COMPANION VOLUME G · INITIATED BY UNCLE JAMES

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THE TECHNICAL PAPER

Every parameter, dataset and simulation behind the library, printed from the three models with their sensitivities, published as data and set out so that anyone can rebuild them.

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COUNT EVERY PLATE · SHOW EVERY SUM · LET ANYONE CHECK

In this volume: G.1 Inputs and sources · G.2 The stall P&L · G.3 Distributions · G.4 The funding ledgers · G.5 The succession lab · G.6 The Regulars' List and the baseline · G.7 Sensitivities · G.8 Time series · G.9 Reproducibility.

VOLUME G · DATA AND SIMULATIONS · A WORKING PAPER FOR PUBLIC DISCUSSION · VERSION 1.9.3 · NOVEMBER 2026

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The Technical Paper

Volume G of the library. Every parameter, dataset and simulation behind the library, printed from the three models with their sensitivities, published as data and set out so that anyone can rebuild them. The Executive Summary and the Plan make the case; the companion volumes A to F argue each part of it; this volume prints the arithmetic beneath them, every table generated from the models and published as data.

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G

How to Read This Volume

This is the arithmetic, laid bare. Every table here is printed by a program from the three models the plan rests on, and every table can be downloaded and checked. If a number in the Plan looks wrong to you, this is where to find out whether it is.

The other volumes argue; this one only counts. It adds no findings and no new assumptions. Where a sensitivity needs a range the models do not carry, I move the parameter 20% either way and say so beside it. Granted, a volume of tables is not light reading. It is not meant to be. It is meant to be checked.

SECTION	WHAT IT HOLDS
G.1	Every parameter of the three models, 295 in all, with its value, unit, source, mark and where it is used; every input of the stall archetypes; the data dictionary of the downloads
G.2	The stall P&L for six stalls, a month and a year; what days closed for illness cost; the newcomer's rent path for three bids
G.3	The Monte Carlo's inputs and draws; net income, hours and rent as deciles, quartiles and means
G.4	The funding ledgers: every centre, every line, Years 0–20; the four stacks; the endowment's paths; licence failure
G.5	The Succession Mortgage, year by year, by stall type; the royalty and its buy-out; what licences pay masters' families
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G.7	One-at-a-time sensitivities: 30 parameters tested, the twelve that move the totals most
G.8	The rent, fee, price and real-sales series since 2012, 666 values in all
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The marks

Every number carries one of three marks. OFFICIAL is a published figure. DERIVED is our arithmetic on published figures, and every model output is derived in this sense: it is what the equations give from the inputs in G.1, *Inputs and Sources*. ASSUMPTION is not grounded in Singapore data. The plan's own design choices, such as Band B's rent or the size of a Fellowship, are marked as assumptions too, because nothing measured fixes them. In tables the mark is a chip, a column, or a letter after the value: ^{O} official, ^{D} derived, ^{A} assumption. Of the 295 parameters in G.1, 42 are official, 52 derived and 201 assumptions.

All money is Singapore dollars. Stall figures are 2026 dollars a month unless a column says otherwise; the funding model's figures are each year's own money (nominal) unless marked as today's dollars. Plan years run from July: Year 0 is 2026–27. Each table's file name is shown beside it, for example `g2-pnl.csv`; G.9, *Reproducibility* lists them all. Model figures are estimates, not measurements.

G.1

Inputs and Sources

Three programs carry the plan's arithmetic: `plate_model.py` follows a diner's dollar through a stall, `succession_lab.py` follows a hand-over month by month, and `funding_model.py` follows the plan's own money for twenty years. This section lists every parameter they hold, read from the code itself, so nothing here can drift from what the models use.

The table is built by reading each model's constants, its rates and settings, the defaults of its functions and, where a function keeps a number to itself, the literal in its source. A check fails the build if any constant in the three programs is missing from it. The sources are those the code names; the full citations are in Sources. `g1-parameters.csv`

G.1.1 The parameters

Follow the Plate · plate_model.py

PARAMETER	VALUE	UNIT	SOURCE OR BASIS	MARK	USED IN
PWM_ASSISTANT_MONTHLY	2,220	$ a month	MOM, PWM for a food/drink stall assistant, from 1 Jul 2026	OFFICIAL	D.4 benchmark; G.2
PWM_ASSISTANT_HOURS	190.667	hours a month	A 44-hour week, 52 weeks over 12 months	DERIVED	D.4
PWM_ASSISTANT_HOURLY	11.6434	$ an hour	The benchmark over its hours	DERIVED	D.4; G.2; G.3
PWM_ASSISTANT_2027	2,360	$ a month	MOM, from 1 Jul 2027 (16 Mar 2026)	OFFICIAL	D.6 wage shock
PWM_ASSISTANT_2028	2,500	$ a month	MOM, from 1 Jul 2028 (16 Mar 2026)	OFFICIAL	D.6 wage shock
PWM_COOK_HOURLY	12.95	$ an hour	MOM, Cook (QS), part-time, from 1 Jul 2026	OFFICIAL	Relief day, §2.7; D.7
EMPLOYER_CPF	0.17	share of wage	CPF Board, employer rate at 55 and below, from 1 Jan 2026	OFFICIAL	Manpower; relief day
SEP_WIS_MAX_60PLUS	3,267	$ a year	CPF, Workfare WY2025, self-employed, 60 and over	OFFICIAL	Household income, D.7
EIR_60PLUS	8,000	$ a year	IRAS, Earned Income Relief from 60	OFFICIAL	Income tax
SUPPLY_CHAIN.farm_or_import_value	0.55	share of ingredient bill	No published margins by stage; the middle of a 25–45% range for the Singapore side	ASSUMPTION	D.2; D.5.3
SUPPLY_CHAIN.freight_and_import	0.1	share of ingredient bill	No published margins by stage; the middle of a 25–45% range for the Singapore side	ASSUMPTION	D.2; D.5.3
SUPPLY_CHAIN.wholesale_margin	0.15	share of ingredient bill	No published margins by stage; the middle of a 25–45% range for the Singapore side	ASSUMPTION	D.2; D.5.3
SUPPLY_CHAIN.distribution	0.12	share of ingredient bill	No published margins by stage; the middle of a 25–45% range for the Singapore side	ASSUMPTION	D.2; D.5.3
SUPPLY_CHAIN.processing_bases	0.08	share of ingredient bill	No published margins by stage; the middle of a 25–45% range for the Singapore side	ASSUMPTION	D.2; D.5.3
SEHC_SURPLUS_CENTRE_YEAR	100,000	$ a centre a year	MSE, 15 Oct 2024: average operating surplus, 2019–23	OFFICIAL	Operator's share, D.5.3
SEHC_STALLS_PER_CENTRE	48	stalls	40–55 cooked-food stalls a centre	ASSUMPTION	Operator's share, D.5.3
LANDLORD_SPLIT.NEA_SUB	state: 1; operator: 0; owner: 0	shares of landlord take	The State is the landlord	OFFICIAL	D.2; D.5
LANDLORD_SPLIT.NEA_TEN	state: 1; operator: 0; owner: 0	shares of landlord take	The State is the landlord	OFFICIAL	D.2; D.5
LANDLORD_SPLIT.SEHC	state: 0.9; operator: 0.1; owner: 0	shares of landlord take	From the operator's surplus at 48 stalls	DERIVED	D.2; D.5

PARAMETER	VALUE	UNIT	SOURCE OR BASIS	MARK	USED IN
LANDLORD_SPLIT.HDB_COFFEE	state: 0.7; operator: 0.3; owner: 0	shares of landlord take	No stall-rent data; HDB collects them from Jan 2026	ASSUMPTION	D.2; D.5
LANDLORD_SPLIT.PVT_COFFEE	state: 0; operator: 0.25; owner: 0.75	shares of landlord take	No stall-rent data; HDB collects them from Jan 2026	ASSUMPTION	D.2; D.5
LANDLORD_SPLIT.FOOD_COURT	state: 0; operator: 0.4; owner: 0.6	shares of landlord take	No stall-rent data; HDB collects them from Jan 2026	ASSUMPTION	D.2; D.5
TENDER_MEDIAN_2023	1,800	$ a month	MSE: 2023 median winning cooked-food bid	OFFICIAL	D.4.1; G.2.3
BAND_B	1,150	$ a month	The plan's Band B rent (§2.2)	ASSUMPTION	D.7
VOUCHER_ENVELOPE	66,000,000	$ a year	The plan's Makan Voucher envelope (§2.5)	ASSUMPTION	D.7
VOUCHER_STALLS	12,700	stalls	Stalls that take CDC vouchers: every type but mall food courts	DERIVED	D.7
VOUCHER_INCREMENTAL	0.15	share of voucher spend	New demand from vouchers	ASSUMPTION	D.7
pol_price_freedom: rise	0.05	share	The plan's certified price rise (§2.5)	ASSUMPTION	D.7
pol_relief: days	12	days a year	The plan's relief days (§2.7)	ASSUMPTION	D.7
RELIEF_COPAY	80	$ a day	The plan's co-pay (§2.7)	ASSUMPTION	D.7; G.2
RELIEF_MAX_HOURS	12	hours a day	Employment Act, Part 4	OFFICIAL	Relief day rate
RELIEF_NORMAL_HOURS	8	hours a day	Employment Act, Part 4 (week of more than five days)	OFFICIAL	Relief day rate
OVERTIME_MULT	1.5	× basic rate	Employment Act, Part 4	OFFICIAL	Relief day rate
pol_protection_floor: episode probability	0.06	a year	Hospital-cash cover: chance of a claim	ASSUMPTION	C; D.7
pol_protection_floor: days lost	21	days an episode	Hospital-cash cover	ASSUMPTION	C; D.7
pol_protection_floor: cash a day	120	$ a day	Hospital-cash cover	ASSUMPTION	C; D.7
pol_protection_floor: premium loading	1.3	× expected claims	Pooled cover's loading	ASSUMPTION	C; D.7
MATCH_YEAR	1,200	$ a year	The Protection Floor's retirement match (§2.11)	ASSUMPTION	D.7.5; B.9
MATCH_SHARE_UNDER_55	0.5	share of stallholders	Unpublished; the median hawker is 60 (MSE, Nov 2024): an upper bound	ASSUMPTION	D.7.5; B.9
pol_rent_support_stall: support	200	$ a month	NEA's temporary support, Sep 2026–Feb 2027	OFFICIAL	D.7.2 incidence test
BUYING_GROUP_ING_MULT	0.97	× ingredient cost	No Singapore data; the pilot centres test it	ASSUMPTION	D.4.1; D.7
GROUP_UTILITIES_MULT	0.9	× utilities	Group switching on the open electricity market	ASSUMPTION	D.4.1; D.7
GROUP_DELIVERY_COMMISSION	0.25	share of delivered order	A group rate against GrabFood's 30%	ASSUMPTION	D.4.1; D.7
GROUP_DELIVERY_TARGET	0.15	share of delivered order	The circles' target (§2.12): a sensitivity only	ASSUMPTION	D.4.1
FEE_SUBSIDY	200	$ a stall a month	Decision of 28 Oct 2026 (§2.2): an upper bound	ASSUMPTION	D.2.2; D.7
PILOT_CENTRES	3	centres	The plan: two Lighthouses and Tekka (§6.3)	ASSUMPTION	D.7; B.9
PILOT_CENTRES_MAX	5	centres	Five at most before the gate (§6.5)	ASSUMPTION	D.7; B.9
PILOT_CENTRE_STALLS	226, 63, 119, 168, 103	cooked-food stalls	NEA's lists and data.gov.sg	OFFICIAL	D.2.2; B.9; G.4
DEPUTY_HOURS_MULT	0.923077	× hours	A named deputy runs the stall an hour a day	ASSUMPTION	D.4.1; D.7

PARAMETER	VALUE	UNIT	SOURCE OR BASIS	MARK	USED IN
FOUNDING_REBATE	400	$ a month	The funding model's partner rebate, rounded down	DERIVED	D.7
ELEC	q2_2026: 27.27; q3_2026: 31.91; q4_2026: 28.59	cents a kWh	SP Group tariffs before GST	OFFICIAL	D.6 energy shock
GAS	q2_2026: 21.92; q3_2026: 23.48; q4_2026: 21.45	cents a kWh	City Energy, as reported	OFFICIAL	D.6 energy shock
ELEC_WEIGHT	0.6	share of utilities	Electricity's weight in a stall's utilities	ASSUMPTION	D.6
ENERGY_PASS_THROUGH	0.5	share passed on	MTI 2015's gas coefficient over a 9.3% utilities share	DERIVED	D.6
TAKE_UP.rent_band	0.03	share of stalls	Take-up of each policy nationally	ASSUMPTION	D.7 national totals
TAKE_UP.price_freedom	0.2	share of stalls	Take-up of each policy nationally	ASSUMPTION	D.7 national totals
TAKE_UP.makan_vouchers	1	share of stalls	Take-up of each policy nationally	ASSUMPTION	D.7 national totals
TAKE_UP.relief	0.15	share of stalls	Take-up of each policy nationally	ASSUMPTION	D.7 national totals
TAKE_UP.protection_floor	0.7	share of stalls	Take-up of each policy nationally	ASSUMPTION	D.7 national totals
TAKE_UP.hdb_tender_lever	0.5	share of stalls	Take-up of each policy nationally	ASSUMPTION	D.7 national totals
TAKE_UP.buying_group	0.25	share of stalls	Take-up of each policy nationally	ASSUMPTION	D.7 national totals
TAKE_UP.group_utilities	0.25	share of stalls	Take-up of each policy nationally	ASSUMPTION	D.7 national totals
TAKE_UP.delivery_rate	0.25	share of stalls	Take-up of each policy nationally	ASSUMPTION	D.7 national totals
TAKE_UP.fee_reset	1	share of stalls	Take-up of each policy nationally	ASSUMPTION	D.7 national totals
TAKE_UP.named_deputy	0.3	share of stalls	Take-up of each policy nationally	ASSUMPTION	D.7 national totals
TAKE_UP.rent_support_stall	1	share of stalls	Take-up of each policy nationally	ASSUMPTION	D.7 national totals
TAKE_UP.support_person	1	share of stalls	Take-up of each policy nationally	ASSUMPTION	D.7 national totals
TAKE_UP.heritage_anchor	0	share of stalls	Take-up of each policy nationally	ASSUMPTION	D.7 national totals
TAKE_UP.founding_rebate	0.00266667	share of stalls	Take-up of each policy nationally	ASSUMPTION	D.7 national totals
RENT_QUOTES.system_median	1,250	$ a month	MSE, 18 Sep 2023 and 5 Feb 2025	OFFICIAL	D.4.1; G.2.3
RENT_QUOTES.comparable_2025	1,450	$ a month	MSE, 8 Sep 2026	OFFICIAL	D.4.1; G.2.3
RENT_QUOTES.tender_2023	1,800	$ a month	MSE: 2023 median winning bid	OFFICIAL	D.4.1; G.2.3
SUCCESSOR_CUSTOM	0.95	share of custom kept	succession_lab's typical successor (its mode)	ASSUMPTION	D.4.1; G.5
SUB_SUCCESSOR_AMR	1,250	$ a month	Median assessed market rent given to Parliament	OFFICIAL	E.1; G.5
succession_case: rate	0.08	share of takings	The first-draft Succession Mortgage terms (§4.3, §4.4)	ASSUMPTION	E.1.1
succession_case: floor	900	$ a month	The first-draft Succession Mortgage terms (§4.3, §4.4)	ASSUMPTION	E.1.1
succession_case: cap	2,200	$ a month	The first-draft Succession Mortgage terms (§4.3, §4.4)	ASSUMPTION	E.1.1

PARAMETER	VALUE	UNIT	SOURCE OR BASIS	MARK	USED IN
succession_case: months_goodwill	15	months of net	The first-draft Succession Mortgage terms (§4.3, §4.4)	ASSUMPTION	E.1.1
succession_case: royalty	0.025	share of takings	The first-draft Succession Mortgage terms (§4.3, §4.4)	ASSUMPTION	E.1.1
LANDING_FLOOR	2,800	$ a month	Graduate Landing Package income top-up (§3.4)	ASSUMPTION	Day page
LANDING_CAP	1,000	$ a month	Graduate Landing Package top-up cap (§3.4)	ASSUMPTION	Day page
REGULARS_ORDERS_PER_WEEK	1.5	orders a week a regular	Unpublished; tested at 1 and 2	ASSUMPTION	D.4.2; G.6
REGULARS_DISH_TYPES.drinks_snacks	1.2	plates an order	Unpublished until the Year 0 baseline	ASSUMPTION	D.4.2; G.6
REGULARS_DISH_TYPES.noodles_rice	1.3	plates an order	Unpublished until the Year 0 baseline	ASSUMPTION	D.4.2; G.6
REGULARS_DISH_TYPES.family	2	plates an order	Unpublished until the Year 0 baseline	ASSUMPTION	D.4.2; G.6
REGULARS_TIERS.Bronze	20, none	names; share of orders	The plan's grades (§3.6)	ASSUMPTION	D.4.2; G.6
REGULARS_TIERS.Silver	50, 0.1	names; share of orders	The plan's grades (§3.6)	ASSUMPTION	D.4.2; G.6
REGULARS_TIERS.Gold	100, 0.2	names; share of orders	The plan's grades (§3.6)	ASSUMPTION	D.4.2; G.6
REGULARS_TIERS.Platinum	250, 0.5	names; share of orders	The plan's grades (§3.6)	ASSUMPTION	D.4.2; G.6
REGULARS_HEALTHY_SHARE	0.35	share of orders	Half of the NRA's 71% repeat share (2013)	ASSUMPTION	D.4.2; G.6
HES_HAWKER_SPEND_MONTH	491	$ a household a month	SingStat, HES 2023	OFFICIAL	D.7.3
diner_household: price_rise	0.05	share	The voucher-cover test (§2.5)	ASSUMPTION	D.7.3
diner_household: share_of_stalls	0.2	share of stalls	The voucher-cover test (§2.5)	ASSUMPTION	D.7.3
diner_household: voucher	120	$ a year	The voucher-cover test (§2.5)	ASSUMPTION	D.7.3
RELIEF_COPAY_MEDICAL	40	$ a day	The plan's medical-leave co-pay (§2.7)	ASSUMPTION	§2.9; G.2.2
NEWCOMER_TERM	3	years a tenancy	NEA's renewal rule, Nov 2024	OFFICIAL	D.4.1; G.2.3
CLFS_2021_OWN_ACCOUNT	1,470	$ a month	MOM CLFS 2021, in the ACPW report, Fig. 1.1, read from a chart	DERIVED	D.4; G.3
HAWKER_PRICES_2021	102.8	index, 2019 = 100	SingStat rates, chained	DERIVED	D.4; G.3
HAWKER_PRICES_2026	122.8	index, 2019 = 100	SingStat, Jan–Sep 2026, chained	DERIVED	D.4; G.3
monte_carlo: n	5,000	stalls a type	Method	DERIVED	D.4; G.3
medisave_rate by age (30, 40, 47, 60)	0.08, 0.09, 0.1, 0.105	share of net trade income	CPF, self-employed MediSave, 2026	OFFICIAL	Net after MediSave
income_tax bands (width, rate)	20,000 at 0%, 10,000 at 2%, 10,000 at 3.5%, 40,000 at 7%, 40 …	$ of chargeable income	IRAS, YA2024 on	OFFICIAL	Net after tax
wis_sep maxima by age (30, 40, 50, 60)	1,633, 2,333, 2,800, 3,267	$ a year	CPF, WY2025; phase-in and taper assumed linear	OFFICIAL	Workfare

