

K Additional Figures on Numerical Results

In this section, we include additional figures on numerical results. Figure 10 shows composition of invoicing currencies in the countries other than those countries in the introduction. In figures 11 and 12, we repeat the risk-sharing regression by 5 and 10 year differences.

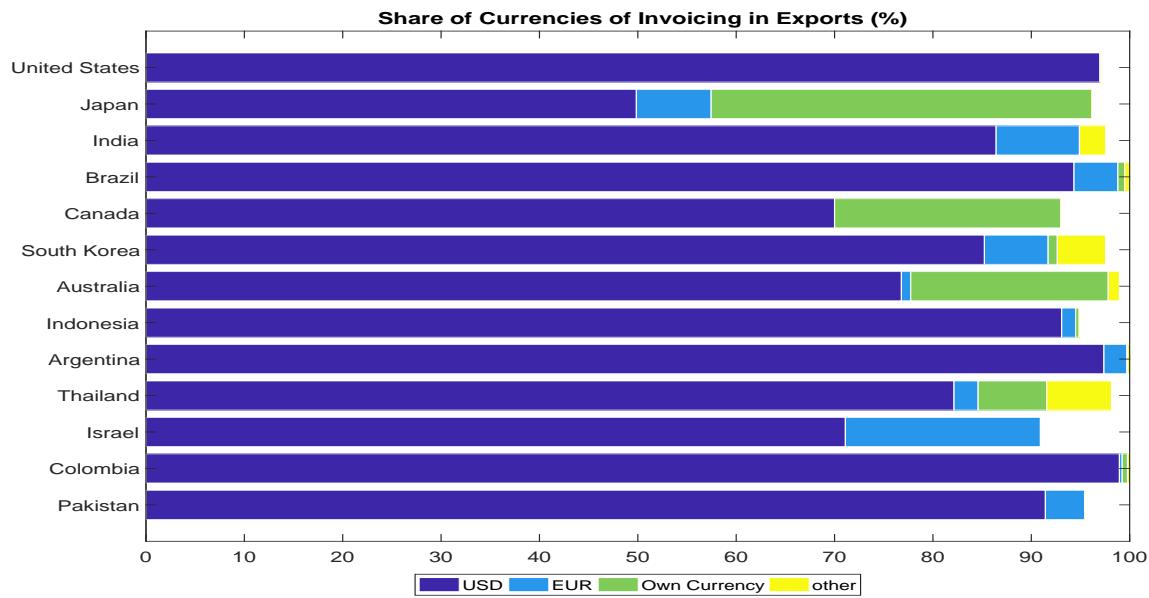
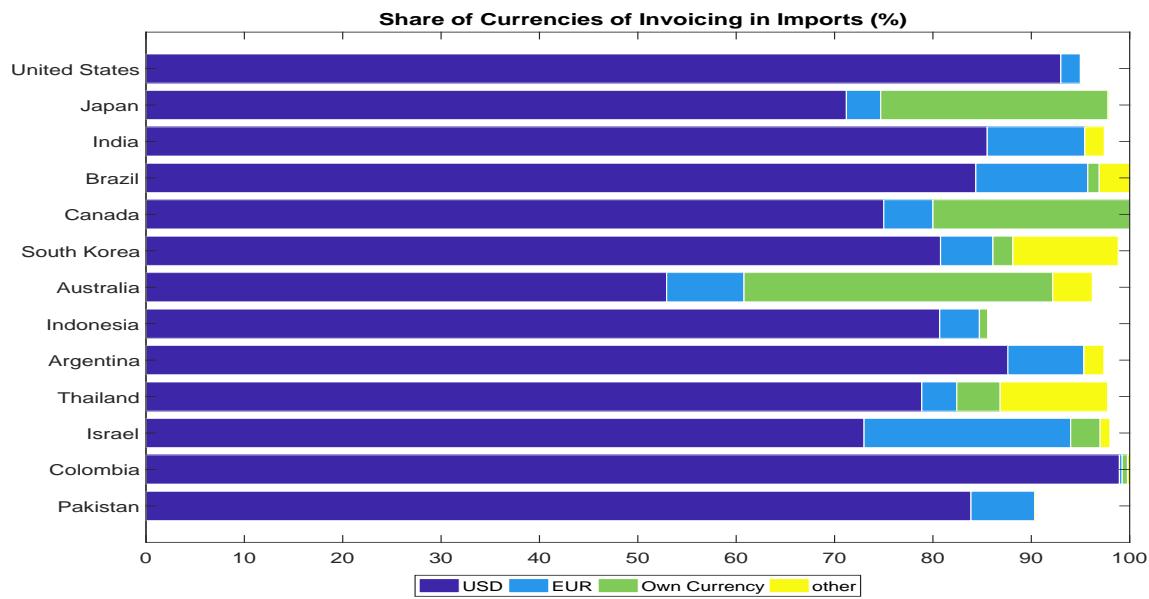
Welfare Costs: Figures 13 and 14 complement the main text with more details on welfare costs. Figure 13 shows welfare costs with respect to a Home productivity shock and figure 14 presents welfare costs with respect to a Home preference shock.

Different Degrees of Risk Sharing and Home Productivity Shocks: Figures 15, 16 and 17 plot impulse responses of macroeconomic variables under PCP and different degrees of risk sharing with respect to a 1 STD Home productivity shock. Figures 18, 19 and 20 plot impulse responses of macroeconomic variables under LCP and different degrees of risk sharing with respect to a 1 STD Home productivity shock.

Different Degrees of Risk Sharing and Home Preference Shocks: Figures 21, 22 and 23 plot impulse responses of macroeconomic variables under PCP and different degrees of risk sharing with respect to a 1 STD Home preference shock. Figures 24, 25 and 26 plot impulse responses of macroeconomic variables under LCP and different degrees of risk sharing with respect to a 1 STD Home preference shock.

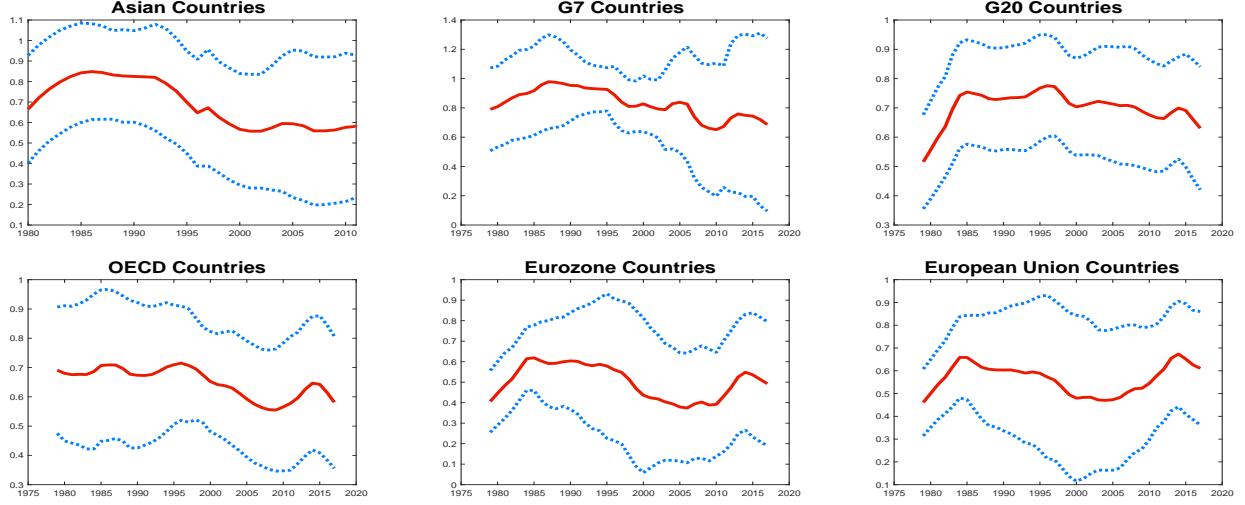
Different Degrees of ERPT: Figures 27, 28 and 29 plot impulse responses of macroeconomic variables under perfect risk sharing and different degrees of exchange rate pass-through with respect to a 1 STD Home productivity shock. Figures 30, 31 and 32 plot impulse responses of macroeconomic variables under perfect risk sharing and different degrees of exchange rate pass-through with respect to a 1 STD Home preference shock.

Figure 10: Currencies of Invoicing



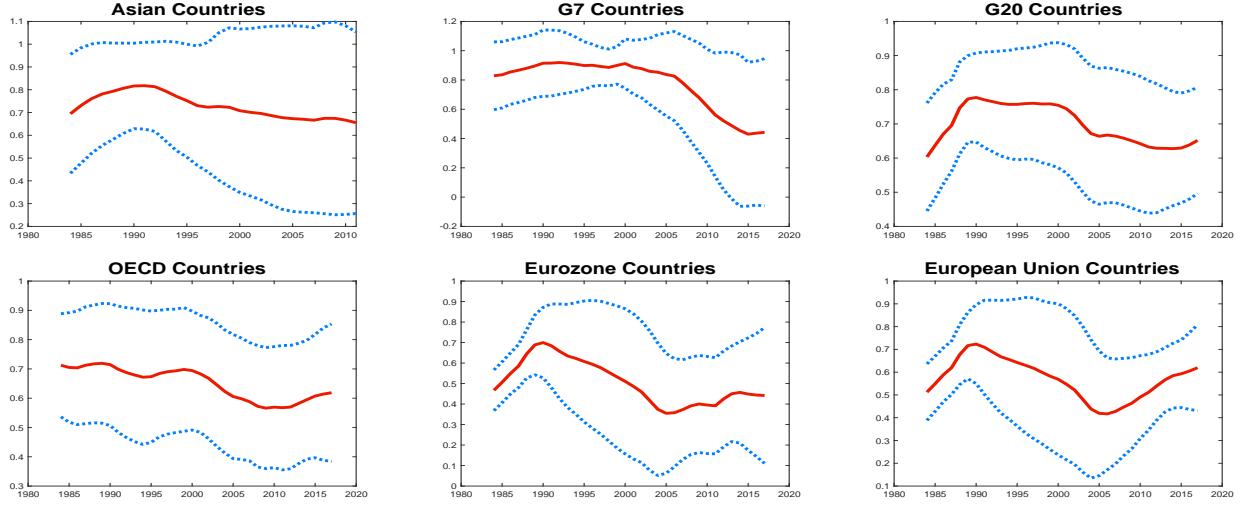
Source – [Gopinath \(2015\)](#). Countries are in the order of Nominal GDP in 2015.

Figure 11: Empirical Evidence on Cross-Country Risk Sharing (a 5-year difference)



Note – We plot an estimate β_t over time from a regression: $\Delta \log C_{it} - \Delta \log C_t = \alpha_t + \beta_t (\Delta \log Y_{it} - \Delta \log Y_t) + \epsilon_{it}$ by averaging over a 15-year rolling window. The vertical axis represents the degree of risk sharing in each country group, ranging from 0 (perfect risk sharing) to 1 (no risk sharing). Δ denotes a 5-year difference operator. The data source is Penn World Tables 9.1. Asian countries include CHN, HKG, IDN, IND, KOR, MYS, PHL, SGP, and THA.

Figure 12: Empirical Evidence on Cross-Country Risk Sharing (a 10-year difference)



Note – We plot an estimate β_t over time from a regression: $\Delta \log C_{it} - \Delta \log C_t = \alpha_t + \beta_t (\Delta \log Y_{it} - \Delta \log Y_t) + \epsilon_{it}$ by averaging over a 15-year rolling window. The vertical axis represents the degree of risk sharing in each country group, ranging from 0 (perfect risk sharing) to 1 (no risk sharing). Δ denotes a 10-year difference operator. The data source is Penn World Tables 9.1. Asian countries include CHN, HKG, IDN, IND, KOR, MYS, PHL, SGP, and THA.

