KHAZANAH RESEARCH INSTITUTE

VIEWS 44/24 | 9 DEC 2024

From Office to Home – Part 1: Impacts on Household Spending

Theebalakshmi Kunasekaran and Shazrul Ariff Suhaimi

Views are short opinion pieces by the author(s) to encourage the exchange of ideas on current issues. They may not necessarily represent the official views of KRI. All errors remain the authors' own.

This view was prepared by Theebalakshmi Kunasekaran and Shazrul Ariff Suhaimi, researchers from the Khazanah Research Institute (KRI). The author is grateful for the valuable comments from Puteri Marjan Megat Muzafar and Dr Teoh Ai Ni.

Author's email address:
theebalakshmi.kuna@krinstitute.org
shazrul.suhaimi@krinstitute.org

Introduction

In response to the COVID-19 crisis and subsequent lockdowns, many companies worldwide adopted flexible working arrangements (FWAs) to ensure the continuation of certain business operations. FWAs encompass (1) all work using *Information and Communication Technologies* (ICT) performed outside the employer's premises[1] and (2) flexible working hours outside of standard working hours, agreed upon by both the employer and employees[2]. In 2023, the Malaysian Parliament passed an amendment to the Employment Act 1955, which gives recognition to the FWA concept and allows all employees to apply for FWA with regard to the hours of work, days of work or place of work in relation to their employment[3]. According to SOCSO[4], over

[1] Rosas (2017)
[2] ILO (2022)
[3] GOM (2023)
[4] Social Security Organisation also known as *Pertubuhan Kesalamatan Sosial (PERKESO)*

66% of Malaysian companies have incorporated some form of FWA after the COVID-19 pandemic, highlighting the shift in how we currently view what constitutes a traditional working environment[5] and arrangement.

This shift, especially during and post-pandemic, has likely contributed to increased household expenses associated with working from home. Three components from the Household Expenditure Survey (HES) can be used to gauge work-from-home (WFH) expenditure trends; these are ‘Housing & Utilities (H&U)’, ‘Furnishing & Household Maintenance (F&M)’, as well as ‘Information and Communication Technologies (ICT)’. This article examines how these categories reflect the financial impact of working from home on households’ expenses.

Overview of WFH-related Expenditure Trends

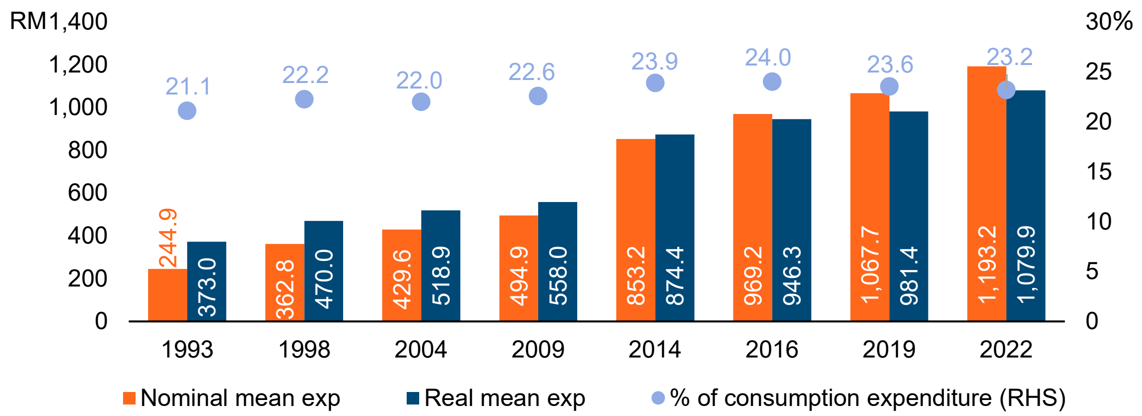
Housing and utilities

Housing and utilities expenditures include a household’s expenses on rent, materials, and services for dwelling maintenance and repair, as well as utility bills such as water, electricity, sewage collection, gas, and fuels. Over the years, these expenditures have shown an increasing trend, reflecting both nominal and real increases in household spending patterns.

Figure 1 shows the time series of both nominal and real H&U expenditures. Since 1993, nominal spending on H&U has increased nearly fivefold from RM245 in the early 1990s to RM1,193.20 in 2022. Adjusted for inflation, real expenditures have also seen a near threefold increase, from RM373 in 1993 to RM1,080 in 2022.