Follow the Gift · funding_model.py

PARAMETER	VALUE	UNIT	SOURCE OR BASIS	MARK	USED IN
YEARS	21	years	Year 0 to Year 20	DERIVED	B.9; G.4

PARAMETER	VALUE	UNIT	SOURCE OR BASIS	MARK	USED IN
PWM_STALL_ASSISTANT	1: 2,360; 2: 2,500; 3: 2,500; 4: 2,500	$ a month, by plan year	MOM path to Jul 2028; held from Year 3	OFFICIAL	Apprentices, B.2–B.5
PWM_COOK_HOURLY	1: 13.69; 2: 14.42; 3: 14.42	$ an hour, by plan year	MOM, Cook (QS)	OFFICIAL	Relief Corps, B.2–B.5
EMPLOYER_CPF_55_AND_BELOW	0.17	share of wage	CPF Board, 2026	OFFICIAL	Apprentices; Corps
EMPLOYER_CPF_60_65	0.125	share of wage	CPF Board, 2026	OFFICIAL	Fellowships
APPRENTICE_MONTHS	18	months	The plan's cycle (§3.3)	ASSUMPTION	Apprentices
APPRENTICE_CYCLE	1: 50,684; 2: 52,650; 3: 52,650	$ an apprentice, by start year	PWM wage for 18 months with employer CPF	DERIVED	Apprentices
FELLOWSHIP_TEACHING	30,000	$ a Fellow	The plan's Master Fellowship (§4.2)	ASSUMPTION	Fellowships
FELLOWSHIP_STEWARDSHIP	24,000	$ a Fellow	The plan's Master Fellowship (§4.2)	ASSUMPTION	Fellowships
FELLOWSHIP_COMPLETION	15,000	$ a Fellow	The plan's Master Fellowship (§4.2)	ASSUMPTION	Fellowships
FELLOWSHIP_HEALTH	15,000	$ a Fellow	The plan's Master Fellowship (§4.2)	ASSUMPTION	Fellowships
FELLOWSHIP_CPF	6,750	$ a Fellow	Employer CPF at the rate above 60 to 65: a ceiling	DERIVED	Fellowships
FELLOWSHIP_TOTAL	90,750	$ a Fellow	Stipend, grant, cover and CPF	DERIVED	Fellowships
RELIEF_HOURS / NORMAL / OVERTIME	12, 8, 1.5	hours; hours; ×	Employment Act, Part 4	OFFICIAL	Relief Corps
RELIEF_DAY_RATE_BASE	190	$ a day	The day rate the $12,500 a member was first drawn at	ASSUMPTION	Relief Corps
CORPS_MEMBER	1: 14,753; 2: 15,539; 3: 15,539	$ a member, by plan year	$12,500 indexed to the cook's day rate	DERIVED	Relief Corps
RATES.fellowship	84,000	$ a Fellow	The ledgers' rate (§7.1–7.5)	DERIVED	B.2–B.5; G.4
RATES.fellowship_cpf	6,750	$ a Fellow	The ledgers' rate (§7.1–7.5)	DERIVED	B.2–B.5; G.4
RATES.apprentices_per_fellow	2	apprentices	The ledgers' rate (§7.1–7.5)	ASSUMPTION	B.2–B.5; G.4
RATES.apprentice_cycle	1: 50,684; 2: 52,650; 3: 52,650	$ an apprentice	The ledgers' rate (§7.1–7.5)	DERIVED	B.2–B.5; G.4
RATES.dish	18,000	$ a dish	The ledgers' rate (§7.1–7.5)	ASSUMPTION	B.2–B.5; G.4
RATES.landing	20,000	$ a landing	The ledgers' rate (§7.1–7.5)	ASSUMPTION	B.2–B.5; G.4
RATES.landing_share	0.3	share of apprentices	The ledgers' rate (§7.1–7.5)	ASSUMPTION	B.2–B.5; G.4
RATES.second_station	3,000	$ a Fellow	The ledgers' rate (§7.1–7.5)	ASSUMPTION	B.2–B.5; G.4
RATES.reserve_per_fellow	15,000	$ a Fellow	The ledgers' rate (§7.1–7.5)	ASSUMPTION	B.2–B.5; G.4
RATES.revenue_per_fellow	10,000, 14,500, 25,000	$ a Fellow, by centre year	by the centre's age: the Lighthouse's former $40,000 for 4, $87,500 for 6 and $204,000 for 8, rounded down	ASSUMPTION	B.2–B.5; G.4
RATES.phasing	3: 0.3, 0.35, 0.35; 2: 0.4, 0.6	shares by centre year	The ledgers' rate (§7.1–7.5)	ASSUMPTION	B.2–B.5; G.4
RATES.ci_share	0.583333	share of stalls aged 55+	stallholders aged 55+: about 70 of 120 stalls, about $750 each	ASSUMPTION	B.2–B.5; G.4
RATES.ci_premium	750	$ a stallholder	The ledgers' rate (§7.1–7.5)	ASSUMPTION	B.2–B.5; G.4
RATES.corps_per_stall	0.1	cooks a stall	The ledgers' rate (§7.1–7.5)	ASSUMPTION	B.2–B.5; G.4
RATES.corps_first_year	0.666667	share of bench	The ledgers' rate (§7.1–7.5)	ASSUMPTION	B.2–B.5; G.4
RATES.corps_bench	40,000	$ a centre	The ledgers' rate (§7.1–7.5)	ASSUMPTION	B.2–B.5; G.4
RATES.corps_member	1: 14,753; 2: 15,539; 3: 15,539	$ a member	The ledgers' rate (§7.1–7.5)	DERIVED	B.2–B.5; G.4
RATES.stalls_per_lead	30	stalls	The ledgers' rate (§7.1–7.5)	ASSUMPTION	B.2–B.5; G.4

PARAMETER	VALUE	UNIT	SOURCE OR BASIS	MARK	USED IN
RATES.leads_min	4	leads	The ledgers' rate (§7.1–7.5)	ASSUMPTION	B.2–B.5; G.4
RATES.lead_honorarium	1,200	$ a lead a year	The ledgers' rate (§7.1–7.5)	ASSUMPTION	B.2–B.5; G.4
RATES.staff_per_120_stalls	1.5	FTE	The ledgers' rate (§7.1–7.5)	ASSUMPTION	B.2–B.5; G.4
RATES.staff_min	1.5	FTE	The ledgers' rate (§7.1–7.5)	ASSUMPTION	B.2–B.5; G.4
RATES.staff_fte	78,000	$ a year	The ledgers' rate (§7.1–7.5)	ASSUMPTION	B.2–B.5; G.4
RATES.kitchen_sessions	7,200	$ a centre a year	honoraria and sessions, before participant fees	ASSUMPTION	B.2–B.5; G.4
RATES.listening_lighthouse	70,000	$	The ledgers' rate (§7.1–7.5)	ASSUMPTION	B.2–B.5; G.4
RATES.listening_later	35,000	$	The ledgers' rate (§7.1–7.5)	ASSUMPTION	B.2–B.5; G.4
RATES.participant_fee	150	$ a participant	listening participant fees follow the stall count: 150 for the 120-stall centre the ledgers were first drawn for	ASSUMPTION	B.2–B.5; G.4
RATES.participants_per_stall	1.25	participants a stall	The ledgers' rate (§7.1–7.5)	DERIVED	B.2–B.5; G.4
RATES.pilot_documentation	35,000	$	The ledgers' rate (§7.1–7.5)	ASSUMPTION	B.2–B.5; G.4
RATES.field_kit	30,000	$	The ledgers' rate (§7.1–7.5)	ASSUMPTION	B.2–B.5; G.4
RATES.liaison_half_year	39,000	$	The ledgers' rate (§7.1–7.5)	ASSUMPTION	B.2–B.5; G.4
RATES.baseline	30,000	$	The ledgers' rate (§7.1–7.5)	ASSUMPTION	B.2–B.5; G.4
RATES.evaluator_fieldwork	25,000	$ a year	The ledgers' rate (§7.1–7.5)	ASSUMPTION	B.2–B.5; G.4
RATES.tastings	15,000	$ a year	The ledgers' rate (§7.1–7.5)	ASSUMPTION	B.2–B.5; G.4
RATES.events	10,000	$ a year	The ledgers' rate (§7.1–7.5)	ASSUMPTION	B.2–B.5; G.4
RATES.baseline_interview_hours	3	hours a stall	ASSUMPTION: an opening interview (1 h), two check-ins (0.5 h each), a closing one (1 h)	ASSUMPTION	B.2–B.5; G.4
RATES.interviewer_hour	50	$ an hour	the listening sessions' rate: the $150 participant fee for a session, taken as 3 hours	DERIVED	B.2–B.5; G.4
RATES.tally_sheets	20	$ a stall	ASSUMPTION: 14 daily sheets and a clipboard, at print cost, a stall	ASSUMPTION	B.2–B.5; G.4
RATES.data_assistant_month	4,000	$ a month	the research assistants' rate ($48,000 for 2 x 6 months)	ASSUMPTION	B.2–B.5; G.4
RATES.stalls_per_data_month	80	stalls a month	ASSUMPTION: a data assistant keys and checks about 80 stalls' sheets a month	ASSUMPTION	B.2–B.5; G.4
MAINTENANCE_RATE	0.1	share of planning count a year	Fellowships from Year 4, fed by the at-risk count	ASSUMPTION	B.9.4; G.4
CONTINGENCY	0.1	share of gross	On every ledger line	ASSUMPTION	B.2–B.5
WATCHLIST.listed	0, 300, 600, 800	stalls listed, by year	The Regulars' List ledger (§3.6)	ASSUMPTION	B.2–B.5
WATCHLIST.travel	10	$ a listing	The Regulars' List ledger (§3.6)	ASSUMPTION	B.2–B.5
WATCHLIST.decal	5	$ a decal	The Regulars' List ledger (§3.6)	ASSUMPTION	B.2–B.5
WATCHLIST.registry_page	20	$ a listing	The Regulars' List ledger (§3.6)	ASSUMPTION	B.2–B.5
WATCHLIST.thanks	5	$ a listing	The Regulars' List ledger (§3.6)	ASSUMPTION	B.2–B.5
WATCHLIST.coordinator	78,000	$ a year	The Regulars' List ledger (§3.6)	ASSUMPTION	B.2–B.5
WATCHLIST.booklet_template	0, 6,000, 2,000, 2,000	$ by year	The Regulars' List ledger (§3.6)	ASSUMPTION	B.2–B.5
WATCHLIST.booklet_edition	250	$ a centre a year	The Regulars' List ledger (§3.6)	ASSUMPTION	B.2–B.5
WATCHLIST.listing	0, 6,000, 2,000, 2,000	$ by year	The Regulars' List ledger (§3.6)	ASSUMPTION	B.2–B.5
WATCHLIST.share_of_stalls	0.12, 0.15	share of stalls	The Regulars' List ledger (§3.6)	ASSUMPTION	B.2–B.5

PARAMETER	VALUE	UNIT	SOURCE OR BASIS	MARK	USED IN
WATCHLIST.cooked_food_stalls	6,000	stalls	More than 6,000 in government centres	OFFICIAL	B.2–B.5
WATCHLIST.nomination_names	20	names	The Regulars' List ledger (§3.6)	ASSUMPTION	B.2–B.5
WATCHLIST.horizon_years	3	years	The Regulars' List ledger (§3.6)	ASSUMPTION	B.2–B.5
WATCHLIST.promotion_rate	0.1	share a year	The Regulars' List ledger (§3.6)	ASSUMPTION	B.2–B.5
WATCHLIST.at_risk_share	0.15, 0.25	share of listed stalls	The Regulars' List ledger (§3.6)	ASSUMPTION	B.2–B.5
WATCHLIST.sample_at_risk	8	stalls	The five-centre sample	DERIVED	B.2–B.5
WATCH-LIST.sample_heritage_worthy	55	stalls	The five-centre sample	DERIVED	B.2–B.5
WATCHLIST.centres	123	centres	Government hawker centres	OFFICIAL	B.2–B.5
WATCHLIST.per_listing	40	$ a listing	The Regulars' List ledger (§3.6)	DERIVED	B.2–B.5
CORE	the national operating lines, Years 0–3	$ a year	The ledgers (§7.2–7.5)	ASSUMPTION	G.4.1
CENTRES	stall counts, tiers, padding and planning counts	see G.4.2	NEA lists; guides and records counted 28 Oct 2026	DERIVED	G.4.2
PARAMS.operating	476,443, 1,482,338, 1,631,630, 1,839,695	$ by plan year	Computed from the ledgers (G.4)	DERIVED	B.9; G.4
PARAMS.programme	430,155, 3,146,911, 5,074,627, 5,602,009	$ by plan year	Computed from the ledgers (G.4)	DERIVED	B.9; G.4
PARAMS.lighthouses_only_operating	476,443, 1,375,385, 1,442,650, 1,650,715	$ by plan year	Computed from the ledgers (G.4)	DERIVED	B.9; G.4
PARAMS.lighthouses_only_programme	430,155, 3,026,901, 3,848,019, 3,974,274	$ by plan year	Computed from the ledgers (G.4)	DERIVED	B.9; G.4
PARAMS.addon_operating	0, 120,516, 234,520, 234,520, 0, 103,961, 188,980, 188,980	$ by add-on and year	Computed from the ledgers (G.4)	DERIVED	B.9; G.4
PARAMS.addon_programme	0, 154,000, 1,792,322, 3,050,899, 0, 109,285, 1,447,345, 2,3 …	$ by add-on and year	Computed from the ledgers (G.4)	DERIVED	B.9; G.4
PARAMS.later_centre_operating	0, 106,953, 188,980, 188,980	$ by plan year	Computed from the ledgers (G.4)	DERIVED	B.9; G.4
PARAMS.later_centre_programme	0, 120,010, 1,226,608, 1,627,735	$ by plan year	Computed from the ledgers (G.4)	DERIVED	B.9; G.4
PARAMS.extra_centres	0	centres	add-ons beyond the central three: 0, 1 (Old Airport Road) or 2 (and Maxwell); five at most before the §6.5 gate	ASSUMPTION	B.9; G.4
PARAMS.centres_vetoed	0	0 or 1	1 if Tekka's hawkers veto it at the end of Year 1 (§6.2); the Lighthouses vote in Year 0	ASSUMPTION	B.9; G.4
PARAMS.steady_operating	1,839,695	$ a year, Year 3 prices	Year 4 onward, in Year 3 prices, indexed: the core at its Year 3 level and each centre's operating lines (ASSUMPTION)	DERIVED	B.9; G.4
PARAMS.steady_programme	2,292,194	$ a year, Year 3 prices	Year 4 onward: each centre's maintenance year, Fellowships at about 10% of its planning count (ASSUMPTION)	DERIVED	B.9; G.4

PARAMETER	VALUE	UNIT	SOURCE OR BASIS	MARK	USED IN
PARAMS.lighthouses_only_steady_operating	1,650,715	$ a year, Year 3 prices	the same for the two Lighthouses alone (downside mode)	DERIVED	B.9; G.4
PARAMS.lighthouses_only_steady_programme	1,725,979	$ a year, Year 3 prices	The funding model's setting (§7.6)	DERIVED	B.9; G.4
PARAMS.steady_addon_operating	234,520, 188,980	$ a year, by add-on	Computed from the ledgers (G.4)	DERIVED	B.9; G.4
PARAMS.steady_addon_programme	905,859, 524,604	$ a year, by add-on	Computed from the ledgers (G.4)	DERIVED	B.9; G.4
PARAMS.steady_later_operating	188,980	$ a year	Year 4 onward, Tekka: its maintenance year (what a veto saves)	DERIVED	B.9; G.4
PARAMS.steady_later_programme	566,215	$ a year	The funding model's setting (§7.6)	DERIVED	B.9; G.4
PARAMS.gov_ops	0, 300,000, 400,000, 500,000	$ by plan year	Government operating match, Years 0–3 (§7.6)	ASSUMPTION	B.9; G.4
PARAMS.gov_ops_after	500,000	$ a year, nominal	Year 4 onward, nominal, if it continues (ASSUMPTION)	ASSUMPTION	B.9; G.4
PARAMS.gov_ops_continues	yes	switch	The funding model's setting (§7.6)	ASSUMPTION	B.9; G.4
PARAMS.gifts_for_spending	193,000, 300,000, 400,000, 500,000	$ by plan year	expendable gifts, Years 0–3 (§7.6)	ASSUMPTION	B.9; G.4
PARAMS.foundation_y0	713,598	$	NHB research and heritage foundations, Year 0: the Year 0 net requirement less gifts for spending (§7.6)	DERIVED	B.9; G.4
PARAMS.foundation_y0_public_share	0.5	share	NHB is a statutory board: half of the Year 0 grant counted as public (ASSUMPTION)	ASSUMPTION	B.9; G.4
PARAMS.anchor	7,500,000, 7,500,000	$ by tranche	Government anchor $15M: half at launch, half by the second close (ASSUMPTION on timing)	ASSUMPTION	B.9; G.4
PARAMS.match_pool	10,000,000	$	1:1 matching pool, sought first from MCCY's Cultural Matching Fund	ASSUMPTION	B.9; G.4
PARAMS.match_ratio	1	× each gift	The funding model's setting (§7.6)	ASSUMPTION	B.9; G.4
PARAMS.closes	12,000,000, 30,000,000, 40,000,000	$ at each close	capital committed at launch, by end of Year 1, by end of Year 2	ASSUMPTION	B.9; G.4
PARAMS.draw_rate	0.035	share a year	§7.6: 3.5% of the start-of-year value, then of the three-year average.	ASSUMPTION	B.9; G.4
PARAMS.draw_avg_years	3	years	draw on the average of the last three start-of-year values once available	ASSUMPTION	B.9; G.4
PARAMS.ladder_yield	0.021	a year	Treasury bills ~1.9%, 10-year SGS 2.30% (Aug 2026): a short ladder ~2.1%	OFFICIAL	B.9; G.4
PARAMS.portfolio	balanced	policy	balanced (fixed-income core) | fixed_income | growth	ASSUMPTION	B.9; G.4
PARAMS.heritage_pool_pretax	51,700,000	$ a year	firms selling hawker heritage directly (listed coffeeshop operators, heritage snack chains): latest profit after tax / 0.83	DERIVED	B.9; G.4
PARAMS.regular_pool_pretax	144,000,000	$ a year	other F&B: listed restaurants, the Singapore share of regional groups (ASSUMPTION 20%), unlisted profitable firms (ASSUMPTION $50M)	DERIVED	B.9; G.4
PARAMS.pledge_rate_heritage	0.01	share of profit	The funding model's setting (§7.6)	ASSUMPTION	B.9; G.4
PARAMS.pledge_rate_regular	0.005	share of profit	The funding model's setting (§7.6)	ASSUMPTION	B.9; G.4
PARAMS.partner_takeup	0.5	share of the pool	share of the profit pool that pledges (ASSUMPTION)	ASSUMPTION	B.9; G.4
PARAMS.pledge_years	1, 5	first and last year	pledges run Years 1–5	ASSUMPTION	B.9; G.4

PARAMETER	VALUE	UNIT	SOURCE OR BASIS	MARK	USED IN
PARAMS.pledge_renewal	0.6	share renewed	share renewed for Years 6–10, and again after (ASSUMPTION)	ASSUMPTION	B.9; G.4
PARAMS.operator_share_of_heritage	0.77	share	coffeeshop and food-court operators' share of the heritage pool	ASSUMPTION	B.9; G.4
PARAMS.inkind_share	0.5	share	operators meet up to half in rent rebates to heritage stalls (§2.4)	ASSUMPTION	B.9; G.4
PARAMS.heritage_stalls_hosted	20	stalls	heritage stalls in partner coffeeshops and food courts (ASSUMPTION)	ASSUMPTION	B.9; G.4
PARAMS.households	1,490,000	households	resident households (SingStat, 2025: 1,487,100)	OFFICIAL	B.9; G.4
PARAMS.diner_participation_launch	0.02	share of households	share giving in the launch year (ASSUMPTION)	ASSUMPTION	B.9; G.4
PARAMS.diner_gift_launch	60	$ a gift	The funding model's setting (§7.6)	ASSUMPTION	B.9; G.4
PARAMS.diner_participation_after	0.008	share of households	The funding model's setting (§7.6)	ASSUMPTION	B.9; G.4
PARAMS.diner_gift_after	40	$ a gift	The funding model's setting (§7.6)	ASSUMPTION	B.9; G.4
PARAMS.diner_receipted_share	0.6	share	share of diner gifts claimed for the tax deduction (ASSUMPTION)	ASSUMPTION	B.9; G.4
PARAMS.fnb_sales	12,000,000,000	$ a year	SingStat F&B services sales, about $1.0B a month	OFFICIAL	B.9; G.4
PARAMS.till_share	0, 0.02, 0.04, 0.05	share of sales, by year	share of F&B sales at participating outlets, Years 0–3, then flat (ASSUMPTION)	ASSUMPTION	B.9; G.4
PARAMS.avg_bill	30	$ a bill	in Year 0 prices; bills rise with inflation, so the number of bills stays flat (ASSUMPTION)	ASSUMPTION	B.9; G.4
PARAMS.till_optin	0.08	share of bills	share of bills that add the dollar (ASSUMPTION)	ASSUMPTION	B.9; G.4
PARAMS.till_amount	1	$ a bill	The funding model's setting (§7.6)	ASSUMPTION	B.9; G.4
PARAMS.other_corporate	0, 2,000,000, 2,000,000, 500,000	$ by plan year	Years 0–3, then the Year 3 level (ASSUMPTION)	ASSUMPTION	B.9; G.4
PARAMS.hp_outlets	0, 0, 0, 15, 80, 220, 400	outlets by year	licensed outlets, Years 0–6, then flat; launches in Year 3 with the first certified masters (ASSUMPTION)	ASSUMPTION	B.9; G.4
PARAMS.hp_plates_per_outlet_month	1,000	plates	certified plates an outlet a month (ASSUMPTION)	ASSUMPTION	B.9; G.4
PARAMS.hp_fee	0.5	$ a plate	per certified plate, nominal (ASSUMPTION)	ASSUMPTION	B.9; G.4
PARAMS.hp_packaged_sales	0, 0, 0, 0, 1,000,000, 4,000,000, 10,000,000, 20,000,000	$ by year	retail sales of licensed packaged goods, Years 0–7, then flat (ASSUMPTION)	ASSUMPTION	B.9; G.4
PARAMS.hp_royalty	0.03	share of sales	royalty on packaged-goods retail sales (ASSUMPTION)	ASSUMPTION	B.9; G.4
PARAMS.hp_scale	1	×	multiplies outlets and packaged sales: low case 0.5, high case 2.0	ASSUMPTION	B.9; G.4
PARAMS.hp_failure	0.333333	share a year	share of licensed outlets and packaged lines that fail and pay nothing in a year;	ASSUMPTION	B.9; G.4
PARAMS.hp_split	0.4, 0.4, 0.2	shares: families, match, Seed Bank	master's family, retirement match, Seed Bank	ASSUMPTION	B.9; G.4
PARAMS.match_earmark	0	share of surplus gifts	share of continuing gifts above the programme's needs earmarked for the retirement match, Year 4 on (0 in the adopted plan)	ASSUMPTION	B.9; G.4
PARAMS.match_share_under_55	0.5	share	plate_model.MATCH_SHARE_UNDER_55	ASSUMPTION	B.9; G.4