Welfare Costs

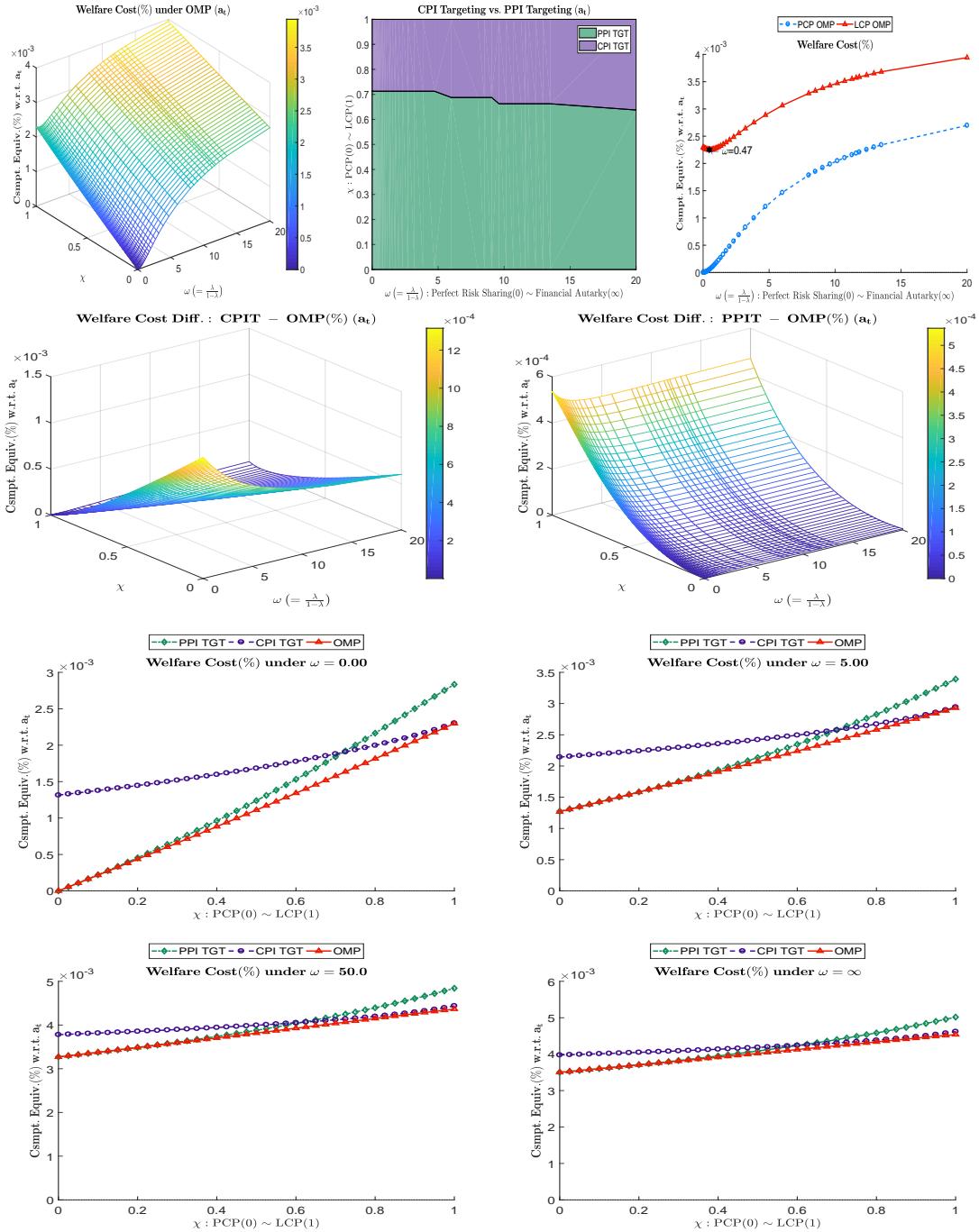
under different degrees of pricing-to-market

and varying degrees of risk sharing

with respect to

a Home Productivity Shock

Figure 13: Welfare Costs with respect to a Home Productivity Shock



Note — χ denotes the degree of pricing-to-market from PCP ($\chi = 0$) to LCP ($\chi = 1$). $\omega \equiv \frac{\lambda}{1-\lambda}$ represents the degree of financial market integration ranging from perfect risk sharing ($\omega = 0$) to financial autarky ($\omega = \infty$). Welfare costs are measured in consumption equivalent η^C (equation (40) in the main text). The first panel on the top display welfare costs under optimal monetary policy. The second panel on the top presents the range of χ and ω where CPI targeting incurs lower welfare cost than PPI targeting and vice versa: green area for PPI targeting and violet for CPI targeting. The first and second figures in the second row shows the difference of welfare costs of CPI and PPI targeting from that of optimal policy. *PPI TGT* denotes strict PPI inflation targeting; *CPI TGT* denotes strict CPI inflation targeting; *OMP* represents optimal monetary policy.

Welfare Costs

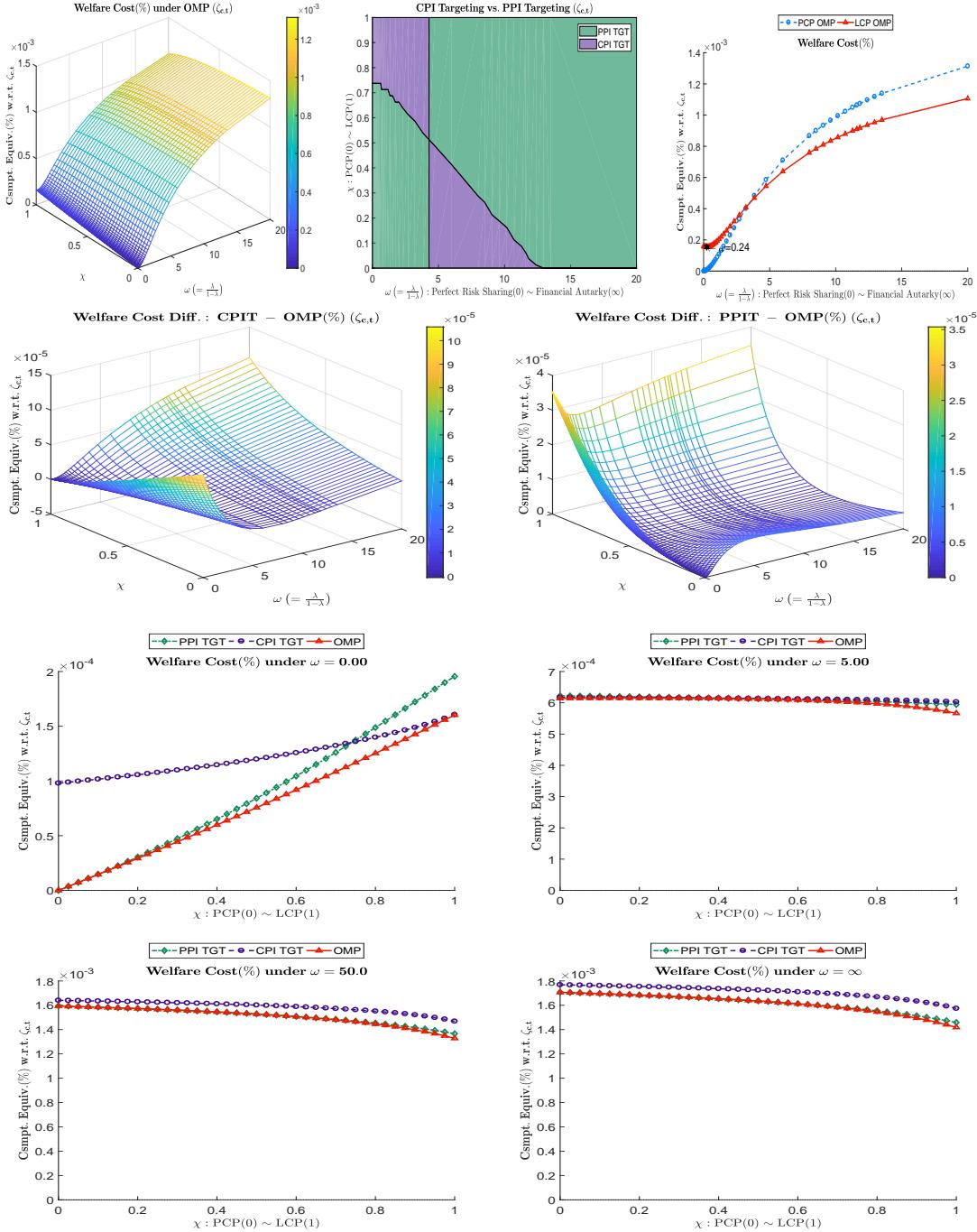
under different degrees of pricing-to-market

and varying degrees of risk sharing

with respect to

a Home Preference Shock

Figure 14: Welfare Costs with respect to a Home Preference Shock



Note – χ denotes the degree of pricing-to-market from PCP ($\chi = 0$) to LCP ($\chi = 1$). $\omega \equiv \frac{\lambda}{1-\lambda}$ represents the degree of financial market integration ranging from perfect risk sharing ($\omega = 0$) to financial autarky ($\omega = \infty$). Welfare costs are measured in consumption equivalent η^C (equation (40) in the main text). The first panel on the top display welfare costs under optimal monetary policy. The second panel on the top presents the range of χ and ω where CPI targeting incurs lower welfare cost than PPI targeting and vice versa: green area for PPI targeting and violet for CPI targeting. The first and second figures in the second row shows the difference of welfare costs of CPI and PPI targeting from that of optimal policy. *PPI TGT* denotes strict PPI inflation targeting; *CPI TGT* denotes strict CPI inflation targeting; *OMP* represents optimal monetary policy.