Despite substantial increases in spending, the share of household expenses allocated to H&U has remained relatively stable over the past decades, consistently accounting for 22 – 24% of total household spending. In 2022, H&U spending remained the largest expenditure category, comprising 23.2% of total household spending.

Figure 1: Time series of nominal and real expenditure and share of housing and utilities, 1993 – 2022



Source: DOS (2011); DOS (2015); DOS (2017); DOS (2020); DOS (2023) and KRI calculations.
Note: Real expenditure is expressed in 2015 prices.

[5] SOCSO (2024)

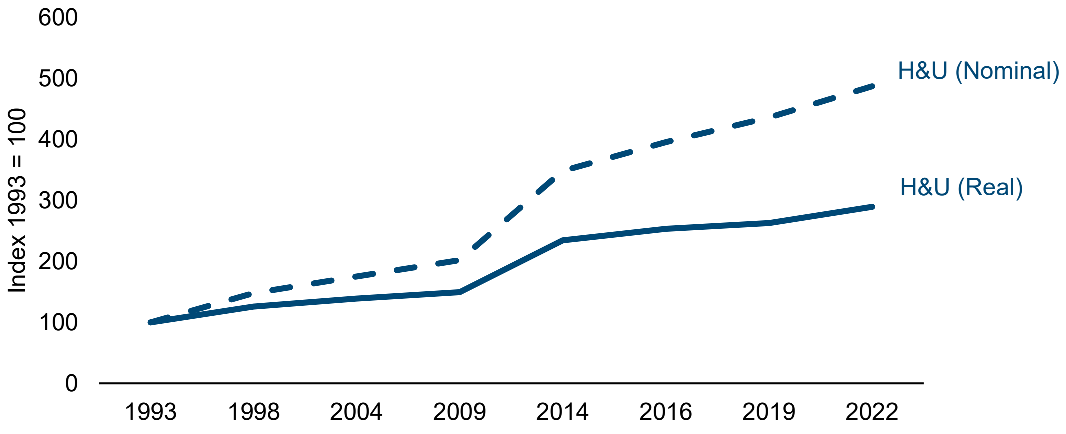
Figure 2 illustrates the index of nominal and real expenditures on H&U. The rise in real expenditures, adjusted for price effects, indicates that households have generally increased their consumption, particularly during two key periods: 1) from 2009 and 2014 and 2) during the pandemic years from 2019 and 2022.

Between 2009 and 2014, the sharp rise in both nominal (by 72%) and real expenditures (by 57%) can be attributed to the rapid house price escalations that started in 2010. Between 2010 and 2022, house prices in Malaysia recorded a compounded annual growth rate (CAGR) of 5.8%, much higher than the expected healthy range of 3.1-4.0%[6]. This escalation was driven by various innovative financing schemes aimed at making homeownership more accessible, coupled with speculative activity in the property market[7]. Together, these factors accelerated the growth in house prices, resulting in higher mortgage payments for households.

The implementation of WFH arrangements to sustain business operations during the pandemic has impacted household spending on H&U, as evidenced by the significant surge in both nominal and real expenditures during this period. Between 2016 and 2019, prior to the pandemic, nominal H&U spending grew by 10% while real spending rose by 4%. However, during the pandemic period (2019 - 2022), spending accelerated, with nominal growth reaching 12% and real growth rising to 10%, surpassing the pre-pandemic levels.

The 6-percentage point increase in real spending growth highlights the influence of WFH arrangements and pandemic-induced lockdowns, which reshaped household consumption expenditures. Households incurred higher utility and housing-related expenses as they adapted to spending prolonged time at home.