PARAMETER	VALUE	UNIT	SOURCE OR BASIS	MARK	USED IN
PARAMS.rm_base	8,280,000	$ a year, every age	base at every age: $1,200 a year for every public-centre stallholder, 6,900 stalls (plate_model, share 1.0); x match_share_under_55	DERIVED	B.9; G.4
PARAMS.rm_stretch_match	11,928,000	$ a year, every age	stretch match at every age: every stallholder at 70% enrolment, 9,940 x $1,200 (plate_model, share 1.0); x match_share_under_55	DERIVED	B.9; G.4
PARAMS.rm_stretch_cover	1,953,806	$ a year	stretch's pooled hospital-cash cover, every enrolled stallholder at any age (plate_model.national); not scaled	DERIVED	B.9; G.4
PARAMS.rm_lighthouse	346,800	$ a year	Years 1–3: the two Lighthouses only, 289 stalls x $1,200 at every age, if adopted early (ASSUMPTION); x match_share_under_55	ASSUMPTION	B.9; G.4
PARAMS.rm_lighthouse_on	no	switch	off: the match is costed, not asked for, and starts only if adopted, nationally from Year 4	ASSUMPTION	B.9; G.4
PARAMS.rm_takeup	0.25, 0.5, 0.75, 1	share by Years 4–7	share of the base (or stretch) reached in Years 4–7, then all (ASSUMPTION)	ASSUMPTION	B.9; G.4
PARAMS.hp_gov_match_years	3	years	Government matches licence income 1:1 for its first three years (ASSUMPTION)	ASSUMPTION	B.9; G.4
PARAMS.hp_gov_match_cap	2,000,000	$ a year	... capped at $2M a year (ASSUMPTION)	ASSUMPTION	B.9; G.4
PARAMS.hdb_contribution	1,680,000	$ a year	HDB's forgone tender rent from the tender lever at full roll-out, if HDB agrees (plate_model.national); x match_share_under_55 counts towards the ...	DERIVED	B.9; G.4
PARAMS.hdb_from_year	4	plan year	The funding model's setting (§7.6)	ASSUMPTION	B.9; G.4
PARAMS.hdb_rollout	0.25, 0.5, 0.75, 1	share by Years 4–7	share of the $1.68M reached in Years 4–7, then all: it bites only as coffeeshops are re-tendered (ASSUMPTION)	ASSUMPTION	B.9; G.4
PARAMS.rm_stretch_hdb_coffee	2,352,000	$ a year, every age	the stretch's match for HDB-rented coffeeshop stallholders at every age, 1,960 x $1,200; x match_share_under_55 ($1.18M): the cap on what HDB's ...	DERIVED	B.9; G.4
PARAMS.hdb_on	no	switch	on only in the "with HDB" scenario	ASSUMPTION	B.9; G.4
PARAMS.rm_earmark_central	0.5	share	central share of surplus continuing gifts earmarked for the match (scenarios 0, 0.5, 1)	ASSUMPTION	B.9; G.4
PARAMS.major_gifts_available	none	$ (none: as needed)	None = whatever each close needs; a number caps the total (Monte Carlo)	ASSUMPTION	B.9; G.4
PARAMS.giving_stops_after	none	year (none: never)	a year after which diners, partners and companies stop giving (stress test)	ASSUMPTION	B.9; G.4
PARAMS.deduction_multiple	2.5	× the gift	250% tax deduction for gifts to IPCs, extended by Budget 2026 to 31 Dec 2029;	OFFICIAL	B.9; G.4
PARAMS.tax_rate_corporate	0.17	rate	The funding model's setting (§7.6)	OFFICIAL	B.9; G.4
PARAMS.tax_rate_major	0.23	rate	major donors: the 22-24% top bands of plate_model.income_tax (IRAS, YA2024 on); 23% central	OFFICIAL	B.9; G.4
PARAMS.tax_rate_diner	0.07	rate	typical receipted diner (ASSUMPTION)	ASSUMPTION	B.9; G.4
PARAMS.inflation	0.015	a year	ASSUMPTION, long-run Singapore CPI	ASSUMPTION	B.9; G.4
PORTFOLIOS.balanced	0.041, 0.073	mean and s.d. of yearly return	Fixed-income core (60% bonds, 40% equities)	ASSUMPTION	B.9.3; G.4
PORTFOLIOS.fixed_income	0.027, 0.04	mean and s.d. of yearly return	Bonds and bills only	ASSUMPTION	B.9.3; G.4

PARAMETER	VALUE	UNIT	SOURCE OR BASIS	MARK	USED IN
PORTFOLIOS.growth	0.052, 0.11	mean and s.d. of yearly return	Growth (30% bonds, 70% equities)	ASSUMPTION	B.9.3; G.4

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PARAMETER	VALUE	UNIT	SOURCE OR BASIS	MARK	USED IN
EXIT_FLOOR	1,000	$ a month	Six-month take-home at which a successor quits	ASSUMPTION	E.1; G.5
OTHER_EXIT_HAZARD	0.02	a year	Quitting for health or family	ASSUMPTION	E.1; G.5
FIRST_LOSS_MONTHS	24	payments	The first-loss guarantee (§4.3)	ASSUMPTION	E.1; G.5
ROYALTY	0.025	share of takings	Family Name Royalty (§4.4)	ASSUMPTION	E.1; G.5
ROYALTY_MONTHS	120	months	The royalty's ten-year cap (§4.4)	ASSUMPTION	E.1; G.5
HORIZON	120	months	Months each hand-over is followed	DERIVED	E.1; G.5
ESCROW_FEE	0.015	share of payments	Escrow fee (§4.3)	ASSUMPTION	E.1; G.5
HAWKER_CPI_YOY	2020: 0.013; 2021: 0.015; 2022: 0.057; 2023: 0.061; 2024: 0. …	a year	SingStat for 2020–25; 2026 approximated	OFFICIAL	E.1; G.5
ING_EXTRA	2020: 0; 2021: 0.01; 2022: 0.03; 2023: 0.02; 2024: 0; 2025: …	a year, over hawker CPI	Ingredient costs ahead of prices, 2021–26	ASSUMPTION	E.1; G.5
UTIL_LEVEL	2020: 0.75; 2021: 0.82; 2022: 1.05; 2023: 1.12; 2024: 1.05; …	× 2026 level	Shaped on SP Group's tariffs	ASSUMPTION	E.1; G.5
WAGE_GROWTH	0.035	a year	Assistants' pay before the 2026 benchmark	ASSUMPTION	E.1; G.5
RENT_WAIVER_MONTHS	2020: 4, 5, 6, 7, 8; 2021: 6, 7, 8	months	Eight months' waiver (MSE, 3 Aug 2021); the months placed by us	ASSUMPTION	E.1; G.5
FEE_SUBSIDY_MONTHS	2020: 4, 5, 6; 2021: 6, 7, 8	months	Six months' fee subsidy (MSE, 3 Aug 2021); the months placed by us	ASSUMPTION	E.1; G.5
TABLE_CLEANING_FEE	520	$ a month	MSE, 8 Sep 2026: the table-cleaning part of $720	OFFICIAL	E.1; G.5
RESERVE_BUDGET	150,000, 240,000, 270,000	$ by year	The ledgers' first-loss reserve (§7.2–7.5)	DERIVED	E.1; G.5
ESCROW_SETUP_ADMIN	40,000, 30,000, 30,000	$ by year	Set-up and administration	ASSUMPTION	E.1; G.5
CRISIS_MONTHS	24	months	A 2020-style shock fails every young mortgage	ASSUMPTION	E.1; G.5
draw_handovers: n	4,000	hand-overs	Method	DERIVED	E.1.2
draw_handovers: min_seller_net	1,500	$ a month	Only stalls with goodwill to sell	ASSUMPTION	E.1.2
draw_handovers: retention_mode	0.95	share of custom	The successor keeps the custom	ASSUMPTION	E.1.2
draw_handovers: multiple_range	12, 18	months of net	Goodwill (§4.3)	ASSUMPTION	E.1.2
rule_adopted: rate, net cap, floor, cap	0.08, 0.3, 600, 2,200	share; share; $; $	The adopted terms (§4.3)	ASSUMPTION	E.1; G.5
make_protected: protected income	1,500	$ a month	The adopted protected income (§4.3)	ASSUMPTION	E.1.4; G.5
NOTES.successor	Keeps 75–105% of the master's custom (triangular, mode 95%). …	text	The futures' growth rates and noise	ASSUMPTION	E.1.2

PARAMETER	VALUE	UNIT	SOURCE OR BASIS	MARK	USED IN
NOTES.costs	Plate prices rise 2.5% a year (s.d. 1.5 points), with ingred …	text	The futures' growth rates and noise	ASSUMPTION	E.1.2

Long values are cut at about sixty characters in print; the download holds them whole. A PARAMS entry marked derived and holding a list (the operating and programme budgets) is computed from the ledgers (the plan's year-by-year cost tables) in G.4, *The Funding Ledgers*. The models are tied together: the funding model checks its match costs against `plate_model` and its first-loss reserve (money set aside to cover the first losses if a successor fails) against `succession_lab` each time it runs.

G.1.2 The stall inputs

Every field of the six stall types and of the prologue's three cases, as the model holds them. The cases are John's single-handed stall, Ah Kow's queue and Nurul's landing stall; every input in which they differ from the tendered archetype (a typical stall of one type) is an assumption calibrated to the prologue (D.4, F.3). `g1-stall-inputs.csv`

FIELD	UNIT	MARK	NEA, SUBSID-ISED	NEA, TENDERED	OPERAT-OR-RUN	HDB COF-FEESHOP	PRIVATE COF-FEESHOP	FOOD COURT	JOHN	AH KOW	NURUL
ticket	$ a plate	DERIVED	4.3	4.5	4.4	5.2	5.5	6.5	4.5	4.5	4.5
plates_per_day	plates	DERIVED	150	156	160	160	195	150	105	400	100
rent	$ a month	OFFICIAL	290	1,250	1,700	3,400	6,000	0	1,250	1,250	805
turnover_rent	share of sales	ASSUMPTION	0	0	0	0	0	0.25	0	0	0
fees	$ a month	OFFICIAL	720	720	1,050	1,000	1,200	300	720	720	720
fee_to_landlord	share of fees	ASSUMPTION	0.3	0.3	0.114286	0.6	0.6	1	0.3	0.3	0.3
capture	share of support	ASSUMPTION	0	0.05	0.15	0.35	0.85	0.95	0.05	0.05	0.05
rent_vol	s.d. at renewal	ASSUMPTION	0.02	0.1	0.1	0.2	0.3	0.15	0.1	0.1	0.1
value_meal_share	share of plates	OFFICIAL	0	0	0.1	0	0	0	0	0	0
value_meal_discount	$ a plate	ASSUMPTION	0	0	1	0	0	0	0	0	0
app_discount	share of sales	ASSUMPTION	0	0	0.02	0	0	0	0	0	0
stalls_in_bloc	stalls	DERIVED	2,070	4,330	500	2,800	3,000	1,500	0	0	0
days_open	days a month	ASSUMPTION	26	26	26	26	26	26	26	26	26
hours_per_day	hours	OFFICIAL	13	13	13	13	13	13	11	12.5	13
manpower	$ a month	DERIVED	2,920	2,920	2,920	2,920	3,600	2,920	0	7,800	2,920
utilities	$ a month	DERIVED	1,000	1,000	1,000	1,000	1,200	600	800	1,600	1,000
misc	$ a month	ASSUMPTION	300	300	420	300	300	300	250	500	300
k_ing	share of sales	DERIVED	0.445	0.445	0.445	0.445	0.445	0.445	0.47	0.445	0.445
delivery_share	share of sales	ASSUMPTION	0.08	0.08	0.08	0.08	0.08	0.08	0.08	0.03	0.08
delivery_commission	share of order	OFFICIAL	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3
epay_share	share of sales	ASSUMPTION	0.25	0.25	0.25	0.25	0.25	0.25	0.25	0.25	0.25
mdr	share of e-sales	OFFICIAL	0.005	0.005	0.005	0.005	0.005	0.005	0.005	0.005	0.005
closure_days_year	days a year	ASSUMPTION	10	10	10	10	10	10	10	10	10
age	years	OFFICIAL	60	60	60	60	60	60	35	72	60
pass_ing	$ price a $ cost	DERIVED	1.25	1.25	1.25	1.25	1.25	1.25	1.25	1.25	1.25
pass_rent	$ price a $ cost	DERIVED	0.35	0.35	0.35	0.35	0.35	0.35	0.35	0.35	0.35
elasticity	elasticity	ASSUMPTION	-0.5	-0.5	-0.5	-0.5	-0.5	-0.5	-0.5	-0.5	-0.5

FIELD	UNIT	MARK	NEA, SUBSID-ISED	NEA, TENDERED	OPERAT-OR-RUN	HDB COF-FEESHOP	PRIVATE COF-FEESHOP	FOOD COURT	JOHN	AH KOW	NURUL
medisave_arrears_p	share	ASSUMPTION	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05
match_share	share	ASSUMPTION	none	none	none	none	none	none	1	0	none

G.1.3 The data dictionary

Each table in this volume is published as a CSV file with a JSON twin that carries the same rows and, for each column, its label and unit. The files are listed here with their row counts and the mark that applies to them; "mixed" means the file carries a mark for each value or row.

FILE	SECTION	WHAT IT HOLDS	ROWS	COLUMNS	MARK
g1-parameters.csv	G.1	Every parameter of the three models	295	7	mixed
g1-stall-inputs.csv	G.1.2	Every input of the six stall archetypes and the prologue's three cases	29	12	mixed
g2-pnl.csv	G.2.1	The stall P&L by archetype, a month and a year	19	14	DERIVED
g2-illness.csv	G.2.2	What days closed for illness cost the hawker in a year	30	9	DERIVED
g2-newcomer.csv	G.2.3	The newcomer's rent path for three bids	6	13	DERIVED
g3-net.csv	G.3	Net income: deciles, quartiles and the mean, 5,000 simulated stalls a type	7	16	DERIVED
g3-hours.csv	G.3	Hours: deciles, quartiles and the mean, 5,000 simulated stalls a type	7	14	DERIVED
g3-rent.csv	G.3	Rent: deciles, quartiles and the mean, 5,000 simulated stalls a type	7	14	DERIVED
g3-inputs.csv	G.3	The Monte Carlo's inputs: each draw as the code writes it, and its 10th, 50th and 90th percentiles by stall type	17	20	ASSUMPTION
g4-ledgers.csv	G.4.1	Every pilot centre and the national core: every line, every year, 0–20 (long format)	729	6	DERIVED
g4-stacks.csv	G.4.2	The four funding stacks, Years 0–3: two, three, four and five pilot centres	16	16	DERIVED
g4-plan.csv	G.4.3	The central plan, Years 0–20: every inflow and every use	21	29	DERIVED
g4-endowment-paths.csv	G.4.4	The endowment paths, Years 0–20, with the probability of holding real value	84	12	DERIVED
g4-chua.csv	G.4.5	Heritage Plate licensees that fail each year: none, a third, half (Chua, 2024)	3	16	DERIVED
g4-maintenance.csv	G.4.4	The maintenance rate from Year 4: 10% to 40% of the planning count	4	6	DERIVED
g5-schedules.csv	G.5.1	Succession Mortgage schedules under the adopted terms, by stall type, year by year	135	7	DERIVED
g5-summary.csv	G.5.1	Succession Mortgage by stall type: goodwill, payment, payoff and royalty	7	10	DERIVED
g5-royalty.csv	G.5.2	The Family Name Royalty's ten years and what is left at each anniversary	66	4	DERIVED
g5-licences.csv	G.5.3	Heritage Plate licence income and its three shares, by failure rate	24	6	DERIVED
g6-regulars.csv	G.6.1	The Regulars' List in orders: every stall and dish type	11	20	ASSUMPTION
g6-tiers.csv	G.6.1	The Regulars' List thresholds	4	3	ASSUMPTION
g6-baseline.csv	G.6.2	The Year 0 stall baseline: sample sizes, interview hours and cost by centre	5	7	ASSUMPTION
g6-publishes.csv	G.6.2	What the baseline publishes, as distributions	7	3	ASSUMPTION
g7-sensitivity.csv	G.7	One at a time: every parameter tested, its range and what it does to the four-year total and the endowment	30	10	DERIVED
g8-rents.csv	G.8	Rents, 2012–2026	12	9	mixed
g8-fees.csv	G.8	Fees and wages, 2012–2026	15	9	mixed
g8-prices.csv	G.8	Prices, 2012–2026	15	13	mixed
g8-sales.csv	G.8	Real sales, 2012–2026	14	9	mixed

FILE	SECTION	WHAT IT HOLDS	ROWS	COLUMNS	MARK
g9-parity.csv	G.9.1	Parity between the Python models and the browser ports	1	8	DERIVED
g8-series.csv	G.8	Every series value, with its unit, mark, source and note (data/curated/series.csv)	666	10	mixed

The columns of the main files; every file's columns, labels and units are in its JSON twin and in index.json. g8-series.csv has year, series, value, unit, status (the mark), source_id, source, url, note and set (core or extended).

FILE	COLUMNS (UNIT)
g1-parameters	Model; Parameter; Value (as the model holds it); Unit; Source or basis; Mark (official, derived or assumption); Where it is used
g2-pnl	Line; Model field; NEA, tendered, a month ($); NEA, subsidised, a month ($); HDB coffeeshop, a month ($); Operator-run, a month ($); John, a month ($); Ah Kow, a month ($); NEA, tendered, a year ($); NEA, subsidised, a year ($); HDB coffeeshop, a year ($); Operator-run, a year ($); John, a year ($); Ah Kow, a year ($)
g3-net	Stall; Model key; P10 ($ a month); P20 ($ a month); P25 ($ a month); P30 ($ a month); P40 ($ a month); P50 ($ a month); P60 ($ a month); P70 ($ a month); P75 ($ a month); P80 ($ a month); P90 ($ a month); Mean ($ a month); Share under $1,760 (share); Share under the assistant's hourly benchmark (share)
g4-ledgers	Centre; Model key; Part (programme, operating, revenue, A or B); Line; Plan year; Amount ($ nominal; Years 0–3 lines gross, before contingency)
g4-plan	Year; Price level (Year 0 = 1); Anchor ($); Match ($); Partners, cash ($); Partners, rebates ($); Diners ($); Till dollar ($); Other firms ($); Major gifts ($); Foundations ($); Bridge grants ($); Gifts for spending ($); Govt ops match ($); Heritage Plate ($); Draw ($); Ladder ($); Spend operating ($); Spend programme ($); Spend ($); Gifts to spending ($); Unfunded ($); To corpus ($); Investment return ($); Corpus end ($); Corpus real end ($); Tax forgone ($); Public ($); Private ($)
g5-schedules	Case; Year after hand-over; Successor's net ($ a month, before payment); Mortgage paid ($ a year); Royalty paid ($ a year); Goodwill still owed ($, year end); Take-home ($ a month)
g6-regulars	Stall; Model key; Dish type; Plates a week; Plates an order; Orders a week; $ an order ($); Bronze: regulars to reach; Bronze: route (count or share); Silver: regulars to reach; Silver: route (count or share); Gold: regulars to reach; Gold: route (count or share); Platinum: regulars to reach; Platinum: route (count or share); Regulars for the 35% base; Tier at the base; Base at 1 orders a week; Base at 1.5 orders a week; Base at 2 orders a week
g7-sensitivity	Parameter; Central; Range and why; Four-year total, low ($); Four-year total, high ($); Corpus in Year 20, low (multiple of $40M, today's dollars); Corpus in Year 20, high (multiple of $40M); Swing in the four-year total (share); Swing in the corpus (share); Largest relative swing (share)

G.2

The Stall P&L by Archetype

Six stalls, every line. The typical tendered stall (won at NEA's open tender, usually by the highest bid) sells $17,667 a month and keeps $3,169, or $9.69 an hour over 327 hours, against the $11.64 the Progressive Wage (the pay ladder the Government sets for lower-wage jobs) sets for the assistant beside him. John, cooking alone, keeps $2,982; Ah Kow, with three assistants and a queue, keeps $12,807.