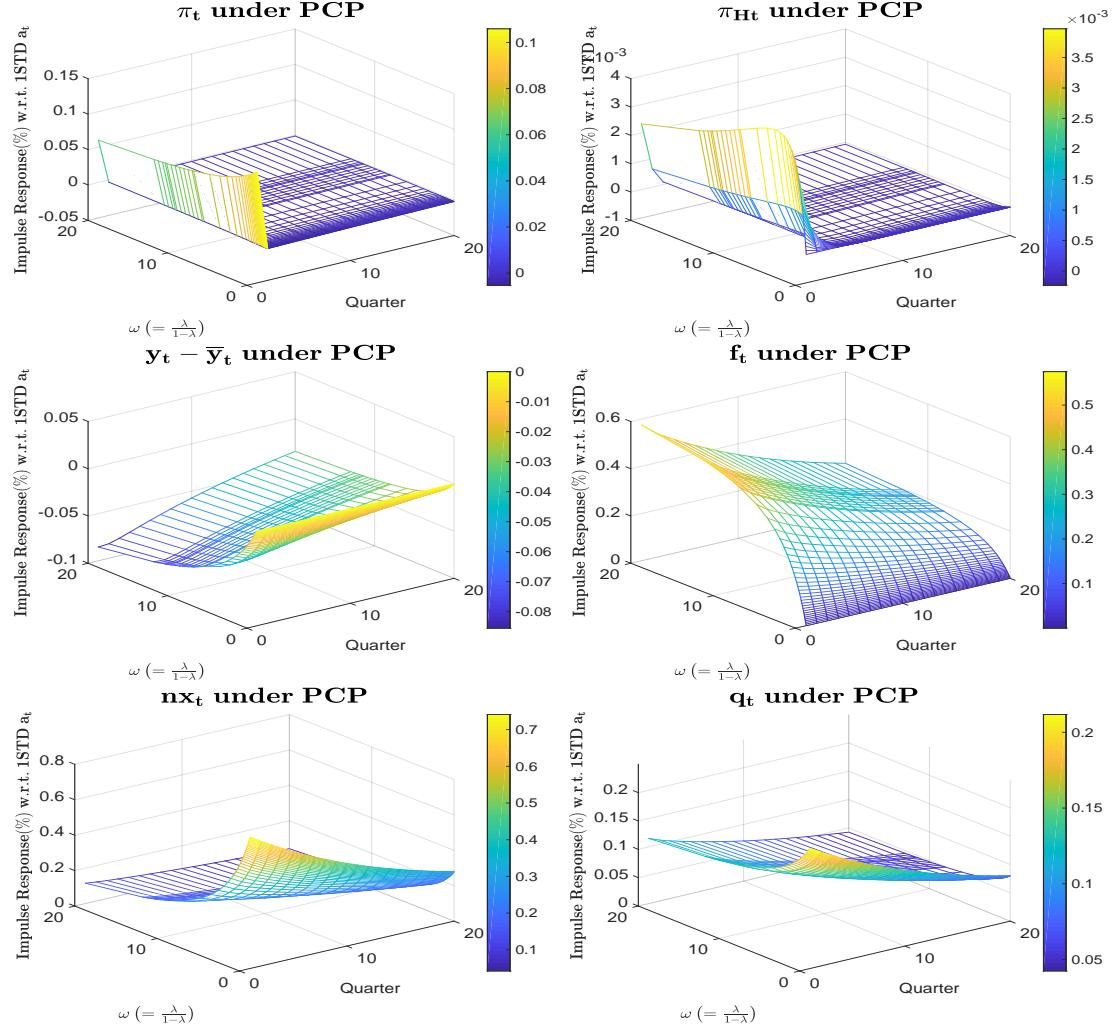
Impulse Responses

under PCP and different degrees of risk sharing

with respect to

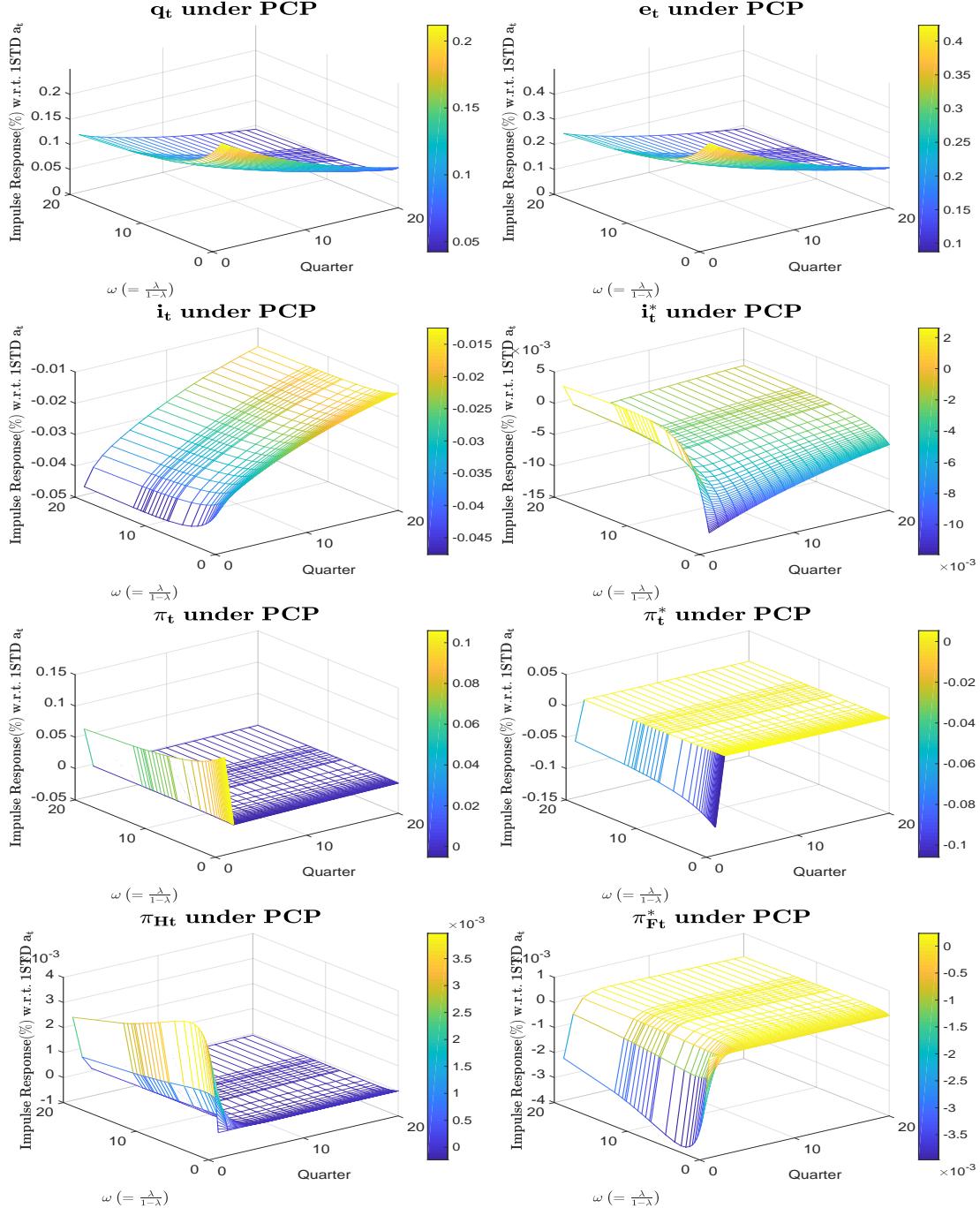
a 1 STD Home Productivity Shock

Figure 15: [PCP] Impulse Responses of Policy Targets with respect to a 1 STD Home Productivity Shock



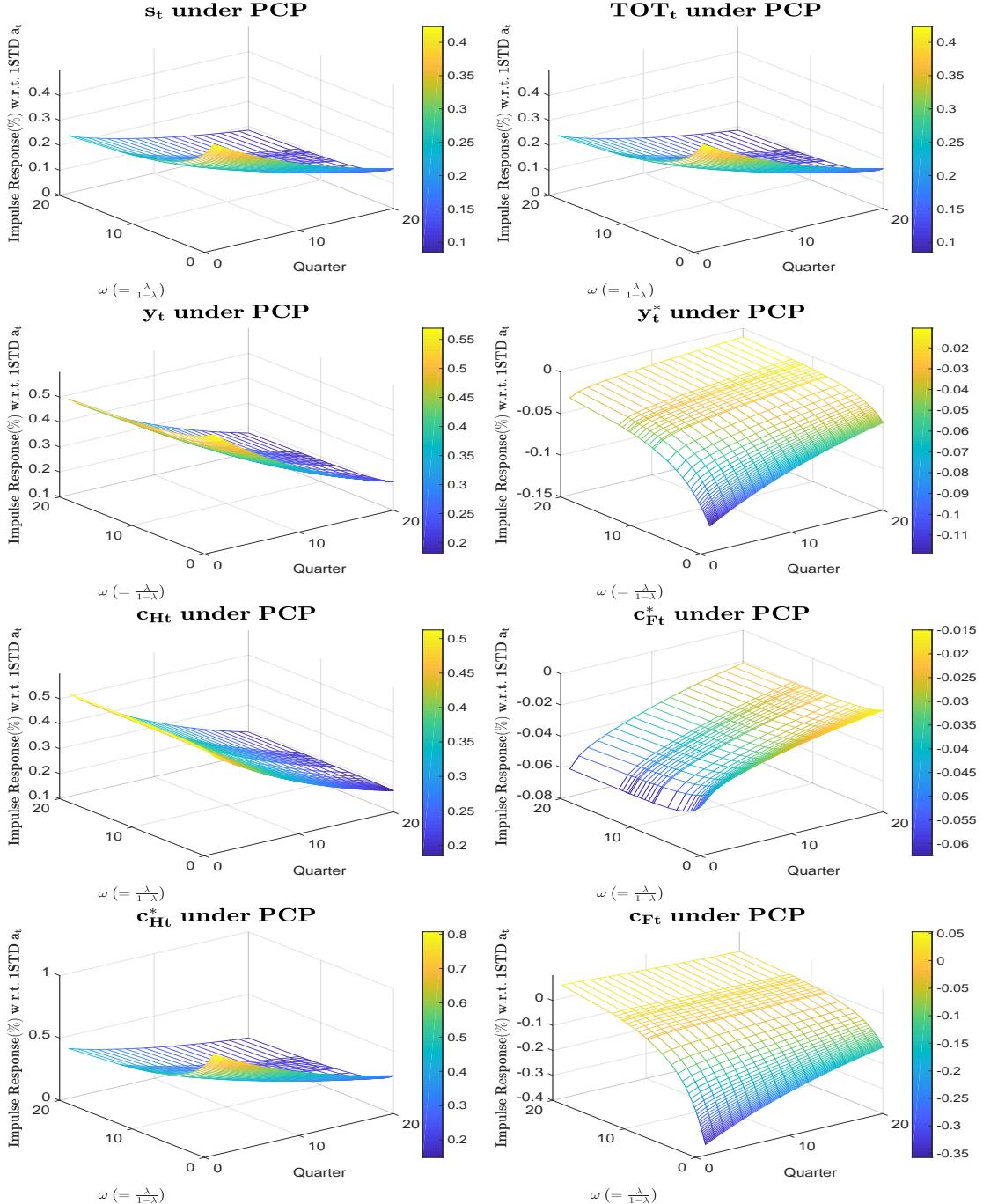
Note – PCP denotes producer currency pricing ($\chi = 0$). $\omega \equiv \frac{\lambda}{1-\lambda}$ represents the degree of financial market integration ranging from perfect financial integration ($\omega = 0$) to financial autarky ($\omega = \infty$). π_t denotes Home CPI inflation rate (QoQ); π_{Ht} Home PPI inflation rate (QoQ); y_t Home output and \bar{y}_t its efficient counterpart; f_t demand imbalance; nx_t net exports; q_t real exchange rate.

Figure 16: [PCP] Impulse Responses of Policy Instruments with respect to a 1 STD Home Productivity Shock



Note – PCP denotes producer currency pricing ($\chi = 0$). $\omega \equiv \frac{\lambda}{1-\lambda}$ represents the degree of financial market integration ranging from perfect financial integration ($\omega = 0$) to financial autarky ($\omega = \infty$). q_t denotes real exchange rate and e_t nominal exchange rate; i_t nominal interest rate (QoQ); π_t denotes Home CPI inflation rate (QoQ); π_{Ht} Home PPI inflation rate (QoQ). Variables with asterisk denote Foreign counterparts.

Figure 17: [PCP] Impulse Responses of Output with respect to a 1 STD Home Productivity Shock



Note – PCP denotes producer currency pricing ($\chi = 0$). $\omega \equiv \frac{\lambda}{1-\lambda}$ represents the degree of financial market integration ranging from perfect financial integration ($\omega = 0$) to financial autarky ($\omega = \infty$). s_t denotes the price of imported goods relative to domestically-produced goods in Home; TOT_t Home terms of trade; y_t Home output; c_{Ht} Home demand for Home produced goods; c_{Ft} Home demand for Foreign produced goods; c_{Ht}^* Foreign demand for Home produced goods; c_{Ft}^* Foreign demand for Foreign produced goods. Variables with asterisk denote Foreign counterparts.

