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## Making Housing Affordable

25<sup>th</sup> National Real Estate Convention 2015

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This report examines the issue of housing affordability in Malaysia, viewing it within the context of housing as an economic sector rather than simply as a social welfare concern. Housing interventions have focused primarily on demand, and in doing so subsidises a non-responsive supply sector. We examine housing affordability with the view of ensuring that supply is able to meet effective demand, thus improving the affordability of housing in general.

This report considers the problem of supplying affordable homes from the perspectives of both institutions (the national business system) and firms (industry value chain analysis and the economics of governance). This is based on the premise that improvements are needed at the level of construction projects and firms in order to increase the affordability of houses at the national level.

Until now, policies have focused on controlling house prices once the consumer receives the house at the end of the production process. This report adopts a different approach as evidence shows that it is far more efficient to enhance capacity on the supply side in order to develop a sustainable and responsive housing sector that caters for all sections of the population.

This is the first in a series of reports undertaken to examine the various dimensions of the housing industry. Future studies will focus on matters relating to land and its attendant regulations, the financing of housing and how housing must be understood as a critical component of city-making.

# Structure of the presentation

- 1 Key Recommendations
- 2 How affordable is the Malaysian Housing market?
- 3 Housing demand, supply and interventions
- 4 The state of house building in Malaysia
- 5 Policy recommendations
- 6 Concluding remarks

**Key**

**Recommendations**

# Key Recommendations:

Develop measures to improve the efficacy of the delivery system of the construction industry to supply housing at affordable prices

A designated procurement route for affordable housing intended to consolidate firms along the value chain

Develop measures to reduce pressures leading to rapid house price escalation

Introduce short term moratoriums

Develop measures to plan for a steady supply of housing at affordable prices

Create an integrated database for the efficient planning of housing units

**How affordable is  
the Malaysian  
housing market?**

# Home ownership and informality

## Home ownership rates for selected countries, 2010

Percentage of home ownership	
Malaysia	72.5
Australia	68.1
Singapore	87.2
UK	67.4
US	66.5

## Percentage of home ownership in Malaysia, 2010

	Percentage of home ownership		
	Total	Urban	Rural
Malaysia	72.5%	69.1%	81.2%
Johor	72.2%	69.6%	78.5%
Kedah	81.8%	77.2%	89.9%
Kelantan	80.5%	72.3%	86.4%
Melaka	72.9%	72.0%	78.5%
N. Sembilan	71.7%	68.2%	77.8%
Pahang	72.0%	65.8%	78.6%
Perak	75.7%	73.4%	80.8%
Perlis	78.1%	72.8%	83.5%
P. Pinang	77.5%	76.8%	83.5%
Sabah	68.1%	65.3%	71.7%
Sarawak	79.4%	75.9%	83.2%
Selangor	67.9%	66.9%	78.2%
Terengganu	78.5%	75.5%	82.8%
K. Lumpur	53.5%	53.5%	
Labuan	57.0%	54.4%	73.5%
Putrajaya	9.9%	9.9%	

## Comparison between DoS's housing units and NAPIC's existing housing stock, 2010

### Department of Statistics

		Type of living quarters	Units	
Built or converted for living	Housing units	Detached	2,416,210	
		Semi-detached	528,408	
		Terrace / link	2,570,317	
		Townhouse	32,682	
		Cluster	63,345	
		Flat	744,187	
		Apartment and condominium	716,729	
		Room	16,142	
		Shophouse/office	132,262	
		Longhouse (Sabah & Sarawak)	84,133	
		Others	18,398	
		Improvised / temporary hut	12,358	
		<b>Total</b>		<b>7,335,171</b>
		Not intended for living but used as such on Census Day	Collective living quarters	Higher learning institution
Temporary quarters for workers	3,029			
Others	2,179			
Charitable/social welfare institution	778			
Hotel, lodging house, rest house	627			
Medical institution	585			
Prison, detention centre	168			
Religious home	81			
<b>Total</b>				<b>11,097</b>
In a permanent building				96
Others		546		
<b>Total</b>		<b>642</b>		
<b>GRAND TOTAL</b>		<b>7,346,910</b>		

### National Property Information Centre

Existing housing stock	Units
Detached	399,817
Semi-detached	282,402
Terrace	1,767,519
Townhouse	24,554
Cluster	26,299
Flat & low cost flat	817,422
Apartment and condominium (including Service Apartment and SOHO)	495,007
Low cost house	574,963
<b>Total</b>	<b>4,387,983</b>

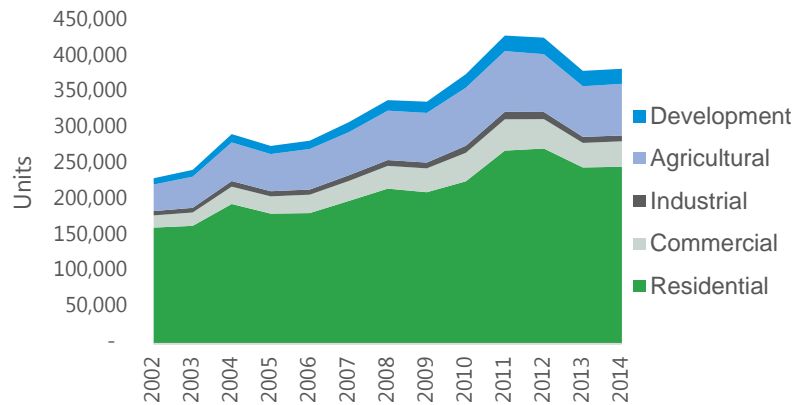
Malaysia's home ownership rate of 72.5% is relatively high as home ownership rates in developed countries – apart from Singapore – were below 70% in the same year.

However, the rates published by the Department of Statistics includes ownership of informal houses.

A significant amount of housing stock accounted in the Census 2010 is not included in the estimates published by the National Property and Information Centre (NAPIC) which takes into account formal housing.

# Residential market dominates property transactions

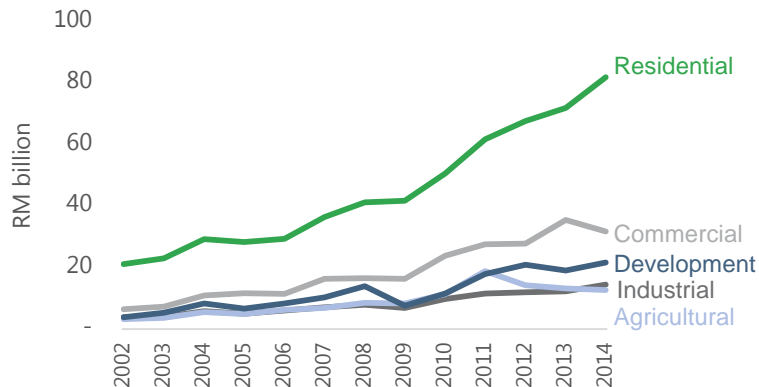
**No. of property transaction by type of properties, 2002 - 2014**



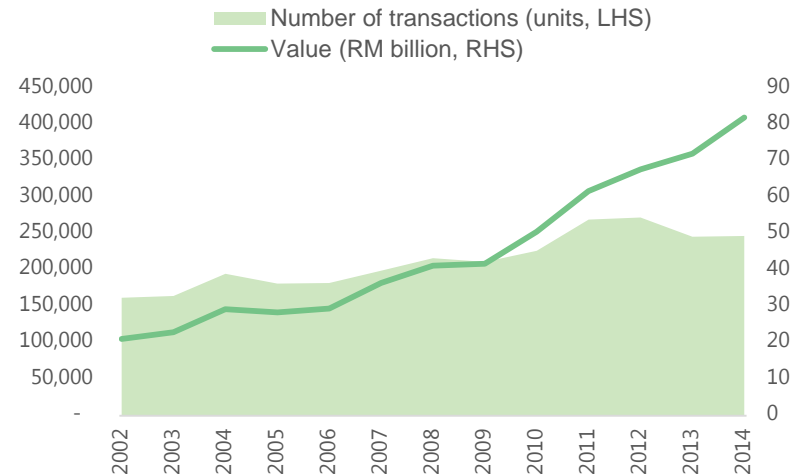
The residential sector has always dominated the Malaysian property market. In 2013 and 2014, the number of residential transactions represented about 64% of the total transactions.

These transactions represented approximately RM67.8 billion, RM72.1 billion, and RM82.1 billion worth of transactions in 2012, 2013, and 2014 respectively.

**Value of property transaction by type of properties, 2002 - 2014**

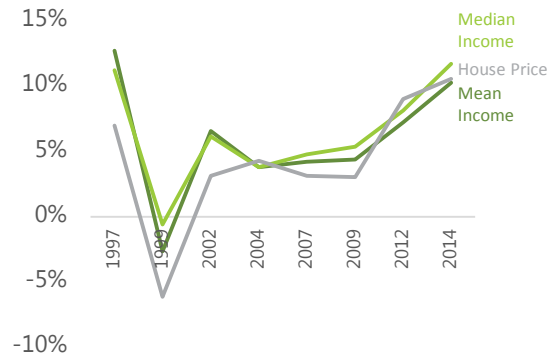


**Number and value of residential transaction, 2002 - 2014**



# Affordability and a Well-Functioning Housing Sector

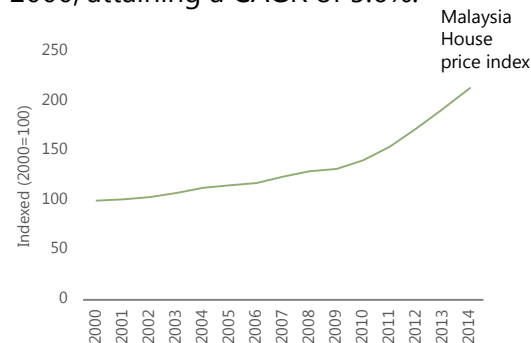
House prices seem to have increased in tandem with household incomes.