Figure 2: Indexed nominal and real housing and utilities expenses, 1993-2022

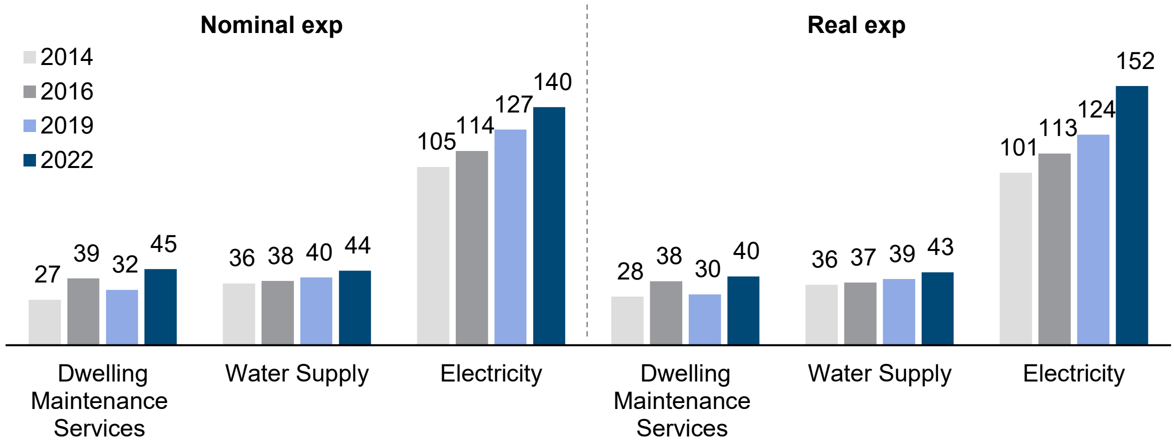


Source: DOS (2011); DOS (2015); DOS (2017); DOS (2020); DOS (2023) and KRI calculations.
Note: Real expenditure is expressed in 2015 prices. H&U = Housing and utilities

[6] Theebalakshmi Kunasekaran (2023)
[7] KRI (2024) and Theebalakshmi Kunasekaran (2023)

Figure 3 shows the nominal and real expenses for selected subcomponents of the H&U expenditure categories. Analysing the subcategories within WFH expenses can offer deeper insights into specific cost drivers that likely contributed to increased household spending during the pandemic. While fixed obligations such as rent remain consistent for most households, regardless of WFH status, other subcomponents like utility bills offer a clearer perspective on how WFH has impacted household expenses.

Figure 3: Nominal and real expenses of selected subcomponents of housing and utilities (RM), 2014 - 2022



Source: DOS (2015); DOS (2017); DOS (2020); DOS (2023)

Household spending on dwelling maintenance services saw a modest increase, from RM32 in 2019 to RM45 in 2022. These expenses include but are not limited to maintenance materials like paints and varnishes and small plumbing items, as well as services provided by plumbers, electricians, and painters. Interestingly, between 2016 and 2019, households reduced their spending on these services, resulting in negative growth during this period. However, the pandemic reversed this trend, with real and nominal spending on dwelling maintenance services increasing by over 30% between 2019 and 2022.

The most significant growth was seen in electricity expenditures. Households' nominal spending on electricity increased from RM127 in 2019 to RM140 in 2022. Real electricity expenditure grew by 10% prior to the pandemic between 2016 and 2019 but surged to 23% during the pandemic period. This sharp rise highlights the significant impact of WFH arrangements, which not only drove up household electricity use during lockdowns, but the trend persisted beyond the pandemic period, underscoring the lasting changes in household energy consumption patterns.

The increase in electricity spending reflects the adaptation households made, such as remote working, students engaging in virtual learning, and greater reliance on electronic devices. Without the government's intervention through a 2 sen/kilowatt hour (kWh) electricity rebate for domestic users—introduced in December 2020 and retained until 2022 to alleviate cost-of-living pressures for lower-income households[8]—electricity costs for many households could have been even higher.

[8] RinggitPlus (2022)