G.2.1 A month and a year

Each column is the Follow-the-Plate model's profit and loss for one stall at its base inputs (G.1.2, *The stall inputs*). "Income and savings" adds Workfare (the Government's top-up for low-wage workers) and the retirement match to the net and takes off tax; "spendable cash" also takes off MediSave (the part of CPF that pays for health care) and keeps only Workfare's cash part. All lines are DERIVED model outputs. g2-pnl.csv

A MONTH	NEA, TENDERED	NEA, SUBSIDISED	HDB COFFEESHOP	OPERATOR-RUN	JOHN	AH KOW
Sales: what diners pay	$17,667	$16,232	$20,939	$17,315	$11,891	$45,300
Ingredients	$7,862	$7,223	$9,318	$7,884	$5,589	$20,158
Rent	$1,250	$290	$3,400	$1,700	$1,250	$1,250
Turnover rent	$0	$0	$0	$0	$0	$0
Centre fees	$720	$720	$1,000	$1,050	$720	$720
Assistants' wages	$2,920	$2,920	$2,920	$2,920	$0	$7,800
Utilities	$1,000	$1,000	$1,000	$1,000	$800	$1,600
Delivery commission	$424	$390	$503	$416	$285	$408
Payment fees	$22	$20	$26	$22	$15	$57
Operator app discount	$0	$0	$0	$346	$0	$0
Other running costs	$300	$300	$300	$420	$250	$500
Hawker's net (profit)	**$3,169**	**$3,369**	**$2,472**	**$1,557**	**$2,982**	**$12,807**
MediSave	$333	$354	$260	$163	$268	$840
Income tax	$10	$14	$0	$0	$21	$858
Workfare	$0	$0	$136	$259	$3	$0
Income and savings	$3,159	$3,356	$2,609	$1,816	$2,964	$11,950
Spendable cash	$2,826	$3,002	$2,226	$1,419	$2,693	$11,110
Hours worked	327	327	327	327	277	315
Net an hour	**$9.69**	**$10.30**	**$7.56**	**$4.76**	**$10.77**	**$40.71**

A YEAR	NEA, TENDERED	NEA, SUBSIDISED	HDB COFFEESHOP	OPERATOR-RUN	JOHN	AH KOW
Sales: what diners pay	$212,004	$194,790	$251,264	$207,776	$142,695	$543,600
Ingredients	$94,342	$86,682	$111,812	$94,611	$67,067	$241,902
Rent	$15,000	$3,480	$40,800	$20,400	$15,000	$15,000
Turnover rent	$0	$0	$0	$0	$0	$0
Centre fees	$8,640	$8,640	$12,000	$12,600	$8,640	$8,640

A YEAR	NEA, TENDERED	NEA, SUBSID-ISED	HDB COF-FEESHOP	OPERATOR-RUN	JOHN	AH KOW
Assistants' wages	$35,040	$35,040	$35,040	$35,040	$0	$93,600
Utilities	$12,000	$12,000	$12,000	$12,000	$9,600	$19,200
Delivery commission	$5,088	$4,675	$6,030	$4,987	$3,425	$4,892
Payment fees	$265	$243	$314	$260	$178	$680
Operator app discount	$0	$0	$0	$4,156	$0	$0
Other running costs	$3,600	$3,600	$3,600	$5,040	$3,000	$6,000
Hawker's net (profit)	**$38,029**	**$40,430**	**$29,667**	**$18,684**	**$35,785**	**$153,686**
MediSave	$3,993	$4,245	$3,115	$1,962	$3,221	$10,080
Income tax	$121	$164	$0	$0	$255	$10,291
Workfare	$0	$0	$1,638	$3,104	$40	$0
Income and savings	$37,908	$40,266	$31,305	$21,787	$35,570	$143,395
Spendable cash	$33,915	$36,021	$26,716	$17,032	$32,314	$133,315
Hours worked	3,926	3,926	3,926	3,926	3,322	3,775

G.2.2 What a closed stall costs

A stall shut for illness loses a day's sales, but its rent, fees, assistant and utilities run on. At the typical tendered stall one day costs the hawker $372; 36 days, six weeks, cost $13,388, 35% of the year's net; 100 days cost $37,188. The model's own grid is 1, 18, 36, 130 days (C, §2.9, *The Hawker Security Package*); this table adds 5, 10 and 100 and agrees with it where they meet. "Rent waived" applies NEA's discretion to waive the rent of the closed days; "with a Corps cook" covers every closed day at the $40 medical co-pay. g2-illness.csv

DAYS CLOSED	NET LOST	A DAY	OF THE YEAR'S NET	RENT WAIVED	A DAY	WITH A CORPS COOK
1	$372	$372	1.0%	$324	$324	$40
5	$1,859	$372	4.9%	$1,619	$324	$200
10	$3,719	$372	9.8%	$3,238	$324	$400
36	$13,388	$372	35.2%	$11,657	$324	$1,440
100	$37,188	$372	97.8%	$32,381	$324	$4,000

LOST A DAY CLOSED	1 DAY	5 DAYS	10 DAYS	36 DAYS	100 DAYS
NEA, tendered	$372	$372	$372	$372	$372
NEA, subsidised	$342	$342	$342	$342	$342
HDB coffeeshop	$441	$441	$441	$441	$441
Operator-run	$344	$344	$344	$344	$344
John	$238	$238	$238	$238	$238
Ah Kow	$981	$981	$981	$981	$981

The queue is assumed to come back after the illness; if regulars drift away, the loss is larger (F.2, *Limits, Assumptions and How This Enters the Plan*). A single-handed stall loses less a day because it pays no assistant, but it has no one to keep it open.

G.2.3 The newcomer's rent path, three bids

Under NEA's renewal rule of November 2024 a newcomer pays the winning bid for three years, then a rent halfway between the bid and NEA's assessed market rent (its valuation) for the next three, and the valuation itself only from the seventh year. NEA (National Environment Agency, which runs the public hawker centres) publishes neither a stall's valuation nor every bid. So we use the median (the middle figure: half are above it, half below) winning bids NEA published for 2022 and 2023 OFFICIAL and our own median of NEA's list for January to May 2026 DERIVED; the valuations of $1,250 and $1,450 are illustrations. A newcomer who wins at the 2023 bid, at a valuation of $1,250, pays $29,700 more over his first six years than if the rent had been the valuation all along. g2-newcomer.csv

BID	BID	VALUATION	YEARS 4–6	$/H, Y1–3	$/H, Y4–6	$/H, Y7 ON	ABOVE VALUATION, 6 YRS
2022	$2,000 O	$1,250	$1,625	$7.39	$8.54	$9.69	$40,500
2022	$2,000 O	$1,450	$1,725	$7.39	$8.23	$9.08	$29,700
2023	$1,800 O	$1,250	$1,525	$8.01	$8.85	$9.69	$29,700
2023	$1,800 O	$1,450	$1,625	$8.01	$8.54	$9.08	$18,900
2026	$1,950 D	$1,250	$1,600	$7.55	$8.62	$9.69	$37,800
2026	$1,950 D	$1,450	$1,700	$7.55	$8.31	$9.08	$27,000

G.3

Distributions

The middle figure hides the stall that is struggling, and so does a typical case. Here are the 5,000 simulated stalls of each type behind D.4, *What the Hawker Earns per Hour*, generated again from the same starting number (the seed), so the results match, and shown in tenths, quarters and averages. Put together, with each type counted by its real number of stalls, the middle stall makes $2,720 a month; one stall in four makes less than $1,568; and 29% make less than $1,760. ($1,760 is MOM's 2021 figure of $1,470 for hawkers who employ no one, in 2026 prices.)

The redraw is checked against `results.json` as it runs: each type's median, and the pooled median and share under the line, must match D.4 exactly. Every value below is DERIVED; the draws themselves rest on the ASSUMPTION ranges in the first table.

G.3.1 The inputs and what they draw

Each input as the model draws it for a simulated stall, and the 10th, 50th and 90th percentiles (the level a given share of results stays below) it gives for the tendered stall, with the medians for two coffeeshop types. The download has all six types. g3-inputs.csv

INPUT	DRAW, AS THE CODE WRITES IT	P10	P50	P90	HDB P50	PRIVATE P50
plates_per_day	`s.plates_per_day * math.exp(0.15 * z1)`	128	157	190	160	195
ticket	`s.ticket * math.exp(0.06 * rng.standard_normal())`	4.16	4.50	4.86	5.20	5.50
k_ing	`tri(0.4, s.k_ing, 0.49)`	0.420	0.445	0.470	0.445	0.445
manpower	`s.manpower * tri(0.85, 1.0, 1.15)`	2,676	2,923	3,160	2,926	3,600
utilities	`s.utilities * tri(0.85, 1.0, 1.15)`	916	1,001	1,083	1,000	1,199
hours_per_day	`tri(11, s.hours_per_day, 15)`	11.92	13.00	14.12	13.00	13.01
days_open	`tri(24, 26, 28)`	24.87	25.99	27.09	25.99	26.02
delivery_share	`tri(0.0, s.delivery_share, 0.16)`	0.036	0.080	0.124	0.079	0.081
delivery_commission	`tri(0.25, s.delivery_commission, 0.35)`	0.271	0.299	0.328	0.300	0.300
closure_days_year	`tri(4, 10, 16)`	6.66	10.01	13.37	10.06	10.00
elasticity	`tri(-1.0, -0.5, -0.3)`	-0.815	-0.591	-0.426	-0.585	-0.576
pass_rent	`tri(0.12, 0.35, 0.45)`	0.204	0.314	0.392	0.314	0.314
pass_ing	`tri(1.05, 1.25, 1.45)`	1.14	1.25	1.36	1.25	1.25
capture	`min(max(s.capture + rng.uniform(-0.1, 0.1), 0.0), 1.0)`	0.000	0.051	0.129	0.348	0.850
rent	`s.rent * math.exp(rent_sd * rz)`	1,071	1,252	1,463	3,405	5,994
fees	`s.fees * math.exp(0.25 * rng.standard_normal())`	720	720	720	997	1,208
turnover_rent	`tri(0.2, 0.25, 0.3)`	0.000	0.000	0.000	0.000	0.000

G.3.2 Net income

Quartiles (a quarter of a ranked list) and the mean, with the share under the $1,760 line and the share earning less an hour than the assistant's benchmark of $11.64. g3-net.csv

STALL	P10	P25	P50	P75	P90	MEAN	UNDER $1,760	UNDER $/H BENCH-MARK
NEA, subsidised	$1,658	$2,391	$3,301	$4,373	$5,406	$3,461	12%	63%

STALL	P10	P25	P50	P75	P90	MEAN	UNDER $1,760	UNDER $/H BENCH-MARK
NEA, tendered	$1,328	$2,106	$3,179	$4,282	$5,384	$3,279	17%	66%
Operator-run	−$148	$601	$1,520	$2,552	$3,553	$1,636	56%	92%
HDB coffeeshop	$414	$1,265	$2,381	$3,595	$4,849	$2,527	36%	79%
Private coffeeshop	−$1,132	$287	$1,839	$3,395	$4,997	$1,886	49%	80%
Food court	$1,157	$1,833	$2,737	$3,711	$4,648	$2,839	23%	77%
All stalls, weighted by count	**$495**	**$1,568**	**$2,720**	**$3,933**	**$5,140**	**$2,759**	**29%**	**73%**

NET INCOME, DECILES	P10	P20	P30	P40	P50	P60	P70	P80	P90
NEA, subsidised	$1,658	$2,188	$2,595	$2,966	$3,301	$3,695	$4,136	$4,667	$5,406
NEA, tendered	$1,328	$1,903	$2,318	$2,745	$3,179	$3,559	$4,012	$4,583	$5,384
Operator-run	−$148	$399	$791	$1,174	$1,520	$1,886	$2,301	$2,828	$3,553
HDB coffeeshop	$414	$1,022	$1,476	$1,923	$2,381	$2,839	$3,349	$3,900	$4,849
Private coffeeshop	−$1,132	−$126	$613	$1,264	$1,839	$2,393	$3,028	$3,836	$4,997
Food court	$1,157	$1,654	$2,029	$2,377	$2,737	$3,096	$3,499	$3,935	$4,648
All stalls, weighted by count	**$495**	**$1,281**	**$1,822**	**$2,269**	**$2,720**	**$3,179**	**$3,657**	**$4,247**	**$5,140**

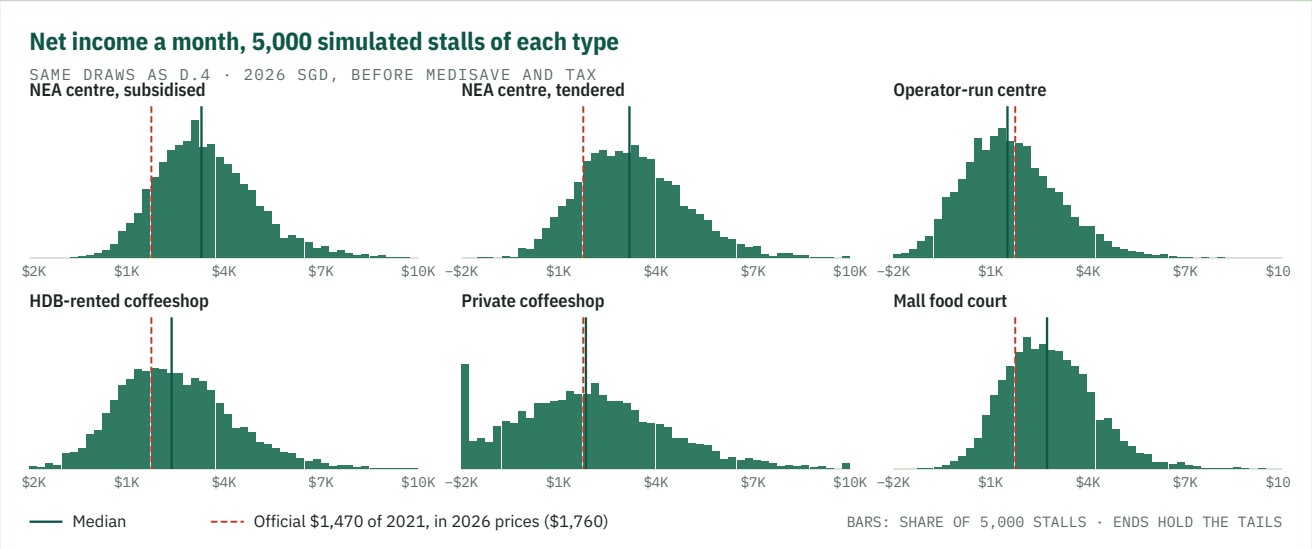


FIGURE G.1 · NET INCOME A MONTH, 5,000 SIMULATED STALLS OF EACH TYPE · DARK LINE: MEDIAN · RED DASH: $1,760, MOM'S 2021 FIGURE IN 2026 PRICES · VALUES BEYOND THE AXIS ARE HELD IN THE END BARS

G.3.3 Hours and rent

Hours a day are the least measured number in the trade; the model draws them between 11 and 15 around the 13 that one interview study found. Rent is drawn around each type's base and rises with custom. g3-hours.csv g3-rent.csv

STALL	P10	P25	P50	P75	P90	MEAN
NEA, subsidised	11.9	12.4	13.0	13.6	14.1	13.0
NEA, tendered	11.9	12.4	13.0	13.6	14.1	13.0
Operator-run	11.9	12.4	13.0	13.6	14.1	13.0
HDB coffeeshop	11.9	12.4	13.0	13.6	14.1	13.0
Private coffeeshop	11.9	12.4	13.0	13.6	14.1	13.0

STALL	P10	P25	P50	P75	P90	MEAN
Food court	11.9	12.4	13.0	13.6	14.1	13.0
All stalls, weighted by count	**11.9**	**12.4**	**13.0**	**13.6**	**14.1**	**13.0**

STALL	P10	P25	P50	P75	P90	MEAN
NEA, subsidised	$290	$290	$290	$290	$290	$290
NEA, tendered	$1,071	$1,153	$1,252	$1,360	$1,463	$1,261
Operator-run	$1,504	$1,590	$1,697	$1,815	$1,930	$1,707
HDB coffeeshop	$2,630	$2,963	$3,405	$3,885	$4,391	$3,471
Private coffeeshop	$4,179	$4,918	$5,994	$7,348	$8,852	$6,294
Food court	$0	$0	$0	$0	$0	$0
All stalls, weighted by count	**$0**	**$290**	**$1,393**	**$3,856**	**$6,157**	**$2,501**

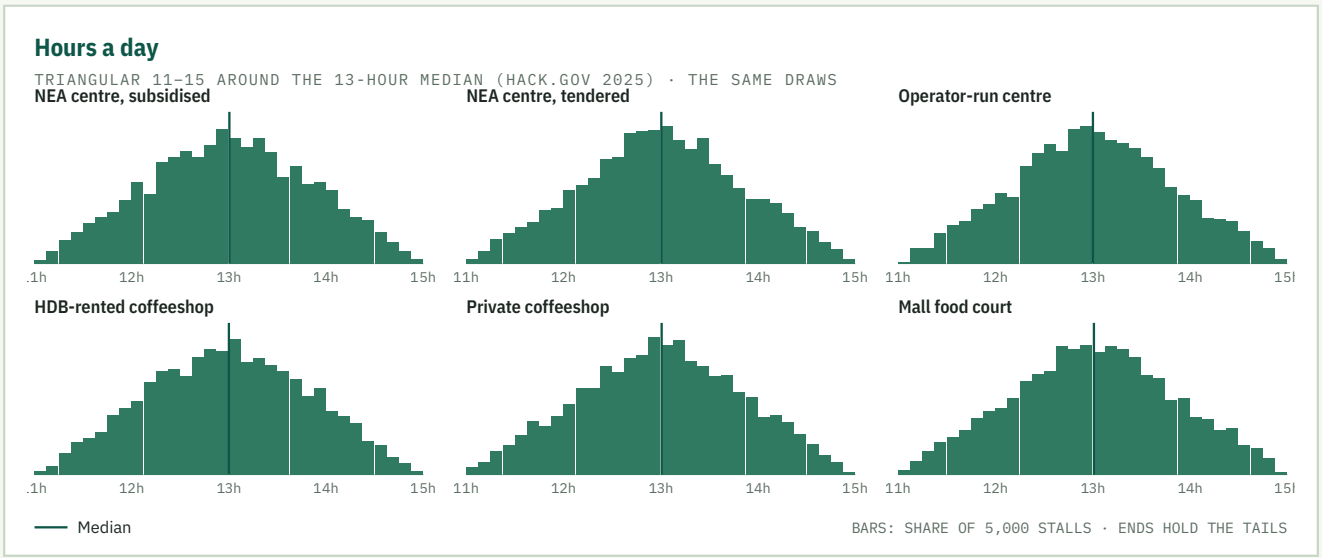


FIGURE G.2 · HOURS A DAY, THE SAME DRAWS · DARK LINE: MEDIAN

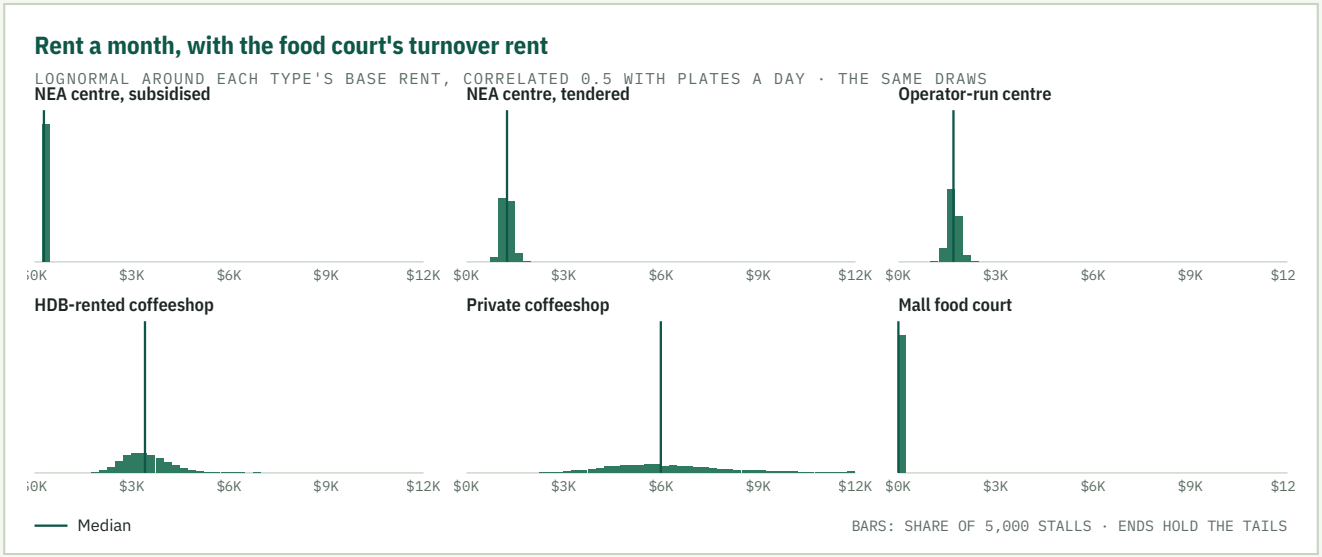


FIGURE G.3 · RENT A MONTH, THE SAME DRAWS · THE FOOD COURT PAYS A SHARE OF SALES · SUBSIDISED NEA RENTS DO NOT VARY

G.4

The Funding Ledgers

Every line of every pilot centre's ledger, every year from 0 to 20, and what pays for it. At the three pilot centres Years 0–3 cost $19,683,808, and the corpus (the endowment's invested capital) ends Year 20 at 121% of its $40M target in today's dollars, keeping its real value (value after inflation) in 71% of 5,000 futures.

