	2,010	700
GBR	1,105,008	704,418	165,842	235,626
DEU	2,414,236	1,376,148	511,807	473,534
DNK	172,220	92,607	27,718	43,320
SWE	228,679	120,153	34,033	59,895
FIN	125,432	69,032	18,608	26,925
REU	4,360,660	2,644,248	806,743	759,910
EFT	458,265	255,225	101,206	74,607
CEA	311,282	199,512	53,573	48,697
FSU	505,307		285,197	94,150
TUR	164,789		115,046	16,386
RME	548,905		275,784	126,387
MAR	32,412		23,067	5,014
RNF	135,609		88,582	17,853
SAF	145,617		84,053	31,465
RSA	19,714		11,140	4,400
RSS	148,786		118,175	17,157
ROW	275,951		212,337	22,753

17.2 Capital stock and depreciation

Betina Dimaranan

Along with macroeconomic data for 1995, physical capital stock and depreciation data in millions of 1995 US dollars are used in updating the regional input-output tables. Like the macroeconomic data described in the previous section, the capital stock data in 1995 US $ million were obtained from the Development Economics Analytical Data Base (DAD) of the World Bank. Data gaps for some countries were filled in by using the average ratio of capital stock to GDP in that region based on the subtotal from countries in the region with complete data, and then applying the ratio to the GDP of that individual country . Since no capital stock data was obtained for any of the countries comprising the Former Soviet Union, a K/GDP ratio of 2.5 was used for these countries. Depreciation was estimated at 4 percent of the 1995 physical capital stock. After filling the data gaps, the country data on physical capital stock and depreciation were summed up to the 45 GTAP regions. Table 17.2 presents the capital stock and depreciation data in millions of 1995 US dollars for the 45 GTAP regions.

Table 17.2 Capital stock and depreciation (1995 US$ million)

	Capital stock	Depreciation
AUS	1,080,669	43,227
NZL	146,177	5,847
JPN	18,619,390	744,776
KOR	1,220,830	48,833
IDN	423,255	16,930
MYS	223,324	8,933
PHL	204,017	8,161
SGP	244,877	9,795
THA	488,684	19,547
VNM	40,341	1,614
CHN	1,616,447	64,658
HKG	367,498	14,700
TWN	489,219	19,569
IND	756,945	30,278
LKA	36,981	1,479
RAS	178,800	7,152
CAN	1,380,043	55,202
USA	15,837,153	633,486
MEX	672,659	26,906
CAM	217,420	8,697
VEN	235,953	9,438
COL	126,858	5,074
RAP	218,233	8,729
ARG	554,774	22,191
BRA	2,135,510	85,420
CHL	148,465	5,939
URY	34,876	1,395
RSM	27,881	1,115
GBR	2,730,802	109,232
DEU	7,882,754	315,310
DNK	495,203	19,808
SWE	669,079	26,763
FIN	429,803	17,192
REU	12,934,993	517,400
EFT	1,566,759	62,670
CEA	1,090,651	43,626
FSU	1,263,267	50,531
TUR	437,496	17,500
RME	2,537,781	101,511
MAR	99,261	3,970
RNF	524,258	20,970
SAF	479,303	19,172
RSA	60,176	2,407
RSS	456,001	18,240
ROW	490,014	19,601

17.3 Energy production data

Gerard Malcolm

In GTAP version 4 data base, a new set of targets are incorporated into the FIT process: domestic output values of energy commodities (coal, oil, gas, petroleum products, electricity). (See chapter 20 for further discussion).

It is therefore necessary to prepare a supplementary data set[2] on energy production values in order to include these targets in the FIT process. Preparation of the data set consisted of four stages.

1. Creation of a country-level volume data base (using original volume data, and filling in gaps based on GDP data).
2. Creation of a country-level price data base (using original price data, and the world oil price)
3. Calculation of country-level energy values (using 1. and 2. above)
4. Conversion to the GTAP version 4 region-level data set

For the first step, we used country-level production data on coal, oil, natural gas, refined oil and total electricity. The source of these data is the International Energy Agency. These data were available for 132 countries, other countries were grouped into three aggregate regions: OTHERAFRICA, OTHERASIA, and OTHERLATIN. Data are denominated in GWh (for electricity production) and thousand tonnes of oil equivalent for the other products. The three aggregate totals were attributed to individual countries within each group on the basis of GDP shares.