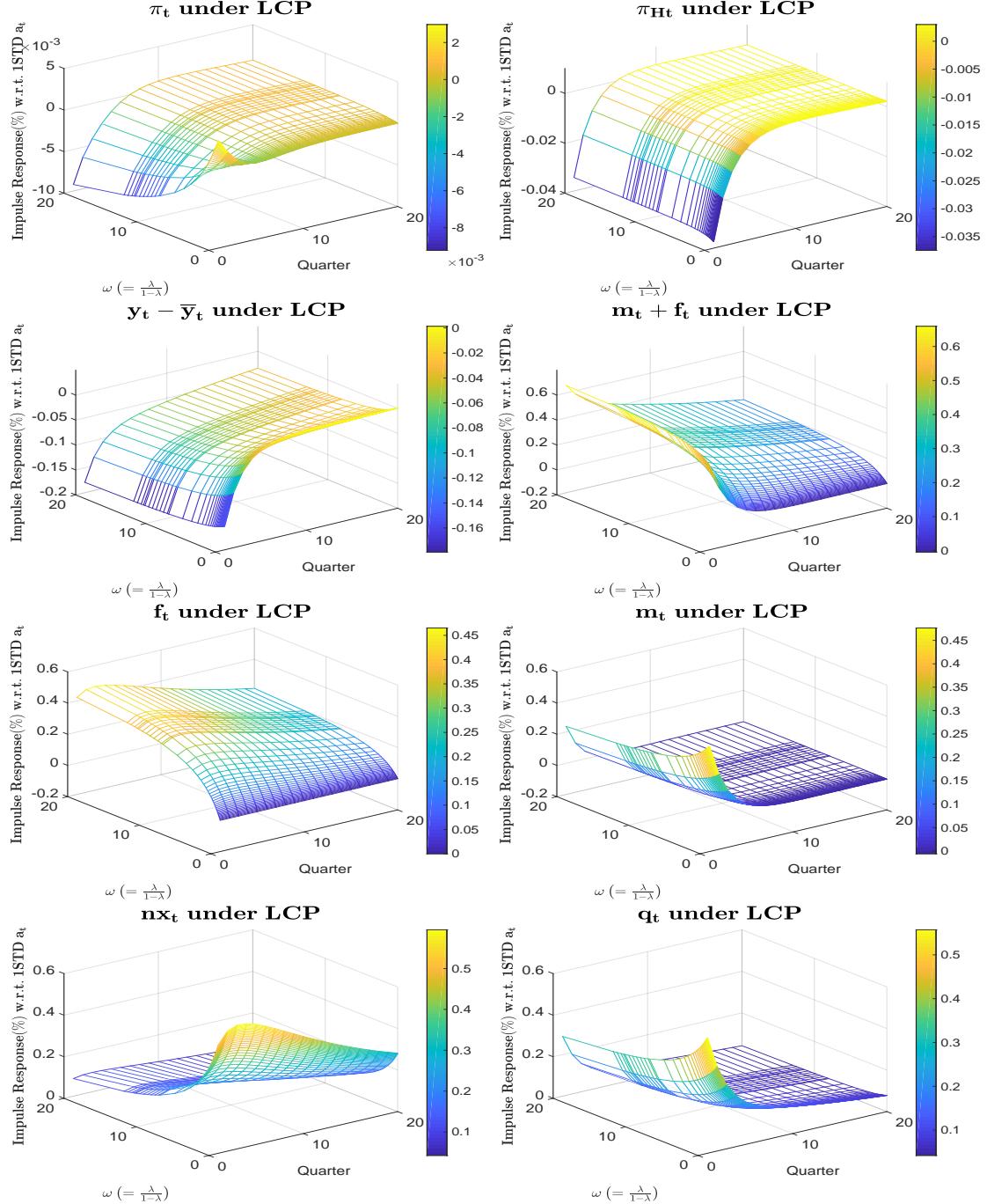
Impulse Responses

under LCP and different degrees of risk sharing

with respect to

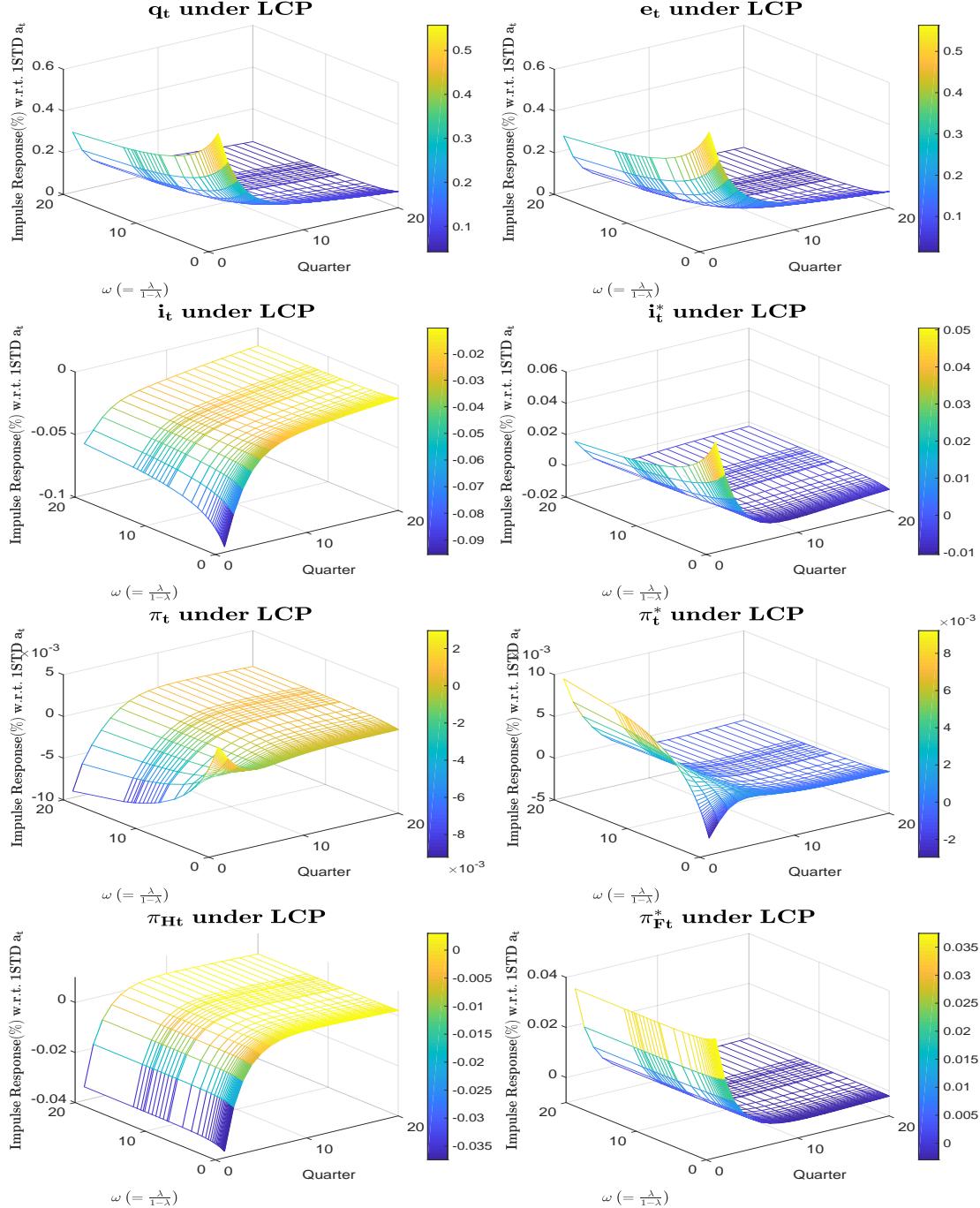
a 1 STD Home Productivity Shock

Figure 18: [LCP] Impulse Responses of Policy Targets with respect to a 1 STD Home Productivity Shock



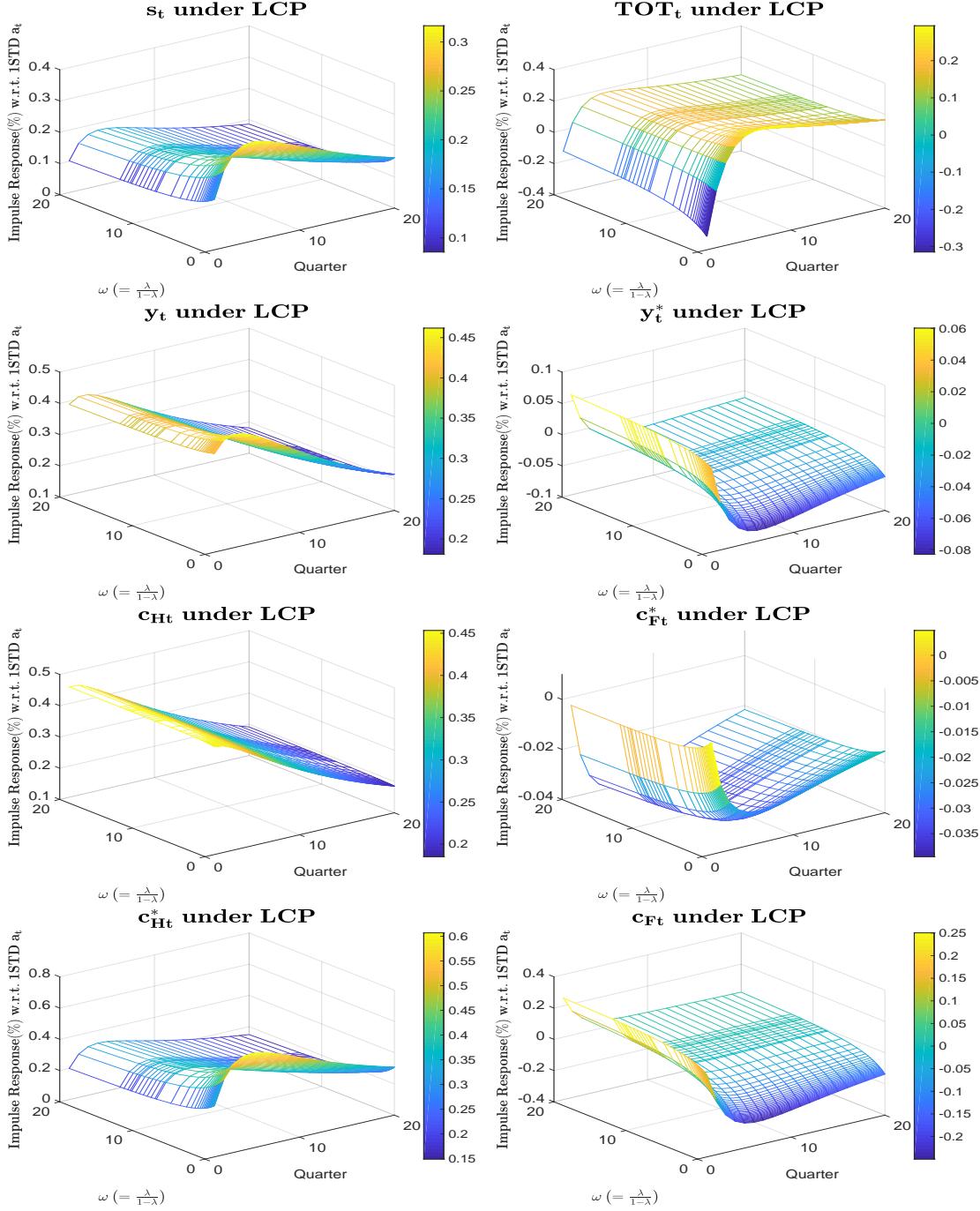
Note – LCP denotes local currency pricing ($\chi = 1$). $\omega \equiv \frac{\lambda}{1-\lambda}$ represents the degree of financial market integration ranging from perfect financial integration ($\omega = 0$) to financial autarky ($\omega = \infty$). π_t denotes Home CPI inflation rate (QoQ); π_{Ht} Home PPI inflation rate (QoQ); y_t Home output and \bar{y}_t its efficient counterpart; f_t demand imbalance; m_t currency misalignment; nx_t net exports; q_t real exchange rate.

Figure 19: [LCP] Impulse Responses of Policy Instruments with respect to a 1 STD Home Productivity Shock



Note – LCP denotes local currency pricing ($\chi = 1$). $\omega \equiv \frac{\lambda}{1-\lambda}$ represents the degree of financial market integration ranging from perfect financial integration ($\omega = 0$) to financial autarky ($\omega = \infty$). q_t denotes real exchange rate and e_t nominal exchange rate; i_t nominal interest rate (QoQ); π_t denotes Home CPI inflation rate (QoQ); π_{Ht} Home PPI inflation rate (QoQ). Variables with asterisk denote Foreign counterparts.

Figure 20: [LCP] Impulse Responses of Output with respect to a 1 STD Home Productivity Shock



Note – LCP denotes local currency pricing ($\chi = 1$). $\omega \equiv \frac{\lambda}{1-\lambda}$ represents the degree of financial market integration ranging from perfect financial integration ($\omega = 0$) to financial autarky ($\omega = \infty$). s_t denotes the price of imported goods relative to domestically-produced goods in Home; TOT_t Home terms of trade; y_t Home output; c_{Ht} Home demand for Home produced goods; c_{Ft} Home demand for Foreign produced goods; c_{Ft}^* Foreign demand for Foreign produced goods; c_{Ht}^* Foreign demand for Home produced goods. Variables with asterisk denote Foreign counterparts.

