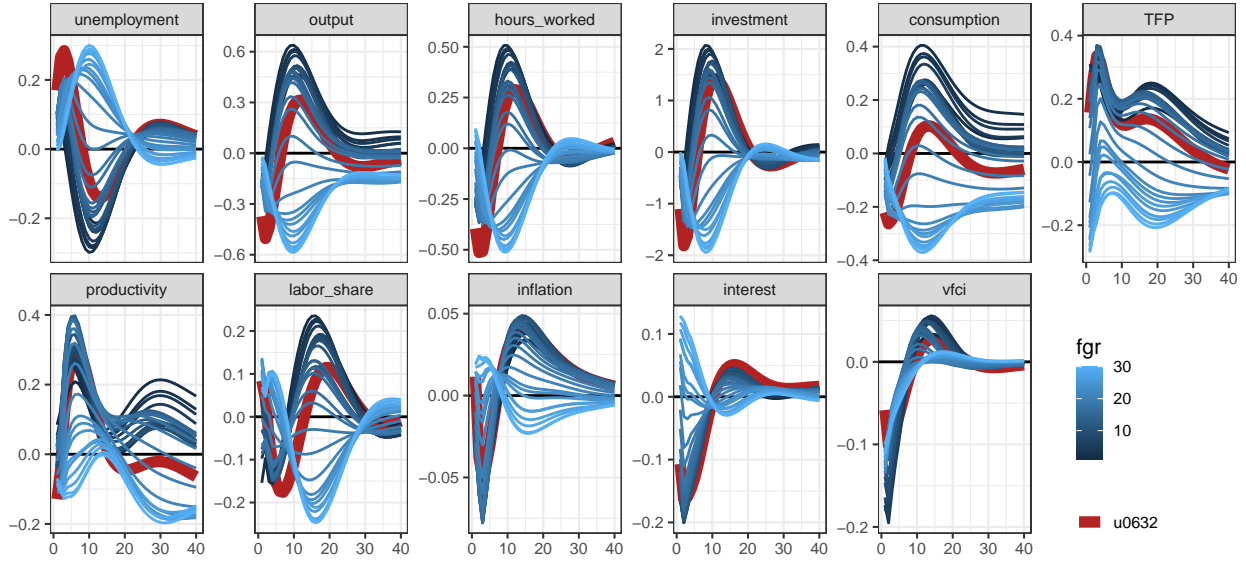# VFCI Business Cycle VARs for various VFCI series

Figure 1: VFCI Target GDPC1, all forward growth rates
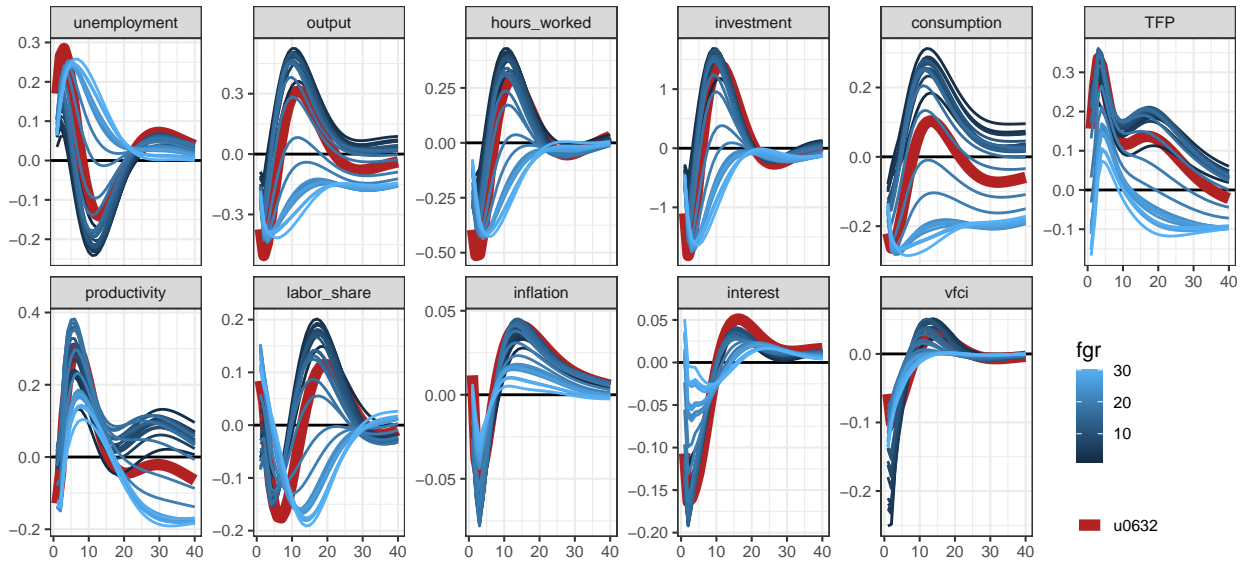

Figure 2: VFCI Target pcecc96, all forward growth rates
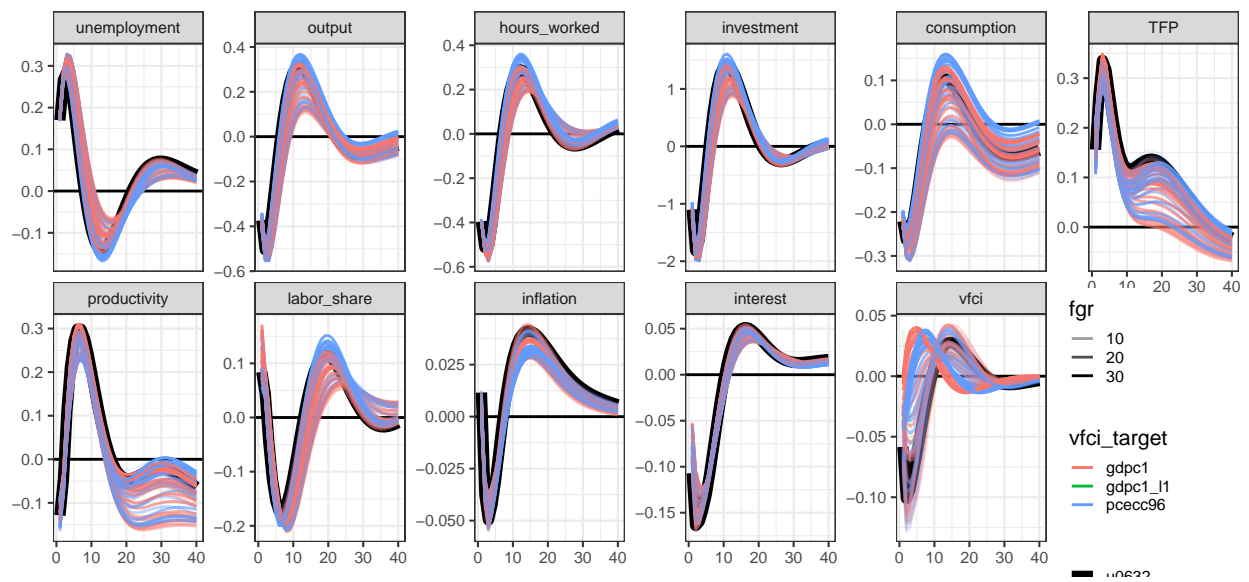
Figure 3: Unemployment0632 target, various vfci measures in VAR
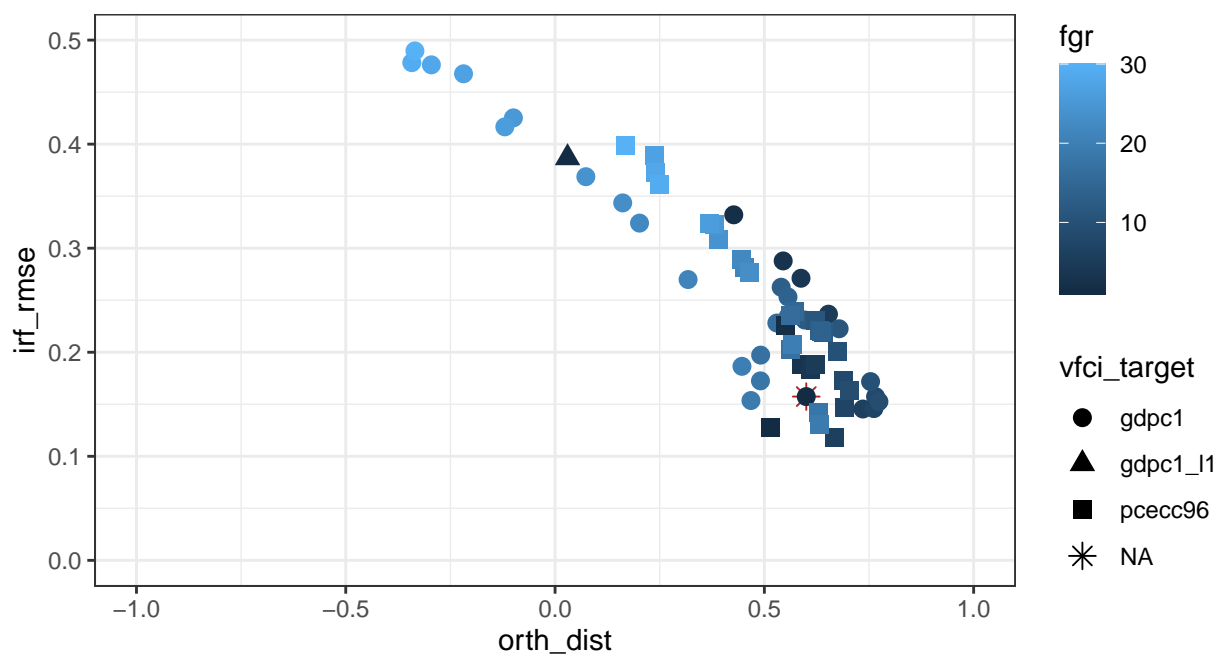