Each ledger is the funding model's result for one centre, before the 10% reserve for unforeseen costs (the contingency). It is shown in the two parts the Budget Book uses: A, the running cost a centre adds, and B, the programme money that reaches hawkers, after subtracting any income the programme earns. From Year 4 each centre runs at a steady maintenance level, in Year 3 prices, rising each year with prices as in the central plan. All figures are DERIVED from the ASSUMPTION rates in G.1, *Inputs and Sources*; stall counts are OFFICIAL. The long file holds every centre, every line and every year, the typical further centre included. `g4-ledgers.csv`

G.4.1 The national core

NATIONAL OPERATING LINE	YEAR 0	YEAR 1	YEAR 2	YEAR 3	YEARS 0–3
Core team, with the first Lighthouse's own roles	–	$429,000	$532,000	$682,000	$1,643,000
Interim project lead and research assistants	$168,000	–	–	–	$168,000
Office, legal, audit and insurance; communications and events; the independent evaluator	$114,000	$135,000	$150,000	$180,000	$579,000
Hawker Council fees and elections; directors' stall-visit vouchers	$17,000	$22,200	$34,200	$22,200	$95,600
Shared national platforms: the Taste Council and feedback platform, the digital repository	–	$145,000	$90,000	$115,000	$350,000
Buying Circles (§2.12): partnerships role, part-time, 0.5 FTE (ASSUMPTION)	–	$39,000	$39,000	$39,000	$117,000
Buying Circles (§2.12): open price board on the Plate Ledger's data, and group-order templates (ASSUMPTION)	–	$10,000	$4,000	$4,000	$18,000
Pilot-centre coordinator, in the core team (ASSUMPTION)	–	$78,000	$78,000	$78,000	$234,000
Regulars' List (§3.6): coordinator, 1 FTE (ASSUMPTION)	–	$78,000	$78,000	$78,000	$234,000
Regulars' List (§3.6): for each new listing, the listing visit ($10 travel, no stipend), the decal at print cost, the Registry page and the thank-you notes; a new decal for each stall that moves up a tier (ASSUMPTION)	–	$12,000	$12,150	$8,300	$32,450
Regulars' List (§3.6): each centre's yearly booklet and map, at all 123 government centres (ASSUMPTION)	–	$36,750	$32,750	$32,750	$102,250
Regulars' List (§3.6): the place on the open price board and in the Buying Circles' order book, the increment only (ASSUMPTION)	–	$6,000	$2,000	$2,000	$10,000
A, the core, with the 10% contingency	**$328,900**	**$1,090,045**	**$1,157,310**	**$1,365,375**	**$3,941,630**

G.4.2 The four stacks

How each year's net requirement (what the plan must raise that year, after its own income) is met at two, three, four and five pilot centres. In Year 0 the gifts for spending and the foundation grants pay for everything. In Years 1–3 four sources pay: the yearly draw from the fund, the Government's operating match (the Government's yearly grant towards running costs), the gifts for spending and the bond ladder (bonds bought in Year 0 with bridge grants, timed to mature when the money is needed). The two Lighthouses (the first two pilot centres, Chinatown Complex and

Geylang Serai) alone are the downside mode (§7.8, *Downside Mode & Sunset Economics*); five is the most the plan opens before the gate (§6.5, *Gate Criteria to Scale*). g4-stacks.csv

YEAR	NET REQUIREMENT	ENDOWMENT DRAW	GOVERNMENT MATCH	GIFTS FOR SPEND-ING	FOUNDATIONS OR BOND LADDER	UNFUNDED
TWO LIGHTHOUSES (DOWNSIDE MODE)						
Year 0	$906,598	–	–	$193,000	$713,598	–
Year 1	$4,402,286	$420,000	$300,000	$300,000	$3,382,286	–
Year 2	$5,290,669	$1,051,917	$400,000	$400,000	$3,440,669	–
Year 3	$5,624,989	$1,406,719	$500,000	$500,000	$3,224,989	–
Years 0–3	**$16,224,542**	**bridge grants in Year 0 $9,643,366; major gifts $5.74M; corpus in Year 20 158% of the $40M in today's dollars; short over Years 4–20 nothing**				
THREE PILOT CENTRES (THE PLAN)						
Year 0	$906,598	–	–	$193,000	$713,598	–
Year 1	$4,629,249	$420,000	$300,000	$300,000	$3,609,249	–
Year 2	$6,706,257	$1,051,917	$400,000	$400,000	$4,856,257	–
Year 3	$7,441,704	$1,406,719	$500,000	$500,000	$5,041,704	–
Years 0–3	**$19,683,808**	**bridge grants in Year 0 $12,930,522; major gifts $5.74M; corpus in Year 20 121% of the $40M in today's dollars; short over Years 4–20 nothing**				
FOUR: WITH OLD AIRPORT ROAD						
Year 0	$906,598	–	–	$193,000	$713,598	–
Year 1	$4,903,765	$420,000	$300,000	$300,000	$3,883,765	–
Year 2	$8,733,099	$1,051,917	$400,000	$400,000	$6,883,099	–
Year 3	$10,727,123	$1,406,719	$500,000	$500,000	$8,327,123	–
Years 0–3	**$25,270,585**	**bridge grants in Year 0 $18,230,550; major gifts $5.74M; corpus in Year 20 86% of the $40M in today's dollars; short over Years 4–20 $9.43M**				
FIVE: WITH MAXWELL						
Year 0	$906,598	–	–	$193,000	$713,598	–
Year 1	$5,117,011	$420,000	$300,000	$300,000	$4,097,011	–
Year 2	$10,369,424	$1,051,917	$400,000	$400,000	$8,519,424	–
Year 3	$13,290,492	$1,406,719	$500,000	$500,000	$10,890,492	–
Years 0–3	**$29,683,525**	**bridge grants in Year 0 $22,417,545; major gifts $5.74M; corpus in Year 20 86% of the $40M in today's dollars; short over Years 4–20 $23.34M**				

G.4.3 Chinatown Complex

226 cooked-food stalls OFFICIAL · planning count 27 DERIVED · opens in Year 1 · a Lighthouse · managed by Jalan Besar Town Council

LINE	YEAR 0	YEAR 1	YEAR 2	YEAR 3	YEARS 0–3
PROGRAMME (B), GROSS					
Master Fellowships	–	$726,000	$816,750	$907,500	$2,450,250
Apprentice stipends	–	$810,944	$947,700	$1,053,000	$2,811,644
Graduate Landing Packages	–	–	$160,000	$160,000	$320,000
Documentation programme and field equipment	$35,000	$174,000	$162,000	$180,000	$551,000
Relief-Hawker Corps	–	$261,295	$397,397	$397,397	$1,056,089

LINE	YEAR 0	YEAR 1	YEAR 2	YEAR 3	YEARS 0–3
Second-station grants	–	$24,000	$27,000	$30,000	$81,000
Partner-kitchen sessions	–	$7,200	$7,200	$7,200	$21,600
Group critical-illness pool, stallholders 55+	$99,000	$99,000	$99,000	$99,000	$396,000
First-loss reserve and succession escrow	–	$120,000	$135,000	$150,000	$405,000
Listening and co-design (honoraria, sessions, participant fees)	$112,450	–	–	–	$112,450
OPERATING IT ADDS (A), GROSS					
Centre staff	–	$78,000	$78,000	$78,000	$234,000
Buying Circles: circle leads' honoraria	–	$9,600	$9,600	$9,600	$28,800
Stall baseline: a two-week till count by dish type (interviewers, tally sheets, data assistant)	$50,420	–	–	–	$50,420
Programme revenue (deducted)	–	$80,000	$130,500	$250,000	$460,500
A, with the 10% contingency	**$55,462**	**$96,360**	**$96,360**	**$96,360**	**$344,542**
B, with the contingency, less revenue	**$271,095**	**$2,364,683**	**$2,896,752**	**$3,032,507**	**$8,565,037**
A + B	**$326,557**	**$2,461,043**	**$2,993,112**	**$3,128,867**	**$8,909,579**

G.4.4 Geylang Serai Market and Food Centre

63 cooked-food stalls OFFICIAL · planning count 8 DERIVED · opens in Year 1 · a Lighthouse · managed by NEA

LINE	YEAR 0	YEAR 1	YEAR 2	YEAR 3	YEARS 0–3
PROGRAMME (B), GROSS					
Master Fellowships	–	$181,500	$272,250	$272,250	$726,000
Apprentice stipends	–	$202,736	$315,900	$315,900	$834,536
Graduate Landing Packages	–	–	$40,000	$60,000	$100,000
Documentation programme and field equipment	$35,000	$66,000	$54,000	$54,000	$209,000
Relief-Hawker Corps	–	$99,012	$133,234	$133,234	$365,480
Second-station grants	–	$6,000	$9,000	$9,000	$24,000
Partner-kitchen sessions	–	$7,200	$7,200	$7,200	$21,600
Group critical-illness pool, stallholders 55+	$27,750	$27,750	$27,750	$27,750	$111,000
First-loss reserve and succession escrow	–	$30,000	$45,000	$45,000	$120,000
Listening and co-design (honoraria, sessions, participant fees)	$81,850	–	–	–	$81,850
OPERATING IT ADDS (A), GROSS					
Centre staff	$39,000	$117,000	$117,000	$117,000	$390,000
Independent evaluator (baseline, then fieldwork)	$30,000	$25,000	$25,000	$25,000	$105,000
Taste Council tastings	–	$15,000	$15,000	$15,000	$45,000
Community events	–	$10,000	$10,000	$10,000	$30,000
Buying Circles: circle leads' honoraria	–	$4,800	$4,800	$4,800	$14,400
Stall baseline: a two-week till count by dish type (interviewers, tally sheets, data assistant)	$14,710	–	–	–	$14,710
Programme revenue (deducted)	–	$20,000	$43,500	$75,000	$138,500
A, with the 10% contingency	**$92,081**	**$188,980**	**$188,980**	**$188,980**	**$659,021**
B, with the contingency, less revenue	**$159,060**	**$662,218**	**$951,267**	**$941,767**	**$2,714,312**

LINE	YEAR 0	YEAR 1	YEAR 2	YEAR 3	YEARS 0–3
A + B	**$251,141**	**$851,198**	**$1,140,247**	**$1,130,747**	**$3,373,333**

G.4.5 Tekka Centre

119 cooked-food stalls OFFICIAL · planning count 9 DERIVED · opens in Year 2 · a pilot centre · managed by Tanjong Pagar Town Council

LINE	YEAR 0	YEAR 1	YEAR 2	YEAR 3	YEARS 0–3
PROGRAMME (B), GROSS					
Master Fellowships	–	–	$363,000	$453,750	$816,750
Apprentice stipends	–	–	$421,200	$526,500	$947,700
Graduate Landing Packages	–	–	–	$100,000	$100,000
Documentation programme and field equipment	–	–	$72,000	$90,000	$162,000
Relief-Hawker Corps	–	–	$164,312	$226,468	$390,780
Second-station grants	–	–	$12,000	$15,000	$27,000
Partner-kitchen sessions	–	–	$7,200	$7,200	$14,400
Group critical-illness pool, stallholders 55+	–	$51,750	$51,750	$51,750	$155,250
First-loss reserve and succession escrow	–	–	$60,000	$75,000	$135,000
Listening and co-design (honoraria, sessions, participant fees)	–	$57,350	–	–	$57,350
OPERATING IT ADDS (A), GROSS					
Centre staff	–	$39,000	$117,000	$117,000	$273,000
Independent evaluator (baseline, then fieldwork)	–	$30,000	$25,000	$25,000	$80,000
Taste Council tastings	–	–	$15,000	$15,000	$30,000
Community events	–	–	$10,000	$10,000	$20,000
Buying Circles: circle leads' honoraria	–	–	$4,800	$4,800	$9,600
Stall baseline: a two-week till count by dish type (interviewers, tally sheets, data assistant)	–	$28,230	–	–	$28,230
Programme revenue (deducted)	–	–	$40,000	$72,500	$112,500
A, with the 10% contingency	**–**	**$106,953**	**$188,980**	**$188,980**	**$484,913**
B, with the contingency, less revenue	**–**	**$120,010**	**$1,226,608**	**$1,627,735**	**$2,974,353**
A + B	**–**	**$226,963**	**$1,415,588**	**$1,816,715**	**$3,459,266**

G.4.6 Old Airport Road Food Centre (Blk 51)

168 cooked-food stalls OFFICIAL · planning count 16 DERIVED · opens in Year 2 · an add-on · managed by Marine Parade–Braddell Heights Town Council

LINE	YEAR 0	YEAR 1	YEAR 2	YEAR 3	YEARS 0–3
PROGRAMME (B), GROSS					
Master Fellowships	–	–	$544,500	$907,500	$1,452,000
Apprentice stipends	–	–	$631,800	$1,053,000	$1,684,800
Graduate Landing Packages	–	–	–	$200,000	$200,000
Documentation programme and field equipment	–	–	$108,000	$180,000	$288,000
Relief-Hawker Corps	–	–	$210,929	$304,163	$515,092
Second-station grants	–	–	$18,000	$30,000	$48,000

LINE	YEAR 0	YEAR 1	YEAR 2	YEAR 3	YEARS 0–3
Partner-kitchen sessions	–	–	$7,200	$7,200	$14,400
Group critical-illness pool, stallholders 55+	–	$73,500	$73,500	$73,500	$220,500
First-loss reserve and succession escrow	–	–	$90,000	$150,000	$240,000
Listening and co-design (honoraria, sessions, participant fees)	–	$66,500	–	–	$66,500
OPERATING IT ADDS (A), GROSS					
Centre staff	–	$39,000	$156,000	$156,000	$351,000
Independent evaluator (baseline, then fieldwork)	–	$30,000	$25,000	$25,000	$80,000
Taste Council tastings	–	–	$15,000	$15,000	$30,000
Community events	–	–	$10,000	$10,000	$20,000
Buying Circles: circle leads' honoraria	–	–	$7,200	$7,200	$14,400
Stall baseline: a two-week till count by dish type (interviewers, tally sheets, data assistant)	–	$40,560	–	–	$40,560
Programme revenue (deducted)	–	–	$60,000	$145,000	$205,000
A, with the 10% contingency	**–**	**$120,516**	**$234,520**	**$234,520**	**$589,556**
B, with the contingency, less revenue	**–**	**$154,000**	**$1,792,322**	**$3,050,899**	**$4,997,221**
A + B	**–**	**$274,516**	**$2,026,842**	**$3,285,419**	**$5,586,777**

G.4.7 Maxwell Food Centre

103 cooked-food stalls OFFICIAL · planning count 13 DERIVED · opens in Year 2 · an add-on · managed by NEA

LINE	YEAR 0	YEAR 1	YEAR 2	YEAR 3	YEARS 0–3
PROGRAMME (B), GROSS					
Master Fellowships	–	–	$453,750	$726,000	$1,179,750
Apprentice stipends	–	–	$526,500	$842,400	$1,368,900
Graduate Landing Packages	–	–	–	$160,000	$160,000
Documentation programme and field equipment	–	–	$90,000	$144,000	$234,000
Relief-Hawker Corps	–	–	$148,773	$195,390	$344,163
Second-station grants	–	–	$15,000	$24,000	$39,000
Partner-kitchen sessions	–	–	$7,200	$7,200	$14,400
Group critical-illness pool, stallholders 55+	–	$45,000	$45,000	$45,000	$135,000
First-loss reserve and succession escrow	–	–	$75,000	$120,000	$195,000
Listening and co-design (honoraria, sessions, participant fees)	–	$54,350	–	–	$54,350
OPERATING IT ADDS (A), GROSS					
Centre staff	–	$39,000	$117,000	$117,000	$273,000
Independent evaluator (baseline, then fieldwork)	–	$30,000	$25,000	$25,000	$80,000
Taste Council tastings	–	–	$15,000	$15,000	$30,000
Community events	–	–	$10,000	$10,000	$20,000
Buying Circles: circle leads' honoraria	–	–	$4,800	$4,800	$9,600
Stall baseline: a two-week till count by dish type (interviewers, tally sheets, data assistant)	–	$25,510	–	–	$25,510
Programme revenue (deducted)	–	–	$50,000	$116,000	$166,000

LINE	YEAR 0	YEAR 1	YEAR 2	YEAR 3	YEARS 0–3
A, with the 10% contingency	–	$103,961	$188,980	$188,980	$481,921
B, with the contingency, less revenue	–	$109,285	$1,447,345	$2,374,389	$3,931,019
A + B	–	$213,246	$1,636,325	$2,563,369	$4,412,940

G.4.8 Years 4 to 20, by centre

Each centre's two parts together, and the national core, in each year's money. g4-ledgers.csv

YEAR	PRICES	CORE (A)	CHINATOWN COMPLEX	GEYLANG SERAI	TEKKA	OLD AIRPORT ROAD	MAXWELL
4	1.061	$1,385,856	$1,405,858	$635,631	$766,523	$1,157,485	$724,288
5	1.077	$1,406,643	$1,426,946	$645,165	$778,021	$1,174,847	$735,152
6	1.093	$1,427,743	$1,448,350	$654,842	$789,691	$1,192,470	$746,179
7	1.110	$1,449,159	$1,470,076	$664,665	$801,536	$1,210,357	$757,372
8	1.126	$1,470,897	$1,492,127	$674,635	$813,559	$1,228,512	$768,733
9	1.143	$1,492,960	$1,514,509	$684,755	$825,763	$1,246,940	$780,264
10	1.161	$1,515,354	$1,537,226	$695,026	$838,149	$1,265,644	$791,968
11	1.178	$1,538,085	$1,560,285	$705,451	$850,722	$1,284,628	$803,847
12	1.196	$1,561,156	$1,583,689	$716,033	$863,482	$1,303,898	$815,905
13	1.214	$1,584,573	$1,607,444	$726,774	$876,435	$1,323,456	$828,143
14	1.232	$1,608,342	$1,631,556	$737,675	$889,581	$1,343,308	$840,566
15	1.250	$1,632,467	$1,656,029	$748,740	$902,925	$1,363,458	$853,174
16	1.269	$1,656,954	$1,680,870	$759,971	$916,469	$1,383,910	$865,972
17	1.288	$1,681,808	$1,706,083	$771,371	$930,216	$1,404,668	$878,961
18	1.307	$1,707,036	$1,731,674	$782,942	$944,169	$1,425,738	$892,146
19	1.327	$1,732,641	$1,757,649	$794,686	$958,332	$1,447,124	$905,528
20	1.347	$1,758,631	$1,784,014	$806,606	$972,707	$1,468,831	$919,111

