

Economic and Financial Interrelationships within the Wellington Region

Objective

This paper presents an analysis of the economic and financial interdependencies among local authority areas within Wellington Region. It has been prepared by Market Economics Ltd (M.E).

Background

The Local Government Commission is considering a local government reorganisation proposal, in relation to the Wellington Region, which includes Wellington City, Hutt City, Upper Hutt City, Porirua City, Kapiti Coast District, Masterton District, Carterton District, and South Wairarapa District. A key aspect of that assessment is to understand the relationships among the local authorities, including the economic and financial interdependencies.

Approach

To identify the current situation, M.E has modelled the flows and economic relationships within and among those local authorities. The analysis is based on the M.E Economic Futures Model (EFM), which identifies the structures of local economies (applying an inter-sectoral input-output basis), and now includes capability to identify economic flows among regions and among local authority areas.

The model takes into account the structure of each region's economy, the net flows inward and outward to/from that economy, known physical flows to/from each other region, and the effects of distance (impedance), to estimate the O-D structure of flows. Data on physical flows includes inter-regional freight flows, and inter-regional transactions by consumers, as well as detailed supply-use data. The model applies a full assessment, covering inputs, outputs and final demand, including exports (inter-regional and international) and imports.

The model output identifies flows for each of 106 sectors of the economy. Current reporting is based on the total picture, which captures inputs and outflows across all sectors combined, and includes final demand. This combination is the most appropriate summary representation of the economic inter-relationships, and the closely associated financial inter-relationships.

It covers the flows from and to each local authority area within the region. For completeness, the output also identifies flows from the rest of the North Island, and to/from the rest of New Zealand. This helps place the intra-regional flows into their wider context.

Values are expressed in \$2007m terms, consistent with the most recent economic inter-industry data.

While the results presented here are brief, there is substantial intra- and inter-regional economic modelling which underpins the results. We note that while every effort has been made to accurately identify the intra- and inter-regional flows, there is not full data, especially around the effects of distance on economic flows.

Results

Table 1 identifies the core economic inter-relationships currently. The matrix shows outputs in \$2007m from each TLA to each other TLA:

- a. Each **row** shows the outputs from each TLA. For example, of the \$1,956m outputs from Kapiti Coast District, \$904m are directed within that District, with \$125m to Porirua City, \$57m to Upper Hutt City, and so on;
- b. Each column shows the outputs as corresponding inputs to each TLA. For example, of the \$2,629m inputs to Kapiti Coast District, \$904m arise within the District, with \$102m arising from Porirua City, \$50m from Upper Hutt City, and so on.

Economic Output Flows

Table 2 expresses those core economic inter-relationships as % shares, to identify the significance of intra-regional flows for each TLA. For all of the TLAs, economic outputs are directed primarily within the region, either internally within the TLA, or to other TLAs within the Wellington Region. The three Wairarapa TLAs show a significant share within the sub-region (44% overall), with a substantial share also (33%) to elsewhere in the region.

The other Wellington TLAs show stronger inter-relationships west of the Rimutakas, with relatively small shares of their outputs to the Wairarapa TLAs. This is not unexpected, given the smaller size of those economies.

Table 1: Wellington Intra-Regional Economic Flows 2013

Region / District	Kapiti Coast District	Porirua City	Upper Hutt City	Lower Hutt City	Wellington City	Other Wellington	Masterton District	Carterton District	South Wairarapa District	Wairarapa	Wellington Region	Rest of North Island	Rest of New Zealand	TOTAL OUTPUT
Kapiti Coast District	904	125	57	155	332	1,573	27	12	14	52	1,625	271	61	1,956
Porirua City	102	615	69	246	585	1,616	23	9	12	44	1,660	221	67	1,948
Upper Hutt City	50	66	457	315	322	1,210	29	14	18	61	1,271	276	85	1,631
Lower Hutt City	247	366	468	2,719	2,671	6,471	113	42	55	210	6,682	1,266	421	8,369
Wellington City	712	1,022	672	3,087	12,359	17,851	317	111	137	565	18,416	5,501	2,093	26,011
Other Wellington	2,014	2,195	1,723	6,521	16,269	28,721	509	188	235	932	29,654	7,534	2,728	39,916
Masterton District	40	36	45	99	202	421	527	111	48	686	1,108	249	56	1,412
Carterton District	13	11	18	39	70	151	70	84	19	173	323	88	11	422
South Wairarapa District	14	14	18	46	86	177	22	17	107	146	323	120	13	456
Wairarapa	67	60	81	183	358	749	619	212	174	1,005	1,754	457	79	2,290
Wellington Region	2,082	2,255	1,804	6,704	16,626	29,471	1,128	400	409	1,937	31,408	7,991	2,807	42,206
Rest of North Island	427	340	283	954	1,857	3,861	293	97	136	526	4,386	178,505	7,253	190,144
Rest of New Zealand	120	79	64	240	472	975	57	21	24	102	1,077	4,926	57,930	63,933
TOTAL INPUT	2,629	2,674	2,150	7,897	18,956	34,306	1,478	518	569	2,565	36,871	191,423	67,989	296,283