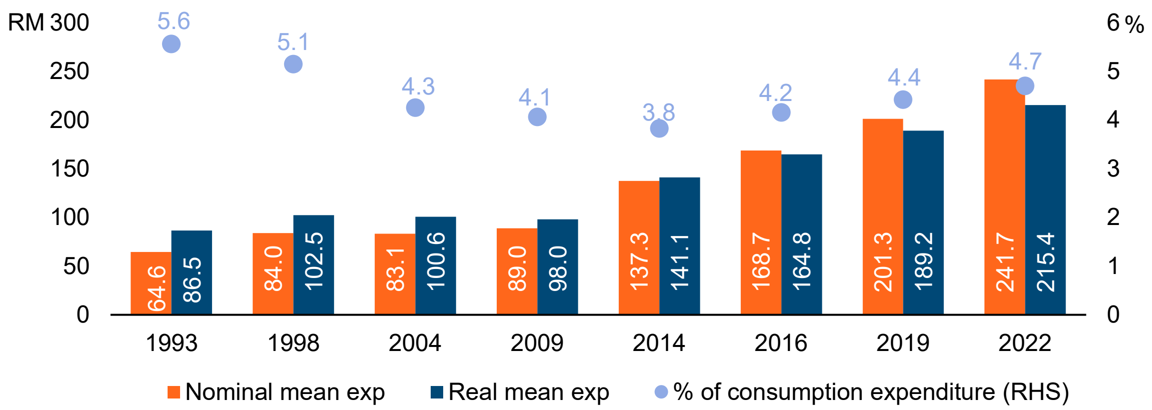
Furnishings and household maintenance

Furnishings and household maintenance (F&M) expenditures cover a broad range of costs, including those for household furniture and textiles, major and small kitchen appliances, cleaning equipment and services, paid domestic assistance, and other related items. Figure 4 shows the time series for both nominal and real expenditures in this category.

Since 1993, nominal spending on F&M has increased by 3.7 times, from RM64.6 in 1993 to RM241.7 in 2022. Real expenditure has also grown substantially, increasing 2.5 times, from RM86.5 in 1993 to RM215.4 in 2022.

While its share in total household expenses declined until 2014, it has seen a steady recovery since 2016, reaching 4.7% of overall expenditures in 2022. This growth may be attributed to increased spending on furniture during the pandemic or a broader trend of households investing more in home enhancements, potentially reflecting an improved standard of living.

Figure 4: Time series of nominal and real expenditure and share of furnishings and household maintenance, 1993 – 2022



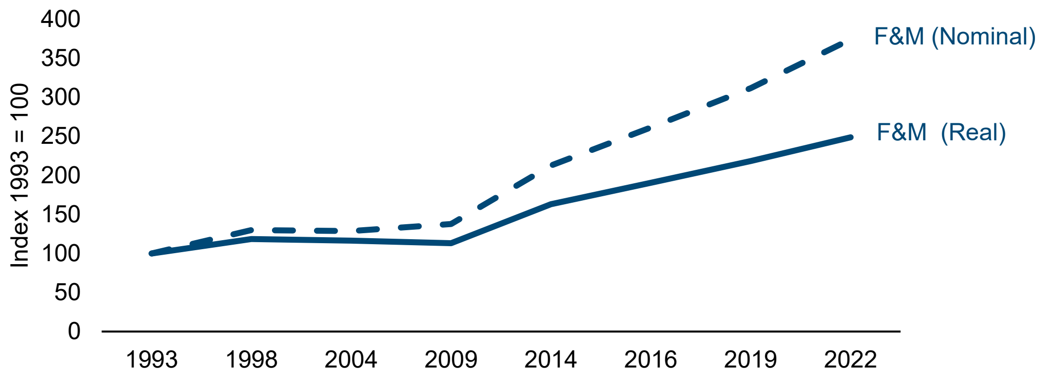
Source: DOS (2011); DOS (2015); DOS (2017); DOS (2020); DOS (2023) and KRI calculations.
Note: Real expenditure is expressed in 2015 prices.

Figure 5 illustrates the index of nominal and real expenditures on F&M, showing a steady upward trend since 2009. This rise reflects increased household consumption alongside the influence of price changes, indicating ongoing efforts by households to improve their living conditions by purchasing more of these items.

However, comparing growth rates before and during the pandemic reveals only marginal differences in expenditure patterns. Between 2016 and 2019, nominal expenditure increased by 19%, while real expenditure grew by 15%. During the pandemic period (2019-2022), nominal expenditure increased slightly higher at 20%, whereas real expenditure grew by 14%, a marginal decline of one percentage point lower compared to the pre-pandemic years.

These trends suggest that the rise in F&M expenditures during the pandemic was influenced not only by increased consumption but also by price changes, highlighting the moderate impact of the pandemic on this expenditure category.