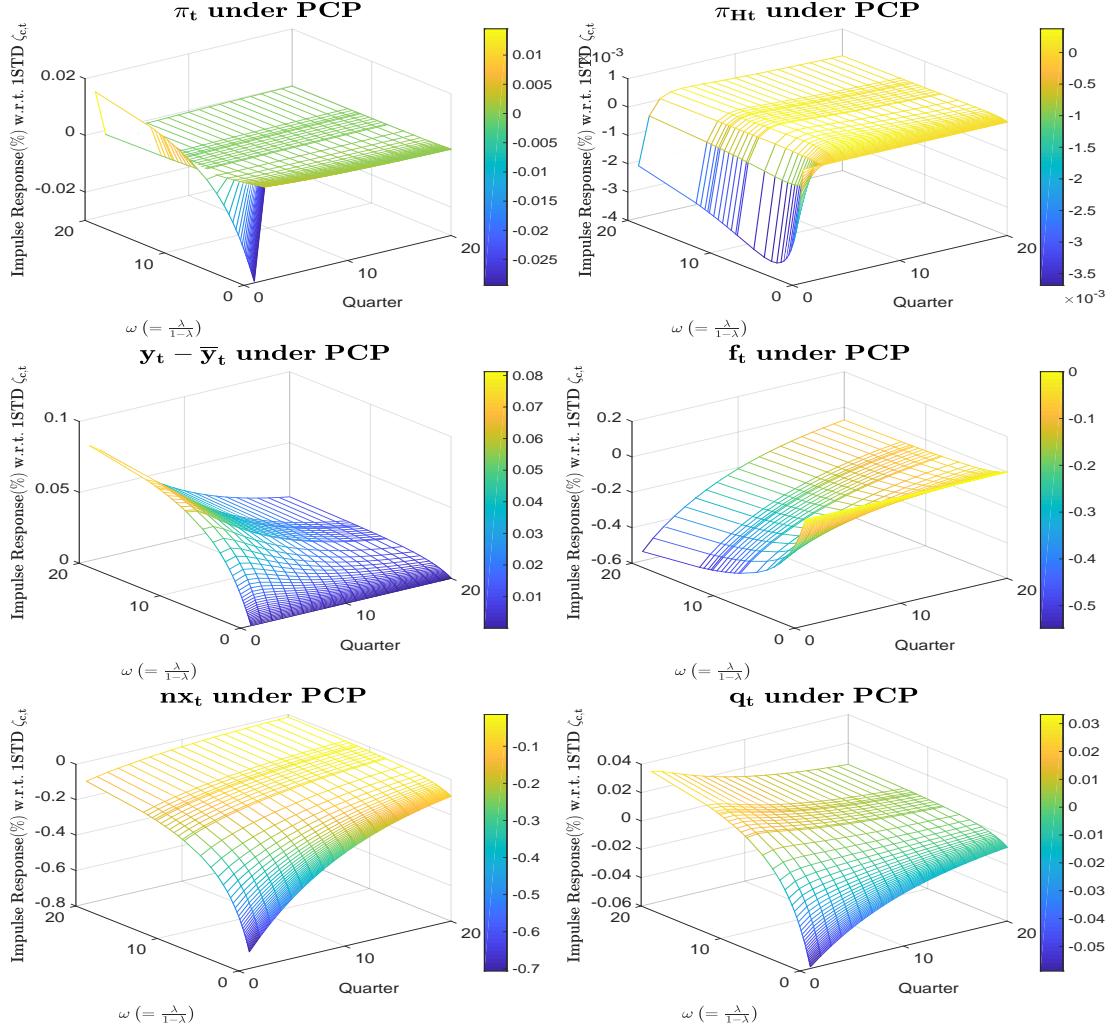
Impulse Responses

under PCP and different degrees of risk sharing

with respect to

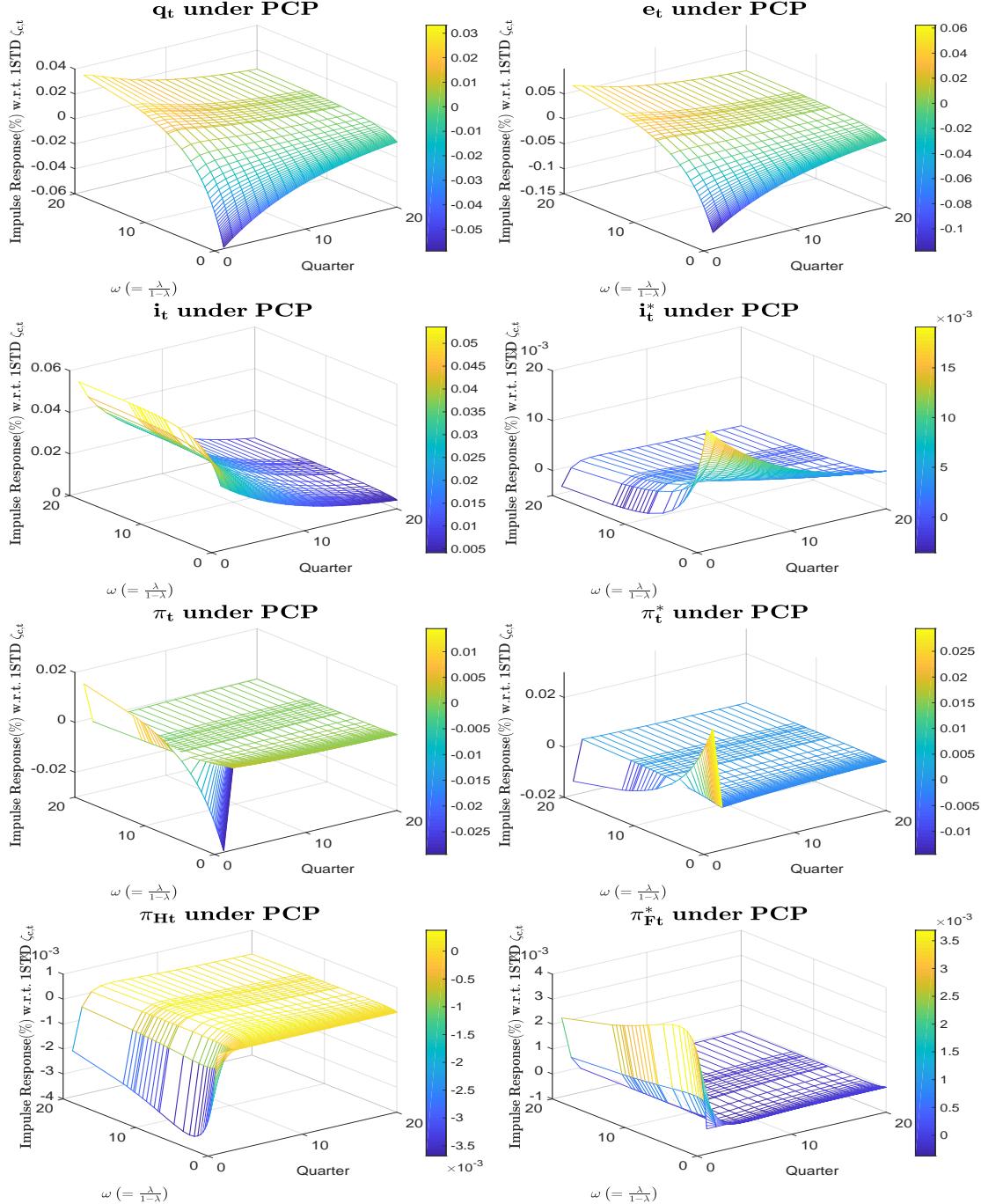
a 1 STD Home Preference Shock

Figure 21: [PCP] Impulse Responses of Policy Targets with respect to a 1 STD Home Preference Shock



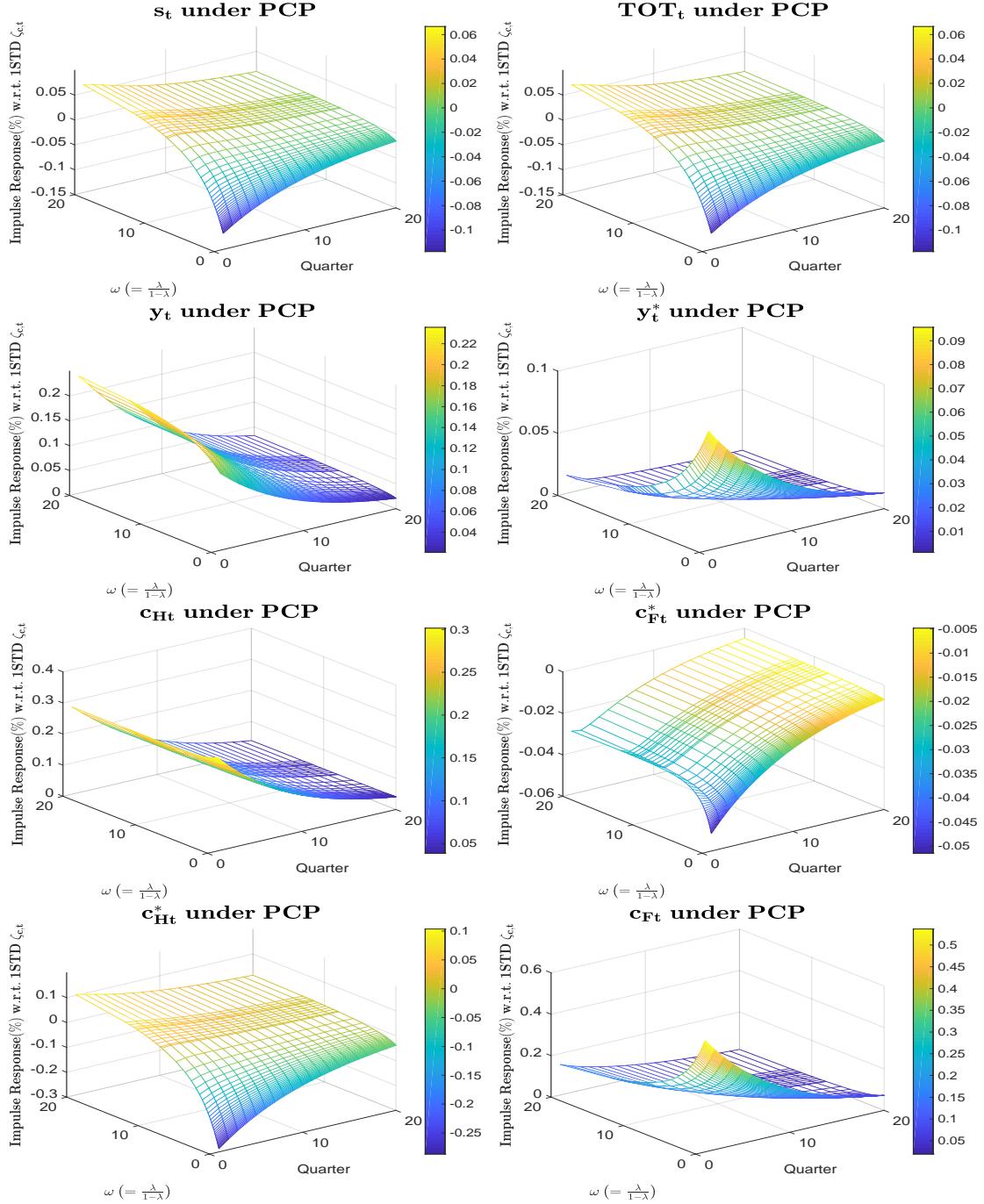
Note – PCP denotes producer currency pricing ($\chi = 0$). $\omega \equiv \frac{\lambda}{1-\lambda}$ represents the degree of financial market integration ranging from perfect financial integration ($\omega = 0$) to financial autarky ($\omega = \infty$). π_t denotes Home CPI inflation rate (QoQ); π_{Ht} Home PPI inflation rate (QoQ); y_t Home output and \bar{y}_t its efficient counterpart; f_t demand imbalance; nx_t net exports; q_t real exchange rate.

Figure 22: [PCP] Impulse Responses of Policy Instruments with respect to a 1 STD Home Preference Shock



Note – PCP denotes producer currency pricing ($\chi = 0$). $\omega \equiv \frac{\lambda}{1-\lambda}$ represents the degree of financial market integration ranging from perfect financial integration ($\omega = 0$) to financial autarky ($\omega = \infty$). q_t denotes real exchange rate and e_t nominal exchange rate; i_t nominal interest rate (QoQ); π_t denotes Home CPI inflation rate (QoQ); π_{Ht} Home PPI inflation rate (QoQ). Variables with asterisk denote Foreign counterparts.

Figure 23: [PCP] Impulse Responses of Output with respect to a 1 STD Home Preference Shock



Note – PCP denotes producer currency pricing ($\chi = 0$). $\omega \equiv \frac{\lambda}{1-\lambda}$ represents the degree of financial market integration ranging from perfect financial integration ($\omega = 0$) to financial autarky ($\omega = \infty$). s_t denotes the price of imported goods relative to domestically-produced goods in Home; TOT_t Home terms of trade; y_t Home output; c_{Ht} Home demand for Home produced goods; c_{Ft} Home demand for Foreign produced goods; c_{Ht}^* Foreign demand for Home produced goods. Variables with asterisk denote Foreign counterparts.