GDP data was available for 188 countries. The countries for which no GDP data is available are generally small. All countries for which no GDP data was available were excluded from consideration.

For the second step, we constructed a set of price data corresponding to the data on production volumes. 1995 price data are supplied (again from IEA sources) for (a) 40 GTAP version 4 regions and (b) a few countries individually. However, both of these sets of data have a significant number of missing observations. In addition, 1992 price data are supplied for all GTAP version 3 regions, and this data set is complete. The 1992 data are used to fill in the gaps in the 1995 data.

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[2] The assistance provided by Christophe Complainville of the OECD Development Centre in providing us with the volume and price data is gratefully acknowledged.

The 1992 price data are adjusted as follows: for all regions except FSU, crude oil price is adjusted downwards from $138.7/tonne of oil equivalent (toe) to $126/toe. The latter figure is based on information supplied by Christophe Complainville (from OECD, Development Center).

Prices are conflated based on the following (descending) order of preference:

1. Country level price data (available only for Finland, Sweden, Colombia, Peru, and Venezuela).
2. 1995 region-level price data.
3. 1992 region-level price data.

After consistent volume and price data sets were constructed, these were multiplied together and scaled, to convert from (000 toe)*($/toe) (for coal, oil, gas and petroleum) and (GWh)*(c/kWh) (for electricity) to $m.

Finally a mapping between the 188 countries for which we have data, and the final set of 45 regions in the version 4 data base, was established, and the value data were aggregated accordingly.

Table 17.3 Value of domestic output (US$m) from IEA prices and volumes

	col	oil	gas	p_c	ely
aus	7414	3505	3682	6636	7975
nzl	108	218	873	1270	1375
jpn	**451**	**102**	1061	67947	181460
kor	**153**	**0**	**0**	15958	13296
idn	1468	9697	**3836**	7388	3647
mys	5	4781	4064	3081	2709
phl	31	24	0	2344	1770
sgp	**0**	**0**	**0**	10781	1315
tha	310	475	1082	4250	4772
vnm	216	1090	141	**0**	857
chn	39461	18868	1838	26175	60060
hkg	0	0	0	0	1664
twn	**27**	**7**	272	7407	9832
ind	2754	4619	1523	13326	27946
lka	**0**	**0**	**0**	427	286
ras	240	491	1997	2853	6062
can	2367	14264	10235	14652	20955
usa	28809	49353	48794	118725	167245
mex	217	19735	1880	16533	5095
cam	260	1359	644	5853	6769
ven	**182**	19423	269	**1213**	5285
col	**296**	3855	356	1300	3652
rap	**6**	3602	368	3047	1716
arg	21	5142	2991	3962	5084
bra	140	4730	685	13979	15340
chl	64	**86**	71	1315	2223
ury	**0**	**0**	0	235	545
rsm	87	94	1	790	3853
gbr	3173	16908	8985	19841	22637
deu	20464	455	3407	33612	53790
dnk	**2**	1179	841	3325	2538
swe	39	**1**	**0**	4603	13816
fin	286	**0**	**0**	3653	6965
reu	3303	1837	15114	129043	110372
eft	**26**	17931	8718	6749	12456
cea	9149	1194	3155	16984	14782
fsu	8200	15928	35342	72297	47831
tur	1082	453	**26**	10292	6555
rme	**38**	124624	12057	56893	19504
mar	21	1	2	1376	718
rnf	**0**	22913	7497	14646	5951
saf	**2057**	417	200	4777	12676
rsa	210	3288	**30**	354	999
rss	505	33147	949	9649	20694
row	1999	**2403**	4059	4500	12126
Total	135642	408197	187044	744041	927196

Note: Bold figures are the targets which are not imposed by FIT due to contradiction with the target exports.

17.4 Primary factor shares and supply response in the natural resource-based industries

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17.4.1 Overview and motivation

In versions 1 - 3 of the GTAP data base, there was only one type of natural resource endowment identified, namely agricultural land. Because this factor was only used in agricultural production, it was also, by default, a sector-specific factor. The presence of a specific, or fixed, factor serves to dampen the supply response in the sector in question. When demand increases, part of that increase is translated into increased land rents. Indeed, the only way to increase agricultural output is to substitute other factors of production for land. This type of situation stands in sharp contrast to some manufacturing activities, say the production of wearing apparel, where supply can be increased indefinitely — provided the demand is there — by simply building new factories and hiring more workers. The only thing that forces the supply curve for such a sector to slope upward is the fact that as additional workers are bid away from other activities, wages will rise. This is a general equilibrium supply constraint.