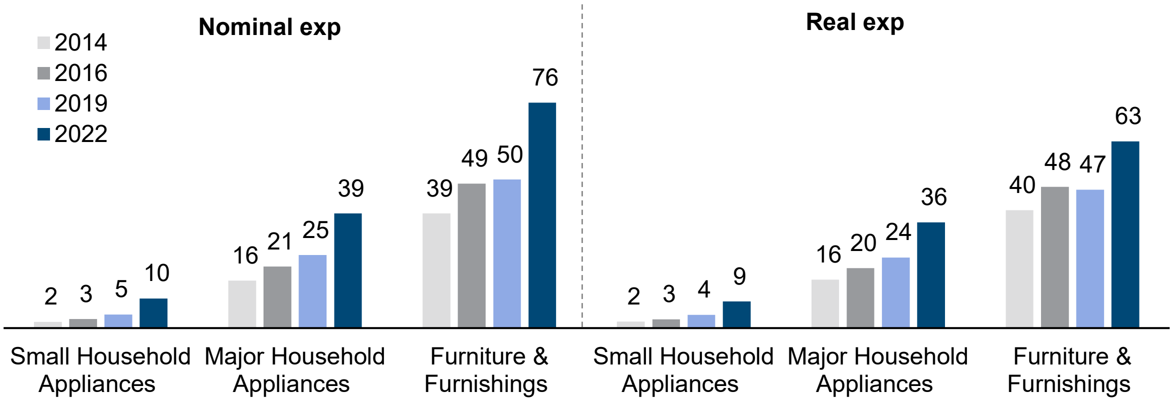
Figure 5: Indexed nominal and real furnishings and household maintenance expenses, 1993-2022



Source: DOS (2011); DOS (2015); DOS (2017); DOS (2020); DOS (2023) and KRI calculations.
Note: Real expenditure is expressed in 2015 prices. F&M = Furnishings and household maintenance.

Figure 6 shows the nominal and real expenses for selected subcomponents within the F&M category. Small household appliances, including items such as coffee machines, food mixers, blenders, and toasters, saw the highest growth during the pandemic. Both nominal and real expenditures for this subcategory grew by 118% and 102%, respectively, during the pandemic (2019-2022) compared to 52% and 48% during the pre-pandemic years (2016-2019).

Figure 6: Nominal and real expenses of selected subcomponents of furnishings and household maintenance, 2014 - 2022



Source: DOS (2015); DOS (2017); DOS (2020); DOS (2023)

Similarly, households have increased their spending on major household appliances, such as kitchen electrical appliances. The real expenditure rose by 50% during the pandemic compared to 18% growth in the pre-pandemic years.

Additionally, households spent over RM20 more on furniture and furnishings in 2022 compared to 2019. This marked a sharp recovery from the negative real growth observed between 2016 and 2019, with real expenditure rising by 35% during the pandemic period. According to the Department of Statistics Malaysia (DOSM), items like wall clocks and carpets, were among the popular items purchased within the F&M category in 2022[9].

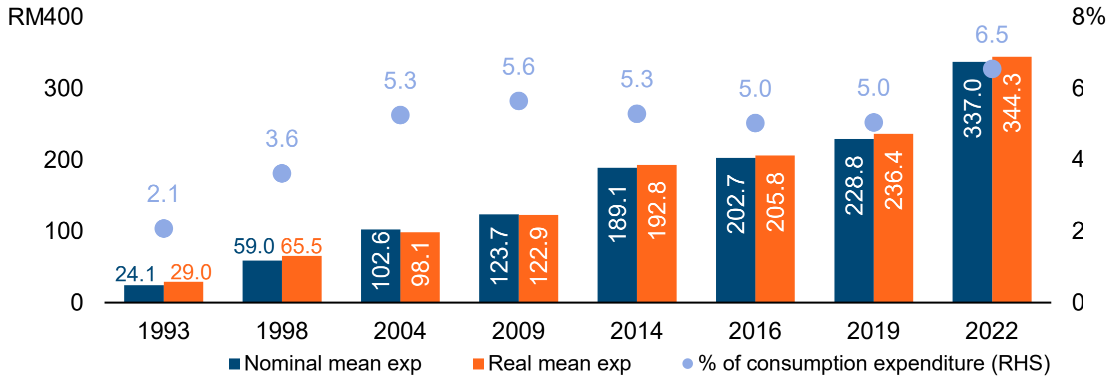
[9] DOS (2023)

While the absolute increase in spending for these subcategories may appear modest, the growth rates reveal a significant rise in household consumption during the pandemic. This surge surpassing the pre-pandemic growth rates underscores how households prioritized enhancing the functionality, aesthetics and comfort of their homes, likely driven by the need to adapt to prolonged periods spent at home during the pandemic.