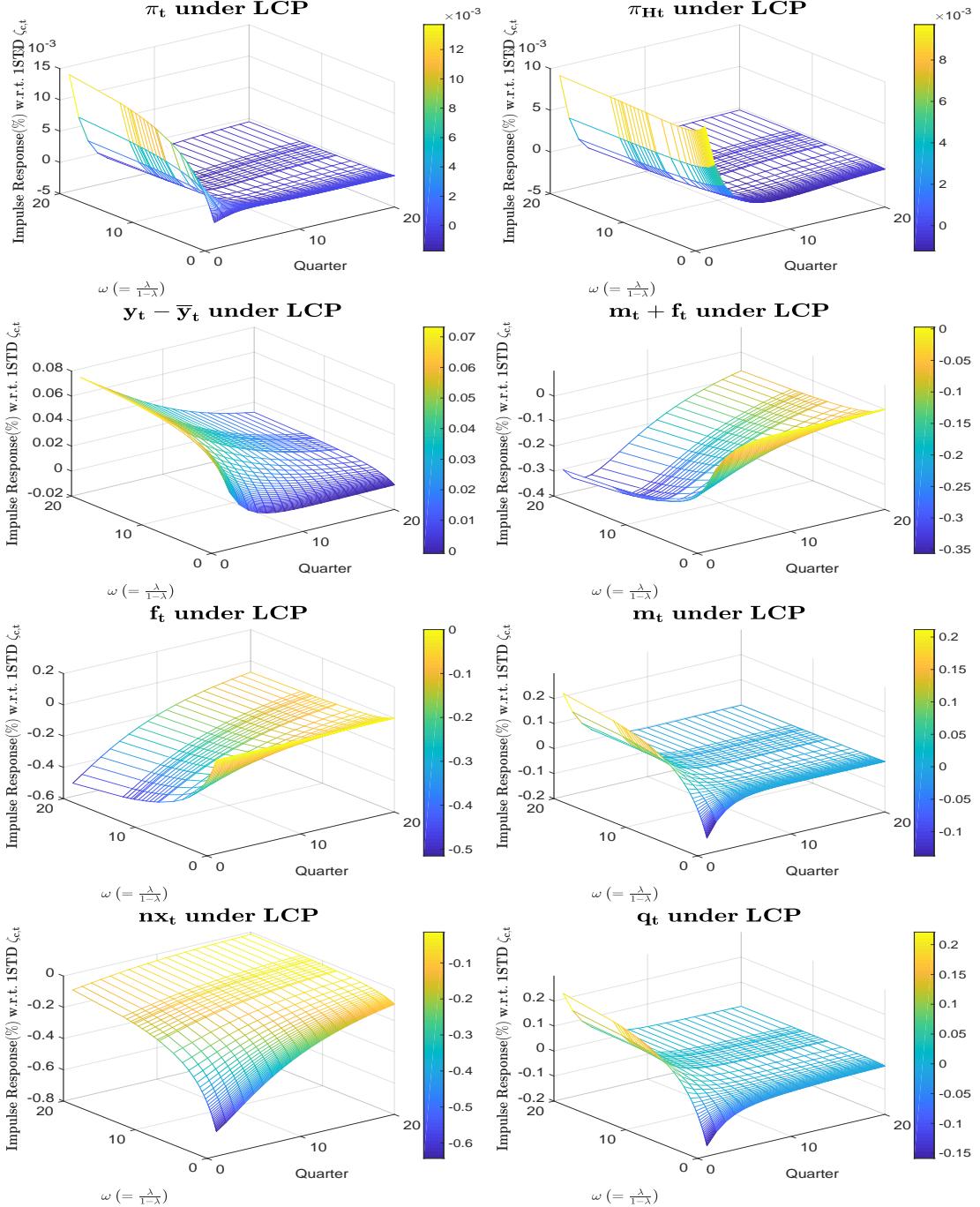
Impulse Responses

under LCP and different degrees of risk sharing

with respect to

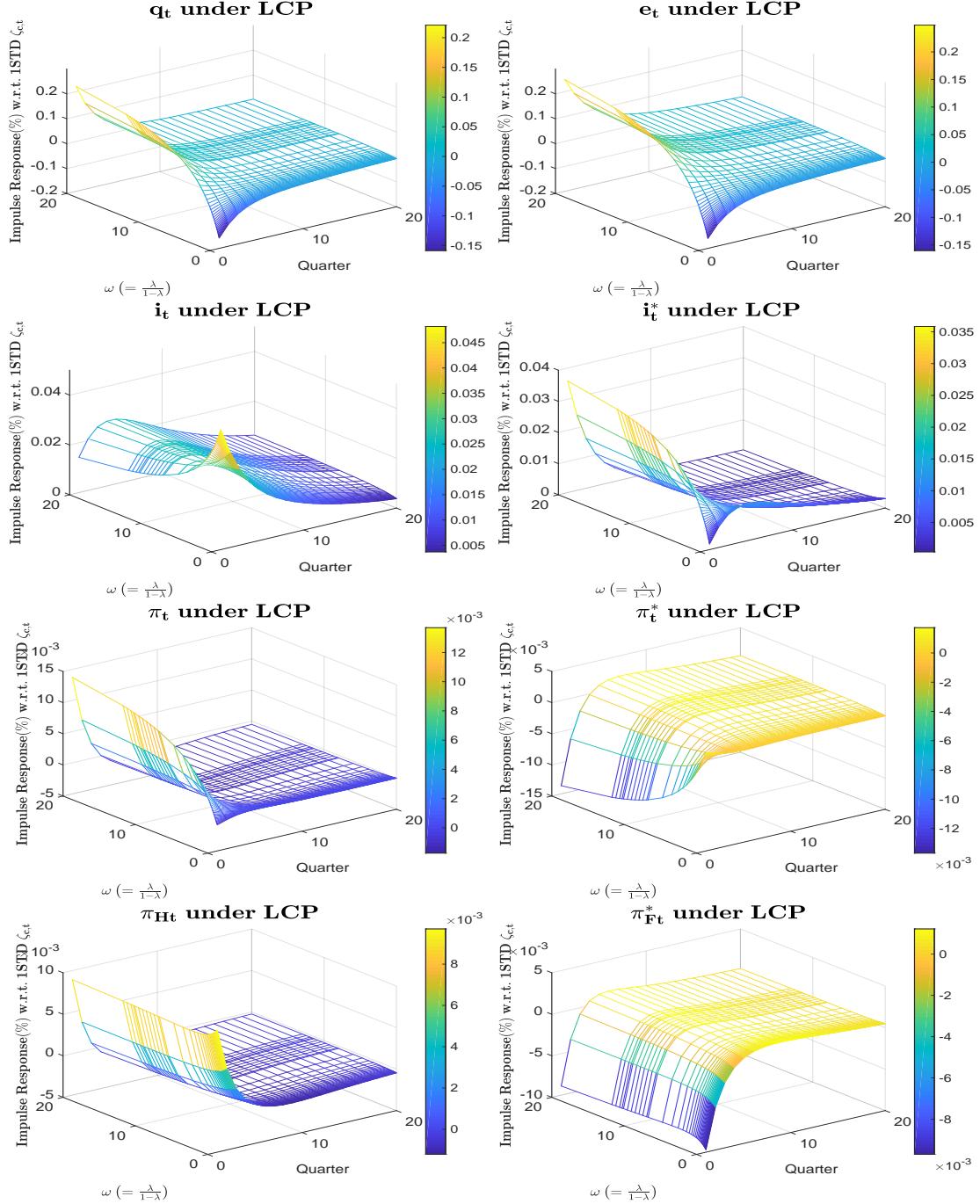
a 1 STD Home Preference Shock

Figure 24: [LCP] Impulse Responses of Policy Targets with respect to a 1 STD Home Preference Shock



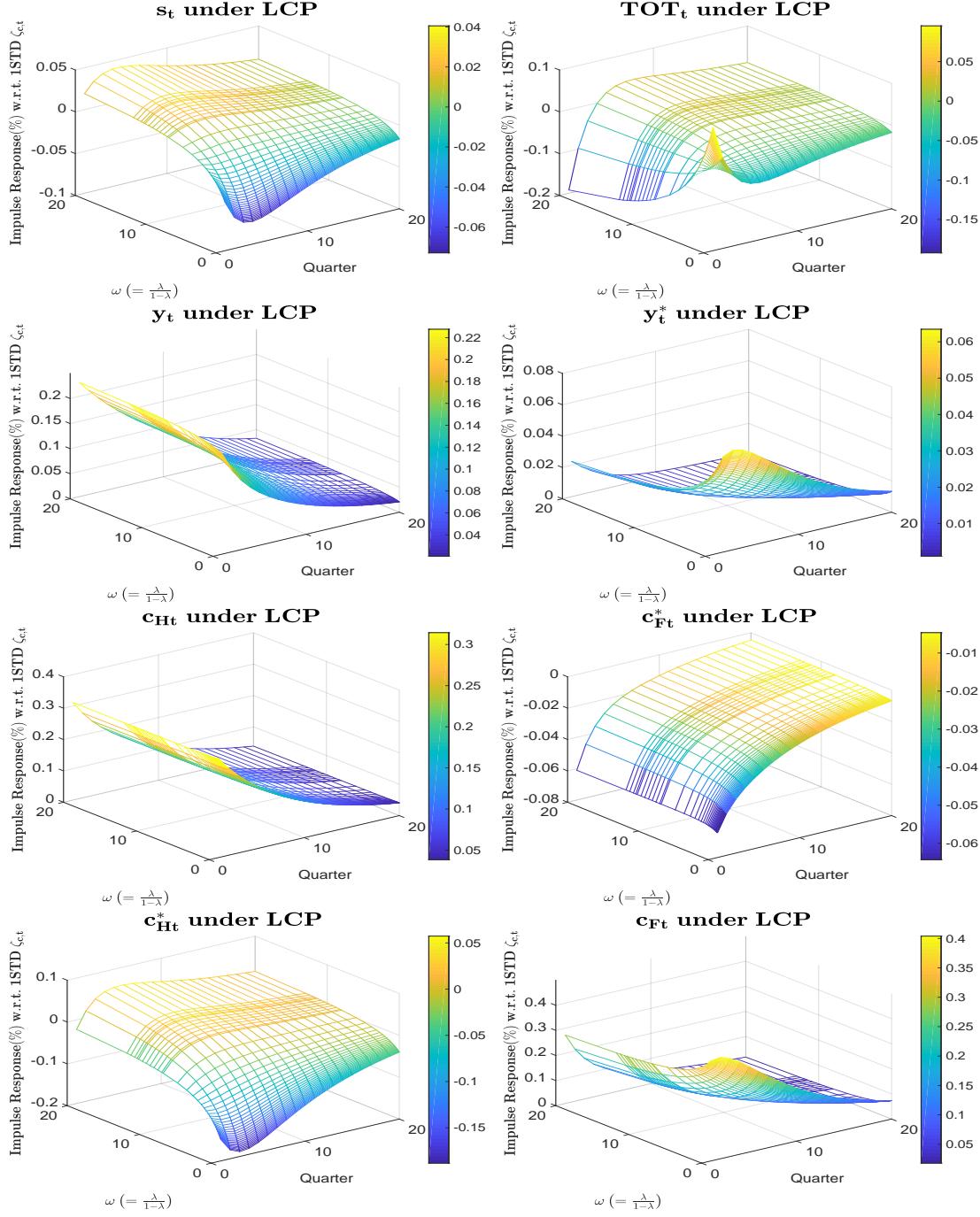
Note – LCP denotes local currency pricing ($\chi = 1$). $\omega \equiv \frac{\lambda}{1-\lambda}$ represents the degree of financial market integration ranging from perfect financial integration ($\omega = 0$) to financial autarky ($\omega = \infty$). π_t denotes Home CPI inflation rate (QoQ); π_{Ht} Home PPI inflation rate (QoQ); y_t Home output and \bar{y}_t its efficient counterpart; f_t demand imbalance; m_t currency misalignment; nxt net exports; q_t real exchange rate.

Figure 25: [LCP] Impulse Responses of Policy Instruments with respect to a 1 STD Home Preference Shock



Note – LCP denotes local currency pricing ($\chi = 1$). $\omega \equiv \frac{\lambda}{1-\lambda}$ represents the degree of financial market integration ranging from perfect financial integration ($\omega = 0$) to financial autarky ($\omega = \infty$). q_t denotes real exchange rate and e_t nominal exchange rate; i_t nominal interest rate (QoQ); π_t denotes Home CPI inflation rate (QoQ); π_{Ht} Home PPI inflation rate (QoQ). Variables with asterisk denote Foreign counterparts.