Calculate Distance Metrics

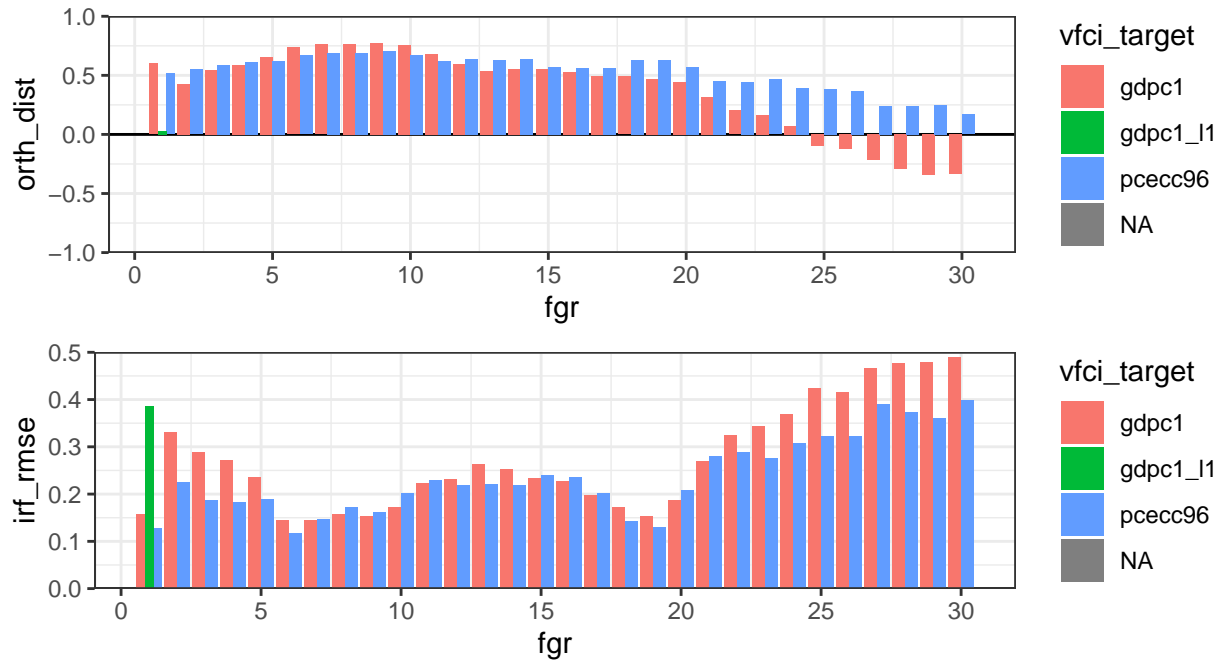Figure 4: Correlation of orth dist and IRF RMSE

Figure 5: Orth distance and IRF RMSE across FGR

Show Best Matches

```
dist_metrics[, m_orth_dist := max(abs(orth_dist)), by = .(vfci_target)][abs(orth_dist) == m_orth_dist]
```

```
##              vfci_name  orth_dist   irf_rmse vfci_target fgr m_orth_dist
## 1:                