Information and Communication Technologies (ICT)

Meanwhile, Figure 7 shows that ICT expenditure e.g. internet, mobile telephone has steadily increased from 1993 to 2022, rising from RM 24.1 in 1993 to RM337.0 in nominal terms. In real terms, it has increased from RM29.0 to RM344.3 during the same time period. The share of ICT in overall household expenditure also rose from 2.1% in 1993 to 6.5% in 2022, with a steep increase post-pandemic. This surge may be attributed to the increased demand for electronic devices due to the implementation of WFH or distance learning for students nationwide during the pandemic.

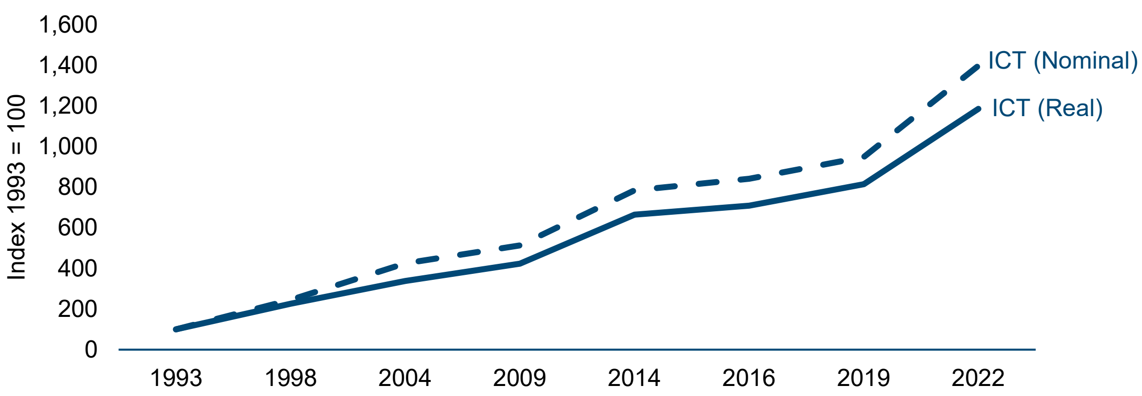
Figure 7: Time series of nominal, real and share of ICT expenditure, 1993 – 2022



Source: DOS (2011); DOS (2015); DOS (2017); DOS (2020); DOS (2023) and KRI calculations.
Note: Real expenditure is expressed in 2015 prices.

Real ICT expenditures increased twelvefold between 1993 and 2022, suggesting that these products are increasingly considered modern household necessities. The steepest increase occurred during the pandemic period between 2019 and 2022, when households were heavily reliant on digital products for work, school, and entertainment.

Figure 8: Indexed nominal and real ICT expenditure, 1993-2022

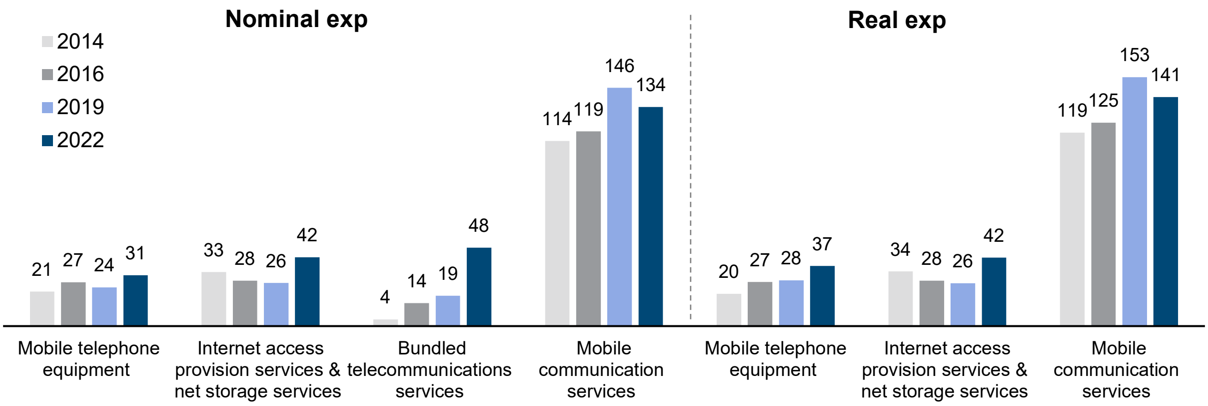


Source: DOS (2011); DOS (2015); DOS (2017); DOS (2020); DOS (2023) and KRI calculations.
Note: Real expenditure is expressed in 2015 prices.