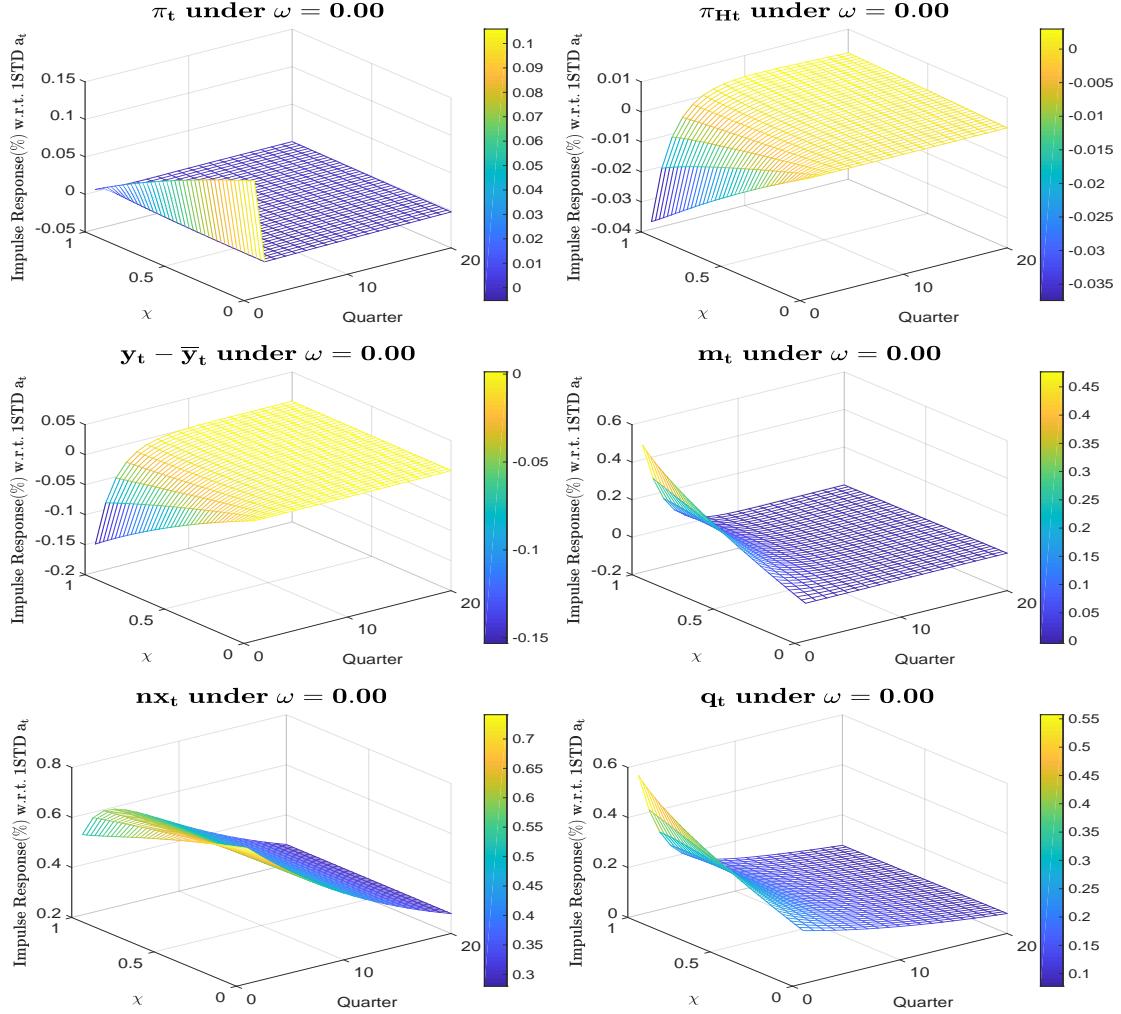
Figure 26: [LCP] Impulse Responses of Output with respect to a 1 STD Home Preference Shock



Note – LCP denotes local currency pricing ($\chi = 1$). $\omega \equiv \frac{\lambda}{1-\lambda}$ represents the degree of financial market integration ranging from perfect financial integration ($\omega = 0$) to financial autarky ($\omega = \infty$). s_t denotes the price of imported goods relative to domestically-produced goods in Home; TOT_t Home terms of trade; y_t Home output; c_{Ht} Home demand for Home produced goods; c_{Ft} Home demand for Foreign produced goods; c_{Ft}^* Foreign demand for Foreign produced goods; c_{Ht}^* Foreign demand for Home produced goods. Variables with asterisk denote Foreign counterparts.

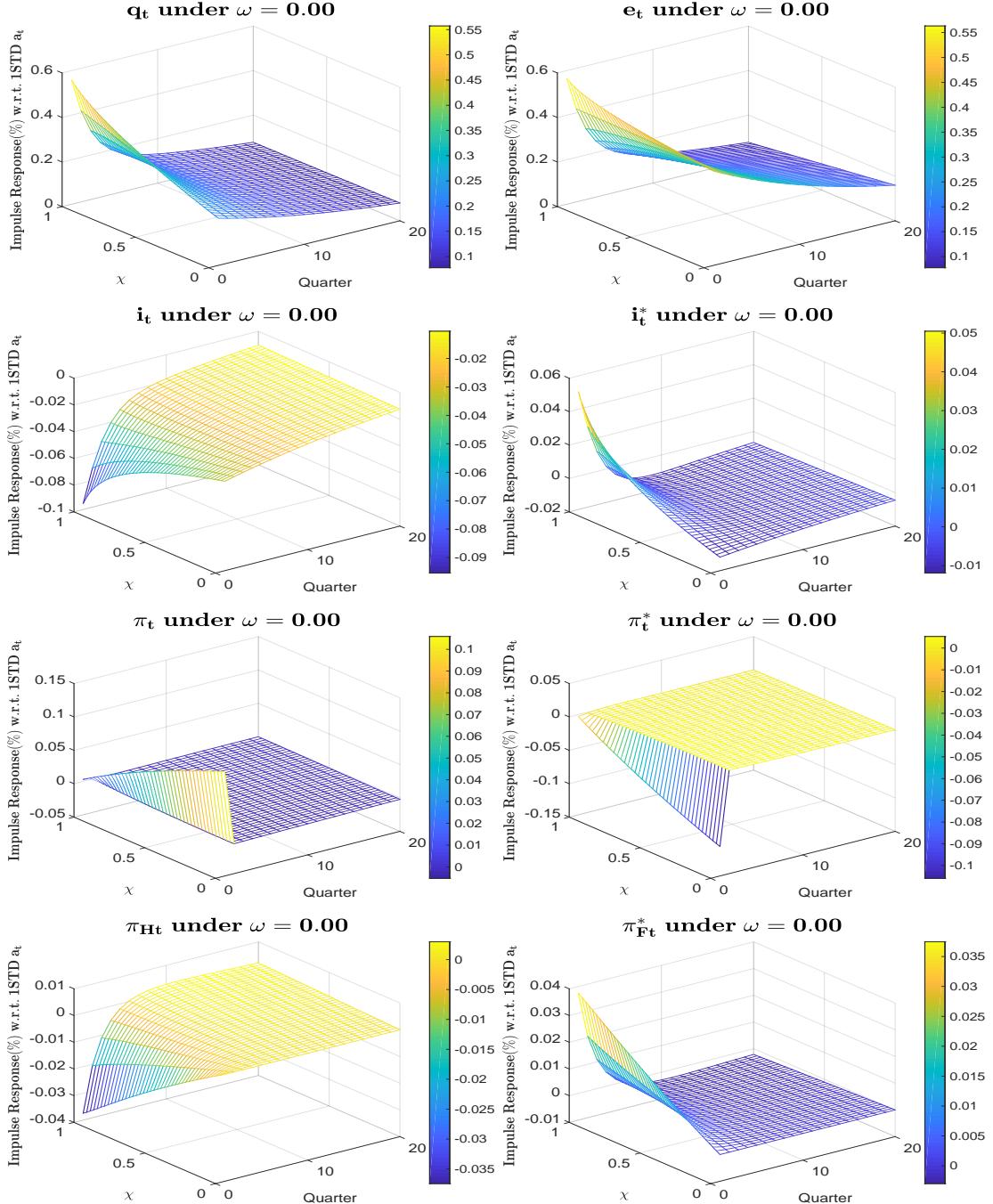
Impulse Responses
under perfect risk sharing
and varying degrees of ERPT
with respect to
a 1 STD Home Productivity Shock

Figure 27: Impulse Responses of Policy Targets with respect to a 1 STD Home Productivity Shock under Perfect Risk Sharing



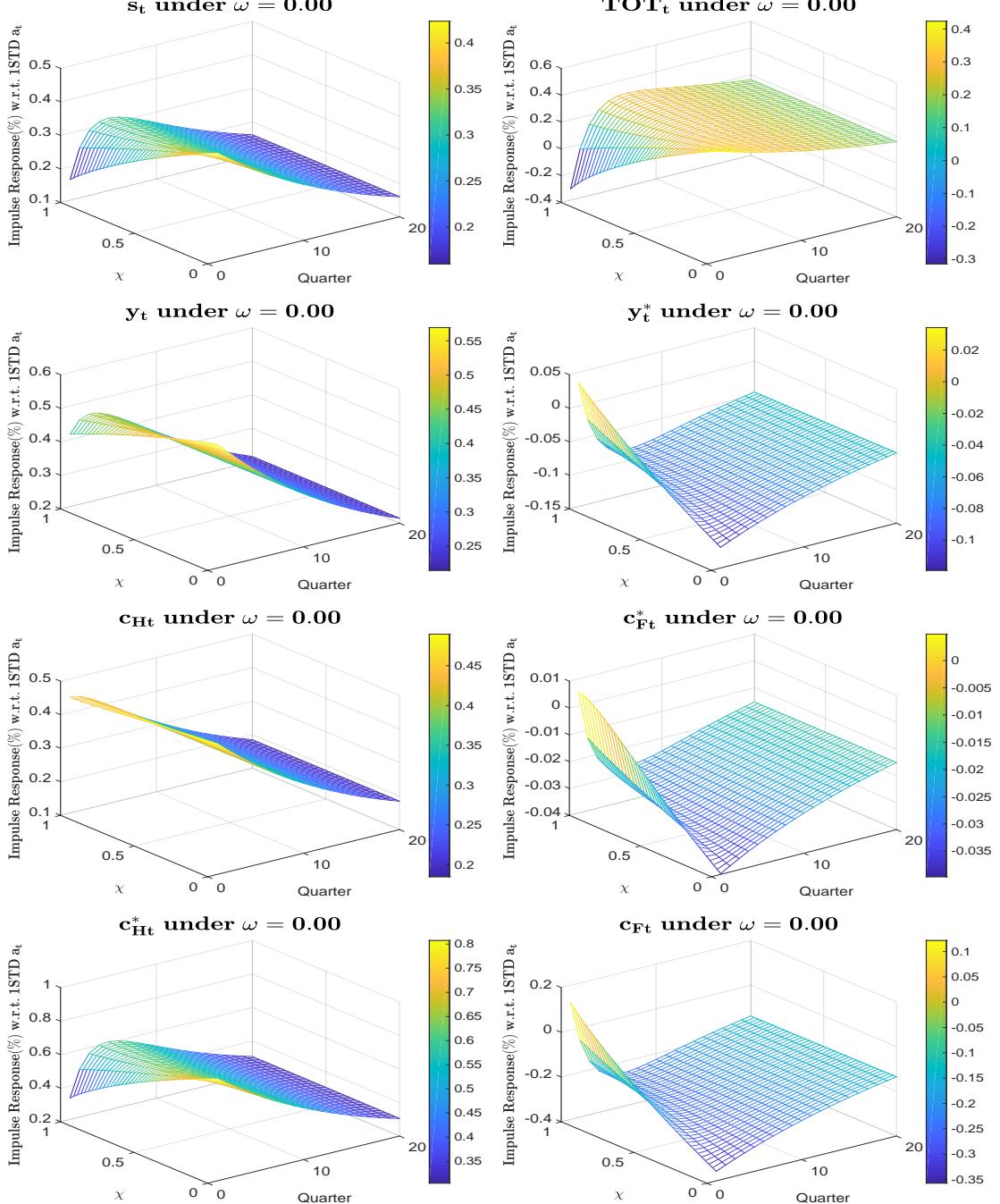
Note – χ denotes the degree of pricing-to-market from PCP ($\chi = 0$) to LCP ($\chi = 1$). π_t denotes Home CPI inflation rate (QoQ); π_{Ht} Home PPI inflation rate (QoQ); y_t Home output and \bar{y}_t its efficient counterpart; m_t currency misalignment; nx_t net exports; q_t real exchange rate.

Figure 28: Impulse Responses of Policy Instruments with respect to a 1 STD Home Productivity Shock under Perfect Risk Sharing



Note – χ denotes the degree of pricing-to-market from PCP ($\chi = 0$) to LCP ($\chi = 1$). q_t denotes real exchange rate and e_t nominal exchange rate; i_t nominal interest rate (QoQ); π_t denotes Home CPI inflation rate (QoQ); π_{Ht} Home PPI inflation rate (QoQ). Variables with asterisk denote Foreign counterparts.