Compound annual growth rate, 1997 - 2014

Year	1997	1999	2002	2004	2007	2009	2012	2014
Mean Income	12.7%	-2.6%	6.6%	3.8%	4.2%	4.4%	7.2%	10.3%
Median Income	11.2%	-0.6%	6.1%	3.8%	4.8%	5.4%	8.1%	11.7%
House Price	7.0%	-6.1%	3.1%	4.3%	3.1%	3.1%	9.0%	10.6%

The Malaysian House Price Index shows that in 2014, all - house price stood at 213.5 points compared to 2000, attaining a CAGR of 5.6%.



Breakdown of house prices by state, 2014

Area	2014 house price as a multiple of 2000 house price				
	All House	Terrace	Semi-Detached	Detached	High-Rise
MALAYSIA	2.14 x	2.09 x	2.14 x	2.27 x	2.31 x
Sabah	2.99 x	3.08 x	3.05 x	2.83 x	2.62 x
K. Lumpur	2.58 x	2.73 x	2.58 x	2.72 x	2.20 x
Terengganu	2.58 x	2.63 x	2.64 x	2.43 x	
Pahang	2.53 x	2.44 x	2.63 x	3.04 x	
P. Pinang	2.44 x	2.69 x	1.65 x	1.77 x	2.62 x
Perlis	2.44 x	2.45 x	2.43 x		
Kelantan	2.23 x	2.22 x	2.18 x	2.30 x	
Perak	2.23 x	2.19 x	2.22 x	2.53 x	
Sarawak	2.14 x	2.06 x	2.15 x	2.31 x	
Selangor	2.06 x	2.08 x	2.18 x	2.06 x	1.66 x
Kedah	2.03 x	1.97 x	2.16 x	2.08 x	
N. Sembilan	1.97 x	1.98 x	2.14 x	1.88 x	1.08 x
Melaka	1.80 x	1.91 x	1.65 x	1.08 x	1.24 x
Johor	1.61 x	1.56 x	1.87 x	1.63 x	1.78 x

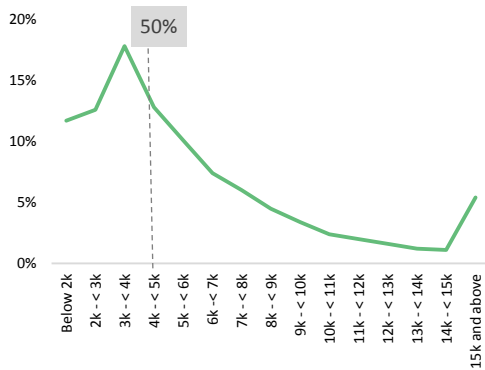
Area	CAGR 2000 - 2014				
	All House	Terrace	Semi-Detached	Detached	High-Rise
MALAYSIA	5.6%	5.4%	5.6%	6.0%	6.2%
Sabah	8.1%	8.4%	8.3%	7.7%	7.1%
K. Lumpur	7.0%	7.4%	7.0%	7.4%	5.8%
Terengganu	7.0%	7.1%	7.2%	6.5%	
Pahang	6.9%	6.6%	7.2%	8.3%	
P. Pinang	6.6%	7.3%	3.7%	4.2%	7.1%
Perlis	6.6%	6.6%	6.5%		
Kelantan	5.9%	5.8%	5.7%	6.1%	
Perak	5.9%	5.8%	5.9%	6.8%	
Sarawak	5.6%	5.3%	5.6%	6.2%	
Selangor	5.3%	5.4%	5.7%	5.3%	3.7%
Kedah	5.2%	4.9%	5.6%	5.4%	
N. Sembilan	4.9%	5.0%	5.6%	4.6%	0.5%
Melaka	4.3%	4.7%	3.6%	0.6%	1.6%
Johor	3.4%	3.2%	4.6%	3.6%	4.2%

Min Max

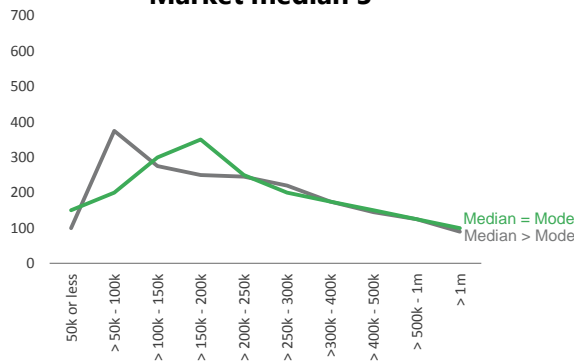
# What would the median multiple indicator look like for Malaysia?

The signal of a well-functioning market is when median price for the whole of housing market is 3x the median gross annual household income.

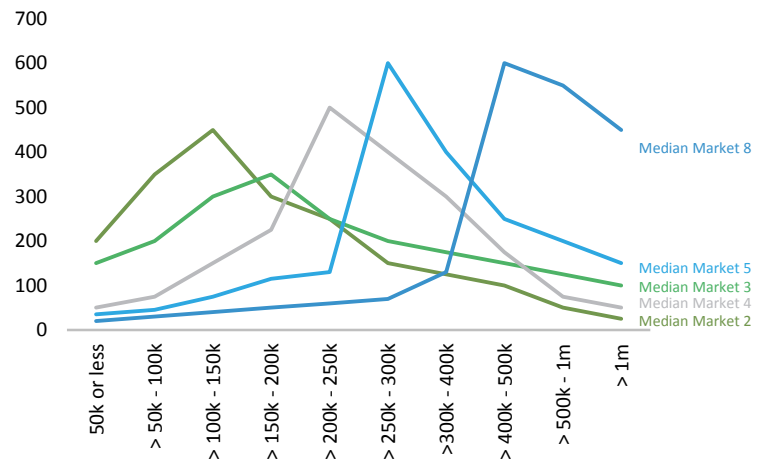
**Distribution of household by income category, 2014**



**Market median 3**



**Mode = Median for market 2, 3, 4, 5 and 8**



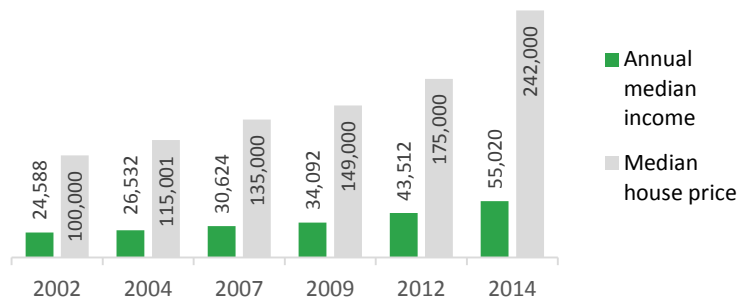
Our assumptions:

1. The median monthly income is RM 4,585.
2. The range for house prices is following NAPIC's house price distribution.
3. Total number of units transacted is 2000.
4. All the brackets (based on price range) is filled with value (units).
5. The mode (price with highest number of units) lies on the same bar as the median value
6. The lower quartile (Q1) and the upper quartile (Q3) are assumed to be at the middle of the price range.
7. The cumulative frequency for the price range where the median is located gives the exact value of 1000.

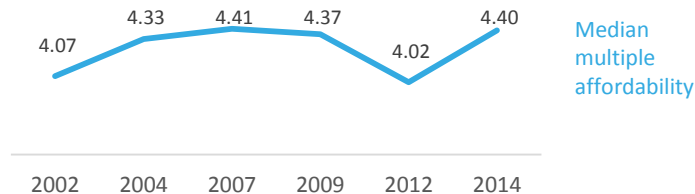
# The Malaysian median multiple: signal of an unaffordable market?

In general the median price for the Malaysian housing market exceeds the three times median annual household income threshold for affordability. To adjust for the potential shortfall of NAPIC taking only the formal sector in account, it is assumed that house prices in states where 60% or more of housing stock is accounted for by NAPIC are representative of the overall housing market.

**Income and house price (RM)**



**Median multiple affordability**



**Comparison of housing affordability based on annual household median income and median all-house price across states in Malaysia, 2014**

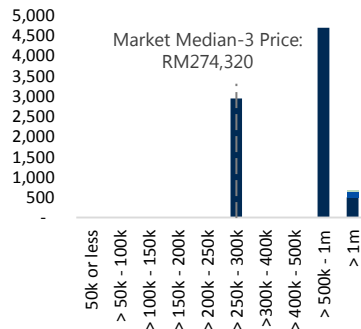
Area	Monthly median income	Annual median income	Market Median-3 Price	Median All-House Price	Median Multiple Affordability	Affordability	Accounted living quarters by NAPIC, 2010
Terengganu	3,777	45,324	135,972	250,000	5.5		22%
K. Lumpur	7,620	91,440	274,320	490,000	5.4	5.1 & Over Severely unaffordable	88%
P. Pinang	4,702	56,424	169,272	295,000	5.2		74%
Sabah	3,745	44,940	134,820	230,000	5.1		24%
Pahang	3,389	40,668	122,004	200,000	4.9		58%
Kelantan	2,716	32,592	97,776	157,740	4.8		16%
<b>MALAYSIA</b>	<b>4,585</b>	<b>55,020</b>	<b>165,060</b>	<b>242,000</b>	<b>4.4</b>	<b>4.1 to 5.0 Seriously unaffordable</b>	<b>60%</b>
Perak	3,451	41,412	124,236	180,000	4.3		57%
Perlis	3,500	42,000	126,000	181,000	4.3		34%
Johor	5,197	62,364	187,092	260,000	4.2		73%
Selangor	6,214	74,568	223,704	300,000	4.0		81%
N. Sembilan	4,128	49,536	148,608	188,888	3.8	3.1 to 4.0 Moderately unaffordable	74%
Sarawak	3,778	45,336	136,008	164,667	3.6		32%
Kedah	3,451	41,412	124,236	140,000	3.4		50%
Melaka	5,029	60,348	181,044	180,000	3.0	3.0 & Under Affordable	64%

# Housing markets in six states are analysed

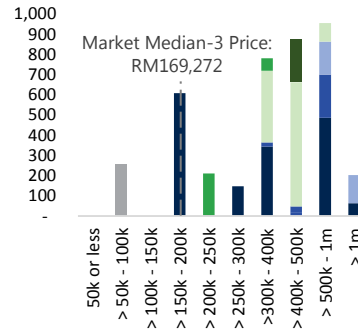
Of the states with high levels of formal housing, some have affordable housing and some do not. The real problems lie in Penang and the Klang Valley. As the charts show the key factor driving housing affordability is the responsiveness of supply (in terms of house types and pricing) to effective demand.