On the other hand, there was a noticeable increase in products and services related to internet access between 2019 and 2022 (Figure 9). Consistent access to the internet was essential for those who were able to WFH as well as those who were confined to their homes during lockdowns and still needed an internet connection for education, information access, etc. As such, overall internet access increased from 89.6% in 2019 to 96.0% in 2022, mainly attributed to the growth of mobile broadband access[10].

This is reflected in the increases seen in both 'internet access provision services[11]' and 'bundled & telecommunication services[12]'. 'Internet access provision services' rose nominally from RM 26 to RM42 between 2019 and 2022, whilst 'bundled & telecommunications' services more than doubled from RM19 to RM48. According to MCMC, internet traffic in 2020 alone increased by about 30-70%, with its speed reducing by around 30-40% as the existing infrastructure was increasingly stressed[13].

Figure 9: Nominal and real expenses of selected subcomponents within ICT expenditure, 2014 – 2022



Source: DOS (2015); DOS (2017); DOS (2020); DOS (2023)
Note: Real expenditure is expressed in 2015 prices.
CPI data is not available to calculate real expenditure for bundled telecommunications services.

In addition, an interesting trend is observed between 2019 and 2022 when examining the nominal decrease in expenditure on 'mobile communication services[14]' from RM146 to RM134. This may be attributed to the lower prices for mobile communication packages[15] as well as the increased usage of fixed broadband from 30.7% of households in 2019 to 46.4% in 2022[16], which is generally faster and more reliable[17]. At the same time, real expenditure increased, which meant that households increased their overall consumption of 'mobile communication services' to RM153 in 2019 and RM141 in 2022.

[10] KRI (2024)
[11] Includes internet access services provided by operators of wired, wireless or satellite infrastructure.
[12] Includes any combination of telecommunication packages involving telephony, internet or TV.
[13] MCMC (2020); Gong (2020)
[14] Includes voice and messaging mobile phone plans.
[15] PWC (2020)
[16] KRI (2024)
[17] Ibid.

Concluding Remarks

Higher expenditures in the WFH categories of H&U, F&M and ICT highlight the behavioural changes of Malaysian households during the COVID-19 pandemic. Real H&U expenditures grew by 10%, with a 23% real growth in electricity costs, indicating higher energy consumption. F&M spending also increased, reflecting investments in furniture and household appliances to enhance home functionality and comfort during extended periods at home. The most significant impact was observed in ICT expenditures, which recorded a 46% real growth as households increased spending on digital resources to support WFH arrangements and virtual learning.

Despite the significant increase in household WFH expenses during the pandemic, employees have shown a strong preference for FWAs even after the pandemic. According to the *2024 Hays Asia Salary Guide* report, Malaysian workers have ranked FWA and WFH policies as the most important factor in their decision to remain at their current company, surpassing remuneration[18]. However, it has been met with resistance from employers as there is a global shift back to office work, with the share of employees with no FWA increasing from 31.2% in 2022 to 43.6% in 2024[19]. Malaysian Employers Federation's (MEF) *Fringe Benefits* survey cited that this is primarily due to the nature of work at 88.2% and employee work commitment issues at over 50%[20].

With the aforementioned amendments to the Employment Act, employees now have an opportunity to reach an amicable solution regarding FWA with their respective employers. The government has also recently announced further tax deductions and an FWA guideline[21] for employers in hopes of creating a more conducive and progressive working environment. This would pay dividends for the employer with regard to employee retention, productivity, and overall level of employee satisfaction through a higher degree of work-life balance.

---

[18] Hays (2024)
[19] Ibid.
[20] Aliza Shah (2024)
[21] Anis Zalani (2024)

References

Aliza Shah. 2024. "Why Employers Say No to Flexible-Work-Arrangements." *New Straits Times*, 2024. https://www.nst.com.my/news/nation/2024/10/1125583/why-employers-say-no-flexible-work-arrangements.