G.4.9 The central plan, every row

What comes in, in $M of each year's money, from `plan()` at the central assumptions and expected returns, then where it goes. "Public" counts the anchor, the match, the operating match, tax forgone and NHB's half of the Year 0 grants. g4-plan.csv

YR	ANCHOR	MATCH	PARTNERS, CASH	PARTNERS, REBATES	DINERS	TILL DOLLAR	OTHER FIRMS	MAJOR GIFTS	FOUNDATIONS	BRIDGE GRANTS	GIFTS FOR SPENDING	GOVT OPS MATCH	HERITAGE PLATE
0	7.50	2.25	–	–	–	–	–	2.25	0.71	12.93	0.19	–	–
1	7.50	5.25	0.53	0.10	1.79	0.64	2.00	0.30	–	–	0.30	0.30	–
2	–	2.50	0.53	0.10	0.49	1.28	2.00	3.19	–	–	0.40	0.40	–
3	–	–	0.54	0.10	0.50	1.60	0.50	–	–	–	0.50	0.50	0.060
4	–	–	0.55	0.11	0.51	1.60	0.53	–	–	–	–	0.50	0.34
5	–	–	0.56	0.11	0.51	1.60	0.54	–	–	–	–	0.50	0.96
6	–	–	0.34	0.065	0.52	1.60	0.55	–	–	–	–	0.50	1.80
7	–	–	0.35	0.066	0.53	1.60	0.55	–	–	–	–	0.50	2.00
8	–	–	0.35	0.067	0.54	1.60	0.56	–	–	–	–	0.50	2.00
9	–	–	0.36	0.068	0.55	1.60	0.57	–	–	–	–	0.50	2.00

YR	ANCHOR	MATCH	PART-NERS, CASH	PART-NERS, REBATES	DINERS	TILL DOL-LAR	OTHER FIRMS	MAJOR GIFTS	FOUNDA-TIONS	BRIDGE GRANTS	GIFTS FOR SPEND-ING	GOVT OPS MATCH	HERIT-AGE PLATE
10	–	–	0.36	0.069	0.55	1.60	0.58	–	–	–	–	0.50	2.00
11	–	–	0.22	0.042	0.56	1.60	0.59	–	–	–	–	0.50	2.00
12	–	–	0.22	0.043	0.57	1.60	0.60	–	–	–	–	0.50	2.00
13	–	–	0.23	0.043	0.58	1.60	0.61	–	–	–	–	0.50	2.00
14	–	–	0.23	0.044	0.59	1.60	0.62	–	–	–	–	0.50	2.00
15	–	–	0.23	0.045	0.60	1.60	0.63	–	–	–	–	0.50	2.00
16	–	–	0.14	0.027	0.61	1.60	0.63	–	–	–	–	0.50	2.00
17	–	–	0.14	0.028	0.61	1.60	0.64	–	–	–	–	0.50	2.00
18	–	–	0.15	0.028	0.62	1.60	0.65	–	–	–	–	0.50	2.00
19	–	–	0.15	0.029	0.63	1.60	0.66	–	–	–	–	0.50	2.00
20	–	–	0.15	0.029	0.64	1.60	0.67	–	–	–	–	0.50	2.00

YR	DRAW	LADDER	SPEND A	SPEND B	GIFTS SPENT	UNFUN-DED	TO COR-PUS	RETURN	CORPUS	CORPUS, REAL	TAX FOR-GONE	PUBLIC	PRIVATE
0	–	–	0.48	0.43	–	–	12.00	–	12.00	11.82	1.29	11.40	15.73
1	0.42	3.61	1.48	3.15	–	–	18.00	0.47	30.05	29.17	1.45	14.50	5.65
2	1.05	4.86	1.63	5.07	–	–	10.00	1.19	40.19	38.44	2.98	5.88	8.00
3	1.41	5.04	1.84	5.60	–	–	3.15	1.59	43.53	41.01	0.51	1.01	3.76
4	1.52	–	1.87	2.33	2.17	–	1.09	1.72	44.81	41.60	0.53	1.03	3.36
5	1.50	–	1.90	2.36	2.26	–	1.15	1.78	46.24	42.28	0.54	1.04	3.51
6	1.57	–	1.92	2.40	2.25	–	1.12	1.83	47.61	42.90	0.44	0.94	3.43
7	1.62	–	1.95	2.43	2.27	–	1.16	1.89	49.04	43.54	0.45	0.95	3.50
8	1.67	–	1.98	2.47	2.28	–	1.17	1.94	50.49	44.16	0.46	0.96	3.52
9	1.72	–	2.01	2.51	2.30	–	1.17	2.00	51.94	44.76	0.46	0.96	3.54
10	1.77	–	2.04	2.54	2.32	–	1.18	2.06	53.41	45.34	0.47	0.97	3.56
11	1.82	–	2.07	2.58	2.34	–	1.03	2.12	54.74	45.78	0.41	0.91	3.41
12	1.87	–	2.10	2.62	2.36	–	1.03	2.17	56.07	46.21	0.42	0.92	3.43
13	1.92	–	2.14	2.66	2.38	–	1.03	2.22	57.41	46.61	0.42	0.92	3.46
14	1.96	–	2.17	2.70	2.40	–	1.03	2.27	58.75	46.99	0.43	0.93	3.48
15	2.01	–	2.20	2.74	2.43	–	1.02	2.33	60.09	47.35	0.44	0.94	3.50
16	2.06	–	2.23	2.78	2.46	–	0.92	2.38	61.34	47.62	0.40	0.90	3.41
17	2.10	–	2.27	2.82	2.49	–	0.92	2.43	62.58	47.87	0.40	0.90	3.43
18	2.15	–	2.30	2.87	2.52	–	0.90	2.48	63.82	48.09	0.41	0.91	3.45
19	2.19	–	2.33	2.91	2.55	–	0.89	2.53	65.04	48.29	0.42	0.92	3.47
20	2.23	–	2.37	2.95	2.59	–	0.88	2.58	66.26	48.47	0.42	0.92	3.50

G.4.10 The endowment's paths

Four paths, each run on expected returns and then through the same 5,000 futures as B.9.3, *Five thousand futures*. The base keeps its real value in 71% of futures. The stretch, five centres, in 32%. Earmarking (set aside for one use) half of the surplus gifts for the retirement match, in 54%. Fellowships from Year 4 at 20% of the planning count rather than 10%, in 47%. The base row reproduces B.9.3 exactly, which the build checks. `g4-endowment-paths.csv`

PATH: CORPUS IN TODAY'S DOLLARS, $M	Y0	Y2	Y4	Y6	Y8	Y10	Y12	Y14	Y16	Y18	Y20	KEEPS REAL VALUE	Y20, P10–P90
Base: three centres, as planned	11.8	38.4	41.6	42.9	44.2	45.3	46.2	47.0	47.6	48.1	48.5	**71%**	70%–222%
Stretch: five centres, the most before the gate	11.8	38.4	40.6	39.8	39.0	38.2	37.5	36.7	36.0	35.2	34.5	**32%**	55%–135%
Half-surplus: half the surplus gifts earmarked for the match	11.8	38.4	41.1	41.3	41.5	41.6	41.6	41.4	41.2	40.9	40.5	**54%**	63%–162%
20% maintenance: Fellowships from Year 4 at 20% of the planning count	11.8	38.4	40.7	40.2	39.5	38.7	37.9	37.2	36.4	35.7	35.0	**47%**	58%–171%

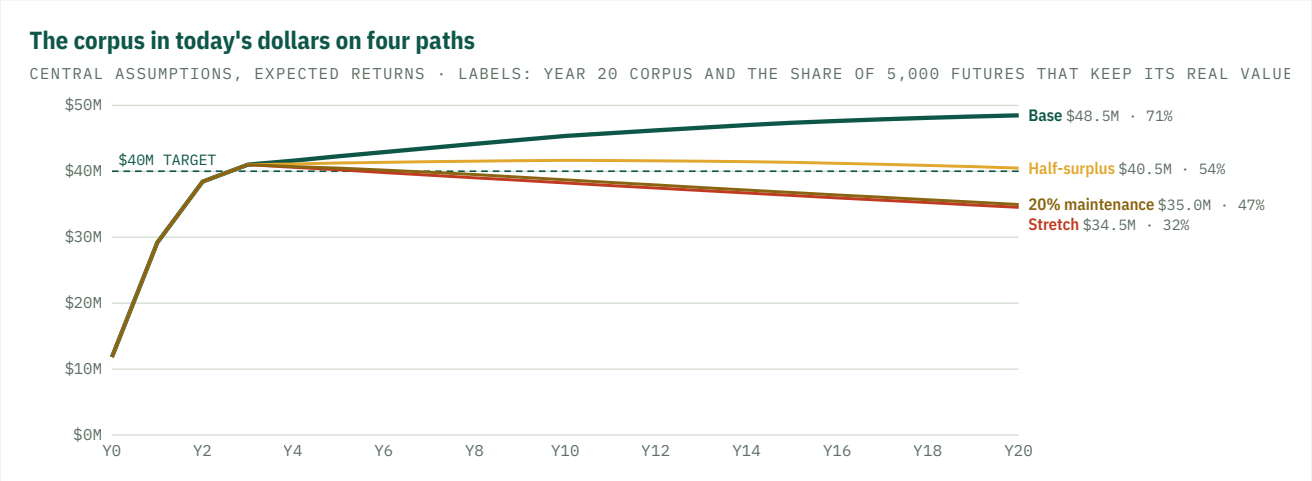


FIGURE G.4 · THE CORPUS IN TODAY'S DOLLARS ON FOUR PATHS, YEARS 0–20 · EXPECTED RETURNS · THE SHARE IS OF 5,000 FUTURES THAT KEEP THE CORPUS'S REAL VALUE TO YEAR 20

The maintenance rate is the dial to watch, and the model's own test of it runs from 10% to 40%. g4-maintenance.csv

MAINTENANCE RATE	FELLOWSHIPS A YEAR	COST FROM YEAR 4	SHORT, Y4–10	SHORT, Y4–20	CORPUS Y20
10%	5	$4.13M	–	–	121%
20%	9	$5.07M	$0.06M	$5.85M	87%
30%	13	$6.06M	$6.94M	$24.82M	86%
40%	18	$7.28M	$15.99M	$48.55M	86%

G.4.11 When licensees fail

Nigel Chua's study of six hawker brands found that most licensed or acquired expansions shrank or closed (IPS, June 2024). The plan therefore assumes a third of Heritage Plate licensees fail each year, and tests none and half. The scenarios also earmark half of any surplus gifts for the match, as B.9.5, *The retirement match: what giving could cover*'s central case does. g4-chua.csv

LICENSEES FAILING A YEAR	LICENCES Y4	Y5	Y7 ON	BASE COVERED	STRETCH COVERED	BASE SHORT	CORPUS Y20
None fail	$0.51M	$1.44M	$3.00M	54%	28%	$11.24M	105%
A third fail (central)	$0.34M	$0.96M	$2.00M	40%	21%	$14.73M	101%
Half fail	$0.26M	$0.72M	$1.50M	33%	17%	$16.47M	99%

G.5

The Succession Lab

What a successor pays, year by year, under the terms the plan adopts: each month the lower of 8% of takings and 30% of verified profit, but never less than $600 or more than $2,200, and never so much that it leaves the successor under $1,500 a month of his own profit. At a typical tendered stall the $47,536 of goodwill (what a stall's name, recipes and regulars are worth when it changes hands) is paid off in 4.9 years; then the family royalty runs for up to ten years.

These are illustrations, not forecasts: a steady 2026 month, repeated, with the successor keeping 95% of the customers and goodwill at 15 months of the seller's net. They run through the succession test's month-by-month hand-over, the same calculation as the 4,000 simulated hand-overs of E.1, *Can the Business Pay for Its Own Succession?*, with no noise and no growth. When an outside successor takes over a subsidised stall, the rent rises to the $1,250 market rent NEA assesses in three equal steps over three years. NEA already phases the rent in this way when such a stall is assigned, and the plan asks NEA to confirm the same for Hawkers Succession Scheme (HSS) successors (§2.3). Every value is DERIVED; the terms are the plan's own, marked ASSUMPTION.

G.5.1 The schedules, by stall type

CASE	SELLER NETS	GOODWILL	PAYS, Y1	KEEPS, Y1	PAID OFF	ROYALTY A MONTH	ROYALTY, 10 YRS
Typical tendered stall	$3,169	$47,536	$810	$1,879	4.9 yrs	$420	$50,351
Tendered stall with a queue	$7,009	$105,131	$1,894	$4,427	4.7 yrs	$592	$71,008
Subsidised stall, family successor	$3,369	$50,538	$882	$2,044	4.8 yrs	$386	$46,263
Subsidised stall, outside successor	$3,369	$50,538	$786	$1,822	7.6 yrs	$386	$46,263
Operator-run centre	$1,557	$23,354	$0	$1,125	not in 30 yrs	$0	$0
HDB-rented coffeeshop	$2,472	$37,084	$418	$1,494	7.4 yrs	$418	$50,117
Ah Kow's queue stall	$12,807	$192,108	$2,200	$9,340	7.3 yrs	$1,076	$129,105

"Keeps" is the successor's take-home a month after the payment, the royalty and the 1.5% escrow (a neutral account that collects the payments and pays them out) fee, before MediSave and tax. Year-by-year schedules for every case are in the download. g5-schedules.csv g5-summary.csv

Typical tendered stall

YEAR	NET A MONTH	PAID IN THE YEAR	STILL OWED	ROYALTY IN THE YEAR	KEEPS A MONTH
1	$2,701	$9,724	$37,812	–	$1,879
2	$2,701	$9,724	$28,088	–	$1,879
3	$2,701	$9,724	$18,364	–	$1,879
4	$2,701	$9,724	$8,640	–	$1,879
5	$2,701	$8,640	–	$420	$1,935
6	$2,701	–	–	$5,035	$2,282
7	$2,701	–	–	$5,035	$2,282
8	$2,701	–	–	$5,035	$2,282
9	$2,701	–	–	$5,035	$2,282
10	$2,701	–	–	$5,035	$2,282
11	$2,701	–	–	$5,035	$2,282
12	$2,701	–	–	$5,035	$2,282
13	$2,701	–	–	$5,035	$2,282
14	$2,701	–	–	$5,035	$2,282
15	$2,701	–	–	$4,616	$2,317
16	$2,701	–	–	–	$2,701

Subsidised stall, outside successor

YEAR	NET A MONTH	PAID IN THE YEAR	STILL OWED	ROYALTY IN THE YEAR	KEEPS A MONTH
1	$2,619	$9,429	$41,108	–	$1,822
2	$2,299	$8,805	$32,303	–	$1,554
3	$1,979	$6,060	$26,243	–	$1,467
4	$1,979	$5,751	$20,493	–	$1,493
5	$1,979	$5,751	$14,742	–	$1,493
6	$1,979	$5,751	$8,992	–	$1,493
7	$1,979	$5,751	$3,241	–	$1,493
8	$1,979	$3,241	–	$1,928	$1,544
9	$1,979	–	–	$4,626	$1,594
10	$1,979	–	–	$4,626	$1,594
11	$1,979	–	–	$4,626	$1,594
12	$1,979	–	–	$4,626	$1,594
13	$1,979	–	–	$4,626	$1,594
14	$1,979	–	–	$4,626	$1,594
15	$1,979	–	–	$4,626	$1,594
16	$1,979	–	–	$4,626	$1,594
17	$1,979	–	–	$4,626	$1,594
18	$1,979	–	–	$2,699	$1,754
19	$1,979	–	–	–	$1,979

G.5.2 The royalty, its cap and its buy-out

The Family Name Royalty is 2.5% of takings. It starts only when the mortgage is paid off, can never leave the successor below the protected income, and runs for 10 years at most. The successor may buy it out at any time for a price set in advance (a published multiple of a year's royalty). The model fixes no price, so the table shows only what royalties remain at each anniversary, added up with no allowance for the time value of money: the most a fair buy-out could ask. g5-royalty.csv

ROYALTY YEAR	PAID IN THE YEAR	LEFT AFTER IT, UNDISCOUNTED
1	$420	$49,931
2	$5,035	$44,896
3	$5,035	$39,861
4	$5,035	$34,826
5	$5,035	$29,791
6	$5,035	$24,756
7	$5,035	$19,721
8	$5,035	$14,686
9	$5,035	$9,651
10	$5,035	$4,616
11	$4,616	–

G.5.3 What licences pay masters' families

The Heritage Plate's income is split 40% to masters' families, 40% to the retirement match and 20% to the Seed Bank. Its families' share, a year, under each failure rate (G.4.11, *When licensees fail*): `g5-licences.csv`

YEAR	NONE FAIL	A THIRD FAIL (CENTRAL)	HALF FAIL
3	$36,000	$24,000	$18,000
4	$204,000	$136,000	$102,000
5	$576,000	$384,000	$288,000
6	$1,080,000	$720,000	$540,000
7	$1,200,000	$800,000	$600,000
8	$1,200,000	$800,000	$600,000
9	$1,200,000	$800,000	$600,000
10	$1,200,000	$800,000	$600,000

G.6

The Regulars' List and the Year 0 Baseline

The list counts names, and the grades count orders, not plates. At the typical tendered stall about 720 orders a week go out; a regular is taken to order 1.5 times a week, and a healthy base is 35% of orders from regulars, about 168 names. Every number in this section is an ASSUMPTION until the Year 0 baseline replaces it.

G.6.1 Orders, thresholds and the healthy base

A stall is listed at Bronze with 20 names, and rises to Silver at 50 names or 10% of orders, Gold at 100 names or 20% of orders, Platinum at 250 names or 50% of orders, whichever comes first. Regulars to reach each grade, by stall and by dish type; an asterisk marks a tier reached by share before count. The last two columns are the healthy base at one and two orders a week. g6-regulars.csv g6-tiers.csv

STALL	PLATES AN ORDER	ORDERS A WEEK	BRONZE	SILVER	GOLD	PLATINUM	35% BASE	TIER	BASE AT 1/WK	BASE AT 2/WK
NEA, subsidised	1.3	692	20	47*	93*	231*	162	Gold	243	122
NEA, tendered	1.3	720	20	48*	96*	240*	168	Gold	252	126
Operator-run	1.3	738	20	50*	99*	247*	173	Gold	259	130
HDB coffeeshop	1.3	738	20	50*	99*	247*	173	Gold	259	130
Private coffeeshop	1.3	900	20	50	100	250	210	Gold	315	158
Food court	1.3	692	20	47*	93*	231*	162	Gold	243	122
John	2.0	315	20	21*	42*	105*	74	Gold	111	56
Ah Kow	2.0	1,200	20	50	100	250	280	Platinum	420	210
Typical tendered, drinks and snacks	1.2	780	20	50	100	250	182	Gold	273	137
Typical tendered, noodles and rice	1.3	720	20	48*	96*	240*	168	Gold	252	126
Typical tendered, family dishes	2.0	468	20	32*	63*	156*	110	Gold	164	82

G.6.2 The baseline: who is counted, and how

Before each pilot centre opens, the listening teams run a two-week till count at every consenting stall: an opening interview, two check-ins and a closing interview, 3 hours a stall at $50 an hour, with $20 of tally sheets, and a data assistant a month for about every 80 stalls at $4,000. It is costed at every cooked-food stall as a ceiling, so the samples below are the most the count can reach. g6-baseline.csv

CENTRE	STALLS	IN YEAR	INTERVIEWER HOURS	A STALL	DATA MONTHS	COST
Chinatown Complex	226	0	678	$170	3	$50,420
Geylang Serai	63	0	189	$170	1	$14,710
Tekka	119	1	357	$170	2	$28,230
Old Airport Road	168	1	504	$170	3	$40,560
Maxwell	103	1	309	$170	2	$25,510

It publishes distributions, never one stall's figures, and never a share of orders for any stall. g6-publishes.csv

MEASURE	PUBLISHED	AS
Orders a day	by dish type and type of centre	P10, P25, P50, P75, P90 and the mean

MEASURE	PUBLISHED	AS
Plates an order	by dish type	P10, P25, P50, P75, P90 and the mean
Dollars an order	by dish type	P10, P25, P50, P75, P90 and the mean
Share of orders from the regulars the hawker names	by dish type; never for one stall	P10, P25, P50, P75, P90 and the mean
Rent, conservancy, table cleaning and dishwashing	a month, before GST, by type of centre	P10, P25, P50, P75, P90 and the mean
Hours a day and days closed	by type of stall	P10, P25, P50, P75, P90 and the mean
Net income	by type of stall and of centre	P10, P25, P50, P75, P90 and the mean

G.7

Sensitivities

Which guesses matter? I changed 30 inputs one at a time, each to its own low and high value, and left everything else at the central case. The cost of Years 0–3 turns most on heritage-worthy planning (the stalls that food guides and heritage records already name) counts and on a veto at Tekka; the endowment on outlets with the till dollar and opt-in at the till. Fundraising moves the endowment far more than any cost line moves the budget.