## 'Severely unaffordable' market, 2014

(a) KUALA LUMPUR

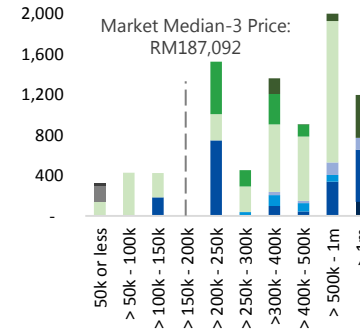


(b) PULAU PINANG



## 'Seriously unaffordable' market, 2014

JOHOR

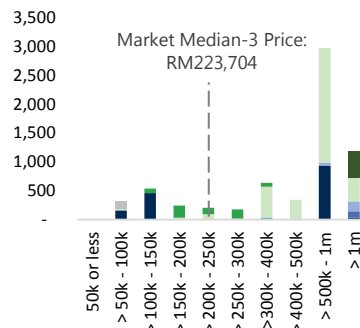


### Type of house

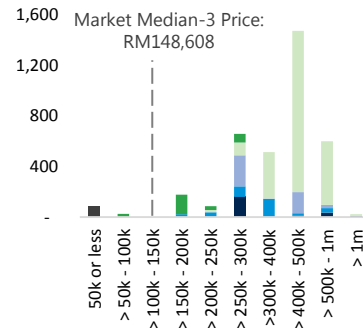
- Detached
- Single storey semi-detached
- 2-3 Storey semi-detached
- Condominium/apartment
- Cluster
- Town-house
- Single storey terrace
- 2-3 Storey terrace
- Low-cost house
- Low-cost flat
- Flat

## 'Moderately unaffordable' and 'affordable' markets, 2014

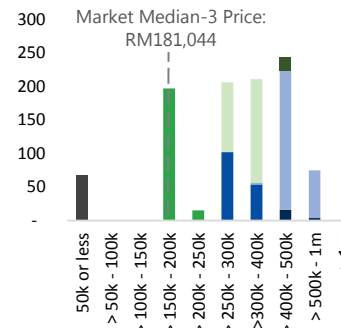
(a) SELANGOR



(b) NEGERI SEMBILAN



(c) MELAKA



# Down-market penetration in Malaysia

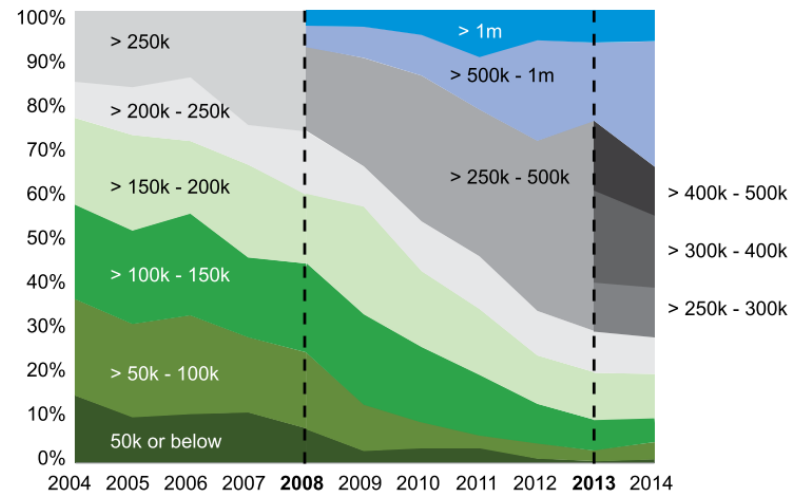
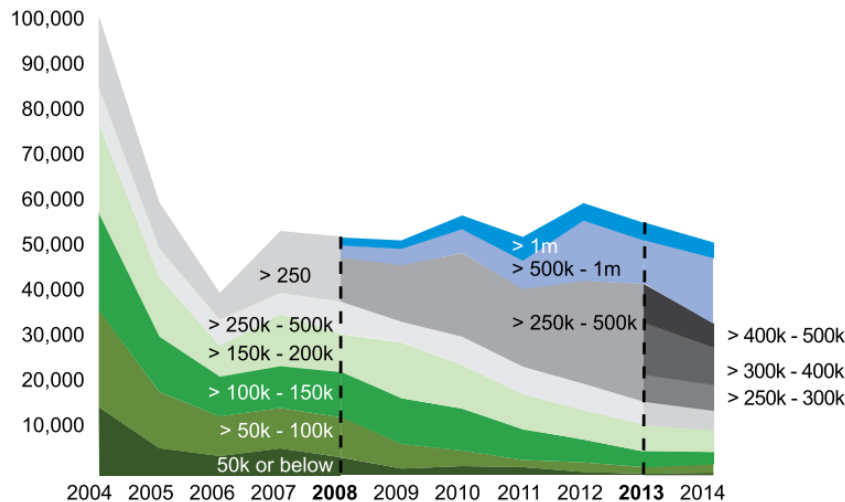
An overview of Malaysia's residential market reveals that in aggregate, new launches within the lowest-price range has dropped from 36.4% out of total launches in 2004 to only 19.7% in 2014.

In 2014, the down-market penetration for the lowest-priced dwelling unit ranged from 0.9 to 1.8 times, quite significantly below the 3.4 global value previously estimated.

## Range of down-market penetration ratios for selected states, 2014

Area	Down-market penetration range
Kuala Lumpur	2.7 - 3.2
Pulau Pinang	0.9 - 1.8
Johor	< 0.8
Selangor	0.7 - 1.3
Negeri Sembilan	< 1.0
Melaka	< 0.8

## Launched residential units by price range, 2004 - 2014



k = thousand

m = million

1. The type of properties included are: Single storey terrace, 2-3 storey terrace, Single storey semi-detached, Detached, Town-house, Cluster, Low-cost flat, Low-cost house, Flat, and Condominium.
2. NAPIC uses different house price ranges from 2004 to 2007, 2008 to 2012 and 2013 to 2014, therefore the charts are divided according to the respective range.

# **Housing demand, supply and interventions**

# More households, more houses needed

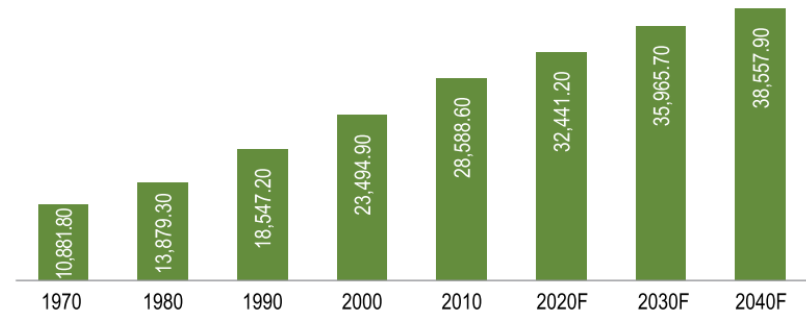
Malaysia's population has been growing, with forecasts that it will continue to grow. However, the size of households is getting smaller.

In 1970 there was an average of 5.5 people per household or, to put it another way, there were about 182 households for every 1,000 people. By 2020 the forecast is that the average will be 4 people, or 250 households for every 1,000 people.

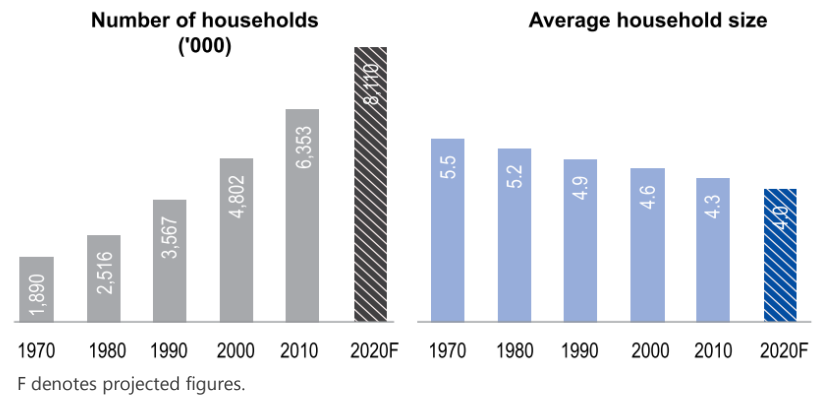
The number of households is therefore increasing at a faster rate than the growth of the population.