Anis Zalani. 2024. "HR Minister: Govt to Offer Additional Tax Deductions for Firms Adopting Flexible Work Arrangements." *Malay Mail*, 2024. https://www.malaymail.com/news/malaysia/2024/12/05/hr-minister-govt-to-offer-additional-tax-deductions-for-firms-adopting-flexible-work-arrangements/158987.

DOS. 2011. "Report on Household Expenditure Survey 2009/10." Putrajaya: Department of Statistics Malaysia.

———. 2015. "Report on Household Expenditure Survey 2014." Putrajaya: Department of Statistics Malaysia.

———. 2017. "Report on Household Expenditure Survey 2016." Putrajaya: Department of Statistics Malaysia.

———. 2020. "Household Expenditure Survey Report 2019." Putrajaya: Department of Statistics Malaysia.

———. 2023. "Household Expenditure Survey Report Malaysia 2022." Putrajaya: Department of Statistics Malaysia.

GOM. 2023. "Employment Act 1955." Government of Malaysia. https://jtksm.mohr.gov.my/sites/default/files/2023-11/Akta%20Kerja%201955%20%28Akta%20265%29.pdf.

Gong, Rachel. 2020. "Malaysia's Response to COVID-19: Mobile Data and Infrastructure." LSE. https://blogs.lse.ac.uk/seac/2020/11/23/malaysias-response-to-covid-19-mobile-data-and-infrastructure/.

Hays. 2024. "The 2024 Hays Asia Salary Guide - Rising above Challenges: Powering Growth." https://image.email.hays.com/lib/fe4315707564057c751c71/m/1/5dd3e86f-30a4-41e1-a69e-09493664e109.pdf.

ILO. 2022. "Working Time and Work-Life Balance Around the World." Geneva: International Labour Organisation. https://www.ilo.org/sites/default/files/wcmsp5/groups/public/%40ed_protect/%40protrav/%40travail/documents/publication/wcms_864222.pdf.

KRI. 2024. "Households and the Pandemic 2019-2022: The State of Households 2024." Kuala Lumpur: Khazanah Research Institute. https://www.krinstitute.org/assets/contentMS/img/template/editor/[WEBSITE]%20SoH%202024%20Report%20FINAL%20v2.pdf.

MCMC. 2020. "National Digital Infrastructure Lab (NDIL)." MCMC. https://www.mcmc.gov.my/skmmgovmy/media/General/pdf/NDIL-Report.pdf.

PWC. 2020. "Considering Sector Specific Impacts of the COVID-19 Outbreak: Telecommunications." PWC.

https://www.pwc.com/my/en/assets/publications/2020/pwc-considering-sector-specific-impacts-of-the-covid-19-outbreak-telecommunications.pdf.

Randstad. 2024. "2024 Workmonitor Research in Malaysia." ity-2024-workmonitor-malaysia/#Anchor.

RinggitPlus. 2022. "Govt Extends 2 Sen/kWh Electricity Rebate Until 31 December 2022." *RinggitPlus*, 2022. https://ringgitplus.com/en/blog/personal-finance-news/govt-extends-2-sen-kwh-electricity-rebate-until-31-december-2022.html.

Rosas, Gianni. 2017. "Benefits and Risks of Flexible Working Arrangements: Findings from International Research." presented at the Flexible working arrangements and parental responsibilities sharing: New perspectives in Italy and Europe, Rome. https://www.ilo.org/media/56436/download.

SOCSO. 2024. "Transforming Work, Social Protection in Malaysia Through FWA." Social Security Organisation. https://perkeso.gov.my/images/kenyataan_media/2024/170724%20-%20Transforming%20Work,%20Social%20Protection%20in%20Malaysia%20Through%20FWA.pdf.

Theebalakshmi Kunasekaran. 2023. "Curbing Overhang and Vacancy: The Case for a Vacancy Tax in Malaysia." Khazanah Research Institute. https://www.krinstitute.org/assets/contentMS/img/template/editor/KRI%20Views_Curbing%20Overhang%20and%20Vacancy_The%20Case%20for%20a%20Vacancy%20Tax%20in%20Malaysia.pdf.