Two outputs are tracked: the four-year total, Years 0–3 at three centres ($19,683,808), and the corpus in Year 20 as a share of the $40M target in today's dollars (121%). Where the Monte Carlo (the model run thousands of times, its uncertain numbers drawn at random) already varies a parameter, its range is the one the code draws from, printed as the code writes it. Where the model has no range, 19 of the 30, the parameter moves 20% either way, and the table says so: that is the only rule this volume adds, and it is not a claim that 20% is the true uncertainty. The table keeps the six parameters that move the four-year total most and the six of the rest that move the corpus most; the download has all 30. All results are DERIVED. `g7-sensitivity.csv`

PARAMETER	CENTRAL	RANGE	TOTAL, LOW	TOTAL, HIGH	CORPUS, LOW	CORPUS, HIGH
Outlets with the till dollar	0%, 2%, 4%, 5%	Monte Carlo: `[0.0, rng.uniform(0.01, 0.03), rng.uniform(0.02, 0.06), rng.triangular(0.02, 0.05, 0.1)]`	–	–	85%	196%
Opt-in at the till	8%	Monte Carlo: `rng.triangular(0.03, 0.08, 0.15)`	–	–	85%	187%
Diners who give	2.0%, then 0.8%	Monte Carlo: `rng.triangular(0.005, 0.02, 0.04)`; `rng.triangular(0.002, 0.008, 0.015)`	–	–	102%	144%
Return on the fixed-income core	4.1%	±20%: the model has no range	–	–	102%	143%
Other companies	$0.0M, $2.0M, $2.0M, $0.5M	Monte Carlo: `rng.triangular(0.5, 2.0, 3.5)`	–	–	101%	142%
A veto at Tekka	no	Monte Carlo: `int(rng.random() >= 0.8)`	−$3.23M	–	158%	121%
Heritage-worthy planning counts	27, 8, 9	±20%: the model has no range	−$2.24M	+$2.29M	134%	121%
Heritage Plate scale	1	Monte Carlo: `rng.triangular(0.25, 1.0, 2.0)`	–	–	110%	137%
National core lines	$3,583,300 gross	±20%: the model has no range	−$0.79M	+$0.79M	135%	108%
Apprentices a Fellowship	2	±20%: the model has no range	−$1.12M	+$1.12M	130%	116%
Apprentice wage (the PWM path)	$50,684, $52,650, $52,650	±20%: the model has no range	−$1.01M	+$1.01M	127%	116%
Master Fellowship cost	$90,750	±20%: the model has no range	−$0.88M	+$0.88M	126%	116%

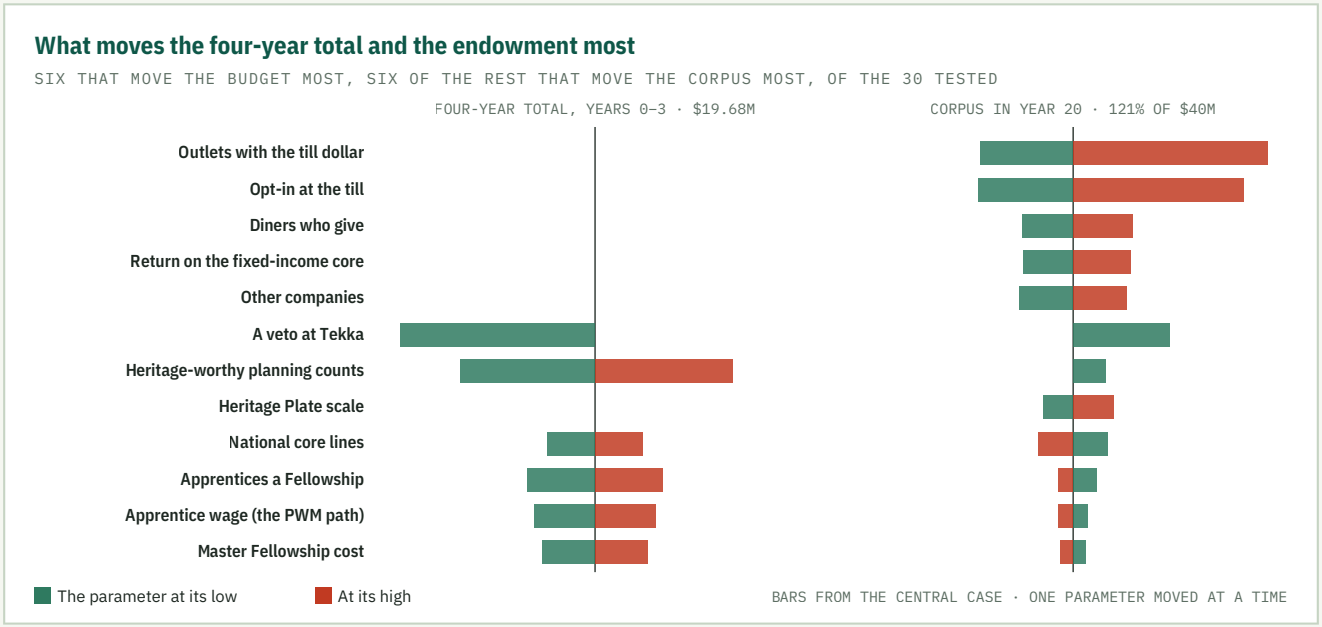


FIGURE G.5 · ONE AT A TIME: THE CHANGE IN EACH OUTPUT WHEN ONE PARAMETER MOVES TO ITS LOW OR HIGH · LEFT, $ OVER YEARS 0–3 · RIGHT, THE YEAR 20 CORPUS AS A SHARE OF $40M

Granted, one at a time is a narrow test: it misses what two guesses do together. The Monte Carlos of D.4, E.1 and B.9 move everything at once, and their results are in G.3 and G.4. Pledge rates, the draw (the share of the endowment spent each year) and the failure rate change only the endowment; the ledger's rates change both, because a dearer programme leaves less to join the corpus.

G.8

Time Series

The plate since 2012, as published: 666 values in 196 series from 97 sources, of which 469 are official, 150 derived and 47 assumptions. They are kept in `data/curated/series.csv`, one row a value, each with its unit, its mark, its source and a note.

D.5.4, *The Plate Over Time: How a Stall's Costs Changed, 2013–2026* tells the story these numbers carry, and the layers table in F.4, *Data & Downloads* dates every layer between the State and the wok since 1966; neither is repeated here. This section prints the annual values of four groups, rents, fees, prices and real sales, with each value's mark as a letter. Three NEA rent measures sit side by side and must never be drawn as one line. The full file adds item prices, the household surveys, the F&B industry's books and the scheme counts, and keeps months and ranges as published. `g8-series.csv`

G.8.1 Rents, fees and wages

YEAR	NEA MEDIAN, NON-SUBSIDISED	COMPARABLE NEA CENTRES	OPERATOR-RUN CENTRES	MEDIAN WINNING BID
2015	1,250 O	–	–	–
2016	1,250 O	–	–	–
2017	1,250 O	–	–	–
2018	1,250 O	–	2,000 O	–
2019	1,250 O	1,700 O	2,000 O	–
2020	1,250 O	1,600 O	2,000 O	–
2021	1,250 O	–	–	–
2022	1,250 O	–	–	2,000 O
2023	1,250 O	1,625 O	–	1,800 O
2024	1,250 O	1,600 O	1,700 O	–
2025	–	1,450 O	1,700 O	–
2026	–	–	–	1,950 D

YEAR	CONSERVANCY, NEA'S 27 CENTRES	TABLE CLEANING, AMOY STREET	CLEANER'S PWM, F&B	STALL ASSISTANT'S PWM
2012	140 O	–	–	–
2013	140 O	–	–	–
2014	140 O	–	–	–
2015	140 O	–	–	–
2016	140 O	–	–	–
2017	140 O	–	–	–
2018	140 O	–	–	–
2019	140 O	–	1,201 D	–
2020	140 O	–	–	–
2021	140 O	–	–	–
2022	140 O	402 D	1,312 O	–
2023	140 O	–	1,570 O	1,750 O
2024	165 D	402 D	1,740 O	1,915 D
2025	175 O	–	1,910 O	2,080 O
2026	175 O	–	2,080 O	2,220 O

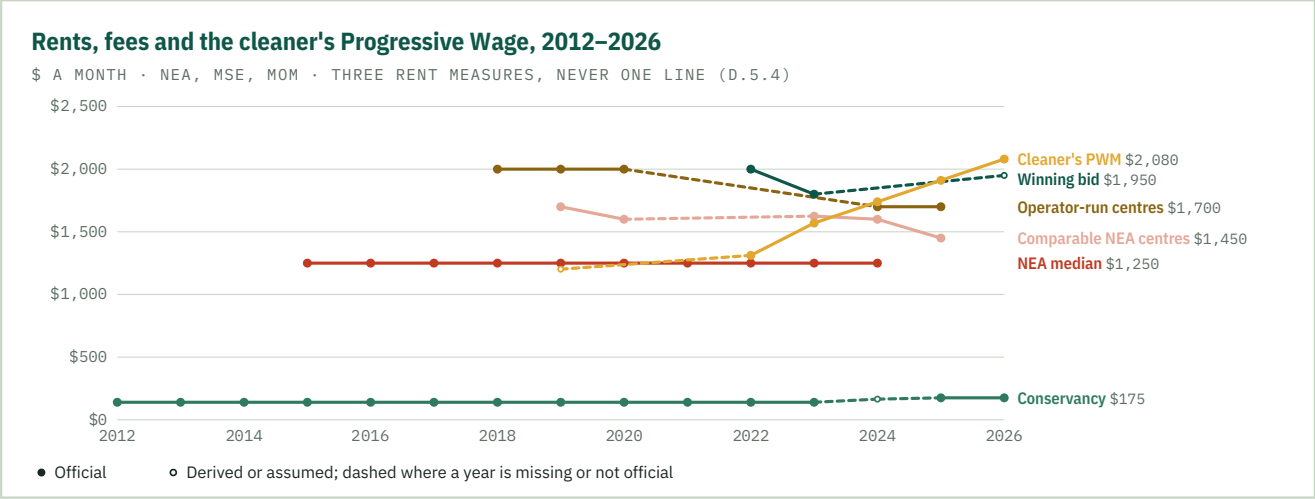


FIGURE G.6 · RENTS, FEES AND THE CLEANER'S PROGRESSIVE WAGE · $ A MONTH · FILLED DOTS ARE OFFICIAL VALUES · D.5.4 READS THEM

G.8.2 Prices and real sales

YEAR	HAWKER FOOD CPI	HAWKER FOOD CPI, BACK TO 2009	FOOD IMPORT PRICES	RETAIL FOOD CPI	FSI PRICE DEFLATOR	ELECTRICITY, CENTS A KWH
2012	87.4 D	87.3 D	99 D	–	87.6 D	27.9 O
2013	89.1 D	88.9 D	–	–	89.4 D	26.3 O
2014	90.8 D	91.6 D	103.2 D	–	91.7 D	25.6 O
2015	92.6 D	93.2 D	100.5 D	–	93.9 D	21.7 O
2016	94.4 D	94.9 D	98 D	–	95.7 D	18.9 O
2017	96.2 D	96.5 D	99.7 D	–	96.8 D	20.7 O
2018	98.1 D	98.3 D	98.5 D	–	98.5 D	22.9 O
2019	100 O	–	100 D	100 O	100 D	23.6 O
2020	101.3 D	–	101.4 D	–	101.3 D	22.1 O
2021	102.8 D	–	103.8 D	–	102.7 D	22.7 O
2022	108.7 D	–	112.9 D	–	108 D	28.3 D
2023	115.3 O	–	113.2 D	115.8 O	114.5 D	28.2 D
2024	119.2 O	–	116.6 D	117.2 O	118.5 D	29.7 D
2025	120.7 D	–	120.9 D	118.5 D	119.3 D	27.8 D
2026	122.8 D	–	115.9 D	121.5 D	–	28.6 D

YEAR	FSI EATING PLACES, VOLUME (2017 = 100)	FSI EATING PLACES, CURRENT $ (2017 = 100)	HOUSEHOLDS' HAWKER SPEND, $ A MONTH	MEDIAN FULL-TIME PAY, $ A MONTH
2012	102.8 O	93.1 O	–	–
2013	101.1 O	93.3 O	–	–
2014	101.7 O	96.4 O	–	–
2015	97.2 O	94.2 O	–	3,949 O
2016	100.0 O	98.9 O	–	4,056 O
2017	100 O	100 O	–	4,232 O
2018	98.8 O	100.4 O	–	4,437 O
2019	100.0 O	103.3 O	–	4,563 O
2020	81.9 O	85.7 O	–	4,534 O
2021	89.2 O	94.6 O	–	4,680 O

YEAR	FSI EATING PLACES, VOLUME (2017 = 100)	FSI EATING PLACES, CURRENT $ (2017 = 100)	HOUSEHOLDS' HAWKER SPEND, $ A MONTH	MEDIAN FULL-TIME PAY, $ A MONTH
2022	97.2 [O]	108.4 [O]	–	5,070 [O]
2023	99.6 [O]	117.8 [O]	491 [O]	5,197 [O]
2024	98.8 [O]	120.9 [O]	–	5,500 [O]
2025	98.4 [O]	121.2 [O]	–	5,775 [O]

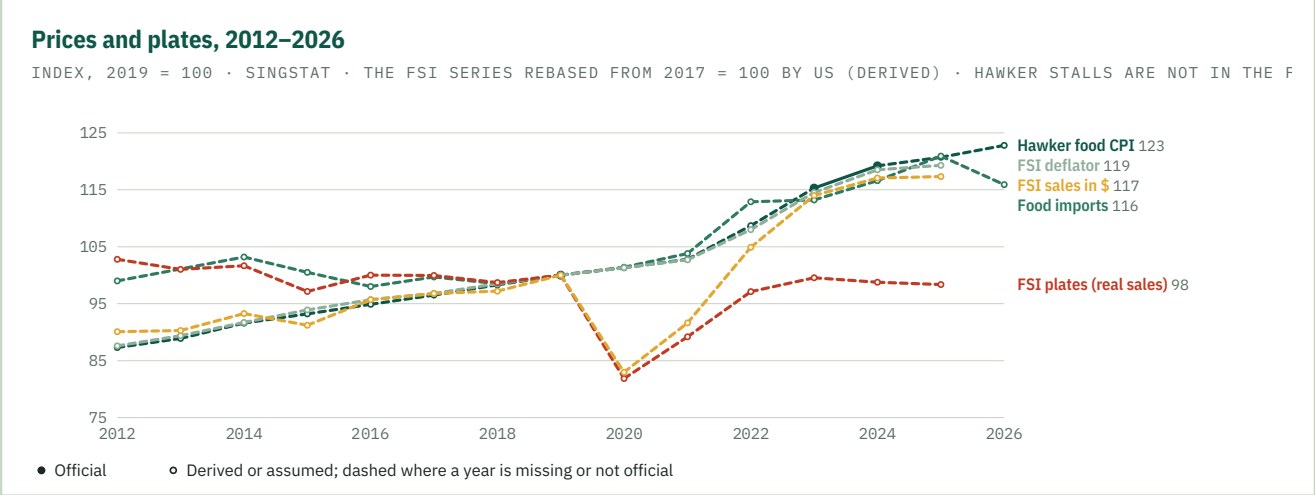


FIGURE G.7 · PRICES AND PLATES · INDEX, 2019 = 100 · HAWKER FOOD CPI TO 2018 FROM THE CHAINED OFFICIAL RATES · FSI: CAFÉS, FOOD COURTS AND OTHER EATING PLACES, HAWKER STALLS EXCLUDED

g8-rents.csv g8-fees.csv g8-prices.csv g8-sales.csv · The rows of the 255 values that D.5.4, *The Plate Over Time: How a Stall's Costs Changed, 2013–2026* and the model draw on are marked "core" in the file; the rest are "extended".

G.9

Reproducibility

Anyone can rebuild every number in this library from the repository, and the browser simulator gives the same answers as the Python to the cent. That is the promise this section keeps.

G.9.1 Parity

The models are written twice: once in Python, which builds the documents, and once in JavaScript, which runs the simulator and the website. Two tests hold them together, and this volume is built only after both pass. They ran as this volume was built:

- **Follow the Plate.** Python and `model.js` agree on 608,767 values: the 6 stall types and 3 cases in every policy, shock and suite, and 240 stalls edited at random as a viewer would edit them. The largest relative difference is zero: they agree exactly. The test fails at one part in 1,000,000, which on the largest stall's yearly sales is $0.32, so a pass means they agree to the cent.
- **Follow the Gift.** Python and `funding.js` agree on 35,577 values over 40 random cases and the central run, twenty-one years each. The largest relative difference is zero: they agree exactly, against the same tolerance.

The succession stress test has no browser port, so it has no parity test; E.1, *Can the Business Pay for Its Own Succession?*'s results are read from its own output file. `g9-parity.csv`

G.9.2 How to run the models

```
python3 src/model/plate_model.py       # results.json
python3 src/model/succession_lab.py    # succession_results.json (about a minute)
python3 src/model/funding_model.py     # funding_results.json and the parity fixtures
node src/model/build.mjs               # the simulator
node src/model/parity_test.mjs         # Follow the Plate: Python against model.js
node src/model/funding_parity_test.mjs # Follow the Gift: Python against funding.js
python3 src/model/build_addG.py        # this volume and its downloads
```

Or run `src/build_all.sh`, which does all of it and composes the library. The Monte Carlos use fixed seeds (20261026 for the stalls and the funding futures, 20261027 for the hand-overs), so two runs give the same numbers. The code needs Python 3.11 with NumPy and Node 18.

G.9.3 The downloads

Every table above, as CSV with a JSON twin, under `/data/g/` on the website and `site/public/data/g/` in the repository; `index.json` lists them with their columns, units and a checksum of each file. The data dictionary is G.1.3.

30 files, 2,286 rows in all, generated with this volume. Each CSV has the JSON twin of the same name; the series file is the curated source itself.

