```
void foo(int* mem, ...) {
 bb48:
 ...
 bb70:
   ebp = *(mem+(ecx+eax*4)/sizeof(int));
   *(mem+(edi+eax*4)/sizeof(int)) = ebp;
   ebp = *(mem+(esi+eax*4-4)/sizeof(int));
   *(mem+(ebx+eax*4)/sizeof(int)) = ebp;
   eax = eax+1;
   if(eax != edx)
     goto bb70;
 ...
 stk_esp += 1;
 if(stk_esp != edx)
  goto bb48;
 ...
}
```

Banerjee's test using values from past profile

	Ld1	Ld2	St1	St2
St1	~~(*,*)~~	~~(*,*)~~	(=,=)	~~(*,*)~~
St2	(*,*) ↓ ~~(=,*)~~	~~(*,*)~~	~~(*,*)~~	(=,=)

Without Memory Barrier

```
void foo(int* restrict mem0, int* restrict mem1,
         int* restrict mem2...) {
 bb48:
 ...
 bb70:
   ebp = *(mem0+(ecx+eax*4)/sizeof(int));
   *(mem1+(edi+eax*4)/sizeof(int)) = ebp;
   ebp = *(mem2+(esi+eax*4-4)/sizeof(int));
   *(mem0+(ebx+eax*4)/sizeof(int)) = ebp;
   eax = eax+1;
   if(eax != edx)
     goto bb70;
 ...
 stk_esp += 1;
 if(stk_esp != edx)
  goto bb48;
 ...
}
```

With Memory Barrier

```
void foo(int* restrict mem0, int* restrict mem1,
         int* restrict mem2, int* restrict mem3...)
{
 bb48:
 ...
 bb70:
   ebp = *(mem0+(ecx+eax*4)/sizeof(int));
   *(mem1+(edi+eax*4)/sizeof(int)) = ebp;
   ebp = *(mem2+(esi+eax*4-4)/sizeof(int));
   *(mem3+(ebx+eax*4)/sizeof(int)) = ebp;
   eax = eax+1;
   if(eax != edx)
     goto bb70;
 barrier;
 ...
 stk_esp += 1;
 if(stk_esp != edx)
  goto bb48;
 ...
}
```