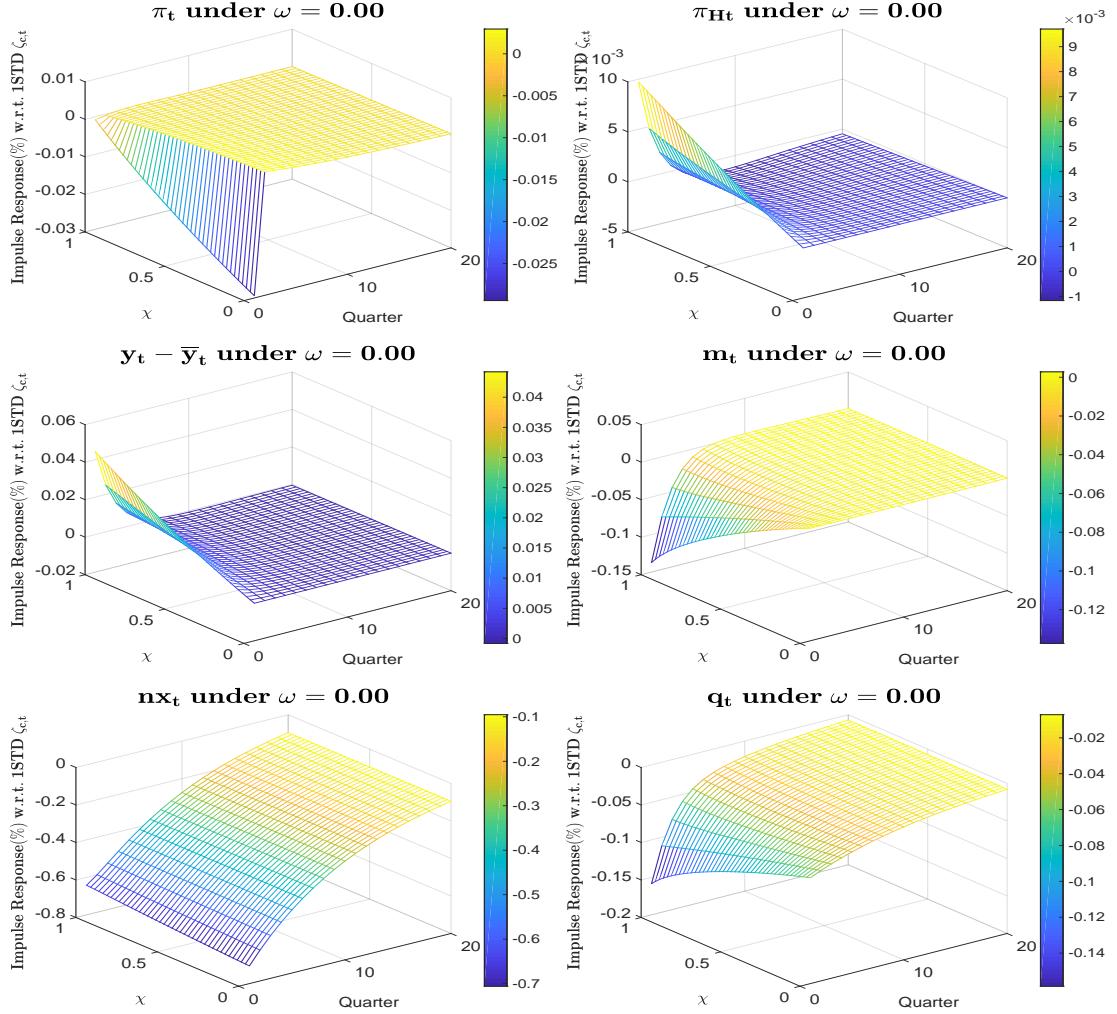
Figure 29: Impulse Responses of Output with respect to a 1 STD Home Productivity Shock under Perfect Risk Sharing



Note – χ denotes the degree of pricing-to-market from PCP ($\chi = 0$) to LCP ($\chi = 1$). s_t denotes the price of imported goods relative to domestically-produced goods in Home; TOT_t Home terms of trade; y_t Home output; c_{Ht} Home demand for Home produced goods; c_{Ft} Home demand for Foreign produced goods; c_{Ft}^* Foreign demand for Foreign produced goods; c_{Ht}^* Foreign demand for Home produced goods. Variables with asterisk denote Foreign counterparts.

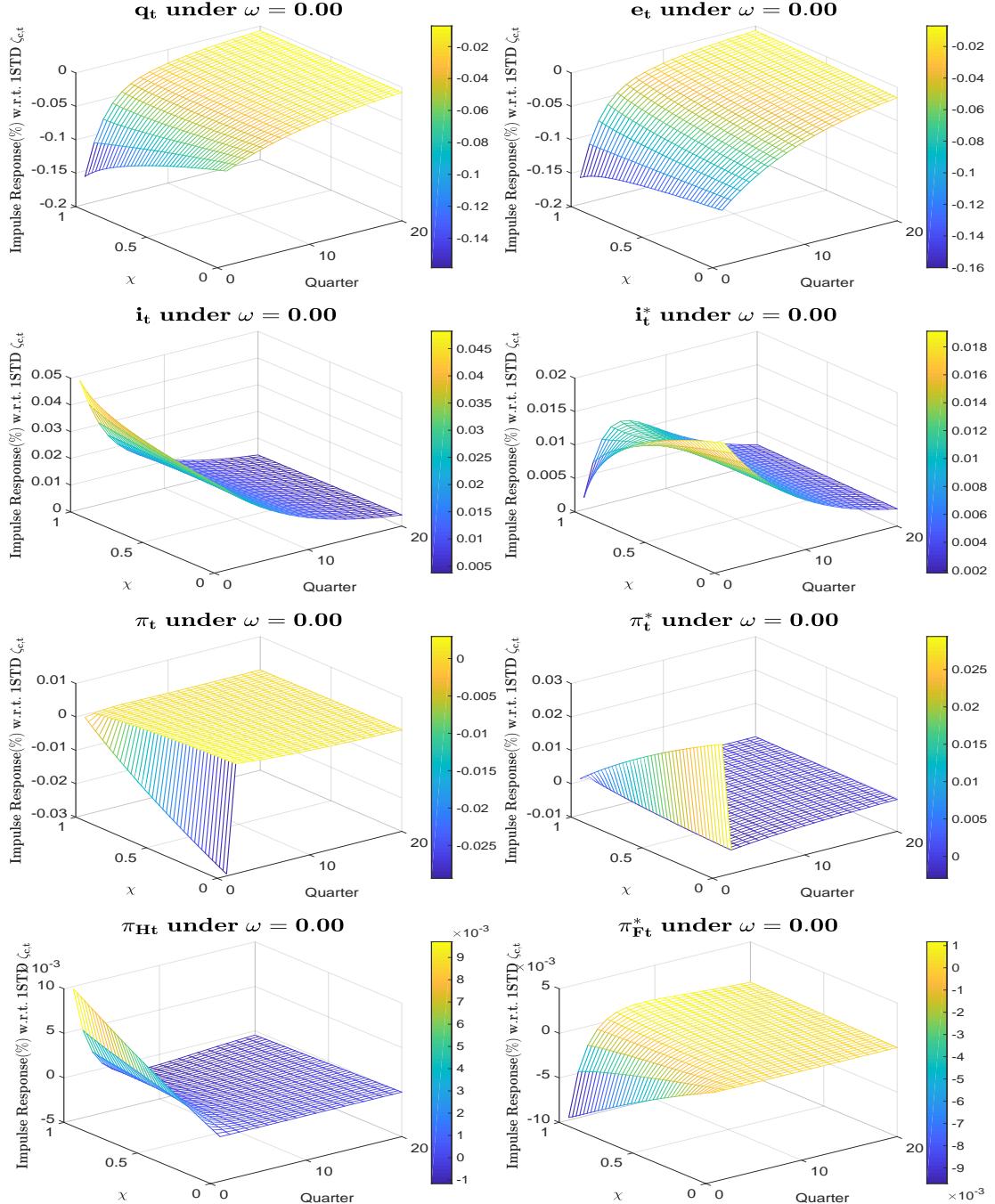
Impulse Responses
under perfect risk sharing
and varying degrees of ERPT
with respect to
a 1 STD Home Preference Shock

Figure 30: Impulse Responses of Policy Targets with respect to a 1 STD Home Preference Shock under Perfect Risk Sharing



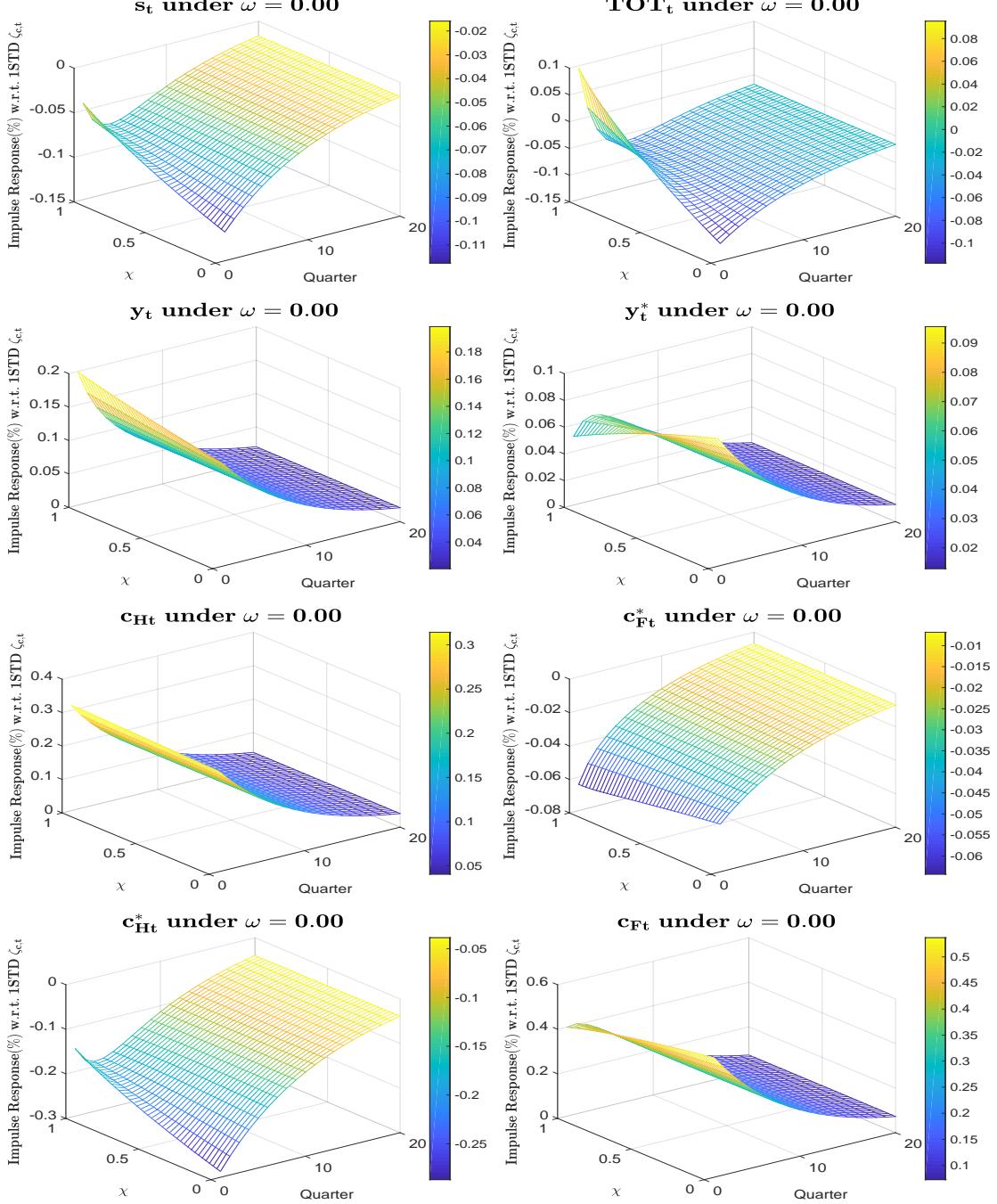
Note – χ denotes the degree of pricing-to-market from PCP ($\chi = 0$) to LCP ($\chi = 1$). π_t denotes Home CPI inflation rate (QoQ); π_{Ht} Home PPI inflation rate (QoQ); y_t Home output and \bar{y}_t its efficient counterpart; m_t currency misalignment; nx_t net exports; q_t real exchange rate.

Figure 31: Impulse Responses of Policy Instruments with respect to a 1 STD Home Preference Shock under Perfect Risk Sharing



Note – χ denotes the degree of pricing-to-market from PCP ($\chi = 0$) to LCP ($\chi = 1$). q_t denotes real exchange rate and e_t nominal exchange rate; i_t nominal interest rate (QoQ); π_t denotes Home CPI inflation rate (QoQ); π_{Ht} Home PPI inflation rate (QoQ). Variables with asterisk denote Foreign counterparts.

Figure 32: Impulse Responses of Output with respect to a 1 STD Home Preference Shock under Perfect Risk Sharing



Note – χ denotes the degree of pricing-to-market from PCP ($\chi = 0$) to LCP ($\chi = 1$). s_t denotes the price of imported goods relative to domestically-produced goods in Home; TOT_t Home terms of trade; y_t Home output; c_{Ht} Home demand for Home produced goods; c_{Ft} Home demand for Foreign produced goods; c_{Ft}^* Foreign demand for Foreign produced goods; c_{Ht}^* Foreign demand for Home produced goods. Variables with asterisk denote Foreign counterparts.