FILE	SECTION	WHAT IT HOLDS	ROWS	COLUMNS	MARK
g1-parameters.csv	G.1	Every parameter of the three models	295	7	mixed
g1-stall-inputs.csv	G.1.2	Every input of the six stall archetypes and the prologue's three cases	29	12	mixed
g2-pnl.csv	G.2.1	The stall P&L by archetype, a month and a year	19	14	DERIVED
g2-illness.csv	G.2.2	What days closed for illness cost the hawker in a year	30	9	DERIVED
g2-newcomer.csv	G.2.3	The newcomer's rent path for three bids	6	13	DERIVED

FILE	SECTION	WHAT IT HOLDS	ROWS	COLUMNS	MARK
g3-net.csv	G.3	Net income: deciles, quartiles and the mean, 5,000 simulated stalls a type	7	16	DERIVED
g3-hours.csv	G.3	Hours: deciles, quartiles and the mean, 5,000 simulated stalls a type	7	14	DERIVED
g3-rent.csv	G.3	Rent: deciles, quartiles and the mean, 5,000 simulated stalls a type	7	14	DERIVED
g3-inputs.csv	G.3	The Monte Carlo's inputs: each draw as the code writes it, and its 10th, 50th and 90th percentiles by stall type	17	20	ASSUMPTION
g4-ledgers.csv	G.4.1	Every pilot centre and the national core: every line, every year, 0–20 (long format)	729	6	DERIVED
g4-stacks.csv	G.4.2	The four funding stacks, Years 0–3: two, three, four and five pilot centres	16	16	DERIVED
g4-plan.csv	G.4.3	The central plan, Years 0–20: every inflow and every use	21	29	DERIVED
g4-endowment-paths.csv	G.4.4	The endowment paths, Years 0–20, with the probability of holding real value	84	12	DERIVED
g4-chua.csv	G.4.5	Heritage Plate licensees that fail each year: none, a third, half (Chua, 2024)	3	16	DERIVED
g4-maintenance.csv	G.4.4	The maintenance rate from Year 4: 10% to 40% of the planning count	4	6	DERIVED
g5-schedules.csv	G.5.1	Succession Mortgage schedules under the adopted terms, by stall type, year by year	135	7	DERIVED
g5-summary.csv	G.5.1	Succession Mortgage by stall type: goodwill, payment, payoff and royalty	7	10	DERIVED
g5-royalty.csv	G.5.2	The Family Name Royalty's ten years and what is left at each anniversary	66	4	DERIVED
g5-licences.csv	G.5.3	Heritage Plate licence income and its three shares, by failure rate	24	6	DERIVED
g6-regulars.csv	G.6.1	The Regulars' List in orders: every stall and dish type	11	20	ASSUMPTION
g6-tiers.csv	G.6.1	The Regulars' List thresholds	4	3	ASSUMPTION
g6-baseline.csv	G.6.2	The Year 0 stall baseline: sample sizes, interview hours and cost by centre	5	7	ASSUMPTION
g6-publishes.csv	G.6.2	What the baseline publishes, as distributions	7	3	ASSUMPTION
g7-sensitivity.csv	G.7	One at a time: every parameter tested, its range and what it does to the four-year total and the endowment	30	10	DERIVED
g8-rents.csv	G.8	Rents, 2012–2026	12	9	mixed
g8-fees.csv	G.8	Fees and wages, 2012–2026	15	9	mixed
g8-prices.csv	G.8	Prices, 2012–2026	15	13	mixed
g8-sales.csv	G.8	Real sales, 2012–2026	14	9	mixed
g9-parity.csv	G.9.1	Parity between the Python models and the browser ports	1	8	DERIVED
g8-series.csv	G.8	Every series value, with its unit, mark, source and note (data/curated/series.csv)	666	10	mixed

G.9.4 Version and independence

This volume belongs to version 1.9.3 of the library. The version, its date and its repository tag are printed on the cover, in the footer and on the Document Control page, and the PDF's metadata carries a fingerprint of the source it was built from, so a reader can tell whether a copy is current. Every change from version 1.0 is recorded in the Version and Change Control Log.

INDEPENDENCE

Hawker Heritage is an independent initiative stewarded by Silicon Wok. It is not affiliated with the National Environment Agency, the Housing & Development Board or any government agency, and it is not an official consultation. Model figures are estimates, not measurements.

SOURCES

Sources for the Series

The 95 sources behind `data/curated/series.csv` (G.8), in short: body, title and date. The number beside each leads to its full entry, with its web address, in Sources, the library's list of references. A series with no outside source (our arithmetic, an assumption, or a figure we could not reach) says so in the file's own source column. The models' own sources are named beside each parameter in G.1.

S.6 **MSE**. Response to Motion on Hawker Culture — Dr Koh Poh Koon (13 Nov 2024). G.8.

S.15 **MSE**. Written reply to parliamentary question on hawker stall subletting and Hawker Succession Scheme (22 Sep 2025). G.8.

S.36 **NEA**. Singapore Rental Policy for Stalls in Hawker Centres and Wet Markets (NEA rental policy summary, via WIEGO) (Sep 2019). G.8.

S.40 **MSE**. Oral reply to PQs on hawker stall rental (14 Oct 2024). G.8.

S.43 **NEA**. December 2022 tender notice (Dec 2022). G.8.

S.44 **NEA**. August 2024 tender notice (Aug 2024). G.8.

S.51 **NEA**. New measures to deter high bids for hawker stalls (4 Nov 2024). G.8.

S.67 **NEA**. Support for stallholders (rent support) (Jul 2026). G.8.

S.199 **Office of the Leader of the Opposition**. Office of the Leader of the Opposition, reproducing MSE's written reply on the Hawkers' Development Programme (Louis Chua), 2 Jul 2024 (566, 120, 29 and 16). G.8.

S.269 **MSE**. Written reply to PQ on hawker programmes (median hawker age). G.8.

S.293 **Enterprise Singapore**. Government subsidy under Hawkers Go Digital programme extended for another year (Oct 2024). G.8.

S.294 **MSE**. Rents and fees, 2025 medians (MSE written reply, 8 Sep 2026). G.8.

S.301 **Grab**. GrabFood merchant sign-up: service fee (28 Oct 2026). G.8.

S.325 **Ministry of National Development**. Data on HDB coffee shops tenanted to F&B chains and to independent operators (written answer, via the Office of the Leader of the Opposition) (8 May 2024). G.8.

S.326 **Singapore Department of Statistics**. Household Expenditure Survey 2023. G.8.

S.327 **Singapore Department of Statistics**. Food & beverage services infographic. G.8.

S.329 **Mothership**. July 2026 rental support for hawkers (Jul 2026). G.8.

S.338 **Ministry of Trade and Industry**. Written reply comparing rental costs with revenue and gross operating surplus in retail and F&B, 2019–2024 (7 Apr 2026). G.8.

S.340 **MSE**. Oral reply to PQ on support for stallholders at market and food centres (LTVP assistants from January 2025) (18 Feb 2025). G.8.

S.341 **MOM**. Recommendations on the Food Services PWM, 2026–2028 (16 Mar 2026). G.8.

S.343 **SingStat**. Rebasing of the Consumer Price Index (2019 as base year) (Feb 2020). G.8.

S.344 **SingStat**. Import and export price indices, April 2018 (2012 = 100) (May 2018). G.8.

S.345 **SingStat**. Import and export price indices, November 2019 (2018 = 100) (Dec 2019). G.8.

S.346 **Energy Market Authority**. Annual electricity tariffs by component (low tension), 2005–2022. G.8.

S.347 **SP Group**. Tariff information: electricity and gas, 1 Oct–31 Dec 2026 (Oct 2026). G.8.

S.348 **Sunollo**. Singapore electricity price tracker (quarterly tariffs 2022–2026). G.8.

S.349 **NEA**. Revision to service and conservancy charges for MSE-owned markets and hawker centres (3 Jun 2023). G.8.

S.351 **NEA**. Allow local hawkers a decent livelihood while providing affordable food options (reply) (9 Jan 2020). G.8.

S.352 **MSE**. Written reply to PQ on centralised dishwashing services (3 Oct 2022). G.8.

S.353 **MSE**. Written reply to PQ on SEHCs (5 Oct 2021). G.8.

S.354 **MSE**. Written reply to PQ on F&B licensing cost and waivers (3 Nov 2021). G.8.

S.355 **MOM**. Tripartite Cluster for Cleaners report (Dec 2016). G.8.

S.356 **Institute of Policy Studies (Goh Zhang Hao, Leong Chan Hoong, Varian Lim)**. Makan Index 2017: an indicator for cost of eating out in Singapore, IPS Working Papers No. 29 (May 2018). G.8.

S.357 **Institute of Policy Studies (Teo Kay Key, Hanniel Lim, Mindy Chong)**. Commentary: Rising prices of hawker meals offer food for thought over deeper underlying issues (28 Mar 2023). G.8.

S.358 **Seth Lui**. 8 unspoken problems that some Singapore hawkers face (Jul 2024). G.8.

S.359 **Ministry of Trade and Industry**. Minister Lim Hng Kiang's written reply on prices of hawker food and common household groceries (hawker-food CPI rates, 2010–14) (13 Feb 2015). G.8.

S.360 **Ministry of Trade and Industry**. Written reply on increase in rent for food establishments (F&B rents outside hawker centres, 2000–2019) (1 Aug 2022). G.8.

S.361 **Ministry of Trade and Industry**. Written reply on rental costs: rent as a share of total business costs (1 Aug 2022). G.8.

S.362 **Department of Statistics (via data.gov.sg)**. Food & Beverage Services Index (2017 = 100), at current prices, annual (5 Feb 2026). G.8.

S.363 **Department of Statistics (via data.gov.sg)**. Food & Beverage Services Index (2017 = 100), in chained volume terms, annual (5 Feb 2026). G.8.

S.364 **Department of Statistics**. Retail Sales Index and Food & Beverage Services Index, March 2026 (2025 = 100) (5 May 2026). G.8.

S.365 **Department of Statistics**. Retail Sales Index and Food & Beverage Services Index, April 2026 (2025 = 100) (5 Jun 2026). G.8.

S.366 **Department of Statistics**. Retail Sales Index and Food & Beverage Services Index, May 2026 (2025 = 100) (6 Jul 2026). G.8.

S.367 **Department of Statistics**. Rebasing of the Retail Sales and Food & Beverage Services Indices (2025 as base year), Statistics Singapore Newsletter, Issue 1, 2026 (Mar 2026). G.8.

S.368 **MOM**. Median gross monthly income from work of full-time employed residents, 2015–2025 (2026). G.8.

S.369 **NEA**. NEA has put in place various measures to moderate hawker stall rents (reply to a Lianhe Zaobao reader) (14 Aug 2020). G.8.

S.371 **Asia News Network (republishing The Straits Times)**. Why should we bear the burden of budget meals and app discounts, some Singaporean hawkers ask (The Straits Times) (22 Aug 2025). G.8.

S.373 **CEIC (secondary; SingStat's data)**. Singapore average retail prices (prepared food items), 2014–2024 (2025). G.8.

S.374 **Dollars and Sense (secondary; SingStat's data)**. Inflation Watch: things getting more expensive (Feb 2021 against Feb 2022 average prices) (Mar 2022). G.8.

S.375 **Vulcan Post (secondary; SingStat newsletter)**. Hawker food prices in Singapore in 2023 marks highest increase since 2008 (27 May 2024). G.8.

S.383 **NEA**. August 2026 tender notice (Aug 2026). G.8.

S.384 **MOM**. Progressive Wage Model: cleaning sector. G.8.

S.385 **MSE**. Median rent for hawker stalls (5 Feb 2025). G.8.

S.391 **Singapore Department of Statistics**. Consumer Price Index, December 2025 (Dec 2025). G.8.

S.392 **SingStat**. Import and export price indices, August 2026 (2023 = 100). G.8.

S.394 **Vulcan Post**. Grab's breakdown of merchant commission (17 Apr 2020). G.8.

S.396 **SingStat**. Consumer Price Index, December 2024 (2019 = 100). G.8.

S.397 **SingStat**. Consumer Price Index, September 2026 (2024 = 100). G.8.

S.398 **SingStat**. Import and export price indices, December 2023 (2018 = 100). G.8.

S.401 **Malay Mail, reporting CNA**. HDB drops the mandatory budget-meal rule; to collect stall rents (10 Jan 2026). G.8.

S.405 **NCCS**. Carbon tax. G.8.

S.406 **MSE**. Written reply to parliamentary question on cost increases faced by hawkers (4 Aug 2026). G.8.

S.409 **MustShareNews**. Electricity and gas tariffs fall in Q4 2026 (1 Oct 2026). G.8.

S.414 **MSE**. Written reply to PQ on rental rates for non-subsidised hawkers (5 Feb 2024). G.8.

S.418 **MSE**. Hawker centre rents (18 Sep 2023). G.8.

S.428 **Asia News Network**. Singapore's hawker food prices rose by 6.1% in 2023, but cost pressures easing (The Straits Times) (May 2024). G.8.

S.429 **AsiaOne**. Fees at operator-run and existing hawker centres (table cleaning, S&CC, median rent) (19 Nov 2018). G.8.

S.430 **CommercialGuru**. Stallholders at new hawker centres to enjoy lower rents (ST reprint) (27 Aug 2019). G.8.

S.431 **IRAS**. Current GST rates; registration threshold (2026). G.8.

S.432 **Leader of the Opposition office**. MND written answer on location of coffee shops and high transacted prices (Jamus Lim), as republished (5 Jul 2022). G.8.

S.433 **MOM**. 41,000 food services workers to benefit from new Food Services PWM recommendations (15 Feb 2023). G.8.

S.434 **MOM**. Annex B: Progressive Wage Model and TCC (PWM wage points) (2014). G.8.

S.435 **MOM**. Food Services PWM infographic (2023) (Feb 2023). G.8.

S.436 **MOM**. Progressive Wage Model for the food services sector (2026). G.8.

S.437 **MSE**. MSE written reply, 7 May 2024 ($1,600 median at comparable NEA-managed centres as at 31 Mar 2024). G.8.

S.438 **MSE**. Oral reply to PQ on impact on hawkers' earnings and affordability (Leon Perera) (4 Apr 2022). G.8.

S.439 **MSE**. Written reply to PQ on hawker stalls left empty in last three years (Joan Pereira) (1 Aug 2022). G.8.

S.440 **MSE**. Written reply to PQ on hawkers exiting the trade (Leon Perera) (20 Mar 2023). G.8.

S.441 **MSE**. Written reply to PQ on prolonged vacancies for hawker and/or wet market stalls (Kenneth Goh) (24 Feb 2026). G.8.

S.442 **MTI**. Examining the cost drivers of hawker food prices (Economic Survey feature, 1Q2015) (May 2015). G.8.

S.443 **Mothership**. Eating out at hawker centres, food courts & kopitiams 3 times a day costs about S$17: IPS study (14 Mar 2023). G.8.

S.444 **MustShareNews**. Toa Payoh is cheapest place to dine out, Bishan most expensive: IPS study (Mar 2023). G.8.

S.445 **MustShareNews**. The inflation impact in S'pore as measured by a plate of chicken rice (Oct 2022). G.8.

S.446 **NEA**. Tender bids for hawker stalls from January 2019 to May 2026 (Jun 2026). G.8.

S.447 **NTUC**. Industries covered under PWM see steady wage growth: MOM report (25 Jun 2024). G.8.

S.448 **NUS BIZBeat**. Hawker food prices rose by 6.1% in 2023, but cost pressures easing (reproduced from The Straits Times) (27 May 2024). G.8.

S.449 **SingStat e-book**. Food Establishments: licensed food establishments 2017-2024 (SFA) (2025). G.8.

S.450 **SingStat via data.gov.sg**. Details Of Operating Expenditure For All Services Industries, Annual (2010-2024), TS/M601501 (2026). G.8.

S.451 **SingStat via data.gov.sg**. Online Food & Beverage Sales Proportion, Monthly (Jan 2019-Dec 2025) (2026). G.8.

S.452 **SingStat**. CPI for household income groups, 2H2019 (2014=100): food +1.4% 2018, +1.5% 2019 (2020). G.8.

S.453 **SingStat**. Consumer Price Index, January 2020 (2019=100), Table 2A (Feb 2020). G.8.

S.454 **SingStat**. Hawker Food Price Trends Across Cooked Food Establishment Types (2019 as Base Year), Statistics Singapore Newsletter Issue 1 2024 (6 May 2024). G.8.

S.455 **The Online Citizen**. Jurong West Hawker Centre centralised cleaning charge (Nov 2018). G.8.

S.456 **The Online Citizen**. NEA revises rental renewal policy for hawkers to discourage excessively high tender bids (4 Nov 2024). G.8.

S.457 **The Straits Times**. Prata is cheaper in the west while kopi is cheaper in central S'pore: IPS study (Goh Yan Han) (15 Mar 2023). G.8.

Document Control

Document	Saving Singapore's Hawker Heritage — The Technical Paper: Data and Simulations
This version	1.9.3 · 1 November 2026
Status	Working paper for public discussion
Initiated by	Uncle James
Contributors	None yet. The project began with one person and hopes to grow into a team that cares; contributors will be credited here by name.
The library	1 Executive Summary 1.9.3 · 2 The Plan 1.9.3 · A The Record 1.9.3 · B The Budget Book 1.9.3 · C Hawkers and Social Protection 1.9.3 · D Follow the Plate 1.9.3 · E Succession Economics 1.9.3 · F Method, Levers and Data 1.9.3 · G The Technical Paper 1.9.3 · S Sources 1.9.3 · Your Table 1.9.3
Source	`src/doc_G_technical_paper.html` in github.com/motochan/sg-hawker-heritage, tag `v1.9.3`
Licence	CC BY 4.0 for the text and data; MIT for the model code
Independence	Hawker Heritage is an independent initiative stewarded by Silicon Wok. It is not affiliated with the National Environment Agency, the Housing & Development Board or any government agency, and it is not an official consultation. Model figures are estimates, not measurements.

Version history

VERSION	DATE	WHAT CHANGED	TAG
1.9.3	1 November 2026	Plain that the time-bound body was the UNESCO nomination committee, not FMAS, which is a standing federation; MCCY's reply of 7 Oct 2026 stated exactly; a constructive tone towards NEA; no proposal or figure changes.	v1.9.3
1.9.2	1 November 2026	Uncle James on every cover, in place of the full name; no proposal or figure changes.	v1.9.2
1.9.1	1 November 2026	The site address and contact are Silicon Wok's; no proposal or figure changes.	v1.9.1
1.9	1 November 2026	The library is stewarded by Silicon Wok; no proposal or figure changes.	v1.9
1.8	31 October 2026	A pen name, Uncle James, and an anonymised note from the author; no proposal or figure changes.	v1.8
1.7	30 October 2026	Plain words: nine numbers settled and the 285 hardest sentences rewritten; no proposal or figure changes.	v1.7
1.6	30 October 2026	Four open calls settled: NEA already staggers the rent on assignment, so the HSS ask narrows to writing that stagger into the Scheme's terms; the 2012 Panel reported in April 2012; MOM's own rules answer the foreign-worker question, so it is recorded as a fact; and Liang Eng Hwa's 2018 question on hawkers managing their own centres is credited.	v1.6
1.5	29 October 2026	Three doors: the Plan cut from 72 pages to 44, with a card for every proposal; A becomes The Record; volume G, The Technical Paper, comes from the models; Your Table is for diners.	v1.5
1.4	29 October 2026	The record: the Government's own panels, Official Reports and UNESCO report read first, hawker pay ($1,470 a month in 2021) and a day shut for illness ($372) reckoned, ten reassurances answered, the count kept as distributions with one body to own it, the Regulars' List counted in orders with a Year 0 baseline, and the Government's match now covering part of the base (40%).	v1.4
1.3	29 October 2026	Grounded: the library's claims checked against sources (314 checked; corrections made where the evidence differed); four proposals change to fit the evidence; Follow the Plate adds the middlemen and the plate over time.	v1.3
1.2	28 October 2026	Restructured, with no change to any proposal, figure or claim, as a library of standalone documents: the Executive Summary, the Plan (the case and the proposals, Part VII in brief) and six companion volumes, A to F, each opening with who should read it, its bottom line and how it connects. The Main Paper and the Technical Paper end; their sections move, with new ids, into the Plan and the volumes.	v1.2
1.1	27 October 2026	First revision: who already helps hawkers beyond Government, and where the plan joins, defers or fills (§1.3.1–§1.3.2); hawkers' protection compared with four other kinds of worker in the Executive Summary; the retirement match applies under 55, beside the existing scheme from 55; the pilot widens from one Lighthouse Centre to two Lighthouses from Year 1, Chinatown Complex and Geylang Serai, and Tekka from Year 2, five at most before the gate, each costed from its own heritage-worthy stalls and size: $14,990,340 over four years in two-part ledgers (operating and programme); the plan pays for no hawker-centre infrastructure, and apprentices learn at the master's side instead of in a prep co-operative; hawker-led Buying Circles (§2.12), a table-cleaning fee re-priced for tray return at the pilot centres and a named deputy for an hour a day join the package; a Heritage Watchlist (§3.6) opens at every government hawker centre from Year 1 and counts each year the stalls at risk, and from Year 4 each centre funds new Fellowships at a maintenance rate fed by that count.	v1.1
1.0	27 October 2026	First edition: one document in three papers, the Executive Summary, the Main Paper and the Technical Paper.	v1.0

Versions are numbered major.minor. A new major version is a new edition, made with contributors or reviewers beyond the initiator; a minor version changes a proposal, a term or a headline figure, or restructures the documents by the initiator alone; a third digit marks a correction to wording or sources that changes none of them. Each version is tagged in the repository, and its PDF can be rebuilt from that tag. The PDF's file name never changes; the version on the cover, in the footer and on this page is the one that counts. Every change since 1.0, with the sections it touches and why, is recorded in the Version and Change Control Log published beside the library.