## Population, households and household size

Malaysian population size ('000), 1970 - 2040



Number of households and household size in Malaysia, 1970 - 2020

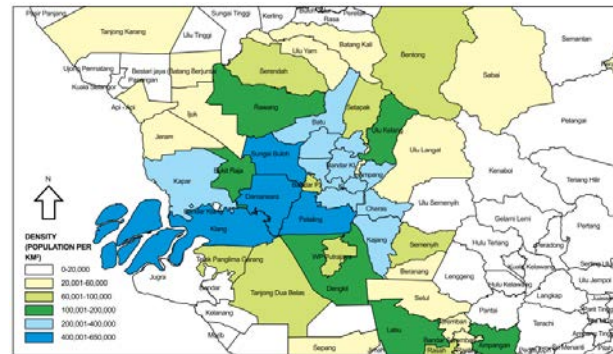


# Urban workers, suburban families

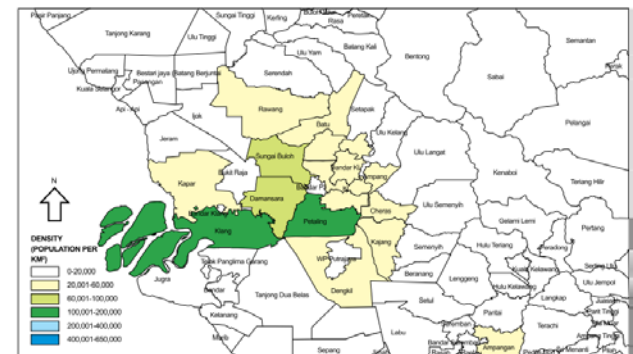
A 'housing market' can never be separated from the physical amenities planned and therefore is intrinsically anchored within the planning of cities, towns and the connections to rural areas.

**Population density according to mukim, 2010**

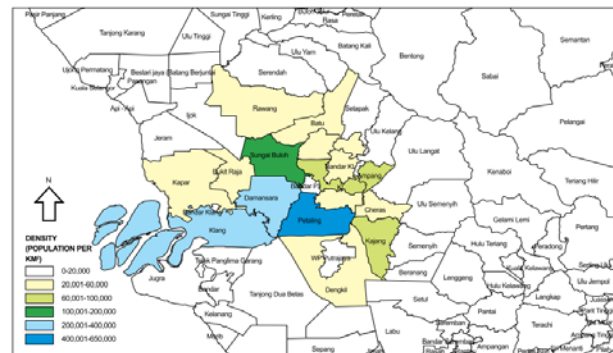
**Total Population density**



**Population density of 0-14 year olds**



**Population density of 24-39 year olds (workers)**



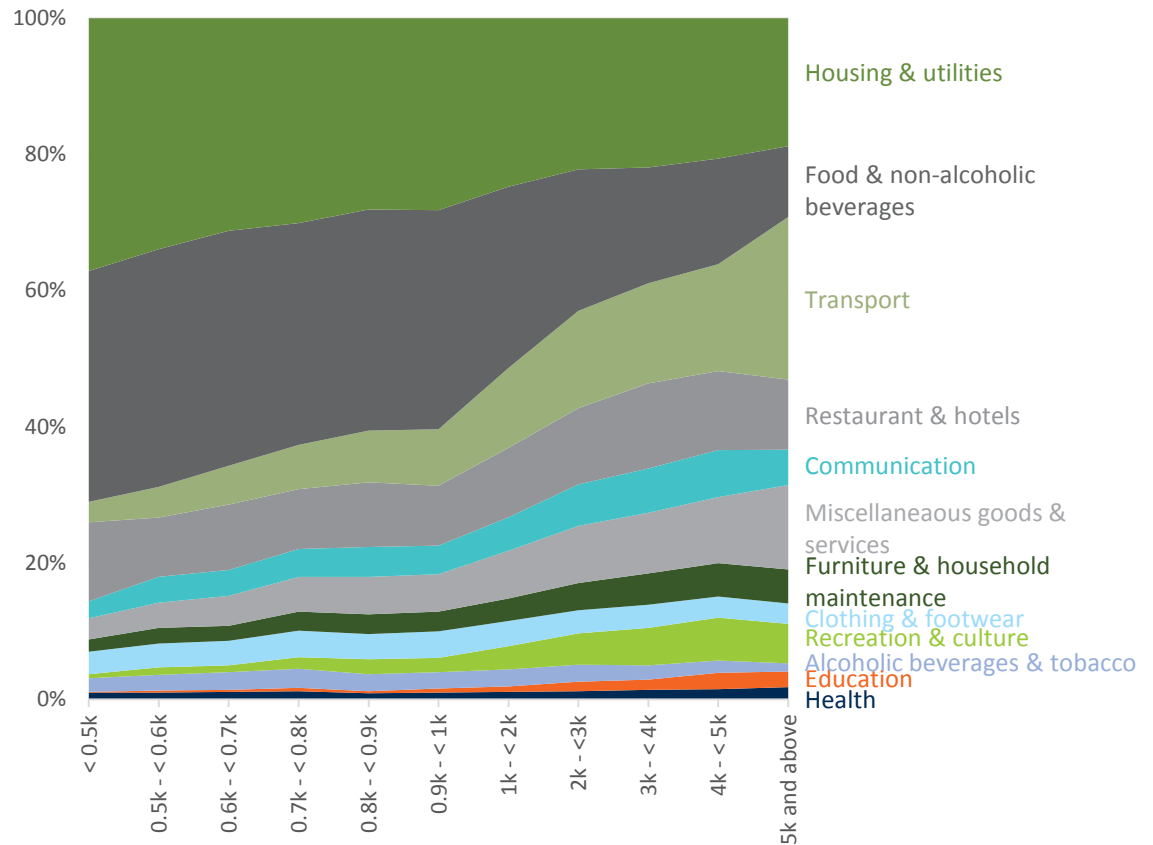
**Population density of over 60 year olds**



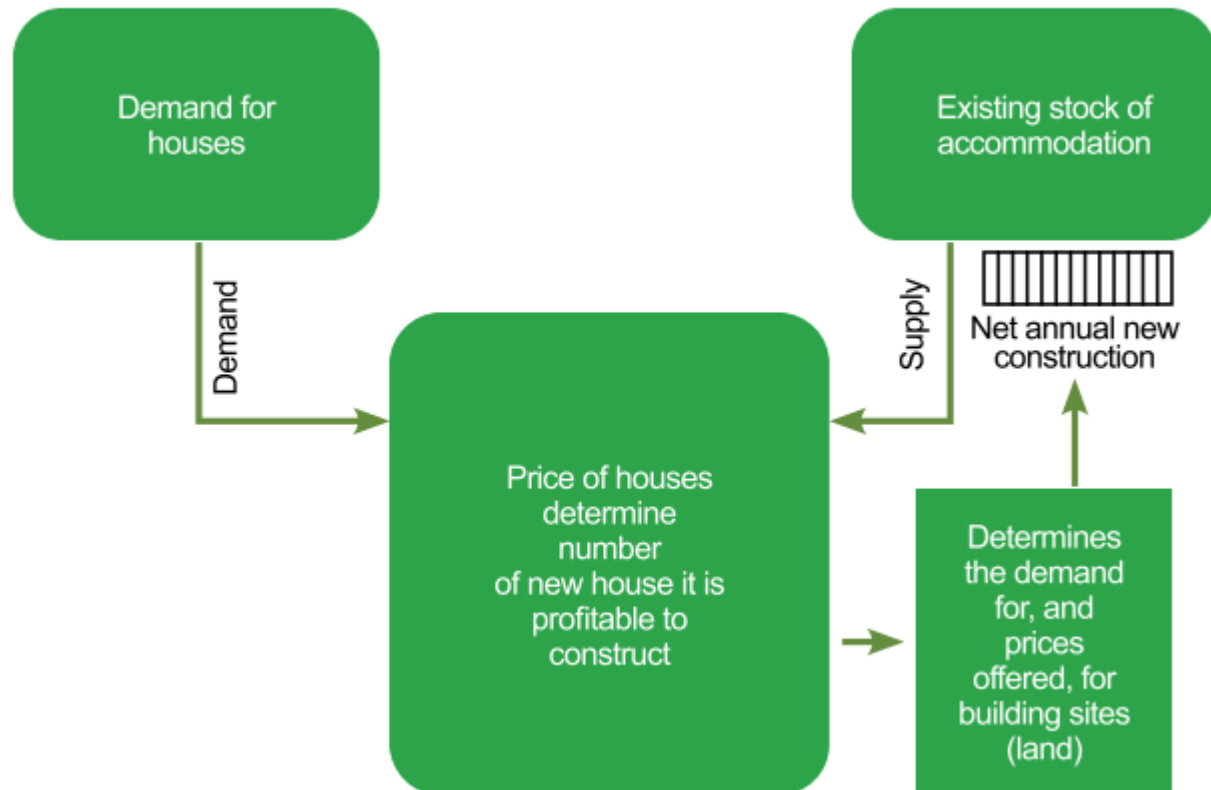
# Affordability and a Well-Functioning Housing Sector

Another regularity of demand is that low-income households generally allocate greater fractions of their income toward housing than do better off households. This general pattern is observable through the Household Expenditure Survey 2010.