vfci 0.60007019 0.1574060        <NA>  NA  0.60007019
## 2:      vfci_fgr9gdpc1 0.77369135 0.1526292       gdpc1   9  0.77369135
## 3:   vfci_fgr9pcecc96 0.70338073 0.1629193     pcecc96   9  0.70338073
## 4: vfci_fgr1gdpc1_l1 0.02978517 0.3868532   gdpc1_l1   1  0.02978517
```

```
dist_metrics[, m_irf_rmse := min(irf_rmse), by = .(vfci_target)][irf_rmse == m_irf_rmse]
```

```
##              vfci_name  orth_dist   irf_rmse vfci_target fgr m_orth_dist m_irf_rmse
## 1:                vfci 0.60007019 0.1574060        <NA>  NA  0.60007019  0.1574060
## 2:      vfci_fgr6gdpc1 0.73533247 0.1454517       gdpc1   6  0.77369135  0.1454517
## 3:   vfci_fgr6pcecc96 0.66865460 0.1181938     pcecc96   6  0.70338073  0.1181938
## 4: vfci_fgr1gdpc1_l1 0.02978517 0.3868532   gdpc1_l1   1  0.02978517  0.3868532
```
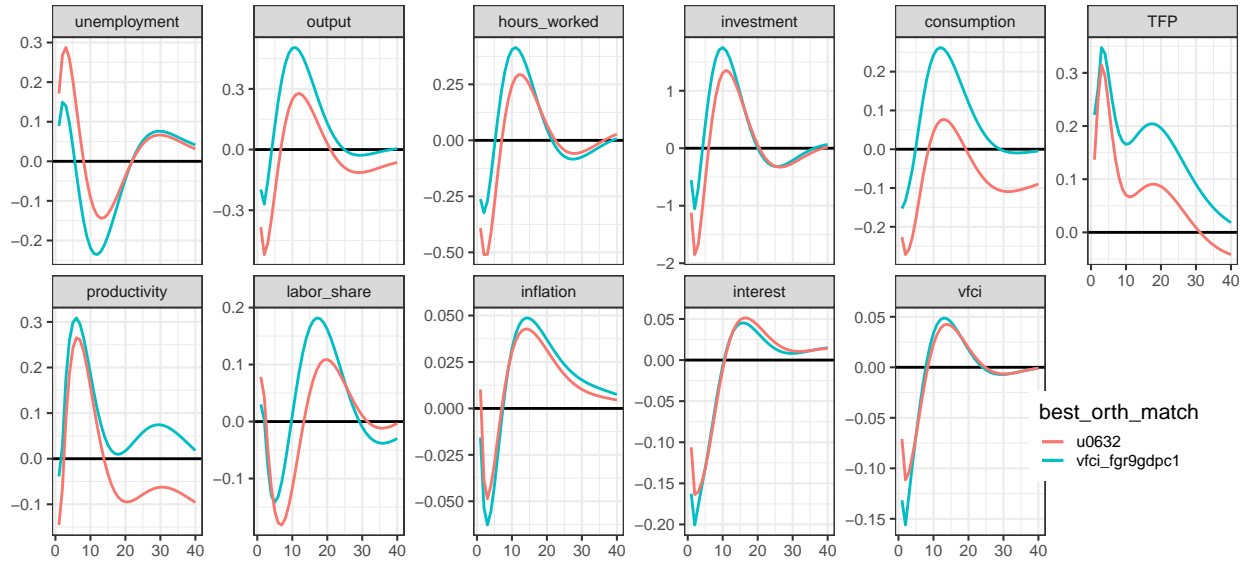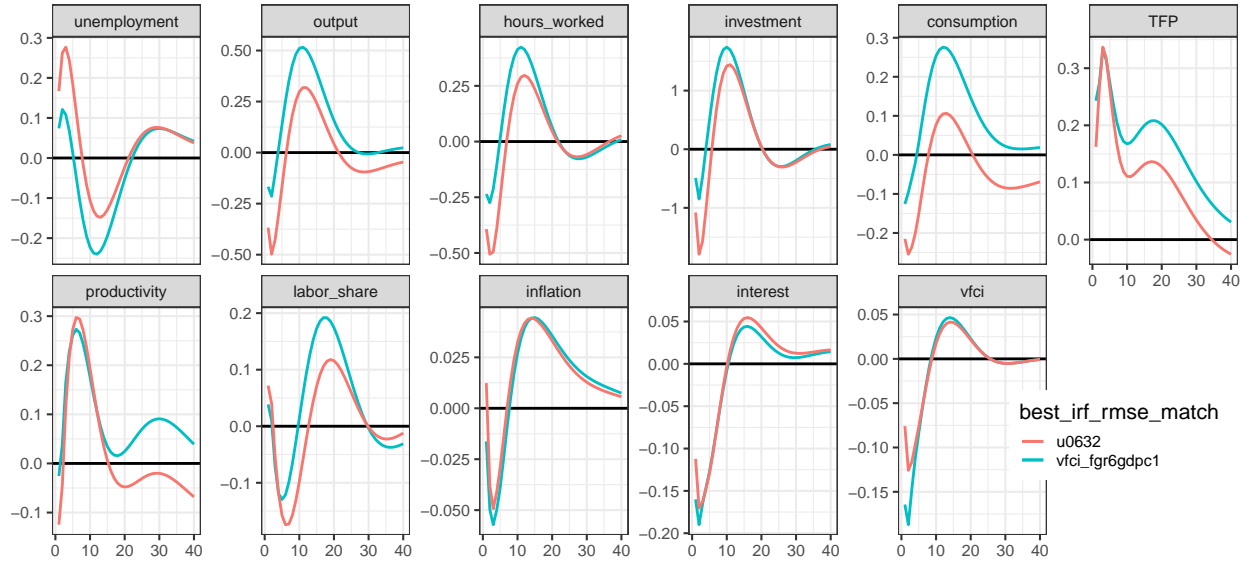
Figure 6: Best Orth Distance Match

Figure 7: Best IRF RMSE Match

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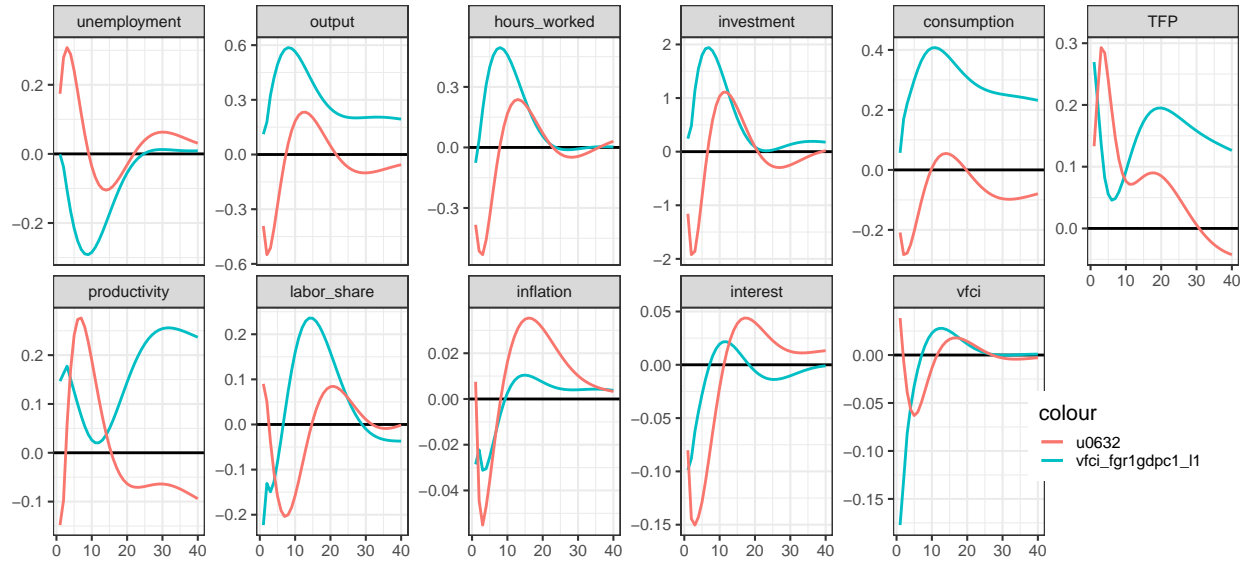Plot showing VFCI calculate from 't' to 't+1', as opposed to the new forward indexes of 't+1' to 't+2'.

Figure 8: Best IRF RMSE Match