Of course the presence of non-producible natural resource inputs arises in other sectors as well. Coal, oil, natural gas, minerals, fisheries and forestry are all examples of sectors where partial equilibrium supply response is constrained by the underlying natural resource input. As the range of GTAP applications has broadened, the supply response of these sectors has been called into question. In recent work conducting projections with GTAP, we have introduced specific factors in these sectors in order to restrain the responsiveness of supply to increases in the economy-wide capital stock (Dimaranan, 1998). Others conducting simulations of trade liberalization in resource-abundant economies have commented about the very large increases in production and export of extractive products following trade liberalization. It became clear that steps needed to be taken here as well.

Having identified the need to constrain supply response in the other natural resource sectors, it remains to determine how the relevant cost share was to be obtained. In the case of agriculture, a wide range of studies exist which estimate these cost shares — often as part of an econometric study of the sectoral cost function. However, such studies are not common in other natural resource sectors. Thus we decided to take a more indirect approach to the problem. We begin with the desired outcome, i.e. what is the target, partial equilibrium supply elasticity? We then compute the natural resource cost share which is implied by that target elasticity.

In partial equilibrium, with fixed prices for all mobile factors of production (non-natural resource inputs) and a fixed quantity of the natural resource input, supply response equals the negative of the own- Allen-Uzawa elasticities of substitution (AUES) for the natural resource input, so that:

$$(1)\ q = -\eta_S\ p$$

where: q and p stand for the percentage change in quantity and price of the sectoral output respectively, and η_S, the supply elasticity, is equal to the negative of the AUES:

$$(2)\ \eta_s = -\sigma_{RR*}$$

The sectoral supply response is simply determined by the industry's ability to substitute away from the fixed factor. If $\sigma_{RR} = 0$, then no amount of price increase will be able to induce a supply response. But how does this Allen elasticity relate to the parameters in GTAP? This relationship is a function of the cost shares and elasticities of substitution in the nested CES production function. Specifically:

$$(3)\ \sigma_{RR} = -\left(\sigma_{VA}\left[\theta_R^{-1} - \theta_{VA}^{-1}\right] + \sigma_T\left[\theta_{VA}^{-1} - \theta_O^{-1}\right]\right)$$

where σ_{VA} corresponds to the elasticity of substitution among components of value-added and σ_T corresponds to the elasticity of substitution between value-added and intermediates. The latter is zero in the standard GTAP model, so that the second term in parentheses falls out. The parameter θ_R corresponds to the cost share of the natural resource input. θ_{VA} refers to the cost share of value added, and the last parameter, θ_O, is the cost share of all inputs — or output — which is simply equal to one.

Assuming σ_{VA} and σ_T are given by the GTAP data base, we can solve equations (2) and (3) for the natural resource share implied by a given supply elasticity. This is the general approach taken here. Of course, it may be that the required cost share exceeds the share of capital in the original data base — or even the share of all value-added! In order to eliminate such outcomes, we have taken two steps. First of all, rather than just taking the resource share out of capital (which is highly volatile and may even be negative in a bad year), we take it out of all value-added. Secondly, the elasticity of substitution in value-added is reduced from its value in the version 3 data base. In version 4 we have set this value equal to 0.2. When implemented, this procedure results in less than one-third of value-added going to the natural resource input in most cases. Of course there are still a few instances where a very low share of value-added in the source data results in a much higher share of value-added being assigned to natural resource inputs. Future refinements of this approach to calibrating supply response should seek to take into account regional variation in the targeted elasticity.

17.4.2 Non-agricultural, natural resource-based sectors

Forestry: This first question which arises when one turns to specific sectors, is: how large is the partial equilibrium supply response? In the case of forestry, we draw on econometric estimates as reported in column one of table 1 in Catimel (1996). These estimated supply elasticities are for the Canadian softwood timber industry and they range from 1.6 to 5.8, depending on the region of Canada and nature of the product supply (e.g., logs vs. pulpwood). Discarding the high and low estimates and averaging the remaining elasticities gives a mean supply response of 2.5. This is the targeted elasticity in version 4 of GTAP, and it is imposed in every region of the data base. Therefore, equations (2) and (3) are solved for a cost share of natural resources which satisfies them in each region.