**Percentage of monthly expenditure on goods & services by expenditure category, 2010 (RM)**



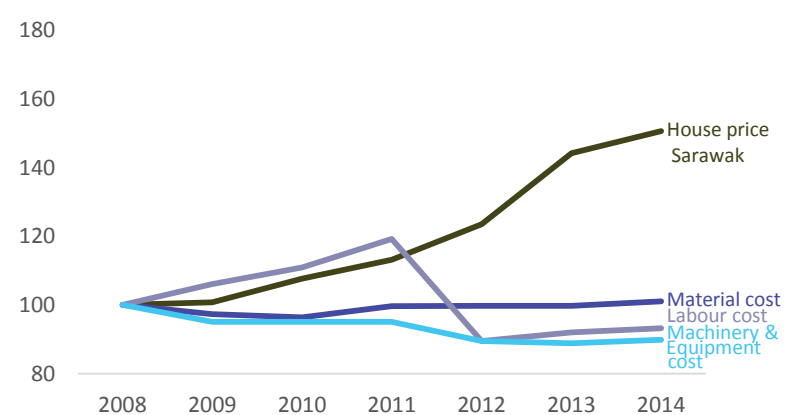
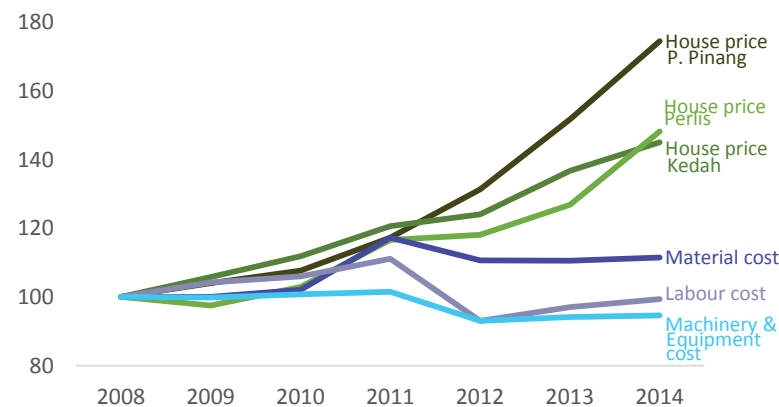
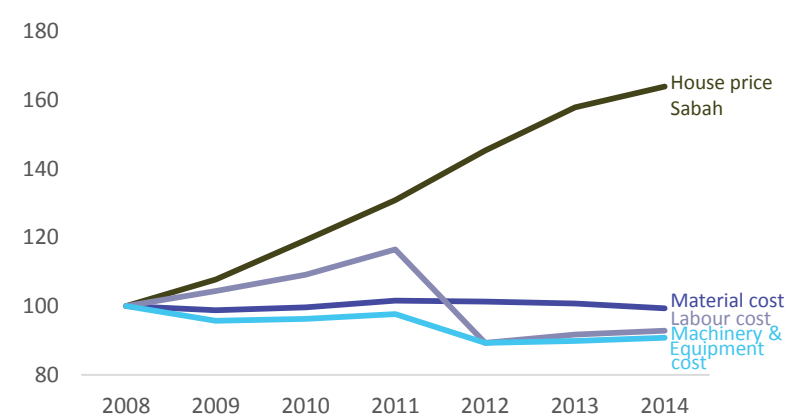
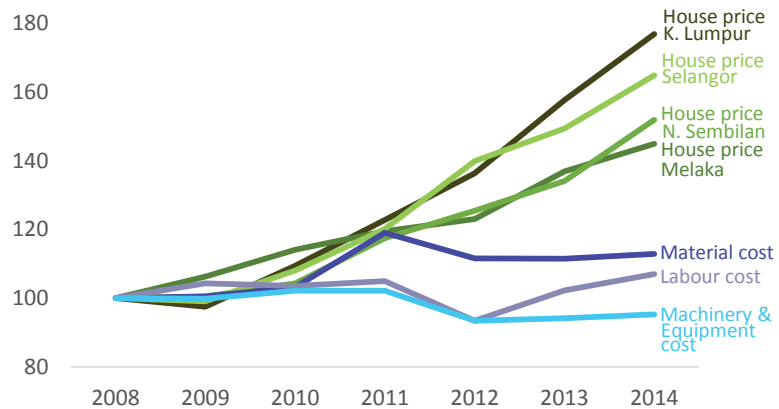
# Theory of housing prices – the dominance of the stock of real property on its price



# Construction costs fall, house prices rise

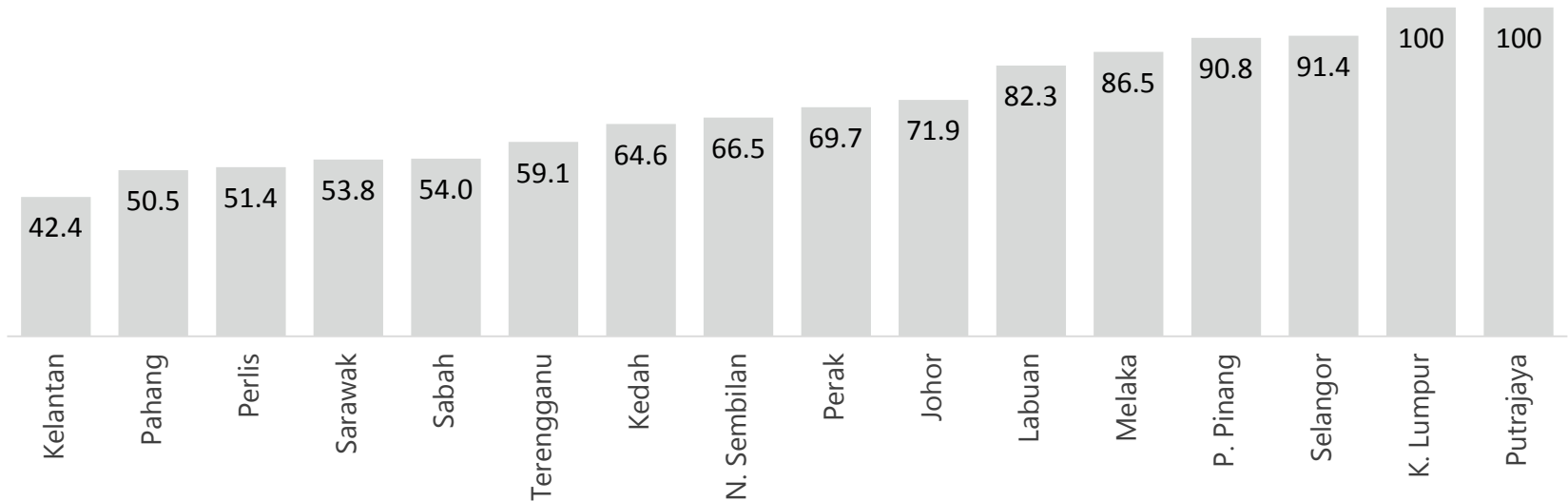
All regions experienced a reduction in building costs in the period 2011 to 2012. If we assume that there is a gestation period for the construction process, then we should expect a reduction in house prices to have occurred in 2013 or 2014. However, this was not the case.

**House prices and construction costs according to states, 2008 - 2014**



# Effect of urbanisation

Urbanisation level by state, 2010 (%)



Urbanisation rate is important since it brings more people to a site, and by the weight of numbers, in the momentarily period, when supply is fixed, an increase in demand will increase house prices drastically. But it also depends on the regulation that has been imposed on the site, if there is an urban containment policy (to contain urban sprawl) or not.

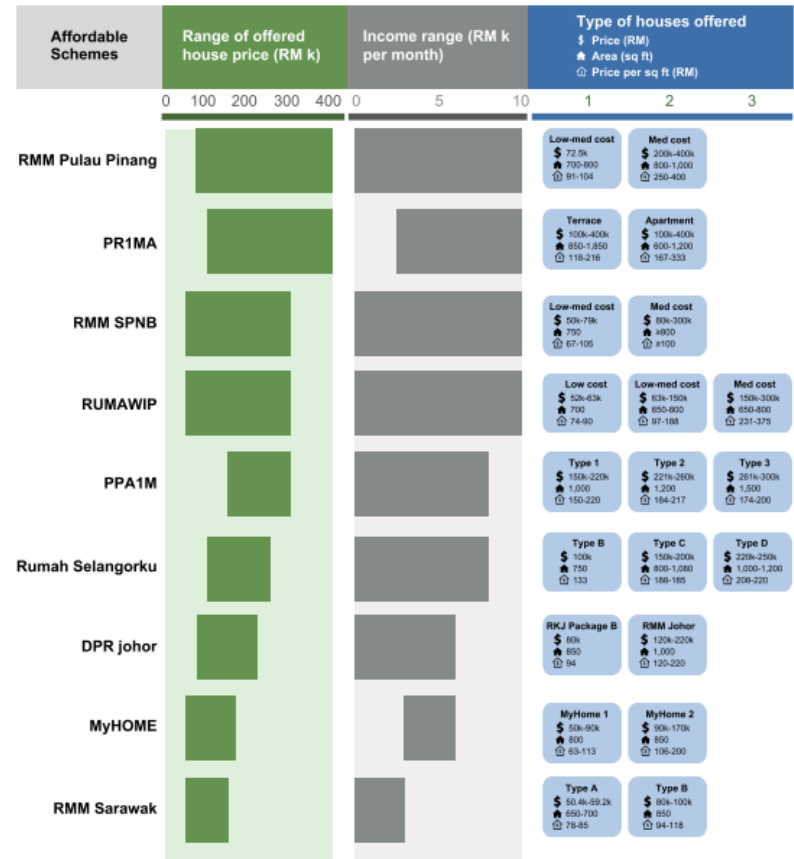
# Housing Demand and Supply Interventions in Malaysia

Policies	Notes
Demand side	
Malaysia My First Home Scheme	Intended to enable young adults earning RM5,000 per month or less to obtain 100% financing from banks to purchase their first home.
Private Affordable Ownership Housing Scheme (MyHome)	Provides a subsidy of up to RM30,000 per low-cost house for qualified first-time home-buyers.
Supply side	
Affordable Housing Schemes	See below.

On the supply-side, the Federal and state governments have mainly focused on the direct provision of affordable homes, either through public agencies or through partnerships with private developers. Examples of these interventions are (see table):

Affordable housing schemes range from low-cost homes priced below RM100,000 to the RM400,000 houses sold under the PR1MA scheme (see figure). Four of these public affordable housing programs not only provide assistance to the bottom-40% of households, but the middle-40% as well; housing affordability is not only a lower-income challenge.