Table 2: Wellington Intra-Region Output Flows by TLA 2013

Region / District	Kapiti Coast District	Porirua City	Upper Hutt City	Lower Hutt City	Wellington City	Other Wellington	Masterton District	Carterton District	South Wairarapa District	Wairarapa	Wellington Region	Rest of North Island	Rest of New Zealand	TOTAL OUTPUT
Kapiti Coast District	46%	6%	3%	8%	17%	80%	1%	1%	1%	3%	83%	14%	3%	100%
Porirua City	5%	32%	4%	13%	30%	83%	1%	0%	1%	2%	85%	11%	3%	100%
Upper Hutt City	3%	4%	28%	19%	20%	74%	2%	1%	1%	4%	78%	17%	5%	100%
Lower Hutt City	3%	4%	6%	32%	32%	77%	1%	1%	1%	3%	80%	15%	5%	100%
Wellington City	3%	4%	3%	12%	48%	69%	1%	0%	1%	2%	71%	21%	8%	100%
Other Wellington	5%	5%	4%	16%	41%	72%	1%	0%	1%	2%	74%	19%	7%	100%
Masterton District	3%	3%	3%	7%	14%	30%	37%	8%	3%	49%	78%	18%	4%	100%
Carterton District	3%	3%	4%	9%	17%	36%	17%	20%	4%	41%	77%	21%	2%	100%
South Wairarapa District	3%	3%	4%	10%	19%	39%	5%	4%	23%	32%	71%	26%	3%	100%
Wairarapa	3%	3%	4%	8%	16%	33%	27%	9%	8%	44%	77%	20%	3%	100%
Wellington Region	5%	5%	4%	16%	39%	70%	3%	1%	1%	5%	74%	19%	7%	100%

Economic Input Flows

Table 3 shows pattern of inputs to each TLA, as the % share of inputs arising from each other TLA in Wellington Region, and the rest of New Zealand.

For every TLA, intra-regional flows dominate, accounting for between 72% and 88% of inputs to the TLA economies. This indicates quite strong intra-regional interdependency, where the other TLAs in the region account for the major share of inputs. The table also highlights the important role of inputs from Wellington City – this is expected, because it is the largest ‘local’ economy within the region.

Table 3: Wellington Region Total Input Flows to each TLA

Region / District	Kapiti Coast District	Porirua City	Upper Hutt City	Lower Hutt City	Wellington City	Other Wellington	Masterton District	Carterton District	South Wairarapa District	Wairarapa	Wellington Region
Kapiti Coast District	34%	5%	3%	2%	2%	5%	2%	2%	2%	2%	4%
Porirua City	4%	23%	3%	3%	3%	5%	2%	2%	2%	2%	5%
Upper Hutt City	2%	2%	21%	4%	2%	4%	2%	3%	3%	2%	3%
Lower Hutt City	9%	14%	22%	34%	14%	19%	8%	8%	10%	8%	18%
Wellington City	27%	38%	31%	39%	65%	52%	21%	22%	24%	22%	50%
Masterton District	2%	1%	2%	1%	1%	1%	36%	21%	8%	27%	3%
Carterton District	0%	0%	1%	0%	0%	0%	5%	16%	3%	7%	1%
South Wairarapa District	1%	1%	1%	1%	0%	1%	2%	3%	19%	6%	1%
Within Region	79%	84%	84%	85%	88%	86%	76%	77%	72%	76%	85%
Rest of North Island	16%	13%	13%	12%	10%	11%	20%	19%	24%	20%	12%
Rest of New Zealand	5%	3%	3%	3%	2%	3%	4%	4%	4%	4%	3%
TOTAL INPUT	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%

Table 4 shows the % share of inputs to each TLA, arising from each other TLA in Wellington Region. This is simply a finer breakdown of Table 3, excluding the rest of New Zealand. Again, the importance of Wellington City is evident, especially for the smaller TLAs. The table also shows the combined effects of the three TLAs in the Wairarapa, which account for low shares of inputs in the Wellington and western TLAs, but high shares within the Wairarapa.

Table 4: Wellington Intra-Regional Input Flows by TLA

Region / District	Kapiti Coast District	Porirua City	Upper Hutt City	Lower Hutt City	Wellington City	Other Wellington	Masterton District	Carterton District	South Wairarapa District	Wairarapa	Wellington Region
Kapiti Coast District	43%	6%	3%	2%	2%	5%	2%	3%	3%	3%	5%
Porirua City	5%	27%	4%	4%	4%	5%	2%	2%	3%	2%	5%
Upper Hutt City	2%	3%	25%	5%	2%	4%	3%	3%	4%	3%	4%
Lower Hutt City	12%	16%	26%	41%	16%	22%	10%	10%	13%	11%	21%
Wellington City	34%	45%	37%	46%	74%	61%	28%	28%	34%	29%	59%
Masterton District	2%	2%	2%	1%	1%	1%	47%	28%	12%	35%	4%
Carterton District	1%	0%	1%	1%	0%	1%	6%	21%	5%	9%	1%
South Wairarapa District	1%	1%	1%	1%	1%	1%	2%	4%	26%	8%	1%
TOTAL	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Total Wairarapa	3%	3%	4%	3%	2%	3%	55%	53%	42%	52%	6%

Summary

The analysis shows quite substantial intra-regional economic relationships among the TLAs within Wellington Region. While the flows within the Wairarapa sub-region show a clear localised inter-relationship, there is also a strong economic linkage which crosses the Rimutaka divide.

The patterns identified in the analysis are not unexpected, given the nature of the regional economy, and each TLA economy, and the established business and community inter-relationships.

Douglas Fairgray

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