Fisheries: The case of fisheries is more difficult due to the fact that the response of supply to price varies depending on the management regime in place. Campbell (1996) explores this issue in considerable detail for the case of tuna. In the case of an “open access” fishery, anyone seeking to come and harvest the stock of fish can do so. Open access leads to essentially an infinite discount rate, over-fishing, and hence a very low supply response to price (0.29). On the other hand, some fisheries are managed by an industry group. When such a group operates as a single, profit-maximizing entity, supply is more responsive to price. In this type of “private management” regime, reductions in the discount rate will increase the responsiveness of supply. In the case of a zero discount rate and private management, Campbell computes a supply elasticity for tuna of 0.76. These represent the two extremes for the tuna industry. For purposes of GTAP version 4, we average the two and obtain an elasticity of supply equal to 0.525. Someone studying a question in which fisheries supply response is a crucial parameter could specify a distribution of supply elasticities, based on the Campbell study (e.g., triangular distribution with minimum value 0.29 and maximum value 0.72), thereby generating a distribution of possible outcomes. (See Arndt and Pearson, 1996 for more details on how to conduct such systematic sensitivity analysis in GTAP.)

Fossil fuels and mining: Whalley and Wigle spend considerable time studying the supply response of the fossil fuels sector in their attempt to assess the implications of taxation designed to reduce global carbon dioxide emissions. Because of the importance of this parameter to their study, they conduct a systematic sensitivity analysis for which they set the minimum value to 0.1 and the maximum to 1.5. Their central case is 0.5. This is the value which we choose as a target for version 4 of GTAP.

Unfortunately a similar study was not available for the other mining sectors. However, in the case of many minerals, extensive deposits exist around the world and the owners are ready to bring some of these mines back on line (or temporarily shut some down) when prices rise (or fall). This suggests a higher supply response. We have adopted the value of 2.5 here, based on experience in Australia (Robert McDougall, personal communication).

17.4.3 Agriculture

Having gone to the trouble to target supply response in the non-agricultural, natural resource based sectors, we found ourselves asking whether this might not also be a good idea in the case of agriculture. Of course the situation is somewhat different here, since we have additional information in the form of independent estimates of primary factor shares (see table 17.4). Since these are deemed more reliable than the estimated elasticities of substitution, we adjust the latter in order to achieve the targeted supply response. Furthermore, we only target the global supply elasticity for agriculture as a whole.

What degree of supply response is appropriate for agriculture? Despite the extensive literature on this topic, the agricultural economics profession is still far from agreement. Some argue that supply response is very low, even in the long run, while others argue that once full adjustment of labor and capital has occurred, the scope for sizable responses to price changes is considerable. Given the propensity of governments to intervene in agricultural markets, the degree of supply response is much more than an academic issue. Sizable long run supply elasticities translate into high costs for government price support schemes and distorted world markets. In this study, we target a global supply response for agriculture of 1.19, based on Peterson's cross section, international study. This is larger than some of the supply pessimists might like, but smaller than the supply optimists would argue for. When applied to equations (2) and (3), using average shares for world agriculture, this yields a value of $\sigma_{VA} = 0.23.$ This is substituted in the parameter file for the previous value which was larger (0.56 in versions 1 - 3). This smaller elasticity of substitution in production results in a smaller agricultural supply response in models based on the version 4 data.

There are two areas of agricultural supply response where broad agreement exists. We accommodate both of them in GTAP. First of all, supply response is relatively smaller in less industrialized economies, where agriculture is less commercialized. This feature comes through in GTAP, via the overall share of value-added in costs. In Sub-Saharan Africa, where purchased inputs are far less important, the share of value-added, and hence land, is much higher than in the United States. Consider the case of rice production. The global cost share of land in this sector is about 22%. However, in the US and Australia, this figure is only 10%, whereas in India it is 28% and the Indonesian rice sector has a cost share of land equal to 43%. Based on equations (1) - (3), supply response in the US and Australia will be much higher than in India and Indonesia, given a common elasticity of substitution in production.