Public affordable housing schemes in Malaysia

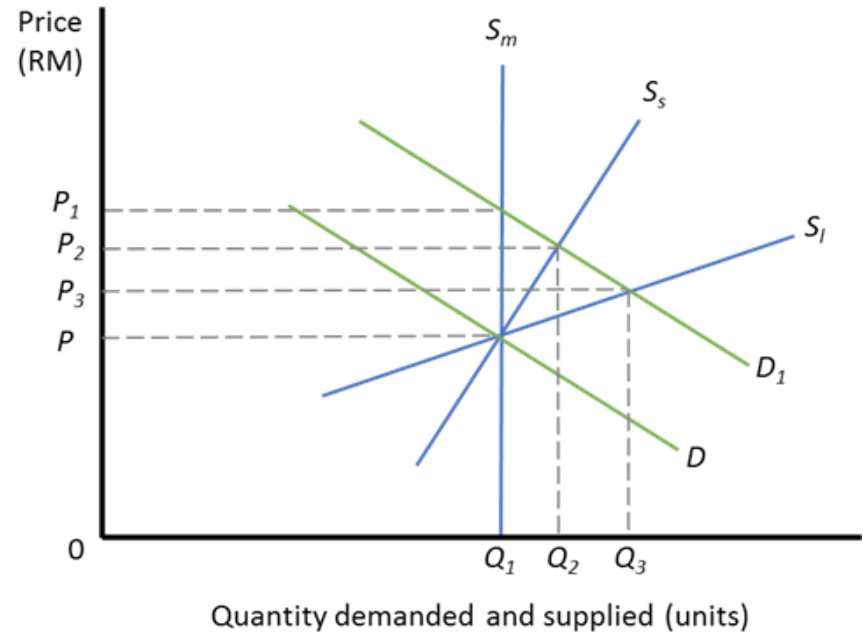


# The Intervention: Make the Supply Side More Elastic

Until now, policies have focused on managing house prices once the consumer receives the house at the end of the production process. This includes increasing access to finance (inefficient demand intervention) or subsidizing supply that are high-priced (unresponsive down-market penetration).

This report takes a different approach because the evidence shows that it is far more efficient to enhance capacity and make the supply curve more elastic in an efficacious manner, investing in innovation and productivity as well as and improving the national business system.

The effect of time on the conditions of supply



Because, the more elastic the supply curve is, (from  $S_s$  to  $S_l$ ), a shift in demand will bring about more units supplied but with a lower increase in price.

## **Therefore, it is important to reconsider housing as a social welfare issue and move towards a broader agenda of guiding and managing the housing sector as a whole.**

The housing sector must be viewed as an important and productive sector, where policies have serious repercussions for overall economic performance and not, as is commonly viewed (especially for low-cost housing) as a sector which is a drain on productive resources.

Our case study in the Philippines (8990 Holdings) demonstrates this salient point, that building houses for low-income households can be profitable.

The imperative issue here is that people do not demand just 'houses', they demand places of living, or habitat. If we are building houses as a 'product of the building industry', then regulations on land or the provision of public amenities are secondary to the building regulations that ensure fitness for occupation.



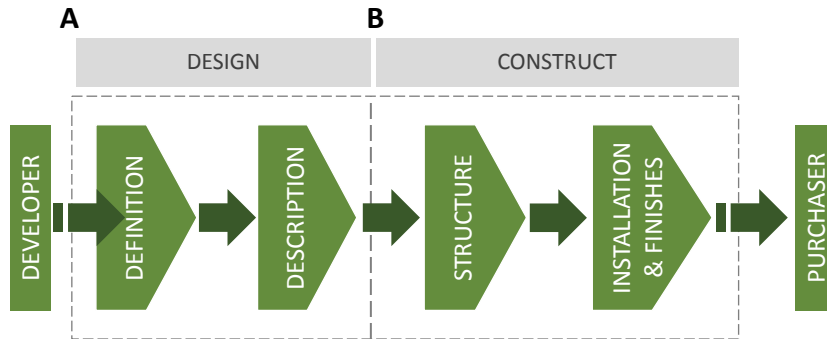
**The DECA Home Resort Residences developed by 8990 Holdings in Mintal, Davao City, Philippines. Two bedroom houses start at PHP715,000 (approx. RM57,200 at market exchange rate).**

A habitat on the other hand, ensures a multiplicity of networks within its node; ranging from physical (power, water and sanitation, roads), economic (urban transport, labour markets, distribution and retail) and social (education, health, security, family and friends). The ability to connect all of these networks makes a habitat valuable.

# **The state of house building in Malaysia**

# What is the national business system for housing?

## The industry value chain



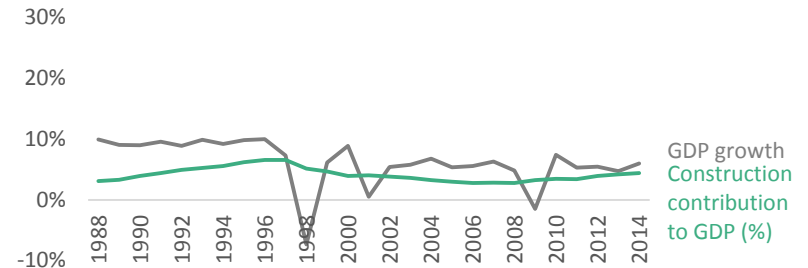
## The Project Environment and the National Business System

The Malaysian construction industry is characterised by the one-off nature of construction projects, because most construction projects have definite project durations and the project organisation is of a temporary multi-organisation structure.

Construction demand is a series of one-off projects, each with its own unique design, tendered competitively on price, and with its own temporary project coalition. Set against the naturally volatile nature of the construction industry (see right figure), contractors tend to focus on the acquisition of new contracts rather than focusing on efficiently delivering projects currently in hand.

## Construction sector growth and Malaysian economic trend

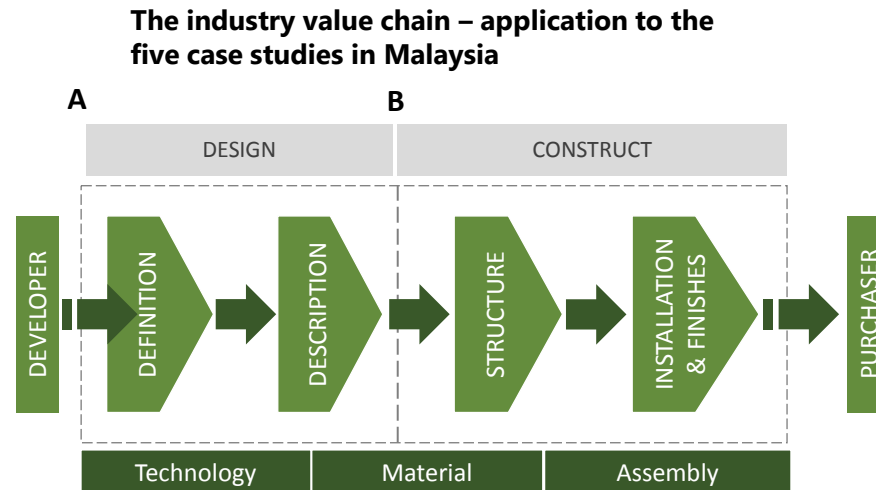
### Construction and GDP



### Construction sector growth



# Malaysia Case Studies



## Findings

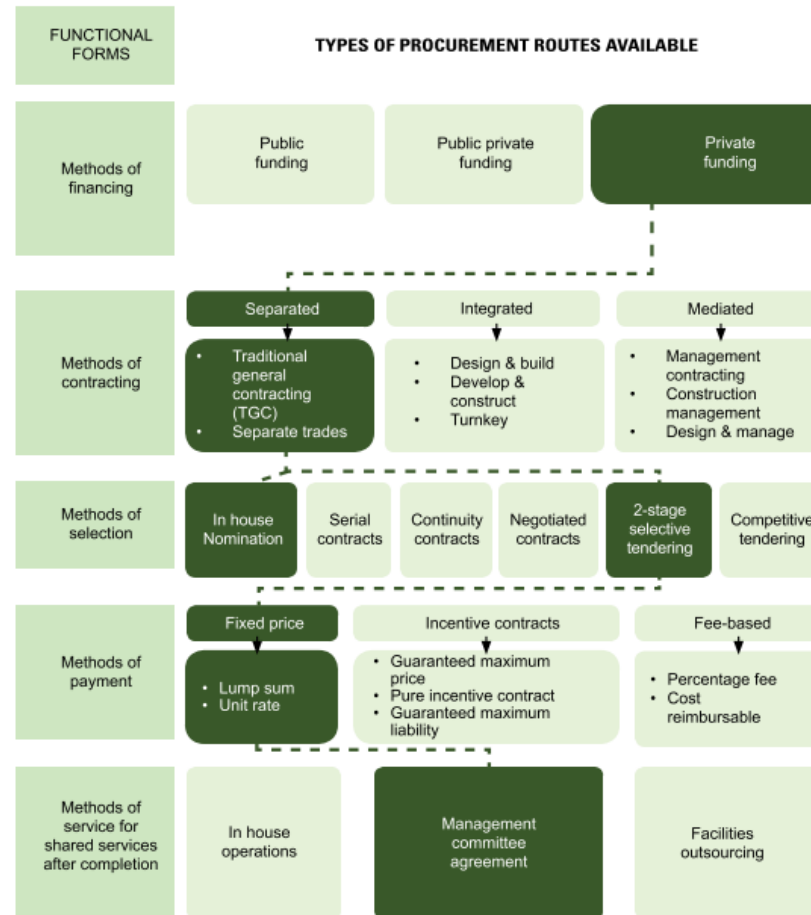
Overall, the five case studies show that the consolidation of the main players in the temporary project coalition (developer, architect, quantity surveyor, contractors, etc.) led to better working arrangements between the parties involved.

However, the efficiency of the temporary project coalition in terms of management did not transcend inefficiencies due to the technical production discontinuity of the project. The actors of the project behaved as one entity in terms of producing “workable order” as an organisational construct (decision-making and adaptation) but not in terms of technical continuity (a production construct).

The consolidation also did not lead to any improvements in productivity nor did it create any incentives to invest in R&D of construction technology to reduce construction costs. The design did not take into account ease of assembly on site, nor were any new techniques of construction developed between the design and construction team.

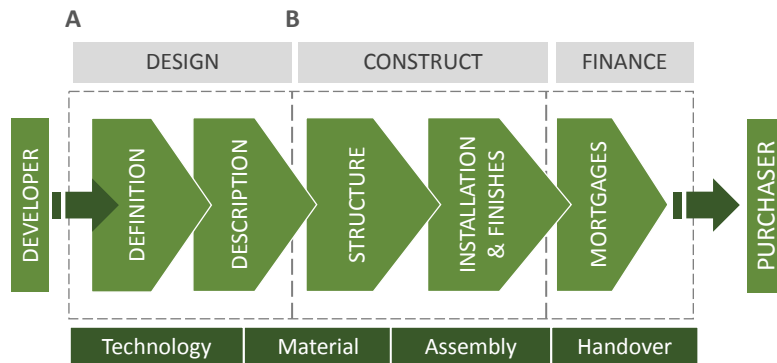
# Malaysia Case Studies (cont'd)

**The functional form and the selected governance structure of the five case reports**



# Case Study: 8990 Holdings, Inc.

## The industry value chain: a case study in the Philippines



## Summary findings

In terms of the housing production value chain, the case study highlighted the following characteristics demonstrated by 8990 Holdings:

- The project design is done by the internal development team and product innovation is encouraged.
- The developer invests in the training of the site operatives in the external construction firm to ensure that the technology created by its internal design team can be executed on site. Any problems of execution on site will be filtered back into the design process for further refinements on behalf of the design team.
- Product development is continuously encouraged and is designed into the building specifications which can be readily applied on-site as a result of the extensive training given to the site operatives.
- The responsibility for managing the project resides entirely in the developer's entity.
- Transaction A is internalised while transaction B is executed by in-house nomination (see figure).
- The developer created a financing scheme that accommodates consumers who have insufficient funds for the initial down payment on the house.

# What are Our Limitations in Producing Affordable Homes based on Current Institutional Context?

## Comparison between 8990 Holdings and Malaysian property developers

	8990 Holdings, Inc.	Malaysian property developers
Framework agreement with key materials suppliers	8990 Holdings has an agreement with the material supply-sector, and therefore negotiated the contractor's services as a cost-plus item in the bills of quantities.	Property developers give this role to the construction company, and this is covered in the existing construction contracts (fluctuation clauses are normally eliminated).
Integration of design and construction	8990 Holdings has an integrated design and construct group that permits improvements to the production processes from design to installation on site.	Improvements in design and buildability on site are done in different firms and there are limited opportunities to improve since design changes are executed through variation orders, which makes innovation non-existent.  Which party would want to bear the costs of faulty design or installation?
Investment in production technology and innovation	8990 invests financially in their own product and process innovations. Product innovation (eg IBS) is done internally and is tailored to the specificities of the construction site. For example, if the site is in a dense city-area with limited access, they bring the moulding process on site.  Process innovation is needed in situating product innovation. For example, in IBS technology, the Mechanical and Engineering (M&E) design input must be given before moulding is done. 8990 will have internal discussion with both the design and construction teams in one conducive environment.	Property developers in Malaysia rely on their construction firms to innovate, without investing financially. Contractors will depend on external IBS or proprietary systems for product innovations, therefore it is an out-sourced facility. The design team might not be familiar with the design and installation of such technology.  Training is generally not provided by the contractors, design team, or IBS manufacturer on how the components are connected with other parts of the building. Hence construction workers will not be able to assemble the design on site.
Skills training	8990 provides training for all construction workers/operatives so that the product innovation designed by the design team is able to be executed on site. The construction workers are also encouraged to give feedback on problems with executing the design on site.	Training of construction workers are not done due to the transient nature of the work force.
Management and maintenance of amenities	8990 maintains the shared services (amenities) within their facilities management unit. The general public will need to pay for the services but the unit owners within the complex can use the facilities for free. This to ensure that the facilities are well-kept and is in good workable order at all time.	The public amenities are managed and maintained by the Management Committee.

These conclusions suggest that the consolidation of the supply chain follows best practices as exemplified by 8990, whereby firms themselves invest in adopting new technologies as well as in training site operatives to execute the newly introduced technology.

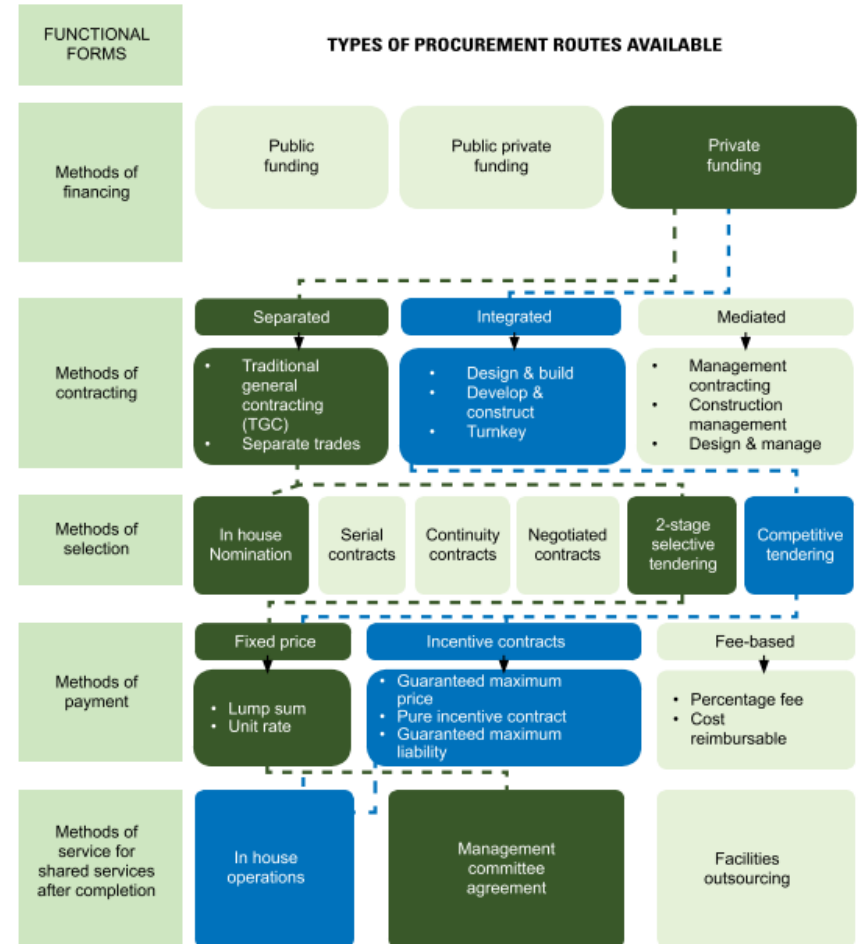
**Policy  
recommendations**

# New governance structure

The new structure is designed to change attitudes and alter the way in which members of the professions and contractors interact with one another, with a view to creating a fully motivated and cooperative building team and removing the duplication of effort between designers, quantity surveyors and contractors, which is prevalent under the TGC governance structure.

The nature of the integrated approach should promote the creation of designer-contractor-supplier clusters.

**The functional form and the selected governance structure of the five case reports and the suggested new governance structure**



# Develop Measures to Improve the Efficacy of the Construction Industry's Delivery System to Supply Housing at Affordable Prices

The existing national business system for construction is one which is highly fragmented, underpinned by a rigid procurement system that provides little incentive for innovation, which in turn reduces efficiencies and keeps costs high.

Property developers rely on construction firms to innovate without themselves investing financially in research and development and innovative production methods. Contractors on the other hand depend solely on external IBS or proprietary systems. Lack of training for construction workers will mean that the design will not be able to be assembled on site.

## **The policy recommendation is to develop a designated procurement route to consolidate the resources of the firms involved in delivering affordable houses**

The 11<sup>th</sup> Malaysian plan has in its Strategy D2, a focus on driving productivity by increasing technology adoption, modernisation of construction methods and on reducing dependency on low-skilled labour.

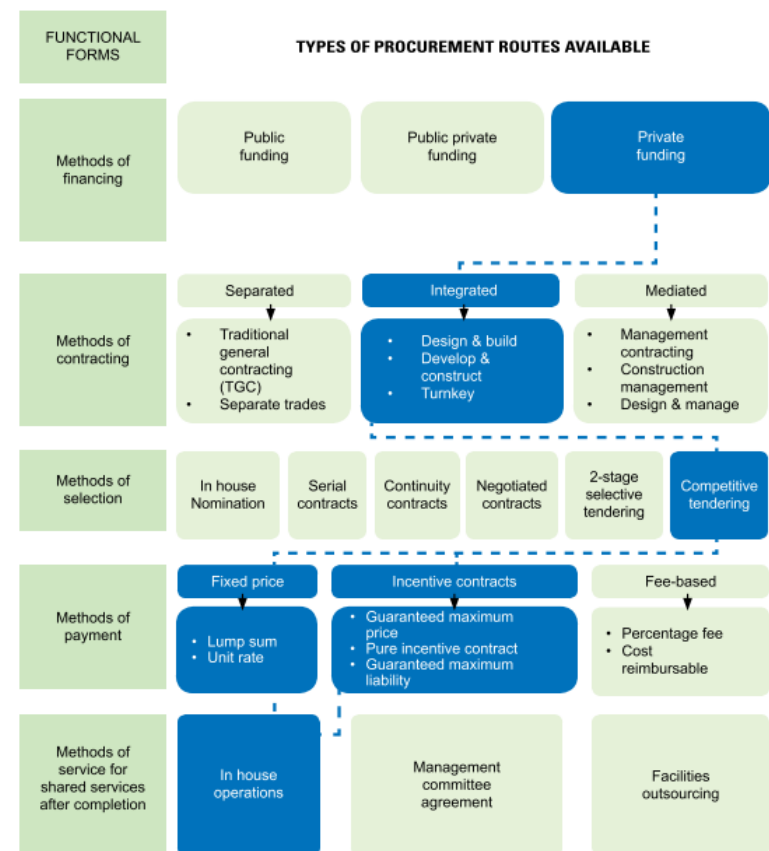
It also encourages the adoption of the IBS by the industry through revision of the public procurement policy and Uniform Building By-Laws; as well as wanting to improve on existing regulations to ease construction-related business processes. The following policy recommendation and steps will attain the desired objectives of Strategy D2.