A second point of general agreement is that supply response at the level of individual crops is much higher than for agriculture as a whole. This makes sense, since agricultural land (and farmers as well) can shift from one crop to another much more readily than they can shift into another sector, such as wearing apparel. Since agricultural land is sector specific in the GTAP model, those who choose to disaggregate agricultural subsectors will find this proposition also holds. Namely, the supply response of individual agricultural activities is larger than for the sector as a whole. Land is no longer a fixed factor for individual crops, as it may be bid away from competing crop or grazing activities. The degree of land mobility across subsectors is determined by the elasticity of transformation (ETRAE in GTAP notation), as discussed in the GTAP book (Hertel, 1997).

17.4.4 Summary

In summary, these changes substantially alter the performance of the natural resource-based sectors in applied GE models drawing on the version 4 data base. With less elastic supply, we expect larger price changes and smaller quantity changes for natural resource based products. These changes can also have macro-economic implications in economies which are heavily dependent on natural resources. Consider for example, the adjustment of an oil-exporting economy to a cut in its import tariffs. In order to pay for the increased imports, more oil must be exported. However, if supply of that product is less responsive, then the process of reestablishing external balance will be quite different. We will expect more of the adjustment to occur in the form of higher resource rents, and less in the form of higher exports and depressed product prices.

Table 17.4 Share of primary factors in agricultural value-added

Land	Labor	Capital	Region# and code/source (source region)
21	51	28	! 1. AUS /ABS I/O table for labor, Ball, 1996, for other
14	62	24	! 2. NZL/NZIER I/O table
18	51	31	! 3. JPN/Kuroda for labor, Ball, 1996, for other
51	40	9	! 4. KOR/Ban
51	42	7	! 5. IDN/GREEN
51	42	7	! 6. MYS/GREEN
41	55	4	! 7. PHL/Cristomo and Barker
38	54	8	! 8. SGP/(TWN)
51	42	7	! 9. THA/GREEN
29	59	12	! 10. VNM/(CHN)
29	59	12	! 11. CHN/Martin
38	54	8	! 12. HKG/(TWN)
38	54	8	! 13. TWN/ Lee and Chen (TWN)
44	38	18	! 14. IND/Chadha, et al.
44	38	18	! 15. LKA/(IND)
44	38	18	! 16. RAS/(IND)
17	39	44	! 17. CAN/Narayanan and Kizito
28	38	34	! 18. USA/Ball (1988) for labor, Ball, 1996, for other
28	47	25	! 19. MEX/(Haley for South America)
28	47	25	! 20. CAM/(Haley for South America)
28	47	25	! 21. VEN/(Haley for South America)
28	47	25	! 22. COL/(Haley for South America)
28	47	25	! 23. RAP/(Haley for South America)
28	47	25	! 24. ARG/(Haley for South America)
16	24	60	! 25. BRA/(Brandao et al.)
28	47	25	! 26. CHL/(Haley for South America)
28	47	25	! 27. URY/(Haley for South America)
28	47	25	! 28. RSM/(Haley for South America)
14	68	18	! 29. GBR/Heinrichsmeyer et al. for EU labor/Ball, 1996, for other
15	68	17	! 30. DEU/Heinrichsmeyer et al. for EU labor/Ball, 1996, for other
9	68	23	! 31. DNK/Heinrichsmeyer et al. for EU labor/Ball, 1996, for other
11	68	21	! 32. SWE/Heinrichsmeyer et al. for EU labor/Ball, 1996, for other
11	68	21	! 33. FIN/Heinrichsmeyer et al. for EU labor/Ball, 1996, for other
11	68	21	! 34. REU/Heinrichsmeyer et al. for EU labor/Ball, 1996, for other
27	35	38	! 35. EFT/GREEN
35	53	12	! 36. CEA/GREEN
28	60	12	! 37. FSU/GREEN
35	53	12	! 38. TUR/CEA
11	57	32	! 39. RME/Haley for MEA
11	57	32	! 40. MAR/Haley for MEA
11	57	32	! 41. RNF/Haley for MEA
15	40	45	! 42. SAF/Masters
15	60	25	! 43. RSA/Masters
12	72	16	! 44. RSS/Haley for RSS
40	40	20	! 45. ROW/GREEN

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