1. A new designated procurement delivery system that allows for the consolidation of the resources of firms within the supply chain. This entails a move from using the TGC procurement route towards a design-and-build or turnkey governance structure and forming framework agreements with the material supply section.
2. Extending the consolidation of the supply chain in the design-and-build approach into a clustering approach with key material supply firms under a framework agreement would enable a strong resilient housing supply cluster to be built.

# Develop Measures to Improve the Efficacy of the Construction Industry's Delivery System to Supply Housing at Affordable Prices (cont'd)

1. This new procurement structure will create institutional arrangements with designers, contractors and material suppliers to encourage improvements in their factor productivities and efficacious management of building materials.
2. The cost-savings accrued as a result of lower construction costs based on construction innovation will be translated into higher floor areas for the newly constructed homes.
3. The creation of this new cluster of firms will improve the prices of new incoming stock of houses (making them more affordable to the general public) as a result of:
  - the lower costs of construction resulting from the use of proprietary building systems and the integration of design, construct and assembly processes
  - the support of government in site-seeking and purchase, obtaining planning permission and building regulations approval, financing facilities and other associated development components
  - the support of government for the development of mandatory standard building specifications for the newly constructed homes.

## The functional form and the suggested new governance structure



# Develop Measures to Reduce Pressures Leading to Rapid House Price Escalation

Land is a derived demand and the rapid escalation of house prices will induce bidding for land prices to its maximum potential returns away from other types of competing uses. From 2000 to 2014, the Malaysian house price index showed a compound annual growth rate of 5.6% as well as an overall increase of 131.5% in house prices.

Short-term speculative behaviour will only serve to increase house prices and therefore the derived demand for land in an artificial way, but the impact is permanent. As can be seen from the house price theory and the dominance of existing stocks from incoming flows, the existing stock of houses will determine the prices of new stock. *Ceteris paribus*, when no other cost items are increasing, the high economic rent of proposed new stock will be used to bid higher prices for land. This creates a vicious cycle of escalating land and house prices.

**The policy recommendation is to impose a moratorium of five years on selling houses that are built through the new designated procurement route:**

1. The supply of new stock of houses produced through the newly-designed procurement route needs to be insulated from short-term speculative behaviour in order for the initiative to be successful.
2. For houses built through the new designated procurement route, a moratorium is needed to create a buffer period for new stock to come in at affordable prices as well. If the new stock is affordable and costs are lower than the speculative prices, this will evidently diminish the gains from speculative activities. A moratorium has the objective of curbing the rapid price escalation of houses. Therefore, if there is an urgent sale before the period of five years, then the unit can still be sold but based on nominal values.

# Develop Measures to Plan for a Steady Supply of Housing at Affordable Prices

It is difficult to plan for a steady supply of stock that will effectively reduce the inflationary pressures of an inelastic supply when effective demand can neither be estimated at the state nor at the mukim level.

Effective demand for housing is dynamic in nature since it reflects the demographics and future prospects of the local population at each specific site. There is also an internal dynamism at the level of the individual family in terms of the types of housing demanded according to family composition and the progressive changes in families' income in the long term.

While the objective of the National Housing Policy is to provide adequate, comfortable, good-quality and affordable houses to improve the wellbeing of the people, it does not provide the data and evidence on this housing need or on the effective demand that would be necessary to implement the policy in a coherent and sustainable manner.

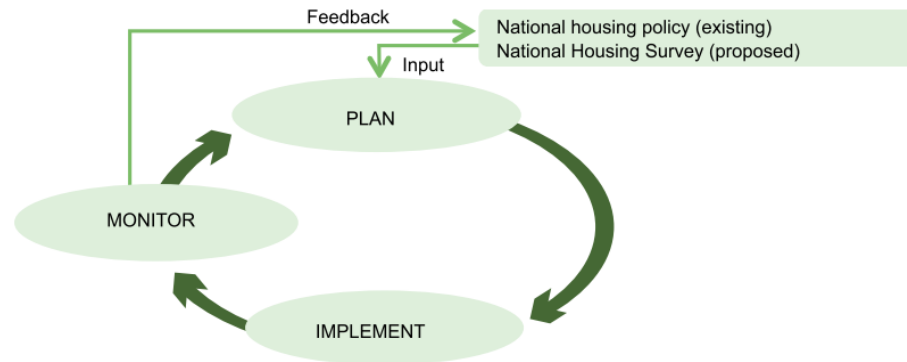
## **The policy recommendation is to undertake a National Housing Survey.**

The 11<sup>th</sup> Malaysia Plan has highlighted the mismatch in demand and supply for affordable housing. The document highlighted the escalating House Prices in Major Cities (following the World Bank Affordability Index which is three times the annual household income) and cited the lack of integrated planning and implementation as one of the reasons for this problem. In Strategy B2: Strengthening planning and implementation for better management of public housing, the document recommends the establishment of an integrated database for all relevant stakeholders (to ensure housing supply matches demand according to locality, price and target groups). The policy option of creating a National Housing Survey as detailed (see next slide) will have the desired outcome of Strategy B2.

# Develop Measures to Plan for a Steady Supply of Housing at Affordable Prices (cont'd)

1. A National Housing Survey will provide guidance to Federal and State governments and local authorities, enabling them to plan for a steady supply of housing at affordable prices through housing programmes at the mukim level, which are based on effective demand and land suitability.
2. If made public, information collected in the National Housing Survey will also provide the general public with the requisite knowledge to make better house-buying decisions. As housing consumes a significant proportion of their household incomes, the general public needs to be able to plan for the purchase and to choose between different types of houses at different prices, which in turn will lead to better financial planning on their part as well.
3. The proposed National Housing Survey should include:
  - demand-side analysis: covering the distinct demographic patterns between States at the mukim level (for example, whether mukims consist predominantly of young dependents and families, working populations or retirees) and incomes.
  - supply-side analysis: a land suitability assessment including the current land-use patterns and zones.

The demand- and supply-side survey and analysis performed for each state could be repeated every five years to reflect the dynamic and organic nature of housing programmes.



# Develop Measures to Plan for a Steady Supply of Housing at Affordable Prices (cont'd)

The National Housing Survey will provide input to each State to enable it to plan for adequate and suitable housing stock to meet the different needs of the general population at strategic locations. The state and local councils would be required to monitor the quality and quantity of these new housing stocks and provide more information (input) for the next National Housing Survey.

1. Currently, there is data available to undertake a supply-side housing land and suitability model. However, the demand-side data is limited, hence the need to undertake a National Housing Survey. Both sets of demand and supply conditions could then be analysed to determine the need and policy appropriate at each state and district level.

The National Housing Survey will enable the development of various models with greater resolution and accuracy. This will provide information on the different solutions needed for each state. Among the possible outputs are:

- population forecasts
  - housing demand range
  - migration patterns
  - household size by housing type
  - social housing against social economic variables
  - land suitability for different housing types.
2. The National Housing Survey would be best undertaken by both the Federal Town and Country Planning Department (JPBD) and the National Housing Department (JPN).

# Summary of Key Findings and Policy Recommendations

The policy recommendations and the actions needed are supply-side interventions to the housing market. The objective is to make housing supply more responsive to the purchasing power of population at specific locations.



**Develop measures to improve the efficacy of the delivery system of the construction industry to supply housing at affordable prices.**

These housing units are then buffered under a moratorium period to reduce the pressures of escalating house prices after the initial sale. The moratorium should be of a limited time period only, sufficiently long enough for the next batch of housing stock to be supplied into the market at affordable prices as well.



**Develop measures to reduce pressures leading to rapid house price escalation.**

In the end, a steady supply of housing units should be planned in order for both supply and demand to be efficiently matched. The information needed for efficient planning entails a National Housing Survey and a national data repository on the conditions of demand and supply of housing at specific localities. An integrated database was also recommended in the 11<sup>th</sup> Malaysia Plan.



**Develop measures to plan for a steady supply of housing at affordable prices.**

**Concluding  
remarks**

# Concluding Remarks

In most developed countries, issues of affordability for the economically disadvantaged are dealt through social housing schemes. Social housing is seen as a necessary means of ensuring a decent home for all. However, in certain countries, this means housing very few households directly, while at the other extreme, the scale of provision can be as high as one in three households. The trends in Malaysia suggest that both the bottom 40% and the middle 40% of household income earners are likely to end up in some form of social housing if the relevant interventions are not made urgently.

The available evidence suggests that unless immediate action is taken, the provision of social housing for the vast majority of the population will put unnecessary financial pressures on government spending. It makes more economic sense to ensure that the purchase of a home is financially viable to the general public than it does to rely on existing models for the provision of social housing.